Microbac

Laboratory Report Number: L13110465

Mark Lyon
Environmental Waste Solutions
2440 Louisiana Blvd
Albuquerque, NM 87110

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

Laboratory Contact:
Stephanie Mossburg – Team Chemist/Data Specialist
(740) 373-4071
Stephanie.Mossburg@microbac.com

I certify that all test results meet all of the requirements of the DoD QSM and other applicable contract terms and conditions. Any exceptions are attached to this cover page or addressed in the method narratives presented in the report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories, DoD ELAP certification number 2936.01. The reported results are related only to the samples analyzed as received.

This report was certified on November 20 2013

David L. Vandenberg

David Vandenberg – Managing Director

State of Origin: NM
Accrediting Authority: N/A ID:N/A
QAPP: DOD Ver 4.1 without flagging

Microbac

Lab Report #: L13110465
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Record of Sample Receipt and Inspection

Comments/Discrepancies

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

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
00110985	I	2.0		1002239521060004575000804334337742	X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

Microbac

Lab Report #: L13110465
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
MPL 29-1113-1	L13110465-01	11/07/2013 11:00	11/08/2013 10:36
MPL 7-1113-1	L13110465-02	11/07/2013 13:05	11/08/2013 10:36
MPL 5-1113-1	L13110465-03	11/07/2013 15:00	11/08/2013 10:36

Microbac REPORT L13110465
PREPARED FOR Environmental Waste Solutions
WORK ID:

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2.2.6.1 Summary Data 2062
2.2.6.2 QC Summary Data 2068
2.2.6.3 Raw Data 2075
2.2.7 Nitrate Data 2085
2.2.7.1 Summary Data 2086
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2.2.7.3 Raw Data 2097
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1.0 Summary Data

1.1 Narratives

Login Number: L13110465
Department: Metals
Analyst: Sheri Pfalzgraf

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG452461 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: WG452461 - Client samples 01, 02 and 03 required dilution analyses in order to obtain results for calcium within the calibration range.

Narrative ID: 74437
Approved By: Maren Beery

Login Number: L13110465
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG452576 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: WG452576 - Due to time constraints, client samples 01, 02, and 03 were analyzed on a later calibration.

Narrative ID: 74735
Approved By: Sheri Pfalzgraf

Login Number: L13110465
Department: Metals - AA
Analyst: Pierce Morris

METHOD

Preparation: SW-846 7470

Analysis: SW-846 7470

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG452436 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 74481
Approved By: Sheri Pfalzgraf

Login Number: L13110465
Department: General Chromatography
Analyst: Jeremy Kinney

METHOD

Analysis EPA300.0/SW846 9056

HOLDING TIMES

Sample Analysis: Hold times for NO2 and NO3 are 48 hours and the hold times for F, Cl, Br, and SO4 are 28 days. The hold time forms calculate the hold time based on 48 hours. All samples were analyzed in hold.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Samples: All fractions were analyzed at dilutions only due to one or more of the target analyte(s) being near or greater than the ICAL.

MANUAL INTEGRATION: No manual integration was required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74802
Approved By: Eric Lawson

Login Number: L13110465
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 310.2 (Alkalinity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 74770
Approved By: Deanna Hesson

Login Number: L13110465
Department: Conventionals
Analyst:

METHOD

Analysis SW846 9014/9010C/SM4500-CN-C,E-20th (Cyanide)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Cyanide-Ammenable is the difference between the total cyanide and the treated cyanide. The LCS is analyzed to show that all of the cyanide is ammenable (the treated portion is ND). The LCS forms cannot calculate cyanide ammenable. The LCS is acceptable.

Sample #	Analyte	Date	Result	Lower	Upper	Type
WG452812-02	Cyanide	2013-11-14 15:45:03	1.00	90	110	Recovery

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 74622

Approved By: Deanna Hesson

Deanna Hesson

Login Number: L13110465
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 120.1/SM2510 B (Conductivity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 74771
Approved By: Deanna Hesson

Login Number: L13110465
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis EPA 350.1/SM4500-NH3 B(NH3)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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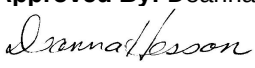
Narrative ID: 74773
Approved By: Deanna Hesson



Login Number: L13110465
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis EPA 353.2/SM4500-NO3 F (Nitrate)

HOLDING TIMES

Sample Analysis: The instrument used for the analysis of nitrate only analyzes for nitrate-nitrite (NO3NO2) which is the amount of total nitrate (NO3) and nitrite (NO2) combined. The NO3 concentration is determined by analyzing for NO3NO2 and NO2 and calculating NO3 by the difference. An unpreserved bottle only has a 48 hour hold time for NO3 and NO2 separately. However if the bottle is preserved with sulfuric acid, the hold time for NO3NO2 is 28 days. The NO2 was analyzed within 48 hours. The NO3NO2 was analyzed from a preserved container within 28 days..

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 74774
Approved By: Deanna Hesson

Login Number: L13110465
Department: Conventionals
Analyst: Tammy Morris

METHOD

Analysis EPA 365.2/SM4500-P E (Orthophosphate)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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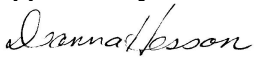
Narrative ID: 74775
Approved By: Deanna Hesson



Login Number: L13110465
Department: Conventionals
Analyst: April Greene

METHOD

Analysis EPA 160.1/SM2540 C(Total Dissolved Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: Analytes were detected above the applicable reporting limit for the following analytes: Total Dissolved Solids. Please see the applicable QC report for a detailed presentation of the failures.

Sample #	Analyte	Date	Result	Lower	Upper	Type
WG452254-01	Total Dissolved Solids	2013-11-11 13:25:01	8.00		5.0	RL

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 74778
Approved By: Deanna Hesson

Login Number: L13110465
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 74776
Approved By: Deanna Hesson

Login Number: L13110465
Department: Conventionals
Analyst: April Greene

METHOD

Analysis EPA 160.2/SM2540 D (Total Suspended Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes: Total Suspended Solids. Please see the applicable QC report for a detailed presentation of the failures.

Sample #	Analyte	Date	Result	Lower	Upper	Type
WG452343-03	Total Suspended Solids	2013-11-13 11:15:03	11.5		10	RPD

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 74777
Approved By: Deanna Hesson

1.2 Certificate of Analysis

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 29-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/12/2013 14:44
Workgroup #:	WG452461	**Analyst:**	SLP	**Run Date:**	11/12/2013 17:57
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	T2.111213.175739
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Magnesium, Total	7439-95-4	15.0		0.500	0.250
Potassium, Total	7440-09-7	2.88		1.00	0.500
Sodium, Total	7440-23-5	36.1		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6	0.0127	J	0.0200	0.0100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 29-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/13/2013 09:22
Workgroup #:	WG452461	**Analyst:**	QX	**Run Date:**	11/13/2013 13:30
Collect Date:	11/07/2013 11:00	**Dilution:**	10	**File ID:**	T2.111313.133004
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	81.0		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	MPL 29-1113-1	**Prep Method:**	3015	**Prep Date:**	11/12/2013 14:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	11/18/2013 09:55
Workgroup #:	WG452576	**Analyst:**	JYH	**Run Date:**	11/18/2013 17:51
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	NI.111813.175154
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00428		0.00100	0.000500
Barium, Total	7440-39-3	0.0532		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00214		0.00200	0.00100
Cobalt, Total	7440-48-4	0.000608	J	0.00100	0.000500
Copper, Total	7440-50-8	0.00280		0.00200	0.00100
Lead, Total	7439-92-1	0.000791	J	0.00100	0.000500
Manganese, Total	7439-96-5	0.0184		0.00200	0.00100
Nickel, Total	7440-02-0	0.00567		0.00400	0.00200
Selenium, Total	7782-49-2	0.0162		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	CVAA1
Client ID:	MPL 29-1113-1	**Prep Method:**	7470A	**Prep Date:**	11/11/2013 09:26
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	11/12/2013 14:20
Workgroup #:	WG452436	**Analyst:**	PDM	**Run Date:**	11/12/2013 15:39
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	M7.111213.153959
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL 29-1113-1	**Prep Method:**	300.0	**Prep Date:**	11/19/2013 09:16
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	11/05/2013 14:51
Workgroup #:	WG453381	**Analyst:**	JBK	**Run Date:**	11/19/2013 14:43
Collect Date:	11/07/2013 11:00	**Dilution:**	5	**File ID:**	I2_111913-22
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	54.7		1.00	0.500
Fluoride	16984-48-8		U	1.00	0.500
Sulfate	14808-79-8	122		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL 29-1113-1	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG452038	**Analyst:**	EPT	**Run Date:**	11/08/2013 16:24
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	OS13111111390701
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	8.26		0.000	0.000
Temperature At Determination (C)		20.8		0.000	0.000

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM2
Client ID:	MPL 29-1113-1	**Prep Method:**	310.2	**Prep Date:**	11/12/2013 16:58
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	11/12/2013 16:51
Workgroup #:	WG452340	**Analyst:**	DIH	**Run Date:**	11/12/2013 16:58
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	S2131112003.019
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)	11-43-8	144		20.0	10.0

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	SM4500-CN-C,G-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G-1999	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452812	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:45
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311141545-07
Sample Tag:	DL02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.306	U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	11/14/2013 11:20
Workgroup #:	WG452580	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:30
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311141530-22
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.306		0.0100	0.00500

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452581	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:50
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311141550-07
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.0261		0.0100	0.00500

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	TIAMO1
Client ID:	MPL 29-1113-1	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG452034	**Analyst:**	DIH	**Run Date:**	11/08/2013 21:36
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	TI.110813.2136CO
Sample Tag:	01	**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		654		50.0	10.0

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 29-1113-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	11/19/2013 09:41
Workgroup #:	WG453359	**Analyst:**	BAF	**Run Date:**	11/19/2013 09:48
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	SC131119001.015
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7		U	0.100	0.0500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 29-1113-1	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	11/13/2013 13:48
Workgroup #:	WG452422	**Analyst:**	BAF	**Run Date:**	11/13/2013 16:00
Collect Date:	11/07/2013 11:00	**Dilution:**	4	**File ID:**	SC13111808414401
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		7.86		0.200	0.100

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	SM4500-P-E-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-1999	**Cal Date:**	10/30/2013 09:00
Workgroup #:	WG452008	**Analyst:**	TMM	**Run Date:**	11/08/2013 09:16
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311080916-13
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.0791		0.0500	0.0250

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 29-1113-1	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-C-1997	**Cal Date:**	
Workgroup #:	WG452254	**Analyst:**	ADG	**Run Date:**	11/11/2013 13:25
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	EN.1311111325-22
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		462		20.0	10.0

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL 29-1113-1	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	07/09/2013 14:51
Workgroup #:	WG452462	**Analyst:**	DIH	**Run Date:**	11/12/2013 23:05
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	TC11122013.021
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon	TOC	1.72		1.00	0.500

Certificate of Analysis

Sample #: L13110465-01 | **PrePrep Method:** N/A | **Instrument:** OVEN
Client ID: MPL 29-1113-1 | **Prep Method:** 160.2/SM2540D | **Prep Date:** N/A
Matrix: Water | **Analytical Method:** SM2540-D-1997 | **Cal Date:**
Workgroup #: WG452343 | **Analyst:** ADG | **Run Date:** 11/13/2013 11:15
Collect Date: 11/07/2013 11:00 | **Dilution:** 1 | **File ID:** EN.1311131115-13
Sample Tag: | **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		26.5		5.00	2.50

Sample #: L13110465-02 | **PrePrep Method:** N/A | **Instrument:** ICP-THERMO2
Client ID: MPL 7-1113-1 | **Prep Method:** 3015 | **Prep Date:** 11/11/2013 12:53
Matrix: Water | **Analytical Method:** 6010B | **Cal Date:** 11/12/2013 14:44
Workgroup #: WG452461 | **Analyst:** SLP | **Run Date:** 11/12/2013 18:08
Collect Date: 11/07/2013 13:05 | **Dilution:** 1 | **File ID:** T2.111213.180801
Sample Tag: 01 | **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Magnesium, Total	7439-95-4	18.7		0.500	0.250
Potassium, Total	7440-09-7	3.06		1.00	0.500
Sodium, Total	7440-23-5	43.6		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.0100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 7-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/13/2013 09:22
Workgroup #:	WG452461	**Analyst:**	QX	**Run Date:**	11/13/2013 13:33
Collect Date:	11/07/2013 13:05	**Dilution:**	10	**File ID:**	T2.111313.133336
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	101		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	MPL 7-1113-1	**Prep Method:**	3015	**Prep Date:**	11/12/2013 14:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	11/18/2013 09:55
Workgroup #:	WG452576	**Analyst:**	JYH	**Run Date:**	11/18/2013 17:54
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	NI.111813.175458
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00835		0.00100	0.000500
Barium, Total	7440-39-3	0.0530		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00163	J	0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8	0.00118	J	0.00200	0.00100
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00329		0.00200	0.00100
Nickel, Total	7440-02-0	0.00476		0.00400	0.00200
Selenium, Total	7782-49-2	0.0352		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	CVAA1
Client ID:	MPL 7-1113-1	**Prep Method:**	7470A	**Prep Date:**	11/11/2013 09:26
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	11/12/2013 14:20
Workgroup #:	WG452436	**Analyst:**	PDM	**Run Date:**	11/12/2013 15:42
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	M7.111213.154231
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL 7-1113-1	**Prep Method:**	300.0	**Prep Date:**	11/19/2013 09:16
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	11/05/2013 14:51
Workgroup #:	WG453381	**Analyst:**	JBK	**Run Date:**	11/19/2013 15:00
Collect Date:	11/07/2013 13:05	**Dilution:**	5	**File ID:**	I2_111913-23
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	111		1.00	0.500
Fluoride	16984-48-8		U	1.00	0.500
Sulfate	14808-79-8	136		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL 7-1113-1	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG452038	**Analyst:**	EPT	**Run Date:**	11/08/2013 16:25
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	OS13111111391701
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.69		0.000	0.000
Temperature At Determination (C)		20.3		0.000	0.000

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM2
Client ID:	MPL 7-1113-1	**Prep Method:**	310.2	**Prep Date:**	11/12/2013 16:58
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	11/12/2013 16:51
Workgroup #:	WG452340	**Analyst:**	DIH	**Run Date:**	11/12/2013 16:58
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	S2131112003.020
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)	11-43-8	120		20.0	10.0

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452581	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:50
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311141550-08
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.0408		0.0100	0.00500

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	11/14/2013 11:20
Workgroup #:	WG452580	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:30
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311141530-23
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.373		0.0100	0.00500

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	SM4500-CN-C,G-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G-1999	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452812	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:45
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311141545-08
Sample Tag:	DL02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.372	U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	TIAMO1
Client ID:	MPL 7-1113-1	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG452034	**Analyst:**	DIH	**Run Date:**	11/08/2013 21:38
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	TI.110813.2138CO
Sample Tag:	01	**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		739		50.0	10.0

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 7-1113-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	11/19/2013 09:41
Workgroup #:	WG453359	**Analyst:**	BAF	**Run Date:**	11/19/2013 09:50
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	SC131119001.016
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7		U	0.100	0.0500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 7-1113-1	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	11/13/2013 13:48
Workgroup #:	WG452422	**Analyst:**	BAF	**Run Date:**	11/13/2013 16:00
Collect Date:	11/07/2013 13:05	**Dilution:**	10	**File ID:**	SC13111808415001
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		13.7		0.500	0.250

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	SM4500-P-E-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-1999	**Cal Date:**	10/30/2013 09:00
Workgroup #:	WG452008	**Analyst:**	TMM	**Run Date:**	11/08/2013 09:16
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311080916-14
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2		U	0.0500	0.0250

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 7-1113-1	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-C-1997	**Cal Date:**	
Workgroup #:	WG452254	**Analyst:**	ADG	**Run Date:**	11/11/2013 13:25
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	EN.1311111325-23
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		642		20.0	10.0

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL 7-1113-1	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	07/09/2013 14:51
Workgroup #:	WG452462	**Analyst:**	DIH	**Run Date:**	11/12/2013 23:27
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	TC11122013.022
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon	TOC	1.70		1.00	0.500

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 7-1113-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-D-1997	**Cal Date:**	
Workgroup #:	WG452343	**Analyst:**	ADG	**Run Date:**	11/13/2013 11:15
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	EN.1311131115-14
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids			U	5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 5-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/12/2013 14:44
Workgroup #:	WG452461	**Analyst:**	SLP	**Run Date:**	11/12/2013 18:11
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	T2.111213.181131
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Magnesium, Total	7439-95-4	8.26		0.500	0.250
Potassium, Total	7440-09-7	2.41		1.00	0.500
Sodium, Total	7440-23-5	22.7		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2	0.00529	J	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.0100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 5-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/13/2013 09:22
Workgroup #:	WG452461	**Analyst:**	QX	**Run Date:**	11/13/2013 13:37
Collect Date:	11/07/2013 15:00	**Dilution:**	10	**File ID:**	T2.111313.133707
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	46.3		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	MPL 5-1113-1	**Prep Method:**	3015	**Prep Date:**	11/12/2013 14:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	11/18/2013 09:55
Workgroup #:	WG452576	**Analyst:**	JYH	**Run Date:**	11/18/2013 17:58
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	NI.111813.175803
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00172		0.00100	0.000500
Barium, Total	7440-39-3	0.0964		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00251		0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8		U	0.00200	0.00100
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00232		0.00200	0.00100
Nickel, Total	7440-02-0		U	0.00400	0.00200
Selenium, Total	7782-49-2	0.00513		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	CVAA1
Client ID:	MPL 5-1113-1	**Prep Method:**	7470A	**Prep Date:**	11/11/2013 09:26
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	11/12/2013 14:20
Workgroup #:	WG452436	**Analyst:**	PDM	**Run Date:**	11/12/2013 15:45
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	M7.111213.154502
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL 5-1113-1	**Prep Method:**	300.0	**Prep Date:**	11/19/2013 09:16
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	11/05/2013 14:51
Workgroup #:	WG453381	**Analyst:**	JBK	**Run Date:**	11/19/2013 15:17
Collect Date:	11/07/2013 15:00	**Dilution:**	2	**File ID:**	I2_111913-24
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	44.3		0.400	0.200
Fluoride	16984-48-8	0.402		0.400	0.200
Sulfate	14808-79-8	51.0		2.00	1.00

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	ORION-4STAR
Client ID:	MPL 5-1113-1	**Prep Method:**	9040C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9040C	**Cal Date:**	
Workgroup #:	WG452038	**Analyst:**	EPT	**Run Date:**	11/08/2013 16:26
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	OS13111111392501
Sample Tag:		**Units:**	UNITS		

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	8.23		0.000	0.000
Temperature At Determination (C)		20.1		0.000	0.000

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM2
Client ID:	MPL 5-1113-1	**Prep Method:**	310.2	**Prep Date:**	11/12/2013 17:00
Matrix:	Water	**Analytical Method:**	310.2	**Cal Date:**	11/12/2013 16:51
Workgroup #:	WG452340	**Analyst:**	DIH	**Run Date:**	11/12/2013 17:00
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	S2131112003.023
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)	11-43-8	89.2		20.0	10.0

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452581	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:50
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311141550-09
Sample Tag:	DL01	**Units:**	mg/L		

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.0106		0.0100	0.00500

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	11/14/2013 11:20
Workgroup #:	WG452580	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:30
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311141530-24
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.0736		0.0100	0.00500

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	SM4500-CN-C,G-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G-1999	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452812	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:45
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311141545-09
Sample Tag:	DL02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.0736	U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	TIAMO1
Client ID:	MPL 5-1113-1	**Prep Method:**	120.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	120.1	**Cal Date:**	
Workgroup #:	WG452034	**Analyst:**	DIH	**Run Date:**	11/08/2013 21:40
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	TI.110813.2140CO
Sample Tag:	01	**Units:**	umhos/cm		

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		440		50.0	10.0

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 5-1113-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	11/19/2013 09:41
Workgroup #:	WG453359	**Analyst:**	BAF	**Run Date:**	11/19/2013 09:50
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	SC131119001.017
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7		U	0.100	0.0500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 5-1113-1	**Prep Method:**	353.2	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	353.2	**Cal Date:**	11/13/2013 13:48
Workgroup #:	WG452422	**Analyst:**	BAF	**Run Date:**	11/13/2013 16:00
Collect Date:	11/07/2013 15:00	**Dilution:**	4	**File ID:**	SC13111808415901
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		5.28		0.200	0.100

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	SM4500-P-E-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-1999	**Cal Date:**	10/30/2013 09:00
Workgroup #:	WG452008	**Analyst:**	TMM	**Run Date:**	11/08/2013 09:16
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311080916-15
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2		U	0.0500	0.0250

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 5-1113-1	**Prep Method:**	160.1/SM2540C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-C-1997	**Cal Date:**	
Workgroup #:	WG452622	**Analyst:**	ADG	**Run Date:**	11/13/2013 12:52
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	EN.1311131252-22
Sample Tag:	2	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		282		20.0	10.0

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	TOC-VWP
Client ID:	MPL 5-1113-1	**Prep Method:**	415.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	415.1	**Cal Date:**	07/09/2013 14:51
Workgroup #:	WG452462	**Analyst:**	DIH	**Run Date:**	11/12/2013 23:48
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	TC11122013.023
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon	TOC	1.20		1.00	0.500

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 5-1113-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-D-1997	**Cal Date:**	
Workgroup #:	WG452343	**Analyst:**	ADG	**Run Date:**	11/13/2013 11:15
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	EN.1311131115-15
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids			U	5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.0 Full Sample Data Package

2.1 Metals Data

2.1.1 Metals I C P Data

2.1.1.1 Summary Data

Login Number: L13110465
Department: Metals
Analyst: Sheri Pfalzgraf

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG452461 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: WG452461 - Client samples 01, 02 and 03 required dilution analyses in order to obtain results for calcium within the calibration range.

Narrative ID: 74437
Approved By: Maren Beery

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 29-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/12/2013 14:44
Workgroup #:	WG452461	**Analyst:**	SLP	**Run Date:**	11/12/2013 17:57
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	T2.111213.175739
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Magnesium, Total	7439-95-4	15.0		0.500	0.250
Potassium, Total	7440-09-7	2.88		1.00	0.500
Sodium, Total	7440-23-5	36.1		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6	0.0127	J	0.0200	0.0100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 29-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/13/2013 09:22
Workgroup #:	WG452461	**Analyst:**	QX	**Run Date:**	11/13/2013 13:30
Collect Date:	11/07/2013 11:00	**Dilution:**	10	**File ID:**	T2.111313.133004
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	81.0		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 7-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/12/2013 14:44
Workgroup #:	WG452461	**Analyst:**	SLP	**Run Date:**	11/12/2013 18:08
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	T2.111213.180801
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Magnesium, Total	7439-95-4	18.7		0.500	0.250
Potassium, Total	7440-09-7	3.06		1.00	0.500
Sodium, Total	7440-23-5	43.6		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.0100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 7-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/13/2013 09:22
Workgroup #:	WG452461	**Analyst:**	QX	**Run Date:**	11/13/2013 13:33
Collect Date:	11/07/2013 13:05	**Dilution:**	10	**File ID:**	T2.111313.133336
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	101		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 5-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/12/2013 14:44
Workgroup #:	WG452461	**Analyst:**	SLP	**Run Date:**	11/12/2013 18:11
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	T2.111213.181131
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Magnesium, Total	7439-95-4	8.26		0.500	0.250
Potassium, Total	7440-09-7	2.41		1.00	0.500
Sodium, Total	7440-23-5	22.7		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2	0.00529	J	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.0100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	MPL 5-1113-1	**Prep Method:**	3015	**Prep Date:**	11/11/2013 12:53
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	11/13/2013 09:22
Workgroup #:	WG452461	**Analyst:**	QX	**Run Date:**	11/13/2013 13:37
Collect Date:	11/07/2013 15:00	**Dilution:**	10	**File ID:**	T2.111313.133707
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	46.3		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.1.1.2 QC Summary Data

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters
For a multi-point calibration, the system performs linear regression from data consisting of a blank and four standards.

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

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

Where:	**Example:**
Cs = Concentration computed by the data system in ug/mL (ppm)	0.1
Vf = Final volume (mL)	50
Vi = Initial volume (mL)	50
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ug/mL (mg/L)	0.1

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

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

Where:	**Example:**
Cs = Concentration computed by the data system (mg/L) (ppm)	0.1
Vf = Final volume (mL)	50
Vi = Initial weight (g)	1
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ug/g (mg/kg)	5

4.0 Adjusting the concentration to dry weight:

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

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	5
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (mg/kg)	6.25

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup:	WG452241	**SOP:**	ME407 Revison 14
Analyst:	REK	**Spike Solution:**	STD61081
Spike Analyst:	REK	**Spike Witness:**	ERP
Run Date:	11/11/2013 12:53	**HNO3 Lot #:**	COA16631
Method:	3015	**Digestion Tubes Lot #:**	COA16971
Balance:	BAL002	**HCL Lot #:**	COA17104
Instrument:	MW-2	**ICP Filters- fisher-Lot#**	RGT26836
Instrument Start:	11/11/2013 12:58		

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG452241-02	BLANK	1	40 mL	50 mL	202.399 g	202.352 g		
2	WG452241-03	LCS	1	40 mL	50 mL	208.574 g	208.51 g	5 mL	
3	WG452241-01	REF	1	40 mL	50 mL	202.854 g	202.807 g		
4	L13110320-13	SAMP	1	40 mL	50 mL	202.854 g	202.807 g		11/15/13
5	L13110320-15	SAMP	1	40 mL	50 mL	205.95 g	205.905 g		11/15/13
6	L13110320-17	SAMP	1	40 mL	50 mL	202.545 g	202.489 g		11/15/13
7	L13110320-19	SAMP	1	40 mL	50 mL	204.476 g	204.421 g		11/15/13
8	L13110320-21	SAMP	1	40 mL	50 mL	205.705 g	205.642 g		11/15/13
9	L13110320-23	SAMP	1	40 mL	50 mL	204.609 g	204.562 g		11/15/13
10	L13110320-25	SAMP	1	40 mL	50 mL	203.159 g	203.104 g		11/15/13
11	L13110320-27	SAMP	1	40 mL	50 mL	203.08 g	203.029 g		11/15/13
12	L13110320-29	SAMP	1	40 mL	50 mL	205.661 g	205.594 g		11/15/13
13	L13110320-31	SAMP	1	40 mL	50 mL	204.676 g	204.572 g		11/15/13
14	L13110320-33	SAMP	1	40 mL	50 mL	202.091 g	202.039 g		11/15/13
15	L13110320-35	SAMP	1	40 mL	50 mL	205.395 g	205.342 g		11/15/13
16	L13110320-37	SAMP	1	40 mL	50 mL	206.945 g	206.903 g		11/15/13
17	L13110465-01	SAMP	1	40 mL	50 mL	204.717 g	204.673 g		11/19/13
18	L13110465-02	SAMP	1	40 mL	50 mL	203.392 g	203.326 g		11/19/13
19	L13110465-03	SAMP	1	40 mL	50 mL	205.262 g	205.211 g		11/19/13
20	L13110469-01	SAMP	1	40 mL	50 mL	205.838 g	205.798 g		11/14/13
21	L13110469-02	SAMP	1	40 mL	50 mL	203.948 g	203.889 g		11/14/13
22	L13110469-03	SAMP	1	40 mL	50 mL	201.263 g	201.22 g		11/14/13
23	L13110469-04	SAMP	1	40 mL	50 mL	206.444 g	206.391 g		11/14/13
24	WG452241-04	MS	1	40 mL	50 mL	211.661 g	211.616 g	5 mL	
25	WG452241-05	MSD	1	40 mL	50 mL	209.946 g	209.898 g	5 mL	

Analyst: _____

Reviewer: _____

MW_DIG - Modified 09/30/2009
PDF ID: 3195289
Report generated: 11/11/2013 13:41

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111213T2.1
Analyst1: SLP Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48150

Calibration Std: STD61056 ICV Std: STD61058 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61057 LLCCV: Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.111213.143057	WG452550-01	Calibration Point		1		11/12/13 14:30
2	T2.111213.143431	WG452550-02	Calibration Point		1		11/12/13 14:34
3	T2.111213.143802	WG452550-03	Calibration Point		1		11/12/13 14:38
4	T2.111213.144133	WG452550-04	Calibration Point		1		11/12/13 14:41
5	T2.111213.144449	WG452550-05	Calibration Point		1		11/12/13 14:44
6	T2.111213.144805	WG452550-06	Initial Calibration Verification		1		11/12/13 14:48
7	T2.111213.145120	WG452550-07	Initial Calib Blank		1		11/12/13 14:51
8	T2.111213.145450	WG452550-08	Interference Check		1		11/12/13 14:54
9	T2.111213.145815	WG452550-09	Interference Check		1		11/12/13 14:58
10	T2.111213.150138	WG452550-10	CCV		1		11/12/13 15:01
11	T2.111213.150453	WG452550-11	CCB		1		11/12/13 15:04
12	T2.111213.150830	WG452183-02	Reference Sample		1	L13110415-02	11/12/13 15:08
13	T2.111213.151158	WG452183-07	Matrix Spike	40/50	1	L13110415-02	11/12/13 15:11
14	T2.111213.151519	WG452550-12	CCV		1		11/12/13 15:15
15	T2.111213.151835	WG452550-13	CCB		1		11/12/13 15:18
16	T2.111213.153511	WG452368-02	Method/Prep Blank	5/50	1		11/12/13 15:35
17	T2.111213.153843	WG452368-03	Laboratory Control S	5/50	1		11/12/13 15:38
18	T2.111213.154200	WG452232-01	Fluid Blank 1		1		11/12/13 15:42
19	T2.111213.154538	WG452232-02	Fluid Blank 2		1		11/12/13 15:45
20	T2.111213.154910	L13110463-01	SLAG	5/50	1		11/12/13 15:49
21	T2.111213.155240	WG452455-02	Serial Dilution		5	L13110463-01	11/12/13 15:52
22	T2.111213.155611	WG452455-01	Post Digestion Spike		1	L13110463-01	11/12/13 15:56
23	T2.111213.155929	L13110467-01	MILL SCALE	5/50	1		11/12/13 15:59
24	T2.111213.160302	L13110468-01	FILTER CAKE	5/50	1		11/12/13 16:03
25	T2.111213.160630	WG452550-14	CCV		1		11/12/13 16:06
26	T2.111213.160945	WG452550-15	CCB		1		11/12/13 16:09
27	T2.111213.161320	L13110476-02	13029-FT2-03	5/50	1		11/12/13 16:13
28	T2.111213.161656	L13110492-01	ALAN BESIDE POTS 6-BAG	5/50	1		11/12/13 16:16
29	T2.111213.162044	L13110493-01	ALAN 16 BAGS BETWEEN T	5/50	1		11/12/13 16:20
30	T2.111213.162430	L13110495-01	CEP 11 BAGS	5/50	1		11/12/13 16:24
31	T2.111213.162808	WG452368-01	Reference Sample		1	L13110519-01	11/12/13 16:28
32	T2.111213.163139	WG452368-04	Matrix Spike	5/50	1	L13110519-01	11/12/13 16:31
33	T2.111213.163504	WG452368-05	Matrix Spike Duplica	5/50	1	L13110519-01	11/12/13 16:35
34	T2.111213.163834	WG452550-16	CCV		1		11/12/13 16:38

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Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111213T2.1
Analyst1: SLP Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48150

Calibration Std: STD61056 ICV Std: STD61058 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61057 LLCCV: Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.111213.164149	WG452550-17	CCB		1		11/12/13 16:41
36	T2.111213.164525	WG452241-02	Method/Prep Blank	40/50	1		11/12/13 16:45
37	T2.111213.164857	WG452241-03	Laboratory Control S	40/50	1		11/12/13 16:48
38	T2.111213.165213	WG452241-01	Reference Sample		1	L13110320-13	11/12/13 16:52
39	T2.111213.165542	WG452241-04	Matrix Spike	40/50	1	L13110320-13	11/12/13 16:55
40	T2.111213.165859	WG452241-05	Matrix Spike Duplica	40/50	1	L13110320-13	11/12/13 16:58
41	T2.111213.170215	L13110320-15	EWTS-POND 1-11-5NOV201	40/50	1		11/12/13 17:02
42	T2.111213.170543	WG452461-02	Serial Dilution		5	L13110320-15	11/12/13 17:05
43	T2.111213.170914	WG452461-01	Post Digestion Spike		1	L13110320-15	11/12/13 17:09
44	T2.111213.171232	L13110320-17	EWTS-POND 1-13TOP-5NO	40/50	1		11/12/13 17:12
45	T2.111213.171600	L13110320-19	EWTS-POND 1-13MIDDLE-5	40/50	1		11/12/13 17:16
46	T2.111213.171932	WG452550-18	CCV		1		11/12/13 17:19
47	T2.111213.172247	WG452550-19	CCB		1		11/12/13 17:22
48	T2.111213.172623	L13110320-21	EWTS-POND 1-13NBOTTOM	40/50	1		11/12/13 17:26
49	T2.111213.172952	L13110320-23	EWTS-POND 1-15-5NOV201	40/50	1		11/12/13 17:29
50	T2.111213.173320	L13110320-25	EWTS-POND 1-17-5NOV201	40/50	1		11/12/13 17:33
51	T2.111213.173648	L13110320-27	EWTS-POND 1-19-5NOV201	40/50	1		11/12/13 17:36
52	T2.111213.174017	L13110320-29	EWTS-POND 1-21-5NOV201	40/50	1		11/12/13 17:40
53	T2.111213.174345	L13110320-31	EWTS-POND 1-23TOP-5NO	40/50	1		11/12/13 17:43
54	T2.111213.174714	L13110320-33	EWTS-POND 1-23MIDDLE-5	40/50	1		11/12/13 17:47
55	T2.111213.175042	L13110320-35	EWTS-POND 1-23BOTTOM-	40/50	1		11/12/13 17:50
56	T2.111213.175410	L13110320-37	EWTS-POND 1-25-5NOV201	40/50	1		11/12/13 17:54
57	T2.111213.175739	L13110465-01	MPL 29-1113-1	40/50	1		11/12/13 17:57
58	T2.111213.180110	WG452550-20	CCV		1		11/12/13 18:01
59	T2.111213.180424	WG452550-21	CCB		1		11/12/13 18:04
60	T2.111213.180801	L13110465-02	MPL 7-1113-1	40/50	1		11/12/13 18:08
61	T2.111213.181131	L13110465-03	MPL 5-1113-1	40/50	1		11/12/13 18:11
62	T2.111213.181501	L13110469-01	JF-SF-02	40/50	1		11/12/13 18:15
63	T2.111213.181828	L13110469-02	JF-SF-03A	40/50	1		11/12/13 18:18
64	T2.111213.182156	L13110469-03	JF-SF-04	40/50	1		11/12/13 18:21
65	T2.111213.182525	L13110469-04	JF-SF-06	40/50	1		11/12/13 18:25
66	T2.111213.182856	WG452550-22	CCV		1		11/12/13 18:28
67	T2.111213.183212	WG452550-23	CCB		1		11/12/13 18:32
68	T2.111213.183547	WG452177-03	Method/Prep Blank	40/50	1		11/12/13 18:35

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Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111213T2.1
Analyst1: SLP Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48150

Calibration Std: STD61056 ICV Std: STD61058 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61057 LLCCV: Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.111213.183918	WG452177-04	Laboratory Control S	40/50	1		11/12/13 18:39
70	T2.111213.184236	WG452177-01	Reference Sample		1	L13110372-01	11/12/13 18:42
71	T2.111213.184604	WG452177-05	Duplicate	40/50	1	L13110372-01	11/12/13 18:46
72	T2.111213.184933	WG452177-06	Matrix Spike	40/50	1	L13110372-01	11/12/13 18:49
73	T2.111213.185250	L13110373-01	002	40/50	1		11/12/13 18:52
74	T2.111213.185618	WG452492-02	Serial Dilution		5	L13110373-01	11/12/13 18:56
75	T2.111213.185947	WG452492-01	Post Digestion Spike		1	L13110373-01	11/12/13 18:59
76	T2.111213.190305	L13110374-01	M-1	40/50	1		11/12/13 19:03
77	T2.111213.190641	L13110374-02	M-2	40/50	1		11/12/13 19:06
78	T2.111213.191023	WG452550-24	CCV		1		11/12/13 19:10
79	T2.111213.191338	WG452550-25	CCB		1		11/12/13 19:13
80	T2.111213.191716	L13110375-02	DBR	40/50	1		11/12/13 19:17
81	T2.111213.192045	L13110375-04	UBR	40/50	1		11/12/13 19:20
82	T2.111213.192415	WG452177-02	Reference Sample		1	L13110376-01	11/12/13 19:24
83	T2.111213.192742	WG452177-07	Matrix Spike	40/50	1	L13110376-01	11/12/13 19:27
84	T2.111213.193101	L13110376-13	DFC2	40/50	1		11/12/13 19:31
85	T2.111213.193428	L13110376-15	DNF	40/50	1		11/12/13 19:34
86	T2.111213.193758	L13110376-17	GRD	40/50	1		11/12/13 19:37
87	T2.111213.194126	L13110376-19	GRU	40/50	1		11/12/13 19:41
88	T2.111213.194455	L13110376-21	UFC1	40/50	1		11/12/13 19:44
89	T2.111213.194825	L13110376-23	UNF	40/50	1		11/12/13 19:48
90	T2.111213.195159	WG452550-26	CCV		1		11/12/13 19:51
91	T2.111213.195513	WG452550-27	CCB		1		11/12/13 19:55
92	T2.111213.195848	L13110377-01	017	40/50	1		11/12/13 19:58
93	T2.111213.200217	L13110377-03	018	40/50	1		11/12/13 20:02
94	T2.111213.200546	L13110377-05	023	40/50	1		11/12/13 20:05
95	T2.111213.200919	L13110381-01	D1-M1	40/50	1		11/12/13 20:09
96	T2.111213.201248	L13110381-02	D2-M2	40/50	1		11/12/13 20:12
97	T2.111213.201625	L13110484-01	13K0468-01	40/50	1		11/12/13 20:16
98	T2.111213.201954	WG452550-28	CCV		1		11/12/13 20:19
99	T2.111213.202309	WG452550-29	CCB		1		11/12/13 20:23
100	T2.111213.202642	WG452333-02	Method/Prep Blank	40/50	1		11/12/13 20:26
101	T2.111213.203013	WG452333-03	Laboratory Control S	40/50	1		11/12/13 20:30
102	T2.111213.203331	WG452333-04	Filter Blank		1		11/12/13 20:33

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111213T2.1
Analyst1: SLP Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48150

Calibration Std: STD61056 ICV Std: STD61058 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61057 LLCCV: Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.111213.203703	L13110320-02	EWTS-POND 1-1-5NOV2013	40/50	1		11/12/13 20:37
104	T2.111213.204031	WG452498-02	Serial Dilution		5	L13110320-02	11/12/13 20:40
105	T2.111213.204402	WG452498-01	Post Digestion Spike		1	L13110320-02	11/12/13 20:44
106	T2.111213.204719	L13110320-04	EWTS-POND 1-3TOPNOV20	40/50	1		11/12/13 20:47
107	T2.111213.205046	L13110320-06	EWTS-POND 1-3MIDDLENC	40/50	1		11/12/13 20:50
108	T2.111213.205414	L13110320-08	EWTS-POND 1-3BOTTOMN	40/50	1		11/12/13 20:54
109	T2.111213.205742	L13110320-10	EWTS-POND 1-5-5NOV2013	40/50	1		11/12/13 20:57
110	T2.111213.210112	WG452550-30	CCV		1		11/12/13 21:01
111	T2.111213.210427	WG452550-31	CCB		1		11/12/13 21:04
112	T2.111213.210801	L13110320-12	EWTS-POND 1-7-5NOV2013	40/50	1		11/12/13 21:08
113	T2.111213.211130	L13110320-14	EWTS-POND 1-9-5NOV2013	40/50	1		11/12/13 21:11
114	T2.111213.211458	L13110320-16	EWTS-POND 1-11-5NOV201	40/50	1		11/12/13 21:14
115	T2.111213.211826	L13110320-18	EWTS-POND 1-13TOP-5NO	40/50	1		11/12/13 21:18
116	T2.111213.212155	L13110320-20	EWTS-POND 1-13MIDDLE-5	40/50	1		11/12/13 21:21
117	T2.111213.212523	L13110320-22	EWTS-POND 1-13NBOTTOM	40/50	1		11/12/13 21:25
118	T2.111213.212853	L13110320-24	EWTS-POND 1-15-5NOV201	40/50	1		11/12/13 21:28
119	T2.111213.213222	L13110320-26	EWTS-POND 1-17-5NOV201	40/50	1		11/12/13 21:32
120	T2.111213.213550	L13110320-28	EWTS-POND 1-19-5NOV201	40/50	1		11/12/13 21:35
121	T2.111213.213919	L13110320-30	EWTS-POND 1-21-5NOV201	40/50	1		11/12/13 21:39
122	T2.111213.214251	WG452550-32	CCV		1		11/12/13 21:42
123	T2.111213.214606	WG452550-33	CCB		1		11/12/13 21:46
124	T2.111213.214940	L13110320-32	EWTS-POND 1-23TOP-5NO	40/50	1		11/12/13 21:49
125	T2.111213.215308	L13110320-34	EWTS-POND 1-23MIDDLE-5	40/50	1		11/12/13 21:53
126	T2.111213.215637	L13110320-36	EWTS-POND 1-23BOTTOM-	40/50	1		11/12/13 21:56
127	T2.111213.220006	WG452333-01	Reference Sample		1	L13110320-38	11/12/13 22:00
128	T2.111213.220334	WG452333-05	Matrix Spike	40/50	1	L13110320-38	11/12/13 22:03
129	T2.111213.220650	WG452333-06	Matrix Spike Duplica	40/50	1	L13110320-38	11/12/13 22:06
130	T2.111213.221008	WG452550-34	CCV		1		11/12/13 22:10
131	T2.111213.221323	WG452550-35	CCB		1		11/12/13 22:13
132	T2.111213.221656	WG452388-03	Method/Prep Blank	40/50	1		11/12/13 22:16
133	T2.111213.222028	WG452388-04	Laboratory Control S	40/50	1		11/12/13 22:20
134	T2.111213.222346	WG452388-01	Reference Sample		1	L13110436-01	11/12/13 22:23
135	T2.111213.222714	WG452388-05	Duplicate	40/50	1	L13110436-01	11/12/13 22:27
136	T2.111213.223043	WG452388-06	Matrix Spike	40/50	1	L13110436-01	11/12/13 22:30

 Approved: November 13, 2013

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111213T2.1
Analyst1: SLP Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48150

Calibration Std: STD61056 ICV Std: STD61058 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61057 LLCCV: Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.111213.223400	L13110436-03	FC-83	40/50	1		11/12/13 22:34
138	T2.111213.223729	WG452500-02	Serial Dilution		5	L13110436-03	11/12/13 22:37
139	T2.111213.224059	WG452500-01	Post Digestion Spike		1	L13110436-03	11/12/13 22:40
140	T2.111213.224416	L13110436-05	FC-248	40/50	1		11/12/13 22:44
141	T2.111213.224745	L13110437-01	FC-82	40/50	1		11/12/13 22:47
142	T2.111213.225114	WG452550-36	CCV		1		11/12/13 22:51
143	T2.111213.225429	WG452550-37	CCB		1		11/12/13 22:54
144	T2.111213.225803	L13110437-02	FC-80	40/50	1		11/12/13 22:58
145	T2.111213.230130	L13110437-03	FC-83	40/50	1		11/12/13 23:01
146	T2.111213.230458	L13110437-04	FC-132	40/50	1		11/12/13 23:04
147	T2.111213.230826	WG452388-02	Reference Sample		1	L13110438-01	11/12/13 23:08
148	T2.111213.231154	WG452388-07	Matrix Spike	40/50	1	L13110438-01	11/12/13 23:11
149	T2.111213.231513	L13110438-02	1400498-S-2	40/50	1		11/12/13 23:15
150	T2.111213.231841	L13110441-01	1400496-001	40/50	1		11/12/13 23:18
151	T2.111213.232217	L13110441-03	1400496-GW-3	40/50	1		11/12/13 23:22
152	T2.111213.232554	L13110445-07	1400492-GW-2	40/50	1		11/12/13 23:25
153	T2.111213.232922	L13110445-09	1400492-S-1	40/50	1		11/12/13 23:29
154	T2.111213.233254	WG452550-38	CCV		1		11/12/13 23:32
155	T2.111213.233609	WG452550-39	CCB		1		11/12/13 23:36
156	T2.111213.233943	L13110445-10	1400492-S-2	40/50	1		11/12/13 23:39
157	T2.111213.234312	L13110464-07	BMQ10	40/50	1		11/12/13 23:43
158	T2.111213.234639	L13110464-08	BMQ11	40/50	1		11/12/13 23:46
159	T2.111213.235007	L13110464-09	BMQ12	40/50	1		11/12/13 23:50
160	T2.111213.235344	L13110464-10	BMQ17	40/50	1		11/12/13 23:53
161	T2.111213.235708	L13110464-11	BMQ18	40/50	1		11/12/13 23:57
162	T2.111313.000049	WG452550-40	CCV		1		11/13/13 00:00
163	T2.111313.000403	WG452550-41	CCB		1		11/13/13 00:04
164	T2.111313.000738	PBW 6R	PBW 6R	40/50	1		11/13/13 00:07
165	T2.111313.001109	LC-SW	LCSW 6R	40/50	1		11/13/13 00:11
166	T2.111313.001428	L13110418-02	002	40/50	1		11/13/13 00:14
167	T2.111313.001756	L1311041802-DL	L1311041802DL		5		11/13/13 00:17
168	T2.111313.002126	L1311041802-PS	L1311041802PS		1		11/13/13 00:21
169	T2.111313.002445	L13110418-04	DLF	40/50	1		11/13/13 00:24
170	T2.111313.002813	L13110418-06	ULF	40/50	1		11/13/13 00:28

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Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111213T2.1
Analyst1: SLP Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48150

Calibration Std: STD61056 ICV Std: STD61058 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61057 LLCCV: Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.111313.003142	L13110421-03	002	40/50	1		11/13/13 00:31
172	T2.111313.003510	L13110421-05	DLF	40/50	1		11/13/13 00:35
173	T2.111313.003840	L13110421-07	ULF	40/50	1		11/13/13 00:38
174	T2.111313.004211	WG452550-42	CCV		1		11/13/13 00:42
175	T2.111313.004527	WG452550-43	CCB		1		11/13/13 00:45
176	T2.111313.004901	L13110434-03	FC-80		1	WG452386-01	11/13/13 00:49
177	T2.111313.005230	L1311043403-DP	L1311043403DP	40/50	1		11/13/13 00:52
178	T2.111313.005558	L131104340-3S	L1311043403S	40/50	1		11/13/13 00:55
179	T2.111313.005917	L13110434-05	FC-82	40/50	1		11/13/13 00:59
180	T2.111313.010245	L13110434-08	FC-83	40/50	1		11/13/13 01:02
181	T2.111313.010613	L13110435-02	FC-80	40/50	1		11/13/13 01:06
182	T2.111313.010942	L13110435-04	FC-82	40/50	1		11/13/13 01:09
183	T2.111313.011310	L13110435-10	FC-83	40/50	1		11/13/13 01:13
184	T2.111313.011639	L13110436-02	FC-80	40/50	1		11/13/13 01:16
185	T2.111313.012008	L13110436-04	FC-83	40/50	1		11/13/13 01:20
186	T2.111313.012338	WG452550-44	CCV		1		11/13/13 01:23
187	T2.111313.012653	WG452550-45	CCB		1		11/13/13 01:26
188	T2.111313.013027	L13110497-02	UDC1	40/50	1		11/13/13 01:30
189	T2.111313.013356	L13110497-04	DDC2	40/50	1		11/13/13 01:33
190	T2.111313.013727	L13110497-07	001	40/50	1		11/13/13 01:37
191	T2.111313.014120	L13110523-03	BEE-IS-06		1	WG452386-02	11/13/13 01:41
192	T2.111313.014450	L131105230-3S	L1311052303S	40/50	1		11/13/13 01:44
193	T2.111313.014808	L13110523-05	BEE-IS-05	40/50	1		11/13/13 01:48
194	T2.111313.015142	WG452550-46	CCV		1		11/13/13 01:51
195	T2.111313.015457	WG452550-47	CCB		1		11/13/13 01:54
196	T2.111313.015831	PBW AA	PBW AA	40/50	1		11/13/13 01:58
197	T2.111313.020203	LC-SW	LCSW AA	40/50	1		11/13/13 02:02
198	T2.111313.020521	L13110489-05	004		1	WG452454-01	11/13/13 02:05
199	T2.111313.020858	L1311048905-DP	L1311048905DP	40/50	1		11/13/13 02:08
200	T2.111313.021236	L13110489-09	008		1	WG452454-02	11/13/13 02:12
201	T2.111313.021607	L131104890-9S	L1311048909S	40/50	1		11/13/13 02:16
202	T2.111313.021925	L13110489-11	011	40/50	1		11/13/13 02:19
203	T2.111313.022302	L1311048911-DL	L1311048911DL		5		11/13/13 02:23
204	T2.111313.022632	L1311048911-PS	L1311048911PS		1		11/13/13 02:26

 Approved: November 13, 2013

Maren Berry

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Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111213T2.1
Analyst1: SLP Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48150

Calibration Std: STD61056 ICV Std: STD61058 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61057 LLCCV: Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.111313.022959	L13110489-14	019	40/50	1		11/13/13 02:29
206	T2.111313.023332	WG452550-48	CCV		1		11/13/13 02:33
207	T2.111313.023646	WG452550-49	CCB		1		11/13/13 02:36
208	T2.111313.024022	L13110489-20	025	40/50	1		11/13/13 02:40
209	T2.111313.024358	L13110489-25	DBC13	40/50	1		11/13/13 02:43
210	T2.111313.024735	L13110489-27	DCR-6	40/50	1		11/13/13 02:47
211	T2.111313.025104	L13110489-29	DHF-4	40/50	1		11/13/13 02:51
212	T2.111313.025439	L13110489-31	DNR-9	40/50	1		11/13/13 02:54
213	T2.111313.025809	L13110489-33	DRR-11	40/50	1		11/13/13 02:58
214	T2.111313.030138	L13110489-35	DUBC-2	40/50	1		11/13/13 03:01
215	T2.111313.030506	L13110489-37	UBC12		1	WG452454-03	11/13/13 03:05
216	T2.111313.030842	L131104893-7S	L1311048937S	40/50	1		11/13/13 03:08
217	T2.111313.031209	L13110489-40	UHF-3	40/50	1		11/13/13 03:12
218	T2.111313.031548	WG452550-50	CCV		1		11/13/13 03:15
219	T2.111313.031903	WG452550-51	CCB		1		11/13/13 03:19
220	T2.111313.032238	L13110489-42	URR10	40/50	1		11/13/13 03:22
221	T2.111313.032616	L13110489-44	UUBC-1	40/50	1		11/13/13 03:26
222	T2.111313.032944	L13110520-06	AMO-IS-01S	40/50	1		11/13/13 03:29
223	T2.111313.033313	L13110533-02	S200995-AL SITE \#1	40/50	1		11/13/13 03:33
224	T2.111313.033641	L13110535-02	FC-81	40/50	1		11/13/13 03:36
225	T2.111313.034010	L13110535-04	FC-193	40/50	1		11/13/13 03:40
226	T2.111313.034344	WG452550-52	CCV		1		11/13/13 03:43
227	T2.111313.034658	WG452550-53	CCB		1		11/13/13 03:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes
27			Due to typographical error, the sample was incorrectly analyzed as L13110476-01. The correct sample ID is L13110476-02. SLP	

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Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111313T2.1R.TXT
Analyst1: QX Analyst2: JYH
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48164

Calibration Std: STD61325 ICV Std: STD61061 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61324 LLCCV: STD60905 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452495,452492,452461,452633,452634

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.111313.090758	WG452682-01	Calibration Point		1		11/13/13 09:07
2	T2.111313.091154	WG452682-02	Calibration Point		1		11/13/13 09:11
3	T2.111313.091527	WG452682-03	Calibration Point		1		11/13/13 09:15
4	T2.111313.091856	WG452682-04	Calibration Point		1		11/13/13 09:18
5	T2.111313.092212	WG452682-05	Calibration Point		1		11/13/13 09:22
6	T2.111313.092527	WG452682-06	ICV		1		11/13/13 09:25
7	T2.111313.092843	WG452682-07	ICB		1		11/13/13 09:28
8	T2.111313.093538	WG452682-08	Initial Calibration Verification		1		11/13/13 09:35
9	T2.111313.094335	WG452682-09	Initial Calib Blank		1		11/13/13 09:43
10	T2.111313.094710	WG452682-10	Interference Check		1		11/13/13 09:47
11	T2.111313.095033	WG452682-11	Interference Check		1		11/13/13 09:50
12	T2.111313.095355	WG452682-12	CCV		1		11/13/13 09:53
13	T2.111313.095711	WG452682-13	CCB		1		11/13/13 09:57
14	T2.111313.101905	WG452682-14	Low Level Initial Calibration V		1		11/13/13 10:19
15	T2.111313.102236	WG452682-15	Low Level Initial Calibration V		1		11/13/13 10:22
16	T2.111313.102746	WG452362-02	Method/Prep Blank	40/50	1		11/13/13 10:27
17	T2.111313.103117	WG452362-03	Laboratory Control S	40/50	1		11/13/13 10:31
18	T2.111313.103434	WG452362-04	Filter Blank		1		11/13/13 10:34
19	T2.111313.103807	L13110363-02	FLUME	40/50	1		11/13/13 10:38
20	T2.111313.104142	L13110363-04	201-EFF	40/50	1		11/13/13 10:41
21	T2.111313.104518	L13110363-06	202-EFF	40/50	1		11/13/13 10:45
22	T2.111313.104854	L13110363-08	EMERGENCY BASIN	40/50	1		11/13/13 10:48
23	T2.111313.105228	WG452495-01	Post Digestion Spike		1	L13110363-08	11/13/13 10:52
24	T2.111313.105553	L13110363-08	EMERGENCY BASIN		5		11/13/13 10:55
25	T2.111313.105929	WG452495-02	Serial Dilution		25	L13110363-08	11/13/13 10:59
26	T2.111313.110303	WG452682-16	CCV		1		11/13/13 11:03
27	T2.111313.110635	WG452682-17	CCB		1		11/13/13 11:06
28	T2.111313.111010	L13110476-01	13029-FT2-03	40/50	10		11/13/13 11:10
29	T2.111313.111342	L13110505-01	FCMW08-131106	40/50	1		11/13/13 11:13
30	T2.111313.111726	L13110505-02	VDGMW03-131106	40/50	1		11/13/13 11:17
31	T2.111313.112119	L13110505-03	8001MW56-131106	40/50	1		11/13/13 11:21
32	T2.111313.112459	L13110505-04	VDGMW05-131106	40/50	1		11/13/13 11:24
33	T2.111313.112852	L13110505-05	8001DP36-131105	40/50	1		11/13/13 11:28
34	T2.111313.113231	L13110505-06	8001DP59-131105	40/50	1		11/13/13 11:32

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111313T2.1R.TXT
Analyst1: QX Analyst2: JYH
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48164

Calibration Std: STD61325 ICV Std: STD61061 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61324 LLCCV: STD60905 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452495,452492,452461,452633,452634

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.111313.113616	WG452495-01	Post Digestion Spike		1	L13110363-08	11/13/13 11:36
36	T2.111313.114029	L13110514-01	8001DP57-131107	40/50	1		11/13/13 11:40
37	T2.111313.114832	L13110505-01	FCMW08-131106	40/50	100		11/13/13 11:48
38	T2.111313.115210	WG452682-18	CCV		1		11/13/13 11:52
39	T2.111313.115525	WG452682-19	CCB		1		11/13/13 11:55
40	T2.111313.115902	L13110518-03	AV-OU7-EB1-110713	40/50	1		11/13/13 11:59
41	T2.111313.120234	L13110557-01	LF003-SW0312-02	40/50	1		11/13/13 12:02
42	T2.111313.120602	L13110557-02	LF003-SW0312-02DUP	40/50	1		11/13/13 12:06
43	T2.111313.120930	WG452362-01	Reference Sample		1	L13110557-03	11/13/13 12:09
44	T2.111313.121257	WG452362-05	Matrix Spike	40/50	1	L13110557-03	11/13/13 12:12
45	T2.111313.121614	WG452362-06	Matrix Spike Duplica	40/50	1	L13110557-03	11/13/13 12:16
46	T2.111313.121940	L13110505-02	VDGMW03-131106	40/50	100		11/13/13 12:19
47	T2.111313.122312	L13110505-03	8001MW56-131106	40/50	100		11/13/13 12:23
48	T2.111313.122645	L13110505-04	VDGMW05-131106	40/50	100		11/13/13 12:26
49	T2.111313.123016	L13110505-05	8001DP36-131105	40/50	100		11/13/13 12:30
50	T2.111313.123352	WG452682-20	CCV		1		11/13/13 12:33
51	T2.111313.123707	WG452682-21	CCB		1		11/13/13 12:37
52	T2.111313.124044	L13110600-01	DP005-SW0513-02	40/50	1		11/13/13 12:40
53	T2.111313.124413	L13110600-02	DP005-SW0514-02	40/50	1		11/13/13 12:44
54	T2.111313.124743	L13110601-01	LF003-MW0309-02	40/50	1		11/13/13 12:47
55	T2.111313.125122	L13110505-06	8001DP59-131105	40/50	100		11/13/13 12:51
56	T2.111313.125452	L13110514-01	8001DP57-131107	40/50	100		11/13/13 12:54
57	T2.111313.125823	L13110363-02	FLUME	40/50	100		11/13/13 12:58
58	T2.111313.130155	L13110363-04	201-EFF	40/50	100		11/13/13 13:01
59	T2.111313.130526	L13110363-06	202-EFF	40/50	100		11/13/13 13:05
60	T2.111313.130859	L13110363-08	EMERGENCY BASIN	40/50	100		11/13/13 13:08
61	T2.111313.131232	L13110374-02	M-2	40/50	100		11/13/13 13:12
62	T2.111313.131609	WG452682-22	CCV		1		11/13/13 13:16
63	T2.111313.131926	WG452682-23	CCB		1		11/13/13 13:19
64	T2.111313.132303	WG452682-24	Low Level Continuing Calibra		1		11/13/13 13:23
65	T2.111313.132633	WG452682-25	Low Level Continuing Calibra		1		11/13/13 13:26
66	T2.111313.133004	L13110465-01	MPL 29-1113-1	40/50	10		11/13/13 13:30
67	T2.111313.133336	L13110465-02	MPL 7-1113-1	40/50	10		11/13/13 13:33
68	T2.111313.133707	L13110465-03	MPL 5-1113-1	40/50	10		11/13/13 13:37

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Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111313T2.1R.TXT
Analyst1: QX Analyst2: JYH
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48164

Calibration Std: STD61325 ICV Std: STD61061 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61324 LLCCV: STD60905 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452495,452492,452461,452633,452634

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.111313.134041	WG452682-26	CCV		1		11/13/13 13:40
70	T2.111313.134357	WG452682-27	CCB		1		11/13/13 13:43
71	T2.111313.134731	WG452575-02	Method/Prep Blank	40/50	1		11/13/13 13:47
72	T2.111313.135103	WG452244-01	Fluid Blank		1		11/13/13 13:51
73	T2.111313.135435	WG452575-03	Laboratory Control S	40/50	1		11/13/13 13:54
74	T2.111313.135752	WG452575-01	Reference Sample		1	L13110584-01	11/13/13 13:57
75	T2.111313.140122	WG452575-04	Matrix Spike	40/50	1	L13110584-01	11/13/13 14:01
76	T2.111313.140439	WG452575-05	Matrix Spike Duplica	40/50	1	L13110584-01	11/13/13 14:04
77	T2.111313.140754	L13110410-01	LF6-7SW05	40/50	1		11/13/13 14:07
78	T2.111313.141119	L13110518-02	AV-OU7-STP-1-C1-110713	40/50	1		11/13/13 14:11
79	T2.111313.141457	WG452633-01	Post Digestion Spike		1	L13110518-02	11/13/13 14:14
80	T2.111313.141823	WG452633-02	Serial Dilution		5	L13110518-02	11/13/13 14:18
81	T2.111313.142159	WG452682-28	CCV		1		11/13/13 14:21
82	T2.111313.142514	WG452682-29	CCB		1		11/13/13 14:25
83	T2.111313.142851	L13110410-02	LF6-7SW05	40/50	1		11/13/13 14:28
84	T2.111313.143217	L13110510-01	IX INLET	40/50	1		11/13/13 14:32
85	T2.111313.143546	L13110510-02	IX OUTLET	40/50	1		11/13/13 14:35
86	T2.111313.143916	L13110510-03	2ND STAGE PERM CATE	40/50	1		11/13/13 14:39
87	T2.111313.144246	L13110510-04	1ST STAGE FEED	40/50	1		11/13/13 14:42
88	T2.111313.144616	L13110598-01	SS007-SW0709-02	40/50	1		11/13/13 14:46
89	T2.111313.144943	L13110598-02	SS007-SW0710-02	40/50	1		11/13/13 14:49
90	T2.111313.145311	L13110617-01	SS007-MWN769-02	40/50	1		11/13/13 14:53
91	T2.111313.145637	L13110617-02	SS007-MWN741-02	40/50	1		11/13/13 14:56
92	T2.111313.150004	L13110617-03	SS007-MWN738-02	40/50	1		11/13/13 15:00
93	T2.111313.150333	WG452682-30	CCV		1		11/13/13 15:03
94	T2.111313.150648	WG452682-31	CCB		1		11/13/13 15:06
95	T2.111313.151023	L13110617-04	SS007-MWN740-02	40/50	1		11/13/13 15:10
96	T2.111313.151351	L13110682-01	WC-1	40/50	1		11/13/13 15:13
97	T2.111313.151720	L13110682-04	NR-2	40/50	1		11/13/13 15:17
98	T2.111313.152048	L13110682-06	PRO-2	40/50	1		11/13/13 15:20
99	T2.111313.152417	L13110682-10	PRC-2	40/50	1		11/13/13 15:24
100	T2.111313.152746	WG452682-32	CCV		1		11/13/13 15:27
101	T2.111313.153101	WG452682-33	CCB		1		11/13/13 15:31
102	T2.111313.153434	WG452564-03	Method/Prep Blank	40/50	1		11/13/13 15:34

 Approved: November 14, 2013

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111313T2.1R.TXT
Analyst1: QX Analyst2: JYH
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48164

Calibration Std: STD61325 ICV Std: STD61061 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61324 LLCCV: STD60905 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452495,452492,452461,452633,452634

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.111313.153806	WG452564-04	Laboratory Control S	40/50	1		11/13/13 15:38
104	T2.111313.154126	WG452564-01	Reference Sample		1	L13110489-36	11/13/13 15:41
105	T2.111313.154502	WG452564-05	Duplicate	40/50	1	L13110489-36	11/13/13 15:45
106	T2.111313.154839	WG452564-06	Matrix Spike	40/50	1	L13110489-36	11/13/13 15:48
107	T2.111313.155206	L13110489-39	UHF-3	40/50	1		11/13/13 15:52
108	T2.111313.155544	L13110489-41	URR10	40/50	1		11/13/13 15:55
109	T2.111313.155921	L13110489-43	UUBC-1	40/50	1		11/13/13 15:59
110	T2.111313.160250	WG452634-01	Post Digestion Spike		1	L13110489-43	11/13/13 16:02
111	T2.111313.160608	WG452634-02	Serial Dilution		5	L13110489-43	11/13/13 16:06
112	T2.111313.160942	WG452682-34	CCV		1		11/13/13 16:09
113	T2.111313.161255	WG452682-35	CCB		1		11/13/13 16:12
114	T2.111313.161630	L13110494-45	UBAS-PPC	40/50	1		11/13/13 16:16
115	T2.111313.162006	L13110497-01	UDC1	40/50	1		11/13/13 16:20
116	T2.111313.162334	L13110497-03	DDC2	40/50	1		11/13/13 16:23
117	T2.111313.162703	WG452564-02	Reference Sample		1	L13110497-06	11/13/13 16:27
118	T2.111313.163057	WG452564-07	Matrix Spike	40/50	1	L13110497-06	11/13/13 16:30
119	T2.111313.163441	L13110508-01	1311-112-1	40/50	1		11/13/13 16:34
120	T2.111313.163811	L13110545-01	13K0556-01	40/50	1		11/13/13 16:38
121	T2.111313.164135	L13110546-01	13K0554-01	40/50	1		11/13/13 16:41
122	T2.111313.164500	L13110547-01	13K0553-01	40/50	1		11/13/13 16:45
123	T2.111313.164824	L13110549-01	13K0557-01	40/50	1		11/13/13 16:48
124	T2.111313.165154	WG452682-36	CCV		1		11/13/13 16:51
125	T2.111313.165509	WG452682-37	CCB		1		11/13/13 16:55
126	T2.111313.165843	L13110555-01	008-SW-110613	40/50	1		11/13/13 16:58
127	T2.111313.170207	L13110577-01	13K0562-01	40/50	1		11/13/13 17:02
128	T2.111313.170536	L13110577-02	13K0562-04	40/50	1		11/13/13 17:05
129	T2.111313.170905	L13110577-03	13K0562-05		1		11/13/13 17:09
130	T2.111313.171234	L13110624-01	13K0303-01	40/50	1		11/13/13 17:12
131	T2.111313.171608	L13110699-04	OUTFALL 003/COMP	40/50	1		11/13/13 17:16
132	T2.111313.171946	WG452682-38	CCV		1		11/13/13 17:19
133	T2.111313.172301	WG452682-39	CCB		1		11/13/13 17:23

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 4 Approved: November 14, 2013

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 111313T2.1R.TXT
Analyst1: QX Analyst2: JYH
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 48164

Calibration Std: STD61325 ICV Std: STD61061 Post Spike: STD60181
ICSA: STD60853 ICSAB: STD61198 Int. Std: RGT27583
CCV: STD61324 LLCCV: STD60905 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 452495,452492,452461,452633,452634

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time

Seq.	Rerun	Dil.	Reason	Analytes
24			Missing work group \#, should be wg452495-02. - QX	
25			Missing work group \#, should be wg452495-02. - QX	
72			Typographical error, should be wg452244-01. - QX	
127			Typograhpical error, should be L13110577-01. - QX	
128			Typographical error, should be L13110577-02. - QX	
129			Typographical error, should be L13110577-03. - QX	

Page: 5 Approved: November 14, 2013

Maren Berry

Microbac Laboratories Inc.

Data Checklist

Date: 12-NOV-2013
Analyst: SLP
Analyst: NA
Method: 6010B/6010C/200.7
Instrument: ICP-THERMO2
Curve Workgroup: 452550
Runlog ID: 57053
Analytical Workgroups: 452300, 452455, 452461, 452492, 452498, 452500, 452502, 452504

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0415, 0476, 0320, 0465, 0469, 0484
Client Forms	X
Level X	
Level 3	
Level 4	0476, 0320, 0465
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	SLP
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
13-NOV-2013

Secondary Reviewer:
13-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-13-2013 17:49:29

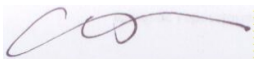
Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2013
Analyst: QX
Analyst: JYH
Method: 6010B/6010C/200.7
Instrument: ICP-THERMO2
Curve Workgroup: WG452682
Runlog ID: 57078
Analytical Workgroups: 452495,452492,452461,452633,452634

Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	X
Client Forms	X
Level X	363,374,476,510,682,489,494,497
Level X	508,545,546,547,549,555,624,699
Level 3	
Level 4	505,514,518,557,600,601,584,598
Level 4	410,617,465
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	QX
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
14-NOV-2013



Secondary Reviewer:
14-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-14-2013 18:26:23

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6010B AAB#: WG452461

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/11/2013	4.1	180		11/13/13	6.1	180	
MPL 29-1113-1	01	11/07/13					11/11/2013	4.1	180		11/12/13	5.3	180	
MPL 7-1113-1	02	11/07/13					11/11/2013	4	180		11/13/13	6	180	
MPL 7-1113-1	02	11/07/13					11/11/2013	4	180		11/12/13	5.2	180	
MPL 5-1113-1	03	11/07/13					11/11/2013	3.9	180		11/13/13	5.9	180	
MPL 5-1113-1	03	11/07/13					11/11/2013	3.9	180		11/12/13	5.1	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3200199
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG452461
Blank File ID:	T2.111213.164525	Blank Sample ID:	WG452241-02
Prep Date:	11/11/13 12:53	Instrument ID:	ICP-THERMO2
Analyzed Date:	11/12/13 16:45	Method:	6010B
Analyst:	SLP		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452241-03	T2.111213.164857	11/12/13 16:48	01
MPL 29-1113-1	L13110465-01	T2.111213.175739	11/12/13 17:57	01
MPL 7-1113-1	L13110465-02	T2.111213.180801	11/12/13 18:08	01
MPL 5-1113-1	L13110465-03	T2.111213.181131	11/12/13 18:11	01
MPL 29-1113-1	L13110465-01	T2.111313.133004	11/13/13 13:30	DL01
MPL 7-1113-1	L13110465-02	T2.111313.133336	11/13/13 13:33	DL01
MPL 5-1113-1	L13110465-03	T2.111313.133707	11/13/13 13:37	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 3200200
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/11/13 12:53 Sample ID: WG452241-02
Instrument ID: ICP-THERMO2 Run Date: 11/12/13 16:45 Prep Method: 3015
File ID: T2.111213.164525 Analyst: SLP Method: 6010B
Workgroup (AAB#): WG452461 Matrix: Water Units: mg/L
Contract #: Cal ID: ICP-TH-12-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Beryllium, Total	0.00100	0.00200	0.00100	1	U
Calcium, Total	0.250	0.500	0.250	1	U
Magnesium, Total	0.250	0.500	0.250	1	U
Potassium, Total	0.500	1.00	0.500	1	U
Sodium, Total	0.250	0.500	0.250	1	U
Tin, Total	0.250	0.500	0.250	1	U
Vanadium, Total	0.00500	0.0100	0.00500	1	U
Zinc, Total	0.0100	0.0200	0.0100	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3200201
14-NOV-2013 09:23

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Run Date:** 11/12/2013 **Sample ID:** WG452241-03
Instrument ID: ICP-THERMO2 **Run Time:** 16:48 **Prep Method:** 3015
File ID: T2.111213.164857 **Analyst:** SLP **Method:** 6010B
Workgroup (AAB#): WG452461 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD61081 **Cal ID:** ICP-TH-12-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Beryllium, Total	0.0313	0.0305	97.6	80 - 120	
Calcium, Total	6.25	6.11	97.7	80 - 120	
Magnesium, Total	6.25	6.09	97.4	80 - 120	
Potassium, Total	31.3	29.8	95.4	80 - 120	
Sodium, Total	31.3	29.8	95.3	80 - 120	
Tin, Total	0.625	0.641	103	80 - 120	
Vanadium, Total	0.625	0.617	98.7	80 - 120	
Zinc, Total	0.625	0.613	98.1	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 3200202
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum:L13110465 Cal ID:ICP-THERMO2- Worknum:WG452461

Instrument ID:ICP-THERMO2 Contract #: Method:6010B

Parent ID:WG452241-01 File ID:T2.111213.165213 Dil:1 Matrix:WATER

Sample ID:WG452241-04 MS File ID:T2.111213.165542 Dil:1 Units:mg/L

Sample ID:WG452241-05 MSD File ID:T2.111213.165859 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Beryllium	ND	0.0313	0.0305	97.6	0.0313	0.0304	97.1	0.493	80 - 120	20	
Calcium	56.6	6.25	64.1	119	6.25	62.0	86.2	3.29	80 - 120	20	
Magnesium	7.92	6.25	14.1	99.4	6.25	13.9	95.0	1.99	80 - 120	20	
Potassium	0.708	31.3	31.3	98.0	31.3	31.4	98.1	0.0638	80 - 120	20	
Sodium	3.20	31.3	34.3	99.4	31.3	34.2	99.3	0.102	80 - 120	20	
Tin	ND	0.625	0.660	106	0.625	0.607	97.1	8.33	80 - 120	20	
Vanadium	ND	0.625	0.619	99.1	0.625	0.614	98.2	0.905	80 - 120	20	
Zinc	ND	0.625	0.616	98.5	0.625	0.617	98.7	0.168	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID: 3200203

Report generated 11/14/2013 09:23

Microbac Laboratories Inc.
Serial Dilution Report

Login: L13110465 **Worknum:** WG452461
Instrument: ICP-THERMO2 **Method:** 6010B
Serial Dil: WG452461-02 **File ID:** T2.111213.170543 **Dil:** 5 **Units:** mg/L
Sample: L13110320-15 **File ID:** T2.111213.170215 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Beryllium	ND	U	ND	U		
Calcium	44.8		45.9		2.49	
Magnesium	6.34	X	6.69	X	5.58	
Potassium	0.600	F	ND	U		
Sodium	2.63	X	2.64	X	0.28	
Tin	ND	U	ND	U		
Vanadium	ND	U	ND	U		
Zinc	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 50 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 3200197
11/14/2013 09:23

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L13110465 **Worknum:** WG452461
Instrument ID: ICP-THERMO2 **Method:** 6010B
Post Spike ID: WG452461-01 **File ID:** T2.111213.170914 **Dil:** 1 **Units:** mg/L
Sample ID: L13110320-15 **File ID:** T2.111213.170215 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
BERYLLIUM	0.0249		0	U	.025	99.8	75 - 125	
CALCIUM	46.3		44.8		5	119.0	75 - 125	
MAGNESIUM	10.7		6.34		5	99.2	75 - 125	
POTASSIUM	25.0		0.600	F	25	97.9	75 - 125	
SODIUM	26.9		2.63		25	98.0	75 - 125	
TIN	0.498		0	U	.5	99.5	75 - 125	
VANADIUM	0.504		0	U	.5	100.7	75 - 125	
ZINC	0.497		0	U	.5	99.4	75 - 125	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 3200198
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L13110465**	Workgroup (AAB#):	**WG452461**
Analytical Method:	**6010B**	Instrument ID:	**ICP-THERMO2**
ICAL Worknum:	**WG452550**	Initial Calibration Date:	**12-NOV-2013 14:44**

	WG452550-01		WG452550-02		WG452550-03		WG452550-04		WG452550-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
BERYLLIUM	0	0.000400	.0005	0.00282	.001	0.00542	.05	0.315	.1	0.638	.999982	
CALCIUM	0	-0.00166	.1	-0.000200	.2	0.00142	10	0.170	20	0.343	.999953	
MAGNESIUM	0	0.0000600	.1	0.000520	.2	0.000880	10	0.0494	20	0.0987	.999961	
POTASSIUM	0	0.00246	.5	0.00709	1	0.0114	50	0.556	100	1.12	.999994	
SODIUM	0	-0.00585	.5	0.00891	1	0.0253	50	1.97	100	3.95	.999993	
TIN	0	0.00101	.01	0.00144	.02	0.00197	1	0.0612	2	0.118	.999892	
VANADIUM	0	0.000320	.01	0.00758	.02	0.0150	1	0.876	2	1.75	.999991	
ZINC	0	-0.0000900	.01	0.00281	.02	0.00592	1	0.313	2	0.620	.999838	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 3200206
Report generated: 14-NOV-2013 09:23

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L13110465**	Workgroup (AAB#):	**WG452461**
Analytical Method:	**6010B**	Instrument ID:	**ICP-THERMO2**
ICAL Worknum:	**WG452682**	Initial Calibration Date:	**13-NOV-2013 09:22**

	WG452682-01		WG452682-02		WG452682-03		WG452682-04		WG452682-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
BERYLLIUM	0	0.000280	.0005	0.00320	.001	0.00611	.05	0.356	.1	0.722	.999975	
CALCIUM	0	-0.00192	.1	-0.000370	.2	0.00124	10	0.193	20	0.391	.999994	
MAGNESIUM	0	0.0000300	.1	0.000510	.2	0.000980	10	0.0552	20	0.111	.999976	
POTASSIUM	0	0.00155	.5	0.00595	1	0.0108	50	0.603	100	1.22	.999959	
SODIUM	0	-0.00298	.5	0.0126	1	0.0284	50	1.95	100	3.94	.999984	
TIN	0	0.000490	.01	0.00108	.02	0.00162	1	0.0660	2	0.129	.999916	
VANADIUM	0	0.000120	.01	0.00858	.02	0.0171	1	0.990	2	1.98	.999979	
ZINC	0	-0.000430	.01	0.00248	.02	0.00550	1	0.345	2	0.689	.999981	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 3200206
Report generated: 14-NOV-2013 09:23

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-07
Instrument ID: ICP-THERMO2 Run Time: 14:51 Method: 6010B
File ID: T2.111213.145120 Analyst: SLP Units: mg/L
Workgroup (AAB#): WG452461 Cal ID: ICP-THERI - 12-NOV-13
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
BERYLLIUM	.0008	.0016	.0008	U
CALCIUM	.2	.4	.2	U
MAGNESIUM	.2	.4	.2	U
POTASSIUM	.4	.8	.4	U
SODIUM	.2	.4	.2	U
TIN	.2	.4	.2	U
VANADIUM	.004	.008	.004	U
ZINC	.008	.016	.008	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3200208
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-09
Instrument ID: ICP-THERMO2 Run Time: 09:43 Method: 6010B
File ID: T2.111313.094335 Analyst: QX Units: mg/L
Workgroup (AAB#): WG452461 Cal ID: ICP-THERI - 13-NOV-13
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
BERYLLIUM	.0008	.0016	.0008	U
CALCIUM	.2	.4	.2	U
MAGNESIUM	.2	.4	.2	U
POTASSIUM	.4	.8	.4	U
SODIUM	.2	.4	.2	U
TIN	.2	.4	.2	U
VANADIUM	.004	.008	.004	U
ZINC	.008	.016	.008	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3200208
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-11

Instrument ID: ICP-THERMO2 Run Time: 15:04 Method: 6010B

File ID: T2.111213.150453 Analyst: SLP Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3200211
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-17

Instrument ID: ICP-THERMO2 Run Time: 16:41 Method: 6010B

File ID: T2.111213.164149 Analyst: SLP Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-19

Instrument ID: ICP-THERMO2 Run Time: 17:22 Method: 6010B

File ID: T2.111213.172247 Analyst: SLP Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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PDF File ID: 3200211
Report generated 11/14/2013 09:23

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-21

Instrument ID: ICP-THERMO2 Run Time: 18:04 Method: 6010B

File ID: T2.111213.180424 Analyst: SLP Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-23

Instrument ID: ICP-THERMO2 Run Time: 18:32 Method: 6010B

File ID: T2.111213.183212 Analyst: SLP Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-13

Instrument ID: ICP-THERMO2 Run Time: 09:57 Method: 6010B

File ID: T2.111313.095711 Analyst: QX Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 13-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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PDF File ID: 3200211
Report generated 11/14/2013 09:23

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-23

Instrument ID: ICP-THERMO2 Run Time: 13:19 Method: 6010B

File ID: T2.111313.131926 Analyst: QX Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 13-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3200211
Report generated 11/14/2013 09:23

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-27

Instrument ID: ICP-THERMO2 Run Time: 13:43 Method: 6010B

File ID: T2.111313.134357 Analyst: QX Units: mg/L

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 13-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Beryllium	0.000800	0.00160	0.000800	U
Calcium	0.200	0.400	0.200	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Tin	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U
Zinc	0.00800	0.0160	0.00800	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3200211
Report generated 11/14/2013 09:23

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INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-06
Instrument ID: ICP-THERMO2 Run Time: 14:48 Method: 6010B
File ID: T2.111213.144805 Analyst: SLP Units: mg/L
Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Beryllium		.05	0.0496	99.1	90 - 110	
Calcium		10	9.97	99.7	90 - 110	
Magnesium		10	10.2	102	90 - 110	
Potassium		50	50.9	102	90 - 110	
Sodium		50	51.1	102	90 - 110	
Tin		1	1.06	106	90 - 110	
Vanadium		1	0.992	99.2	90 - 110	
Zinc		1	1.04	104	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3200207
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-08
Instrument ID: ICP-THERMO2 Run Time: 09:35 Method: 6010B
File ID: T2.111313.093538 Analyst: QX Units: mg/L
Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 13-NOV-13
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Beryllium		.05	0.0508	102	90 - 110	
Calcium		10	10.1	101	90 - 110	
Magnesium		10	10.3	103	90 - 110	
Potassium		50	51.5	103	90 - 110	
Sodium		50	50.7	101	90 - 110	
Tin		1	1.06	106	90 - 110	
Vanadium		1	1.01	101	90 - 110	
Zinc		1	1.03	103	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3200207
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-10

Instrument ID: ICP-THERMO2 Run Time: 15:01 Method: 6010B

File ID: T2.111213.150138 Analyst: SLP QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0495	mg/L	98.9	90 - 110		
Calcium		10.0	10.0	mg/L	100	90 - 110		
Magnesium		10.0	10.1	mg/L	101	90 - 110		
Potassium		50.0	50.1	mg/L	100	90 - 110		
Sodium		50.0	50.6	mg/L	101	90 - 110		
Tin		1.00	1.02	mg/L	102	90 - 110		
Vanadium		1.00	1.00	mg/L	100	90 - 110		
Zinc		1.00	1.02	mg/L	102	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3200210

Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-16

Instrument ID: ICP-THERMO2 Run Time: 16:38 Method: 6010B

File ID: T2.111213.163834 Analyst: SLP QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0498	mg/L	99.6	90 - 110		
Calcium		10.0	10.0	mg/L	100	90 - 110		
Magnesium		10.0	10.1	mg/L	101	90 - 110		
Potassium		50.0	50.1	mg/L	100	90 - 110		
Sodium		50.0	50.0	mg/L	100	90 - 110		
Tin		1.00	1.02	mg/L	102	90 - 110		
Vanadium		1.00	1.01	mg/L	101	90 - 110		
Zinc		1.00	1.01	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3200210

Report generated 11/14/2013 09:23

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-18

Instrument ID: ICP-THERMO2 Run Time: 17:19 Method: 6010B

File ID: T2.111213.171932 Analyst: SLP QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0495	mg/L	99.1	90 - 110		
Calcium		10.0	9.99	mg/L	99.9	90 - 110		
Magnesium		10.0	10.0	mg/L	100	90 - 110		
Potassium		50.0	50.5	mg/L	101	90 - 110		
Sodium		50.0	51.3	mg/L	103	90 - 110		
Tin		1.00	1.03	mg/L	103	90 - 110		
Vanadium		1.00	1.00	mg/L	100	90 - 110		
Zinc		1.00	1.02	mg/L	102	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3200210

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-20

Instrument ID: ICP-THERMO2 Run Time: 18:01 Method: 6010B

File ID: T2.111213.180110 Analyst: SLP QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0498	mg/L	99.6	90 - 110		
Calcium		10.0	10.0	mg/L	100	90 - 110		
Magnesium		10.0	10.2	mg/L	102	90 - 110		
Potassium		50.0	50.2	mg/L	100	90 - 110		
Sodium		50.0	51.5	mg/L	103	90 - 110		
Tin		1.00	1.03	mg/L	103	90 - 110		
Vanadium		1.00	1.00	mg/L	100	90 - 110		
Zinc		1.00	1.02	mg/L	102	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3200210

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452550-22

Instrument ID: ICP-THERMO2 Run Time: 18:28 Method: 6010B

File ID: T2.111213.182856 Analyst: SLP QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0503	mg/L	101	90 - 110		
Calcium		10.0	10.0	mg/L	100	90 - 110		
Magnesium		10.0	10.2	mg/L	102	90 - 110		
Potassium		50.0	50.4	mg/L	101	90 - 110		
Sodium		50.0	51.1	mg/L	102	90 - 110		
Tin		1.00	1.03	mg/L	103	90 - 110		
Vanadium		1.00	1.01	mg/L	101	90 - 110		
Zinc		1.00	1.03	mg/L	103	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3200210

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-12

Instrument ID: ICP-THERMO2 Run Time: 09:53 Method: 6010B

File ID: T2.111313.095355 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 13-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0504	mg/L	101	90 - 110		
Calcium		10.0	10.2	mg/L	102	90 - 110		
Magnesium		10.0	10.2	mg/L	102	90 - 110		
Potassium		50.0	50.8	mg/L	102	90 - 110		
Sodium		50.0	50.8	mg/L	102	90 - 110		
Tin		1.00	1.05	mg/L	105	90 - 110		
Vanadium		1.00	1.02	mg/L	102	90 - 110		
Zinc		1.00	1.02	mg/L	102	90 - 110		

* Exceeds LIMITS Criteria

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CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-22

Instrument ID: ICP-THERMO2 Run Time: 13:16 Method: 6010B

File ID: T2.111313.131609 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 13-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0494	mg/L	98.7	90 - 110		
Calcium		10.0	9.88	mg/L	98.8	90 - 110		
Magnesium		10.0	9.95	mg/L	99.5	90 - 110		
Potassium		50.0	51.2	mg/L	102	90 - 110		
Sodium		50.0	48.9	mg/L	97.8	90 - 110		
Tin		1.00	1.06	mg/L	106	90 - 110		
Vanadium		1.00	1.01	mg/L	101	90 - 110		
Zinc		1.00	1.03	mg/L	103	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452682-26

Instrument ID: ICP-THERMO2 Run Time: 13:40 Method: 6010B

File ID: T2.111313.134041 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG452461 Cal ID: ICP-TH - 13-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Beryllium		0.0500	0.0503	mg/L	101	90 - 110		
Calcium		10.0	9.92	mg/L	99.2	90 - 110		
Magnesium		10.0	10.0	mg/L	100	90 - 110		
Potassium		50.0	51.4	mg/L	103	90 - 110		
Sodium		50.0	49.9	mg/L	99.8	90 - 110		
Tin		1.00	1.07	mg/L	107	90 - 110		
Vanadium		1.00	1.02	mg/L	102	90 - 110		
Zinc		1.00	1.03	mg/L	103	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3200210

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L13110465 **Workgroup (AAB#):** WG452461
Instrument ID: ICP-THERMO2 **Method:** 6010B
Sol. A : WG452550-08 **File ID:** T2.111213.145450 **Units:** mg/L
Sol. AB : WG452550-09 **File ID:** T2.111213.145815 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Beryllium	NS	-0.0000100	NS	0.250	0.240	96.0	
Calcium	250	243	97.2	250	244	97.6	
Magnesium	250	254	102	250	255	102	
Potassium	NS	0.0332	NS	5.00	5.17	103	
Sodium	NS	0.0234	NS	5.00	5.09	102	
Tin	NS	-0.0148	NS	NS	-0.0158	NS	
Vanadium	NS	0.00141	NS	0.250	0.250	100	
Zinc	NS	-0.00156	NS	0.500	0.478	95.6	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3200209
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L13110465 **Workgroup (AAB#):** WG452461
Instrument ID: ICP-THERMO2 **Method:** 6010B
Sol. A : WG452682-10 **File ID:** T2.111313.094710 **Units:** mg/L
Sol. AB : WG452682-11 **File ID:** T2.111313.095033 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Beryllium	NS	0.0000200	NS	0.250	0.242	96.8	
Calcium	250	249	99.6	250	247	98.8	
Magnesium	250	256	102	250	256	102	
Potassium	NS	-0.0111	NS	5.00	5.16	103	
Sodium	NS	0.0351	NS	5.00	5.15	103	
Tin	NS	-0.00586	NS	NS	-0.00669	NS	
Vanadium	NS	0.00129	NS	0.250	0.251	100	
Zinc	NS	-0.000240	NS	0.500	0.476	95.2	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3200209
Report generated 11/14/2013 09:23

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L13110465 **Date:** 12/28/2012
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.0000210	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0.00000500	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00756	0	-0.000140	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	-0.000660	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000390	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	-0.000690	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.0000360	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.00000100	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3200205
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L13110465 **Date:** 12/28/2012
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	CA	CD	CO	CR	CU
ALUMINUM	308.20	0	0	-0.000820	0	0
ANTIMONY	206.80	0	0	0	0.00950	0
ARSENIC	189.00	0	0	0	-0.00220	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0.00343	0	0
CADMIUM	228.80	0	0	-0.00247	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	-0.000160	0	0
COBALT	228.60	0	0	0	0.000108	0
COPPER	224.70	0	0	0.0000770	0	0
IRON	261.20	-0.000120	-0.00000600	0	-0.0000460	-0.0000290
LEAD	220.30	0	0	-0.0000930	-0.000172	0.000809
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	-0.0000910	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0.000100	0	0
PHOSPHORUS	214.90	0	0	0	0	0.00200
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.00000500	0	0	0	0
THALLIUM	190.80	0	0	0.00397	0.000276	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3200205
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L13110465 **Date:** 12/28/2012
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	FE	LI	MG	MN	MO
ALUMINUM	308.20	0	0	0	0	0.0153
ANTIMONY	206.80	0.0000560	0	0	0	0.000670
ARSENIC	189.00	-0.0000190	0	0	0	0.000107
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	-0.0000710	0	0	0	-0.00169
CADMIUM	228.80	0.00000600	0	0	0	0.0000220
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0.0000230	0	0	0.000160	0
COBALT	228.60	0	0	0	0	0.00300
COPPER	224.70	0.000320	0	0	0	0.00260
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	0	0.00110
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	-0.00190	-0.0110
MANGANESE	257.60	0	0	0.00000800	0	-0.0000720
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0.0000320	0	0	0	0
PHOSPHORUS	214.90	0.00120	0	0	0	0.00800
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0.000156
SILICON	212.40	0	0	0	0	0.0187
SILVER	328.00	0	0	0	0	-0.0000440
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	-0.000153
VANADIUM	292.40	-0.00000200	0	0	0	-0.00600
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	-0.0000300	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3200205
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L13110465 **Date:** 12/28/2012
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	NA	NI	PB	SB	SN
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	0	0	-0.00840
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	-0.000180	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0	0.000420	0	0	0
COPPER	224.70	0	-0.00400	0.00173	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0.000110	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3200205
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L13110465 **Date:** 12/28/2012
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	SR	TI	TL	V	ZN
ALUMINUM	308.20	0	0	0	0.00300	0
ANTIMONY	206.80	0	-0.000990	0	-0.00120	0
ARSENIC	189.00	0	0	0	0.000107	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	-0.00160	0	0.000170	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0	0	0.0000820	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0.0000550	0	-0.000120	-0.000740
COBALT	228.60	0	0.00200	-0.00120	0.0000200	0
COPPER	224.70	0	0.000460	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.000126	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	-0.00290	0	0	0
MANGANESE	257.60	0	0	0	-0.00000600	0
MOLYBDENUM	202.03	0	0	0	-0.000110	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	-0.00500	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	-0.00620	0	-0.00617	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	-0.00120	0	-0.00540	0
TIN	189.90	0	-0.00220	0	0	0
TITANIUM	337.30	0	0	0	0.000200	0
VANADIUM	292.40	0	0.00104	0	0	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3200205
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L13110465 **Date:** 12/28/2012
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	ZR
ALUMINUM	308.20	0
ANTIMONY	206.80	0
ARSENIC	189.00	0
BARIUM	455.40	0
BERYLLIUM	313.00	0
BORON	249.70	0
CADMIUM	228.80	0
CALCIUM	422.70	0
CHROMIUM	267.70	0
COBALT	228.60	0
COPPER	224.70	0
IRON	261.20	0
LEAD	220.30	0
LITHIUM	670.80	0
MAGNESIUM	279.10	0
MANGANESE	257.60	0
MOLYBDENUM	202.03	0
NICKEL	231.60	0
PHOSPHORUS	214.90	0.00200
POTASSIUM	766.40	0
SELENIUM	196.00	0
SILICON	212.40	0
SILVER	328.00	0
SODIUM	589.50	0
STRONTIUM	407.80	0
THALLIUM	190.80	0
TIN	189.90	0
TITANIUM	337.30	0
VANADIUM	292.40	
ZINC	206.20	0
ZIRCONIUM	339.20	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3200205
Report generated: 11/14/2013 09:23

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L13110465 **Date:** 11/08/2013
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	720.0
Antimony	10.00	90.0
Arsenic	10.00	90.0
Barium	10.00	72.0
Beryllium	15.00	4.5
Boron	10.00	90.0
Cadmium	10.00	9.0
Calcium	10.00	270.0
Chromium	10.00	18.0
Cobalt	10.00	9.0
Copper	10.00	180.0
Iron	5.00	810.0
Lead	10.00	180.0
Lithium	10.00	27.0
Magnesium	15.00	900.0
Manganese	15.00	18.0
Molybdenum	10.00	9.0
Nickel	10.00	45.0
Phosphorus	10.00	810.0
Potassium	10.00	360.0
Selenium	10.00	90.0
Silicon	10.00	81.0
Silver	5.00	4.5
Sodium	10.00	360.0
Strontium	10.00	4.5
Thallium	10.00	9.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	90.0
Zinc	10.00	45.0
Zirconium	10.00	36.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 3200204
Report generated: 11/14/2013 09:23

2.1.1.3 Raw Data

Sample Name: S0 Acquired: 11/12/2013 14:30:57 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00138**	**.00044**	**-.00003**	**.00049**	**.00308**	**.00040**	**-.00166**
Stddev	.00018	.00004	.00003	.00005	.00011	.00008	.00013
%RSD	12.886	9.8431	124.84	9.5935	3.4561	19.573	7.8882
#1	-.00134	.00043	-.00001	.00044	.00307	.00031	-.00170
#2	-.00158	.00049	-.00007	.00054	.00298	.00044	-.00177
#3	-.00123	.00040	-.00001	.00049	.00319	.00045	-.00152

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00001**	**-.00011**	**.00080**	**.00000**	**.00006**	**.00246**	**-.00217**
Stddev	.00004	.00004	.00030	.00004	.00002	.00001	.00026
%RSD	414.01	42.242	37.294	1786.1	37.955	.39359	11.887
#1	.00000	-.00014	.00051	-.00004	.00005	.00246	-.00215
#2	-.00005	-.00012	.00111	.00004	.00009	.00245	-.00192
#3	.00002	-.00006	.00078	.00000	.00005	.00246	-.00244

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00006**	**.00103**	**.00003**	**-.00585**	**-.00036**	**.00014**	**-.00049**
Stddev	.00009	.00003	.00001	.00035	.00004	.00003	.00005
%RSD	134.50	2.9708	44.299	5.9435	11.156	20.488	9.8033
#1	.00009	.00107	.00002	-.00601	-.00039	.00017	-.00050
#2	.00014	.00100	.00004	-.00546	-.00038	.00013	-.00044
#3	-.00003	.00103	.00003	-.00610	-.00032	.00012	-.00053

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00002**	**.00000**	**.00008**	**.00101**	**.00080**	**-.00052**	**-.00008**
Stddev	.00003	.00004	.00002	.00001	.00024	.00015	.00004
%RSD	141.22	1403.3	30.172	.82069	29.613	29.274	52.837
#1	-.00004	.00005	.00009	.00101	.00053	-.00069	-.00005
#2	-.00003	-.00001	.00005	.00100	.00098	-.00047	-.00005
#3	.00001	-.00003	.00009	.00100	.00089	-.00040	-.00012

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: S0 Acquired: 11/12/2013 14:30:57 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.00032**	**-.00009**	**-.00220**
Stddev	.00015	.00003	.00015
%RSD	47.788	29.371	6.8542
#1	.00019	-.00011	-.00237
#2	.00048	-.00006	-.00210
#3	.00027	-.00010	-.00213

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25608.**	**33684.**
Stddev	44.	126.
%RSD	.17222	.37271
#1	25642.	33812.
#2	25624.	33561.
#3	25558.	33678.

Approved: November 13, 2013

Sample Name: S1 Acquired: 11/12/2013 14:34:31 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca4226	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00045**	**.00118**	**.01062**	**.00282**	**-.00020**	**.00023**	**.00049**
Stddev	.00007	.00003	.00012	.00017	.00011	.00005	.00003
%RSD	15.037	2.1178	1.1396	5.9627	54.641	21.807	7.0828
#1	.00041	.00121	.01053	.00267	-.00014	.00029	.00052
#2	.00042	.00116	.01058	.00300	-.00032	.00020	.00047
#3	.00053	.00117	.01076	.00280	-.00013	.00020	.00046

Elem	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00256**	**.00037**	**.00063**	**.00709**	**.00013**	**.00052**	**.01058**
Stddev	.00010	.00004	.00006	.00053	.00043	.00004	.00009
%RSD	3.9105	10.424	10.027	7.4378	334.46	8.4906	.81148
#1	.00266	.00039	.00056	.00716	-.00030	.00049	.01066
#2	.00246	.00033	.00064	.00653	.00014	.00051	.01060
#3	.00256	.00040	.00069	.00758	.00055	.00057	.01049

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Si2124
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00100**	**.00891**	**-.00013**	**.00082**	**-.00023**	**.00018**	**.00035**
Stddev	.00001	.00018	.00004	.00002	.00003	.00003	.00002
%RSD	1.0227	2.0124	29.343	2.5351	15.290	16.557	4.8816
#1	.00100	.00871	-.00010	.00082	-.00020	.00014	.00034
#2	.00100	.00896	-.00011	.00081	-.00022	.00018	.00037
#3	.00098	.00906	-.00017	.00085	-.00027	.00020	.00035

Elem	Sn1899	Sr4077	Ti3372	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00144**	**.01388**	**.00067**	**.00758**	**.00281**	**-.00239**
Stddev	.00001	.00024	.00007	.00032	.00004	.00020
%RSD	.70722	1.7607	10.100	4.2758	1.4843	8.2562
#1	.00145	.01363	.00075	.00794	.00280	-.00228
#2	.00144	.01389	.00065	.00748	.00277	-.00227
#3	.00143	.01412	.00062	.00732	.00286	-.00262

Approved: November 13, 2013

Sample Name: S1 Acquired: 11/12/2013 14:34:31 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25691.**	**33372.**
Stddev	18.	39.
%RSD	.06861	.11562
#1	25677.	33349.
#2	25711.	33417.
#3	25685.	33350.

Approved: November 13, 2013

Sample Name: S2 Acquired: 11/12/2013 14:38:02 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00249**	**.00198**	**.00011**	**.00189**	**.01841**	**.00542**	**.00142**
Stddev	.00017	.00007	.00002	.00014	.00024	.00005	.00005
%RSD	6.8985	3.4330	20.857	7.6053	1.3196	.98113	3.3108
#1	.00268	.00205	.00009	.00173	.01828	.00540	.00142
#2	.00243	.00196	.00014	.00200	.01826	.00538	.00147
#3	.00236	.00192	.00011	.00194	.01869	.00548	.00137

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00043**	**.00111**	**.00429**	**.00072**	**.00118**	**.01137**	**.00239**
Stddev	.00004	.00001	.00004	.00003	.00003	.00077	.00048
%RSD	9.5558	.99350	.91666	4.4356	2.3599	6.7867	20.251
#1	.00046	.00112	.00428	.00069	.00115	.01098	.00284
#2	.00044	.00112	.00433	.00075	.00121	.01087	.00246
#3	.00038	.00110	.00425	.00073	.00119	.01226	.00188

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00088**	**.02086**	**.00202**	**.02530**	**.00014**	**.00151**	**-.00008**
Stddev	.00005	.00007	.00002	.00076	.00002	.00002	.00007
%RSD	5.9055	.34009	.93661	3.0193	14.689	1.3566	91.896
#1	.00085	.02093	.00200	.02539	.00014	.00153	-.00005
#2	.00094	.02079	.00204	.02449	.00016	.00150	-.00002
#3	.00086	.02087	.00202	.02601	.00012	.00149	-.00016

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00035**	**.00007**	**.00060**	**.00197**	**.02708**	**.00153**	**.00005**
Stddev	.00003	.00001	.00002	.00001	.00030	.00020	.00001
%RSD	8.5363	20.471	3.4020	.70012	1.0901	13.161	25.701
#1	.00035	.00007	.00061	.00198	.02697	.00173	.00003
#2	.00037	.00009	.00058	.00196	.02685	.00133	.00005
#3	.00031	.00006	.00062	.00196	.02741	.00151	.00005

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: S2 Acquired: 11/12/2013 14:38:02 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.01501**	**.00592**	**-.00242**
Stddev	.00016	.00002	.00020
%RSD	1.0762	.32510	8.4066
#1	.01513	.00591	-.00219
#2	.01508	.00591	-.00249
#3	.01483	.00594	-.00258

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25739.**	**33420.**
Stddev	103.	72.
%RSD	.39865	.21527
#1	25814.	33407.
#2	25622.	33497.
#3	25781.	33355.

Approved: November 13, 2013

Sample Name: S3 Acquired: 11/12/2013 14:41:33 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.22387**	**.08508**	**.00950**	**.08472**	**.94694**	**.31547**	**.16957**
Stddev	.00074	.00023	.00004	.00025	.00112	.00130	.00019
%RSD	.33131	.26479	.43064	.29861	.11828	.41086	.11025
#1	.22462	.08507	.00955	.08461	.94653	.31647	.16976
#2	.22384	.08486	.00949	.08501	.94608	.31594	.16955
#3	.22314	.08531	.00948	.08455	.94820	.31401	.16939

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02729**	**.07106**	**.20093**	**.04390**	**.07127**	**.55630**	**.26909**
Stddev	.00010	.00007	.00092	.00009	.00024	.00092	.00027
%RSD	.34854	.09821	.45812	.20973	.33351	.16523	.10108
#1	.02738	.07113	.20181	.04401	.07110	.55550	.26879
#2	.02730	.07106	.20101	.04384	.07118	.55611	.26931
#3	.02719	.07100	.19997	.04386	.07154	.55730	.26919

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04943**	**1.0886**	**.12223**	**1.9706**	**.03036**	**.08106**	**.02151**
Stddev	.00025	.0031	.00028	.0036	.00003	.00018	.00006
%RSD	.51381	.28581	.22704	.18152	.09771	.22721	.27522
#1	.04964	1.0891	.12248	1.9708	.03035	.08118	.02155
#2	.04915	1.0853	.12228	1.9669	.03039	.08116	.02144
#3	.04950	1.0914	.12193	1.9740	.03033	.08085	.02153

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02398**	**.00517**	**.03243**	**.06117**	**1.6184**	**.13261**	**.00787**
Stddev	.00010	.00003	.00022	.00029	.0039	.00007	.00003
%RSD	.42549	.58045	.66733	.47247	.24287	.05325	.39160
#1	.02394	.00518	.03243	.06101	1.6185	.13266	.00786
#2	.02410	.00519	.03264	.06150	1.6145	.13253	.00790
#3	.02391	.00513	.03221	.06099	1.6224	.13264	.00784

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: S3 Acquired: 11/12/2013 14:41:33 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.87588**	**.31326**	**-.00167**
Stddev	.00185	.00040	.00020
%RSD	.21079	.12736	12.015
#1	.87759	.31364	-.00190
#2	.87612	.31330	-.00159
#3	.87392	.31284	-.00153

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25489.**	**33307.**
Stddev	56.	71.
%RSD	.21926	.21182
#1	25459.	33290.
#2	25455.	33384.
#3	25554.	33246.

Approved: November 13, 2013

Sample Name: S4 Acquired: 11/12/2013 14:44:49 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.44658**	**.16978**	**.01892**	**.16963**	**1.8896**	**.63785**	**.34264**
Stddev	.00161	.00048	.00004	.00088	.0066	.00315	.00056
%RSD	.35971	.28023	.21261	.51627	.34849	.49362	.16478
#1	.44486	.16988	.01895	.16905	1.8923	.63441	.34205
#2	.44685	.16926	.01894	.16920	1.8944	.63856	.34317
#3	.44804	.17020	.01887	.17064	1.8821	.64058	.34270

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.05375**	**.13780**	**.39735**	**.08545**	**.14146**	**1.1162**	**.54664**
Stddev	.00002	.00023	.00220	.00006	.00061	.0012	.00089
%RSD	.04256	.16907	.55344	.06847	.43206	.10931	.16350
#1	.05377	.13806	.39489	.08542	.14171	1.1176	.54666
#2	.05373	.13771	.39805	.08552	.14191	1.1152	.54752
#3	.05374	.13762	.39912	.08542	.14076	1.1159	.54574

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.09872**	**2.1394**	**.24223**	**3.9536**	**.05952**	**.16308**	**.04253**
Stddev	.00018	.0146	.00027	.0240	.00009	.00016	.00008
%RSD	.18258	.68218	.11305	.60641	.14595	.09919	.19456
#1	.09890	2.1380	.24249	3.9545	.05954	.16293	.04244
#2	.09873	2.1255	.24226	3.9292	.05959	.16306	.04261
#3	.09854	2.1546	.24194	3.9771	.05942	.16325	.04254

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04764**	**.01027**	**.06448**	**.11780**	**3.2419**	**.26640**	**.01504**
Stddev	.00011	.00006	.00008	.00007	.0118	.00052	.00007
%RSD	.23528	.57264	.13169	.06121	.36264	.19477	.48957
#1	.04751	.01028	.06438	.11776	3.2433	.26667	.01510
#2	.04770	.01033	.06449	.11788	3.2295	.26672	.01506
#3	.04771	.01021	.06455	.11775	3.2529	.26580	.01496

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: S4 Acquired: 11/12/2013 14:44:49 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2730) Mode: IR Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**1.7482**	**.61978**	**-.00132**
Stddev	.0083	.00035	.00025
%RSD	.47228	.05717	19.133
#1	1.7387	.62000	-.00135
#2	1.7519	.61996	-.00156
#3	1.7539	.61937	-.00106

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25251.**	**33221.**
Stddev	70.	167.
%RSD	.27777	.50179
#1	25329.	33195.
#2	25193.	33399.
#3	25230.	33069.

Approved: November 13, 2013

Sample Name: ICV Acquired: 11/12/2013 14:48:05 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.38273**	**10.249**	**.41286**	**.51633**	**1.0159**	**.04955**	**9.9747**
Stddev	.00144	.023	.00071	.00168	.0015	.00024	.0408
%RSD	.37722	.22192	.17252	.32596	.14609	.49226	.40937
#1	.38275	10.223	.41279	.51657	1.0143	.04974	9.9647
#2	.38127	10.262	.41218	.51454	1.0161	.04927	9.9397
#3	.38416	10.263	.41360	.51788	1.0173	.04963	10.020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05104**	**.20711**	**.50824**	**.51893**	**4.1050**	**50.884**	**1.0035**
Stddev	.00009	.00040	.00094	.00038	.0090	.031	.0030
%RSD	.16852	.19232	.18448	.07244	.21946	.06079	.29637
#1	.05111	.20666	.50910	.51849	4.0963	50.857	1.0046
#2	.05094	.20740	.50724	.51916	4.1143	50.878	1.0001
#3	.05106	.20727	.50837	.51913	4.1044	50.918	1.0058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.189**	**.51091**	**1.0108**	**51.063**	**.50998**	**10.278**	**.51816**
Stddev	.035	.00272	.0003	.043	.00076	.021	.00243
%RSD	.34583	.53199	.02536	.08445	.14899	.20716	.46982
#1	10.148	.50950	1.0108	51.016	.50922	10.272	.51536
#2	10.204	.50918	1.0106	51.072	.51074	10.260	.51977
#3	10.214	.51404	1.0111	51.101	.51000	10.302	.51935
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ICV Acquired: 11/12/2013 14:48:05 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2483**	**.41149**	F **5.2527**	F **1.0591**	**1.0206**	**1.0155**	**.51897**
Stddev	.0056	.00134	.0226	.0020	.0025	.0025	.00304
%RSD	.45038	.32516	.43085	.18709	.24071	.24567	.58503
#1	1.2446	.41001	5.2470	1.0587	1.0178	1.0160	.51851
#2	1.2457	.41184	5.2334	1.0573	1.0213	1.0128	.51619
#3	1.2548	.41262	5.2776	1.0612	1.0226	1.0177	.52221
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			5.0000	1.0000			
Range			5.0000%	5.0000%			

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99172**	**1.0395**	F **4.0186**
Stddev	.00348	.0006	.3106
%RSD	.35101	.05411	7.7281
#1	.99190	1.0389	3.7793
#2	.98815	1.0397	4.3696
#3	.99511	1.0399	3.9070
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			5.0000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25603.**	**33294.**
Stddev	42.	90.
%RSD	.16283	.26957
#1	25581.	33349.
#2	25651.	33343.
#3	25577.	33191.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ICB Acquired: 11/12/2013 14:51:20 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.01142**	**-.00188**	**.00390**	**.00023**	**-.00001**	**-.00587**	**.00004**
Stddev	.00052	.01492	.00113	.00028	.00025	.00002	.00642	.00008
%RSD	218.70	130.62	60.052	7.0998	107.26	116.72	109.40	209.64
#1	-.00072	.00315	-.00287	.00409	.00022	-.00001	-.01252	-.00004
#2	-.00031	.00247	-.00211	.00358	-.00001	-.00003	-.00541	.00011
#3	.00031	.02864	-.00065	.00402	.00049	.00000	.00031	.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00003**	**.00024**	**-.00258**	**.06547**	**.00035**	**-.00756**	**-.00021**
Stddev	.00015	.00023	.00043	.00140	.00872	.00152	.01436	.00005
%RSD	523.15	858.70	180.69	54.412	13.321	438.15	189.94	23.232
#1	.00003	.00016	.00040	-.00419	.06985	.00078	-.01824	-.00025
#2	-.00012	-.00024	-.00025	-.00190	.05543	-.00134	-.01321	-.00016
#3	.00017	.00017	.00055	-.00164	.07113	.00161	.00877	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00470**	**.00904**	**-.00022**	**.00098**	**.00009**	**-.00039**	**.00167**	**.00167**
Stddev	.00071	.01573	.00019	.00035	.00093	.00118	.00100	.00172
%RSD	15.045	174.04	87.762	35.145	1025.4	298.96	60.274	103.12
#1	.00399	-.00853	-.00002	.00090	.00012	.00074	.00058	.00356
#2	.00472	.01384	-.00041	.00069	.00100	-.00161	.00256	.00125
#3	.00540	.02181	-.00023	.00136	-.00085	-.00030	.00186	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ICB Acquired: 11/12/2013 14:51:20 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00068**	**.00004**	**-.00020**	**-.00024**	**.00010**	**-.00006**	**-.04937**
Stddev	.00016	.00010	.00126	.00168	.00018	.00008	.39203
%RSD	23.996	274.78	638.71	685.68	174.54	124.40	794.14
#1	-.00049	-.00008	-.00030	.00108	.00013	.00001	.19298
#2	-.00077	.00011	.00111	.00032	-.00009	-.00014	.16058
#3	-.00078	.00008	-.00139	-.00213	.00026	-.00006	-.50166
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25613.**	**33446.**
Stddev	33.	95.
%RSD	.12967	.28302
#1	25581.	33442.
#2	25647.	33542.
#3	25611.	33353.

Approved: November 13, 2013

Sample Name: ICSA Acquired: 11/12/2013 14:54:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00107**	**251.83**	**.00031**	**.00057**	**.00076**	**-.00001**	**243.12**
Stddev	.00056	.37	.00083	.00191	.00009	.00003	.81
%RSD	52.332	.14785	266.48	332.66	12.308	204.84	.33509
#1	-.00161	251.43	-.00048	-.00101	.00087	-.00001	242.17
#2	-.00049	251.89	.00117	.00004	.00071	-.00005	243.57
#3	-.00109	252.17	.00024	.00270	.00071	.00001	243.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.00005**	**.00034**	**-.00230**	**99.639**	**.03321**	**.01128**
Stddev	.00004	.00012	.00011	.00076	.124	.03171	.00069
%RSD	14.887	236.32	31.798	33.026	.12490	95.470	6.1208
#1	.00024	.00010	.00045	-.00149	99.677	.01270	.01196
#2	.00031	.00014	.00023	-.00240	99.740	.01721	.01058
#3	.00031	-.00009	.00034	-.00300	99.500	.06973	.01130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**254.26**	**-.00015**	**-.00039**	**.02339**	**-.00078**	**.03280**	F **.00603**
Stddev	.49	.00010	.00034	.00975	.00081	.00375	.00105
%RSD	.19391	70.659	86.836	41.686	104.13	11.422	17.490
#1	253.69	-.00004	-.00076	.02814	.00012	.03582	.00492
#2	254.49	-.00025	-.00031	.01218	-.00102	.02860	.00615
#3	254.60	-.00015	-.00010	.02986	-.00145	.03397	.00702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							.00400
Low Limit							-.00400

Approved: November 13, 2013
Sheri L. Babcock

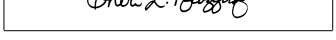
Sample Name: ICSA Acquired: 11/12/2013 14:54:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00423**	**.00508**	**.20975**	**-.01477**	**.00015**	**-.00455**	**-.00058**
Stddev	.00124	.00368	.00103	.00037	.00002	.00063	.00217
%RSD	29.330	72.462	.49301	2.5335	13.913	13.946	372.81
#1	-.00302	.00090	.20948	-.01491	.00017	-.00480	.00038
#2	-.00550	.00650	.21090	-.01435	.00013	-.00503	.00094
#3	-.00419	.00783	.20888	-.01505	.00015	-.00383	-.00307
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00141**	**-.00156**	F **-17.502**
Stddev	.00033	.00007	.664
%RSD	23.746	4.5353	3.7957
#1	.00138	-.00162	-17.415
#2	.00176	-.00148	-18.206
#3	.00109	-.00158	-16.886
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.08000
Low Limit			-.08000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24371.**	**33027.**
Stddev	27.	46.
%RSD	.11209	.13867
#1	24354.	32989.
#2	24402.	33015.
#3	24356.	33078.

Approved: November 13, 2013



Sample Name: ICSAB Acquired: 11/12/2013 14:58:15 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50405**	**253.03**	**.25554**	**-.02618**	**.24818**	**.23979**	**244.28**
Stddev	.00250	.54	.00127	.00067	.00043	.00082	.40
%RSD	.49583	.21507	.49663	2.5578	.17382	.34156	.16530
#1	.50361	252.59	.25550	-.02600	.24806	.23950	244.25
#2	.50674	252.86	.25429	-.02693	.24866	.24072	243.89
#3	.50180	253.64	.25683	-.02563	.24782	.23916	244.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51222**	**.24527**	**.25142**	**.24358**	**99.629**	**5.1715**	**.01075**
Stddev	.00055	.00064	.00147	.00059	.139	.0317	.00112
%RSD	.10690	.25894	.58393	.24134	.13961	.61326	10.435
#1	.51285	.24590	.25037	.24290	99.622	5.1994	.00946
#2	.51191	.24528	.25310	.24386	99.772	5.1782	.01151
#3	.51189	.24463	.25080	.24397	99.494	5.1370	.01127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**255.31**	**.23800**	**-.00079**	**5.0906**	**.48399**	**.04238**	**.48948**
Stddev	.36	.00003	.00002	.0234	.00089	.01244	.00321
%RSD	.13909	.01186	2.7100	.46044	.18491	29.346	.65636
#1	255.71	.23799	-.00081	5.0690	.48299	.02806	.48727
#2	255.02	.23797	-.00077	5.0872	.48427	.05048	.49317
#3	255.21	.23803	-.00078	5.1155	.48471	.04859	.48800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

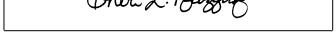
Sample Name: ICSAB Acquired: 11/12/2013 14:58:15 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50557**	**.24691**	**-.00832**	**-.01578**	**.00014**	**-.00484**	**.46975**
Stddev	.00076	.00185	.00286	.00012	.00003	.00135	.00148
%RSD	.14960	.74821	34.320	.75646	22.385	27.862	.31599
#1	.50470	.24496	-.01128	-.01579	.00011	-.00390	.46833
#2	.50608	.24864	-.00558	-.01565	.00015	-.00424	.46963
#3	.50592	.24711	-.00812	-.01589	.00017	-.00639	.47129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.25023**	**.47846**	F **-19.478**
Stddev	.00038	.00051	.299
%RSD	.15243	.10714	1.5348
#1	.25025	.47818	-19.433
#2	.25060	.47905	-19.797
#3	.24984	.47815	-19.204
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24364.**	**32968.**
Stddev	41.	79.
%RSD	.17015	.23841
#1	24333.	32930.
#2	24347.	33059.
#3	24411.	32917.

Approved: November 13, 2013



Sample Name: CCV Acquired: 11/12/2013 15:01:38 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40362**	**10.158**	**.40217**	**.50515**	**1.0045**	**.04946**	**10.0000**
Stddev	.00154	.062	.00045	.00060	.0029	.00015	.02153
%RSD	.38104	.60829	.11107	.11921	.29290	.31195	.21533
#1	.40365	10.088	.40180	.50476	1.0069	.04946	9.9913
#2	.40514	10.203	.40266	.50585	1.0054	.04961	9.9841
#3	.40206	10.184	.40203	.50485	1.0012	.04930	10.024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05071**	**.20413**	**.50453**	**.51244**	**4.0473**	**50.132**	**.99854**
Stddev	.00014	.00015	.00197	.00147	.0148	.047	.00163
%RSD	.27907	.07287	.39003	.28740	.36636	.09427	.16283
#1	.05086	.20428	.50646	.51409	4.0532	50.077	1.0000
#2	.05058	.20410	.50459	.51127	4.0583	50.164	.99878
#3	.05069	.20399	.50253	.51194	4.0305	50.154	.99681
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.062**	**.50991**	**1.0100**	**50.595**	**.51074**	**10.081**	**.51418**
Stddev	.039	.00234	.0010	.238	.00073	.015	.00100
%RSD	.38271	.45854	.09415	.47042	.14349	.15113	.19425
#1	10.047	.50722	1.0111	50.350	.51107	10.095	.51533
#2	10.106	.51103	1.0092	50.611	.51124	10.082	.51376
#3	10.034	.51148	1.0098	50.826	.50990	10.065	.51347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 15:01:38 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2223**	**.40238**	**5.1376**	**1.0165**	**1.0106**	**1.0014**	**.51223**
Stddev	.0012	.00282	.0582	.0037	.0022	.0005	.00259
%RSD	.09894	.70195	1.1336	.36371	.21379	.05324	.50634
#1	1.2232	.40460	5.1859	1.0207	1.0082	1.0019	.51449
#2	1.2228	.40334	5.1541	1.0140	1.0110	1.0014	.50940
#3	1.2209	.39920	5.0729	1.0147	1.0125	1.0009	.51279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99994**	**1.0166**	F **1.1900**
Stddev	.00142	.0012	.9267
%RSD	.14243	.11280	77.879
#1	.99952	1.0161	.12811
#2	1.0015	1.0158	1.6061
#3	.99878	1.0179	1.8358
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25617.**	**33142.**
Stddev	33.	121.
%RSD	.13010	.36521
#1	25609.	33278.
#2	25588.	33101.
#3	25654.	33047.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 15:04:53 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.01807**	**-.00045**	**.00364**	**.00043**	**.00000**	**-.00485**
Stddev	.00053	.02488	.00015	.00026	.00010	.0000	.01275
%RSD	363.33	137.65	33.592	7.2509	24.340	195.29	263.00
#1	-.00076	.00646	-.00028	.00394	.00054	-.00001	-.00173
#2	.00009	.00113	-.00052	.00345	.00040	.00000	-.01887
#3	.00023	.04663	-.00056	.00352	.00034	.00000	.00605
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00001**	**-.00017**	**.00014**	**-.00044**	**.05047**	**.00010**
Stddev	.00007	.00002	.00024	.00023	.00327	.01863	.00103
%RSD	556.20	365.76	138.36	167.71	739.28	36.917	1012.5
#1	-.00006	.00001	-.00037	.00004	-.00243	.02970	.00098
#2	.00002	.00003	.00009	.00040	-.00222	.06570	.00035
#3	.00009	-.00002	-.00023	-.00003	.00333	.05600	-.00103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00930**	**-.00030**	**.00407**	**-.00456**	**-.00010**	**.00109**	**.00043**
Stddev	.00744	.00005	.00034	.00690	.00031	.00203	.00148
%RSD	79.995	16.100	8.3991	151.05	311.65	185.25	343.18
#1	.01035	-.00026	.00370	-.00086	-.00045	-.00103	-.00006
#2	.01615	-.00035	.00413	-.01252	.00014	.00130	-.00075
#3	.00139	-.00027	.00438	-.00031	.00002	.00301	.00210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 15:04:53 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00115**	**.00301**	**.00563**	**-.00065**	**.00017**	**.00055**	**-.00192**
Stddev	.00300	.00056	.00390	.00029	.00009	.00108	.00194
%RSD	261.70	18.659	69.231	44.686	55.758	194.83	100.77
#1	.00382	.00356	.00958	-.00034	.00006	.00108	-.00203
#2	-.00210	.00244	.00554	-.00069	.00024	-.00069	.00006
#3	.00172	.00303	.00178	-.00092	.00020	.00127	-.00380
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**-.00088**	F **-.17429**
Stddev	.00006	.00002	.42501
%RSD	126.11	2.2397	243.85
#1	.00008	-.00089	.31624
#2	-.00002	-.00090	-.40659
#3	.00009	-.00086	-.43252
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25814.**	**33325.**
Stddev	36.	7.
%RSD	.14056	.02105
#1	25797.	33328.
#2	25855.	33317.
#3	25789.	33330.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041502 Acquired: 11/12/2013 15:08:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452183-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**.03798**	**-.00065**	**.02271**	**.01979**	**.00003**	**65.200**
Stddev	.00040	.00548	.00095	.00093	.00042	.00003	.103
%RSD	391.33	14.419	145.70	4.0854	2.1261	122.04	.15767
#1	.00036	.03526	.00020	.02361	.01939	.00003	65.284
#2	-.00035	.04429	-.00048	.02278	.01976	.00005	65.230
#3	-.00030	.03440	-.00168	.02175	.02023	-.00001	65.085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00092**	**.00146**	**.00091**	**.00027**	**.01448**	**7.7027**	**.02393**
Stddev	.00016	.00007	.00044	.00035	.00110	.0044	.00219
%RSD	17.292	4.8987	48.519	131.76	7.5929	.05760	9.1690
#1	.00103	.00153	.00080	.00067	.01322	7.6999	.02261
#2	.00099	.00146	.00140	.00006	.01527	7.7078	.02647
#3	.00074	.00139	.00054	.00007	.01493	7.7004	.02273
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**62.089**	**.41695**	**.00058**	**51.537**	**.00410**	**.00579**	**.00067**
Stddev	.058	.00173	.00038	.107	.00023	.00467	.00065
%RSD	.09409	.41548	66.016	.20759	5.5030	80.668	97.504
#1	62.141	.41864	.00014	51.436	.00385	.00619	.00011
#2	62.100	.41704	.00077	51.649	.00427	.01025	.00051
#3	62.026	.41518	.00084	51.525	.00419	.00093	.00138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041502 Acquired: 11/12/2013 15:08:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452183-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00278**	**1.6737**	**-.01644**	**.45273**	**-.00177**	**-.00131**
Stddev	.00101	.00193	.0142	.00060	.00053	.00027	.00118
%RSD	1036.0	69.342	.84937	3.6570	.11633	15.258	90.096
#1	.00073	.00495	1.6599	-.01602	.45223	-.00163	-.00103
#2	.00063	.00215	1.6883	-.01713	.45328	-.00159	-.00030
#3	-.00107	.00125	1.6728	-.01618	.45267	-.00208	-.00261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00004**	**.00174**	F **-.48532**
Stddev	.00005	.00018	.20559
%RSD	121.29	10.293	42.361
#1	.00009	.00195	-.31287
#2	.00000	.00163	-.43025
#3	.00002	.00164	-.71283
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25055.**	**33203.**
Stddev	28.	92.
%RSD	.11049	.27754
#1	25023.	33108.
#2	25075.	33211.
#3	25067.	33292.

Approved: November 13, 2013

Sample Name: L1311041502S Acquired: 11/12/2013 15:11:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452183-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20259**	**4.9417**	**.19747**	**1.0347**	**.50609**	**.02411**	**71.480**	**.02557**
Stddev	.00076	.0247	.00163	.0009	.00047	.00004	.197	.00013
%RSD	.37387	.50059	.82363	.08739	.09345	.16378	.27533	.50184
#1	.20176	4.9619	.19821	1.0338	.50626	.02408	71.420	.02542
#2	.20277	4.9492	.19560	1.0349	.50555	.02409	71.700	.02563
#3	.20324	4.9141	.19860	1.0356	.50645	.02415	71.320	.02565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09988**	**.24741**	**.24720**	**1.9812**	**32.523**	**.51237**	**67.948**	**.66355**
Stddev	.00020	.00045	.00066	.0035	.087	.00124	.146	.00304
%RSD	.20066	.18045	.26658	.17612	.26902	.24169	.21478	.45769
#1	.09967	.24791	.24784	1.9772	32.624	.51233	67.786	.66170
#2	.10007	.24706	.24652	1.9837	32.469	.51363	68.071	.66705
#3	.09990	.24725	.24724	1.9827	32.477	.51115	67.985	.66188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50212**	**77.309**	**.24928**	**.00573**	**.24860**	**.59940**	**.19773**	**4.2379**
Stddev	.00142	.266	.00077	.00147	.00045	.00200	.00312	.0085
%RSD	.28372	.34350	.30960	25.710	.17953	.33400	1.5759	.20007
#1	.50049	77.452	.24846	.00742	.24882	.59739	.19729	4.2322
#2	.50276	77.473	.24939	.00505	.24809	.59940	.20104	4.2338
#3	.50311	77.002	.24999	.00472	.24890	.60139	.19486	4.2477
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041502S Acquired: 11/12/2013 15:11:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452183-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01515**	**.95558**	**.48448**	**.24142**	**.49233**	**.48952**	**.20356**
Stddev	.00029	.00277	.00192	.00190	.00143	.00048	.65236
%RSD	1.8893	.29032	.39688	.78720	.28977	.09757	320.48
#1	-.01507	.95659	.48234	.24024	.49145	.48909	.53043
#2	-.01547	.95770	.48604	.24041	.49397	.49003	.62786
#3	-.01492	.95244	.48507	.24361	.49156	.48944	-.54762
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24637.**	**32989.**
Stddev	21.	85.
%RSD	.08682	.25802
#1	24623.	33036.
#2	24626.	32891.
#3	24662.	33040.

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: CCV Acquired: 11/12/2013 15:15:19 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40476**	**10.079**	**.40460**	**.51070**	**1.0118**	**.04995**	**9.9748**
Stddev	.00310	.024	.00296	.00288	.0018	.00027	.0285
%RSD	.76521	.24058	.73142	.56316	.18016	.54186	.28535
#1	.40467	10.054	.40689	.51373	1.0134	.04998	9.9521
#2	.40170	10.081	.40566	.50801	1.0098	.04966	10.007
#3	.40790	10.103	.40126	.51036	1.0121	.05020	9.9655
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05081**	**.20512**	**.50961**	**.51338**	**4.0830**	**50.453**	**.99631**
Stddev	.00016	.00006	.00185	.00073	.0150	.145	.00168
%RSD	.31345	.02966	.36361	.14195	.36758	.28820	.16858
#1	.05099	.20518	.50984	.51403	4.1002	50.461	.99747
#2	.05073	.20510	.50766	.51259	4.0724	50.303	.99439
#3	.05071	.20507	.51134	.51351	4.0766	50.594	.99708
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.155**	**.51059**	**1.0144**	**50.253**	**.51352**	**10.058**	**.51464**
Stddev	.030	.00152	.0011	.291	.00124	.015	.00151
%RSD	.29624	.29778	.11025	.58004	.24219	.15241	.29244
#1	10.178	.50916	1.0155	50.200	.51219	10.050	.51593
#2	10.167	.51044	1.0132	49.992	.51372	10.076	.51501
#3	10.121	.51219	1.0144	50.567	.51466	10.048	.51299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 15:15:19 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2196**	**.40477**	**5.1442**	**1.0252**	**1.0059**	**1.0044**	**.52047**
Stddev	.0039	.00300	.0473	.0038	.0057	.0023	.00244
%RSD	.31589	.74169	.91938	.36748	.56616	.22774	.46869
#1	1.2182	.40169	5.0896	1.0213	1.0066	1.0042	.51934
#2	1.2239	.40494	5.1697	1.0288	.99989	1.0068	.51880
#3	1.2166	.40769	5.1732	1.0254	1.0112	1.0022	.52327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0060**	**1.0172**	F **.52940**
Stddev	.0036	.0007	.67509
%RSD	.35326	.07191	127.52
#1	1.0077	1.0175	.41483
#2	1.0019	1.0177	1.2544
#3	1.0083	1.0163	-.08107
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25615.**	**33320.**
Stddev	89.	132.
%RSD	.34576	.39559
#1	25617.	33436.
#2	25702.	33346.
#3	25525.	33177.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 15:18:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.01396**	**-.00142**	**.00371**	**.00042**	**.00002**	**-.00449**	**.00003**
Stddev	.00025	.00806	.00009	.00107	.00036	.00001	.00991	.00005
%RSD	127.93	57.767	6.5632	28.856	86.706	76.644	220.55	203.04
#1	.00009	.02214	-.00141	.00250	.00054	.00000	.00565	-.00001
#2	-.00029	.01370	-.00134	.00408	.00001	.00003	-.01415	.00009
#3	-.00039	.00603	-.00152	.00454	.00070	.00003	-.00498	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00037**	**.00004**	**-.00284**	**.04583**	**-.00022**	**.00464**	**-.00019**
Stddev	.00004	.00039	.00052	.00509	.00533	.00023	.01203	.00003
%RSD	45.702	104.12	1462.2	179.09	11.628	104.92	259.22	17.672
#1	.00012	.00072	.00020	-.00818	.03995	-.00048	-.00869	-.00021
#2	.00008	.00045	-.00055	.00196	.05035	-.00003	.00792	-.00015
#3	.00005	-.00005	.00046	-.00231	.04720	-.00016	.01468	-.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00423**	**-.00001**	**-.00018**	**.00072**	**.00236**	**-.00150**	**.00217**	**.00032**
Stddev	.00049	.00736	.00091	.00079	.00171	.00055	.00263	.00346
%RSD	11.511	135060.	516.44	109.59	72.323	36.347	120.85	1087.0
#1	.00368	-.00596	-.00049	-.00019	.00042	-.00184	.00294	.00331
#2	.00442	-.00228	.00085	.00122	.00364	-.00180	.00432	-.00347
#3	.00461	.00823	-.00088	.00114	.00301	-.00087	-.00075	.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: CCB Acquired: 11/12/2013 15:18:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00099**	**.00009**	**-.00153**	**-.00141**	**.00025**	**-.00092**	**-.05508**
Stddev	.00055	.00007	.00005	.00230	.00013	.00012	.49015
%RSD	54.913	78.085	3.5608	163.06	54.104	13.432	889.85
#1	-.00113	.00007	-.00152	-.00378	.00010	-.00085	.36920
#2	-.00146	.00003	-.00159	-.00128	.00028	-.00084	.05718
#3	-.00039	.00016	-.00148	.00082	.00036	-.00106	-.59162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25782.**	**33217.**
Stddev	32.	36.
%RSD	.12533	.10690
#1	25759.	33197.
#2	25819.	33258.
#3	25768.	33195.

Approved: November 13, 2013

Sample Name: PBW B8 Acquired: 11/12/2013 15:35:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.01360**	**-.00035**	**.00172**	**.00247**	**.00000**	**.01898**
Stddev	.00069	.00199	.00029	.00100	.00035	.0000	.00895
%RSD	296.85	14.605	84.389	57.800	14.091	237.66	47.138
#1	.00050	.01585	-.00004	.00061	.00284	-.00001	.02926
#2	.00074	.01210	-.00039	.00201	.00215	.00000	.01466
#3	-.00055	.01285	-.00062	.00254	.00243	.00000	.01301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00014**	**.00046**	**-.00011**	**.00732**	**.01790**	**.00043**
Stddev	.00011	.00029	.00044	.00060	.00214	.01374	.00205
%RSD	97.835	204.90	95.941	530.92	29.238	76.754	479.33
#1	.00013	-.00045	.00080	.00019	.00705	.01893	.00065
#2	.00000	.00012	-.00004	.00027	.00533	.03110	-.00173
#3	.00022	-.00010	.00063	-.00080	.00959	.00368	.00236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00246**	**.00008**	**-.00005**	**.01341**	**.00044**	F **-.00351**	**.00049**
Stddev	.01438	.00004	.00020	.00318	.00045	.00200	.00063
%RSD	583.83	54.426	427.25	23.733	102.90	56.995	127.75
#1	.00342	.00006	-.00028	.01535	.00044	-.00156	.00117
#2	-.01885	.00013	.00003	.01514	.00088	-.00556	.00040
#3	.00805	.00005	.00011	.00973	-.00002	-.00341	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: PBW B8 Acquired: 11/12/2013 15:35:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	-.00116	.00954	-.01576	.00013	.00008	-.00341
Stddev	.00111	.00165	.00148	.00032	.00014	.00044	.00101
%RSD	336.72	142.57	15.526	2.0517	113.01	585.26	29.533
#1	.00052	.00035	.00947	-.01546	.00001	.00000	-.00238
#2	.00008	-.00292	.00810	-.01610	.00029	-.00032	-.00439
#3	-.00158	-.00090	.01106	-.01573	.00008	.00055	-.00345
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00020	.00169	F -.44596
Stddev	.00025	.00004	.21854
%RSD	121.43	2.5383	49.005
#1	-.00018	.00164	-.69680
#2	.00003	.00173	-.29670
#3	-.00046	.00171	-.34437
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25741.	33684.
Stddev	30.	76.
%RSD	.11840	.22480
#1	25734.	33767.
#2	25774.	33667.
#3	25714.	33618.

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: LCSW B8 Acquired: 11/12/2013 15:38:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20103**	**4.9702**	**.19430**	**.96181**	**.49019**	**.02434**	**5.0163**
Stddev	.00035	.0481	.00110	.00333	.00626	.00014	.0396
%RSD	.17227	.96752	.56503	.34578	1.2775	.56119	.78962
#1	.20063	4.9200	.19450	.95803	.48298	.02420	4.9706
#2	.20119	4.9749	.19312	.96428	.49431	.02447	5.0416
#3	.20127	5.0158	.19529	.96312	.49327	.02436	5.0366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02477**	**.10280**	**.25478**	**.25414**	**1.9802**	**24.301**	**.49268**
Stddev	.00012	.00023	.00083	.00033	.0220	.240	.00532
%RSD	.48603	.22318	.32591	.13039	1.1097	.98855	1.0792
#1	.02473	.10287	.25396	.25444	1.9553	24.025	.48669
#2	.02491	.10299	.25562	.25420	1.9883	24.414	.49448
#3	.02468	.10255	.25475	.25379	1.9970	24.464	.49686
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9704**	**.25301**	**.51795**	**24.447**	**.25716**	F **-.00415**	**.25632**
Stddev	.0526	.00146	.00046	.261	.00091	.00167	.00020
%RSD	1.0585	.57613	.08811	1.0660	.35195	40.146	.07987
#1	4.9154	.25144	.51815	24.170	.25629	-.00469	.25609
#2	4.9755	.25431	.51743	24.485	.25810	-.00549	.25644
#3	5.0202	.25330	.51827	24.687	.25709	-.00228	.25645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013

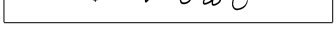
Sample Name: LCSW B8 Acquired: 11/12/2013 15:38:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59623**	**.18766**	**2.4523**	**.39672**	**.49052**	**.49901**	**.25542**
Stddev	.00391	.00083	.0086	.00159	.00531	.00343	.00164
%RSD	.65623	.44203	.35077	.40198	1.0834	.68643	.64233
#1	.59837	.18854	2.4481	.39567	.48465	.49521	.25385
#2	.59861	.18757	2.4622	.39856	.49190	.49995	.25712
#3	.59172	.18688	2.4466	.39594	.49500	.50186	.25530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50975**	**.49559**	**.47810**
Stddev	.00214	.00125	.57998
%RSD	.41992	.25316	121.31
#1	.50743	.49563	-.18463
#2	.51166	.49432	.89292
#3	.51016	.49683	.72602
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25475.**	**33578.**
Stddev	27.	54.
%RSD	.10544	.16132
#1	25466.	33638.
#2	25454.	33532.
#3	25505.	33564.

Approved: November 13, 2013



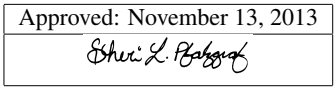
Sample Name: FBLK1 Acquired: 11/12/2013 15:42:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452232-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.02047**	**-.00176**	**.00435**	**.00018**	**.00002**	**.00750**
Stddev	.00045	.00653	.00062	.00106	.00009	.00001	.01311
%RSD	403.13	31.893	35.055	24.300	53.067	51.858	174.87
#1	-.00031	.02750	-.00122	.00495	.00026	.00003	.00197
#2	.00059	.01931	-.00163	.00498	.00020	.00001	.02247
#3	.00006	.01460	-.00243	.00313	.00007	.00003	-.00194
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**-.00019**	**.00001**	**-.00010**	**.00218**	**.07957**	**.00227**
Stddev	.00006	.00018	.00059	.00069	.00204	.03089	.00045
%RSD	42.917	94.090	4834.9	703.77	93.658	38.820	19.644
#1	.00010	-.00037	.00037	.00066	.00101	.04574	.00267
#2	.00011	-.00001	-.00067	-.00070	.00453	.08671	.00179
#3	.00020	-.00019	.00033	-.00025	.00099	.10627	.00237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00656**	**.00001**	**.00076**	**157.82**	**.00019**	**-.00158**	**-.00080**
Stddev	.00371	.00003	.00031	.93	.00021	.00380	.00071
%RSD	56.531	458.12	40.558	.58667	115.57	240.75	88.902
#1	-.00563	.00000	.00044	158.89	.00001	.00277	-.00137
#2	-.00341	-.00002	.00078	157.22	.00012	-.00324	-.00102
#3	-.01065	.00004	.00105	157.36	.00042	-.00426	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013



Sample Name: FBLK1 Acquired: 11/12/2013 15:42:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452232-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00218**	**.00355**	**-.01593**	**.00027**	**.00017**	**-.00226**
Stddev	.00072	.00104	.00195	.00038	.00005	.00117	.00068
%RSD	413.49	47.564	54.814	2.3737	18.928	671.33	30.068
#1	.00066	.00232	.00225	-.01629	.00033	-.00088	-.00151
#2	-.00053	.00108	.00262	-.01553	.00026	-.00002	-.00283
#3	-.00066	.00315	.00579	-.01597	.00023	.00143	-.00243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00013**	**.00245**	F **-.62883**
Stddev	.00011	.00003	.51361
%RSD	90.526	1.0684	81.677
#1	.00000	.00245	-1.2069
#2	.00016	.00247	-.45452
#3	.00022	.00242	-.22505
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25017.**	**33666.**
Stddev	52.	70.
%RSD	.20588	.20791
#1	25072.	33717.
#2	24969.	33586.
#3	25010.	33694.

Approved: November 13, 2013

Sample Name: FBLK2 Acquired: 11/12/2013 15:45:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452232-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.27818**	**-.00156**	**.00919**	**.00322**	**.00004**	**.11434**
Stddev	.00039	.01479	.00155	.00076	.00015	.00002	.00282
%RSD	4108.9	5.3183	99.272	8.3091	4.6980	44.559	2.4678
#1	-.00041	.26848	-.00102	.00997	.00329	.00006	.11413
#2	.00000	.27086	-.00036	.00844	.00332	.00003	.11163
#3	.00038	.29521	-.00331	.00916	.00304	.00002	.11726
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**-.00010**	**.00067**	**.00140**	**.62620**	**.06781**	**.00091**
Stddev	.00005	.00010	.00039	.00028	.00608	.02597	.00219
%RSD	30.205	108.91	58.071	20.241	.97139	38.294	239.51
#1	.00012	-.00021	.00109	.00171	.61960	.09715	-.00052
#2	.00016	-.00001	.00062	.00133	.62741	.05847	-.00017
#3	.00023	-.00007	.00031	.00115	.63158	.04780	.00343
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.12982**	**.00836**	**-.00004**	**.07843**	**.00086**	**.00118**	**.00214**
Stddev	.01443	.00003	.00013	.00443	.00046	.00580	.00068
%RSD	11.117	.37881	288.42	5.6470	53.768	493.67	31.618
#1	.11366	.00838	-.00006	.07807	.00033	-.00541	.00249
#2	.13437	.00836	.00009	.08303	.00111	.00554	.00257
#3	.14143	.00832	-.00016	.07419	.00113	.00340	.00136
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: FBLK2 Acquired: 11/12/2013 15:45:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452232-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00141**	**.00051**	**.16943**	**-.01572**	**.00075**	**.00296**	**-.00320**
Stddev	.00299	.00299	.00284	.00036	.00004	.00088	.00137
%RSD	211.92	589.50	1.6791	2.3205	5.2011	29.590	42.831
#1	-.00308	-.00290	.17268	-.01566	.00071	.00300	-.00439
#2	.00204	.00175	.16738	-.01611	.00079	.00206	-.00170
#3	-.00320	.00267	.16822	-.01539	.00075	.00381	-.00351
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00153**	**.00409**	F **-.65332**
Stddev	.00008	.00007	.75248
%RSD	5.5485	1.6945	115.18
#1	.00147	.00402	.12859
#2	.00149	.00415	-1.3724
#3	.00163	.00412	-.71612
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26056.**	**34107.**
Stddev	3.	80.
%RSD	.01155	.23403
#1	26057.	34142.
#2	26058.	34164.
#3	26052.	34016.

Approved: November 13, 2013

Sample Name: L1311046301 Acquired: 11/12/2013 15:49:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.07208**	**-.00052**	**.03195**	**.01795**	**.00011**	**174.64**	**.00029**
Stddev	.00010	.00473	.00064	.00065	.00034	.00002	1.00	.00009
%RSD	47.483	6.5583	121.40	2.0458	1.8853	15.083	.57263	29.575
#1	-.00011	.07181	-.00081	.03261	.01833	.00011	173.50	.00020
#2	-.00022	.06750	.00020	.03130	.01779	.00013	175.07	.00031
#3	-.00030	.07694	-.00097	.03196	.01771	.00010	175.36	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00102**	**-.00029**	**.14890**	**.06536**	**.00827**	**4.8926**	**.00315**
Stddev	.00001	.00024	.00041	.00378	.00979	.00069	.0156	.00004
%RSD	18.127	24.096	140.11	2.5416	14.980	8.3217	.31967	1.2295
#1	-.00008	.00092	-.00017	.14638	.07201	.00748	4.8756	.00313
#2	-.00009	.00129	-.00075	.14707	.05411	.00876	4.8958	.00319
#3	-.00007	.00083	.00005	.15325	.06995	.00857	4.9064	.00312
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00176**	**.99310**	**.00121**	**.00060**	**.00113**	**.00097**	**-.00035**	**1.9671**
Stddev	.00025	.01192	.00041	.00276	.00273	.00059	.00297	.0203
%RSD	14.399	1.2008	33.972	463.42	242.35	60.815	856.94	1.0300
#1	.00201	.97934	.00079	-.00058	-.00124	.00157	-.00337	1.9679
#2	.00178	1.0003	.00161	-.00138	.00412	.00094	-.00022	1.9870
#3	.00150	.99963	.00122	.00375	.00050	.00039	.00256	1.9465
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311046301 Acquired: 11/12/2013 15:49:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01615**	**.11949**	**-.00115**	**-.00354**	**.02565**	**.00223**	**.43280**
Stddev	.00016	.00056	.00024	.00113	.00020	.00010	.77278
%RSD	1.0179	.46624	20.901	32.020	.77324	4.3165	178.55
#1	-.01634	.11885	-.00127	-.00224	.02571	.00234	-.38005
#2	-.01605	.11987	-.00087	-.00434	.02542	.00221	1.1581
#3	-.01606	.11974	-.00130	-.00403	.02581	.00215	.52039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24761.**	**33973.**
Stddev	40.	196.
%RSD	.16030	.57694
#1	24805.	34194.
#2	24727.	33820.
#3	24752.	33904.

Approved: November 13, 2013

Sample Name: L1311046301DL Acquired: 11/12/2013 15:52:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452455-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00030**	**.02220**	**-.00061**	**.00801**	**.00377**	**.00001**	**35.705**	**.00005**
Stddev	.00024	.01032	.00105	.00095	.00027	.00003	.103	.00003
%RSD	78.927	46.480	172.70	11.813	7.1978	316.07	.28795	59.787
#1	-.00029	.02717	-.00116	.00777	.00350	-.00002	35.604	.00008
#2	-.00007	.01034	.00060	.00905	.00375	.00003	35.703	.00006
#3	-.00055	.02909	-.00127	.00720	.00404	.00001	35.809	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00058**	**-.00036**	**.02604**	**.03879**	**.00112**	**1.0384**	**.00052**
Stddev	.00016	.00031	.00010	.00149	.02738	.00061	.0196	.00003
%RSD	519.09	53.602	27.764	5.7391	70.578	54.151	1.8898	4.8934
#1	.00022	.00062	-.00027	.02770	.05719	.00050	1.0169	.00050
#2	-.00003	.00088	-.00047	.02480	.00733	.00171	1.0429	.00055
#3	-.00009	.00026	-.00035	.02562	.05185	.00115	1.0553	.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.19666**	**-.00019**	**.00610**	**.00165**	**.00022**	**-.00086**	**.39066**
Stddev	.00013	.00531	.00088	.00194	.00133	.00105	.00149	.00516
%RSD	454.28	2.6983	472.95	31.816	80.834	468.73	173.33	1.3206
#1	.00012	.19055	-.00041	.00727	.00305	.00084	-.00156	.39437
#2	-.00013	.20019	-.00093	.00386	.00148	-.00099	-.00187	.39285
#3	-.00007	.19923	.00078	.00716	.00041	.00082	.00085	.38477
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311046301DL Acquired: 11/12/2013 15:52:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452455-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01664**	**.02441**	**-.00034**	**-.00259**	**.00505**	**.00055**	**.72615**
Stddev	.00051	.00004	.00106	.00096	.00037	.00009	.28201
%RSD	3.0572	.16869	310.24	37.105	7.3426	17.203	38.836
#1	-.01714	.02445	.00074	-.00362	.00467	.00052	.66396
#2	-.01612	.02437	-.00038	-.00173	.00507	.00047	.48042
#3	-.01666	.02441	-.00137	-.00241	.00542	.00066	1.0341
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26118.**	**33984.**
Stddev	67.	138.
%RSD	.25694	.40700
#1	26175.	34013.
#2	26136.	34106.
#3	26044.	33834.

Approved: November 13, 2013

Sample Name: L1311046301PS Acquired: 11/12/2013 15:56:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452455-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20360**	**4.9958**	**.19591**	**1.0093**	**.50862**	**.02440**	**165.19**	**.02489**
Stddev	.00116	.0277	.00243	.0049	.00013	.00021	.18	.00012
%RSD	.56757	.55340	1.2381	.48674	.02527	.85283	.10892	.47281
#1	.20395	4.9652	.19821	1.0144	.50860	.02464	164.99	.02476
#2	.20454	5.0032	.19614	1.0090	.50877	.02434	165.26	.02495
#3	.20231	5.0191	.19338	1.0046	.50851	.02423	165.33	.02497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09894**	**.25157**	**.24504**	**2.1063**	**24.726**	**.50404**	**9.2216**	**.24340**
Stddev	.00028	.00249	.00067	.0039	.090	.00293	.0289	.00079
%RSD	.28660	.99125	.27287	.18510	.36307	.58201	.31337	.32478
#1	.09922	.25445	.24578	2.1102	24.622	.50579	9.1918	.24249
#2	.09894	.25003	.24449	2.1024	24.776	.50568	9.2233	.24380
#3	.09866	.25024	.24484	2.1063	24.779	.50065	9.2496	.24391
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51087**	**25.569**	**.24825**	**.00816**	**.24939**	**.59873**	**.19356**	**4.2811**
Stddev	.00187	.082	.00061	.00203	.00179	.00140	.00131	.0189
%RSD	.36617	.32018	.24400	24.833	.71742	.23425	.67707	.44113
#1	.51248	25.489	.24890	.01008	.25129	.59719	.19497	4.2594
#2	.51131	25.653	.24813	.00838	.24773	.59904	.19238	4.2897
#3	.50882	25.567	.24771	.00604	.24914	.59994	.19332	4.2941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

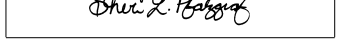
Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046301PS Acquired: 11/12/2013 15:56:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452455-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01584**	**.59629**	**.49476**	**.24202**	**.52526**	**.48276**	**.65672**
Stddev	.00034	.00222	.00021	.00186	.00464	.00063	1.0969
%RSD	2.1426	.37266	.04265	.76923	.88430	.13004	167.03
#1	-.01621	.59430	.49500	.24320	.53056	.48209	1.8080
#2	-.01554	.59869	.49461	.23987	.52331	.48334	-.37636
#3	-.01577	.59587	.49466	.24298	.52191	.48285	.53857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24850.**	**33703.**
Stddev	145.	137.
%RSD	.58210	.40579
#1	24712.	33853.
#2	24837.	33585.
#3	25000.	33670.

Approved: November 13, 2013



Sample Name: L1311046701 Acquired: 11/12/2013 15:59:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.08018**	**.00227**	**.01762**	**.00325**	**-.00003**	**.92123**
Stddev	.00037	.01141	.00096	.00086	.00022	.00002	.01372
%RSD	84.107	14.228	42.231	4.8629	6.9114	79.939	1.4891
#1	-.00002	.07009	.00277	.01828	.00300	-.00006	.91704
#2	-.00058	.07788	.00117	.01793	.00332	-.00001	.91010
#3	-.00071	.09256	.00288	.01665	.00343	-.00003	.93656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.02332**	**.01866**	**.26139**	**21.861**	**.11714**	**.01002**
Stddev	.00002	.00024	.00011	.00150	.031	.00841	.00121
%RSD	12.735	1.0250	.58634	.57525	.14263	7.1780	12.046
#1	-.00014	.02318	.01875	.26060	21.895	.11359	.01119
#2	-.00012	.02359	.01868	.26313	21.833	.12674	.01011
#3	-.00011	.02317	.01854	.26045	21.855	.11109	.00878
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.11750**	**.02576**	**.00229**	**152.05**	**.74030**	**.00530**	**.00111**
Stddev	.01021	.00011	.00029	.90	.00426	.00164	.00073
%RSD	8.6906	.44498	12.677	.58966	.57582	30.961	66.170
#1	.10594	.02590	.00200	151.98	.74193	.00706	.00092
#2	.12127	.02572	.00229	151.19	.74351	.00382	.00191
#3	.12529	.02568	.00258	152.98	.73547	.00501	.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311046701 Acquired: 11/12/2013 15:59:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00072**	**-.00003**	**.73759**	**-.01347**	**.00192**	**.00194**	**-.00196**
Stddev	.00004	.00133	.01112	.00023	.00009	.00139	.00159
%RSD	5.0854	4265.4	1.5079	1.7183	4.7015	71.796	81.062
#1	-.00072	-.00058	.73997	-.01373	.00192	.00301	-.00033
#2	-.00068	.00148	.74733	-.01328	.00183	.00244	-.00204
#3	-.00075	-.00100	.72547	-.01341	.00201	.00037	-.00350
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00043**	**.01089**	F **-3.7478**
Stddev	.00007	.00013	.8135
%RSD	15.063	1.1551	21.706
#1	.00036	.01086	-2.8221
#2	.00049	.01103	-4.0723
#3	.00045	.01078	-4.3489
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25096.**	**33869.**
Stddev	23.	63.
%RSD	.09196	.18648
#1	25071.	33850.
#2	25102.	33940.
#3	25116.	33818.

Approved: November 13, 2013

Sample Name: L1311046801 Acquired: 11/12/2013 16:03:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.05993**	**-.00189**	**.04467**	**.01407**	**.00008**	**53.947**	**.00100**
Stddev	.00028	.01389	.00078	.00135	.00024	.00002	.056	.00003
%RSD	167.63	23.179	41.499	3.0259	1.6787	27.092	.10390	2.7535
#1	-.00048	.07103	-.00135	.04534	.01392	.00010	53.893	.00100
#2	-.00005	.06440	-.00278	.04312	.01395	.00006	53.943	.00103
#3	.00004	.04435	-.00153	.04556	.01434	.00007	54.004	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01651**	**.00246**	**.03475**	**.01686**	**.08356**	**.01086**	**49.495**	**1.4639**
Stddev	.00030	.00022	.00062	.00243	.01504	.00115	.154	.0029
%RSD	1.7951	8.7849	1.7794	14.439	17.997	10.606	.31035	.20138
#1	.01627	.00253	.03434	.01629	.06621	.00972	49.368	1.4612
#2	.01642	.00222	.03546	.01476	.09286	.01203	49.450	1.4670
#3	.01685	.00263	.03445	.01953	.09161	.01084	49.666	1.4634
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**1.9872**	**.37047**	**.00043**	**.00249**	**-.00040**	**.00370**	**2.9540**
Stddev	.00014	.0034	.00174	.00145	.00134	.00160	.00143	.0272
%RSD	41.046	.17158	.47041	340.18	53.794	395.39	38.697	.92125
#1	-.00049	1.9909	.36847	.00209	.00303	.00138	.00230	2.9304
#2	-.00036	1.9842	.37129	-.00023	.00096	-.00171	.00516	2.9479
#3	-.00020	1.9864	.37165	-.00058	.00347	-.00088	.00363	2.9838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046801 Acquired: 11/12/2013 16:03:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01601**	**.05415**	**-.00128**	**-.00242**	**-.00010**	**.48086**	**.05346**
Stddev	.00019	.00036	.00094	.00087	.00020	.00083	1.4847
%RSD	1.2014	.67362	73.606	35.875	213.23	.17195	2777.3
#1	-.01614	.05386	-.00236	-.00212	-.00017	.47991	.37578
#2	-.01579	.05403	-.00069	-.00174	-.00025	.48124	-1.5660
#3	-.01611	.05456	-.00078	-.00339	.00014	.48143	1.3506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25402.**	**33823.**
Stddev	58.	33.
%RSD	.22723	.09841
#1	25389.	33845.
#2	25465.	33840.
#3	25351.	33785.

Approved: November 13, 2013

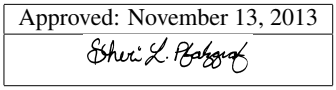
Sample Name: CCV Acquired: 11/12/2013 16:06:30 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40793**	**10.162**	**.40483**	**.51213**	**1.0163**	**.04967**	**9.9172**
Stddev	.00122	.025	.00283	.00290	.0028	.00009	.0434
%RSD	.29831	.24876	.69784	.56532	.27252	.18861	.43765
#1	.40881	10.188	.40798	.51406	1.0131	.04978	9.9563
#2	.40844	10.138	.40253	.51353	1.0180	.04959	9.8705
#3	.40654	10.160	.40397	.50880	1.0178	.04966	9.9248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05099**	**.20561**	**.51019**	**.51819**	**4.0882**	**50.728**	**.99460**
Stddev	.00012	.00009	.00159	.00062	.0048	.058	.00240
%RSD	.22564	.04321	.31165	.11898	.11680	.11397	.24122
#1	.05086	.20561	.51039	.51749	4.0829	50.784	.99268
#2	.05108	.20570	.51167	.51862	4.0922	50.730	.99383
#3	.05104	.20552	.50851	.51847	4.0896	50.669	.99729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.084**	**.50818**	**1.0156**	**50.963**	**.51411**	**10.212**	**.51655**
Stddev	.014	.00351	.0004	.201	.00045	.025	.00101
%RSD	.13407	.68985	.04120	.39353	.08848	.24229	.19526
#1	10.069	.51172	1.0156	51.194	.51400	10.208	.51559
#2	10.091	.50811	1.0151	50.834	.51373	10.189	.51646
#3	10.094	.50471	1.0160	50.861	.51461	10.239	.51760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013



Sample Name: CCV Acquired: 11/12/2013 16:06:30 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2377**	**.40583**	**5.3400**	**1.0371**	**1.0223**	**1.0050**	**.51871**
Stddev	.0111	.00443	.0432	.0020	.0013	.0009	.00504
%RSD	.90032	1.0919	.80930	.18874	.12645	.09169	.97072
#1	1.2368	.40323	5.3375	1.0358	1.0237	1.0061	.51811
#2	1.2270	.40332	5.2982	1.0361	1.0220	1.0045	.51400
#3	1.2493	.41095	5.3845	1.0394	1.0212	1.0045	.52402
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0062**	**1.0243**	F **.77374**
Stddev	.0012	.0005	.55427
%RSD	.11687	.05068	71.635
#1	1.0048	1.0238	1.3441
#2	1.0071	1.0245	.73994
#3	1.0067	1.0248	.23714
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25771.**	**33791.**
Stddev	49.	152.
%RSD	.19202	.44873
#1	25813.	33618.
#2	25785.	33857.
#3	25716.	33899.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 16:09:45 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.01181**	**-.00034**	**.00368**	**.00001**	**.00000**	**-.00239**
Stddev	.00035	.00148	.00131	.00019	.00013	.0000	.00204
%RSD	263.42	12.522	384.62	5.0754	1150.2	594.47	85.394
#1	-.00045	.01316	.00093	.00377	-.00013	.00000	-.00199
#2	.00024	.01023	-.00025	.00346	.00011	.00001	-.00460
#3	-.00018	.01204	-.00170	.00380	.00006	-.00002	-.00058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.00020**	**.00022**	**-.00003**	**-.00020**	**.10325**	**-.00082**
Stddev	.00007	.00016	.00007	.00009	.00380	.01172	.00043
%RSD	146.29	83.423	30.302	298.60	1885.0	11.347	51.811
#1	.00012	.00023	.00029	.00002	.00324	.09813	-.00048
#2	-.00002	.00002	.00016	-.00014	.00044	.11666	-.00130
#3	.00005	.00034	.00022	.00003	-.00428	.09497	-.00068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00848**	**-.00016**	**.00423**	**.01176**	**-.00001**	**-.00030**	**-.00007**
Stddev	.00894	.00004	.00038	.01409	.00061	.00194	.00152
%RSD	105.46	22.246	9.0470	119.88	4293.8	648.79	2211.6
#1	-.00393	-.00020	.00381	.02069	.00051	-.00174	-.00180
#2	-.00272	-.00013	.00432	.01907	-.00068	.00191	.00054
#3	-.01877	-.00017	.00455	-.00449	.00012	-.00107	.00105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: CCB Acquired: 11/12/2013 16:09:45 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00080**	**.00106**	**.00192**	**-.00069**	**.00011**	**-.00106**	**-.00132**
Stddev	.00094	.00096	.00339	.00032	.00004	.00145	.00025
%RSD	117.28	90.798	176.79	45.892	35.532	136.98	19.223
#1	-.00084	.00077	.00518	-.00093	.00007	.00016	-.00114
#2	.00016	.00027	-.00158	-.00033	.00014	-.00067	-.00161
#3	-.00172	.00213	.00215	-.00082	.00012	-.00266	-.00121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**-.00103**	F **-.41721**
Stddev	.00015	.00010	.35362
%RSD	222.09	9.5181	84.757
#1	.00001	-.00111	-.69263
#2	.00023	-.00106	-.01844
#3	-.00004	-.00092	-.54056
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25787.**	**33680.**
Stddev	23.	74.
%RSD	.08822	.21954
#1	25774.	33731.
#2	25814.	33714.
#3	25775.	33595.

Approved: November 13, 2013
Sheri L. Babcock

L1311047602

Sample Name: ~~L1311047601~~ Acquired: 11/12/2013 16:13:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00049**	**.99152**	**.01587**	**.04829**	**.00615**	**.00014**	**4.1235**	**.00020**
Stddev	.00036	.01191	.00163	.00060	.00023	.00003	.0071	.00008
%RSD	74.441	1.2009	10.272	1.2325	3.8196	22.793	.17302	40.114
#1	.00090	1.0024	.01536	.04760	.00640	.00014	4.1176	.00027
#2	.00034	.97879	.01769	.04858	.00610	.00017	4.1214	.00022
#3	.00022	.99337	.01456	.04867	.00594	.00011	4.1314	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01003**	**.00327**	**.01989**	**1.1203**	**1.5062**	**.00106**	**.82612**	**.02275**
Stddev	.00025	.00016	.00028	.0023	.0219	.00154	.01643	.00010
%RSD	2.4551	4.8222	1.4179	.20261	1.4547	145.98	1.9883	.42224
#1	.00991	.00320	.01956	1.1199	1.5303	.00281	.83222	.02283
#2	.00988	.00345	.02001	1.1182	1.4875	.00045	.80751	.02278
#3	.01032	.00316	.02008	1.1227	1.5008	-.00009	.83862	.02265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01283**	**206.64**	**.04195**	**.94415**	**.02209**	**.00014**	**.00117**	**3.4973**
Stddev	.00040	2.33	.00065	.01077	.00138	.00166	.00180	.0275
%RSD	3.1193	1.1278	1.5510	1.1406	6.2309	1145.7	154.40	.78577
#1	.01237	203.95	.04238	.93208	.02053	-.00007	-.00001	3.4689
#2	.01300	207.97	.04120	.95278	.02314	-.00140	.00027	3.4990
#3	.01312	208.01	.04227	.94760	.02259	.00190	.00324	3.5238
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

L1311047602

Sample Name: ~~L1311047601~~ Acquired: 11/12/2013 16:13:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01595**	**.00753**	**.04650**	**-.00232**	**.03496**	**.01042**	**25.768**
Stddev	.00030	.00012	.00137	.00092	.00028	.00011	.533
%RSD	1.8912	1.5784	2.9376	39.614	.79054	1.0918	2.0696
#1	-.01611	.00747	.04732	-.00252	.03521	.01055	26.053
#2	-.01560	.00745	.04492	-.00312	.03500	.01038	25.152
#3	-.01613	.00766	.04726	-.00132	.03466	.01033	26.097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25064.**	**33959.**
Stddev	46.	52.
%RSD	.18161	.15446
#1	25116.	33901.
#2	25045.	34003.
#3	25031.	33974.

Approved: November 13, 2013

Sample Name: L1311049201 Acquired: 11/12/2013 16:16:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00080**	**.04880**	**-.00142**	**.01080**	**.18485**	**.00002**	F **393.99**
Stddev	.00019	.00615	.00181	.00044	.00038	.00004	2.04
%RSD	24.464	12.611	127.50	4.1198	.20784	187.29	.51809
#1	-.00092	.05571	-.00319	.01080	.18454	-.00002	394.58
#2	-.00057	.04392	-.00152	.01124	.18528	.00003	391.72
#3	-.00089	.04677	.00044	.01035	.18472	.00004	395.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**-.00039**	**.00138**	**.00169**	**.07514**	**224.56**	**.12550**
Stddev	.00006	.00016	.00024	.00083	.00140	.41	.00068
%RSD	24.145	42.525	17.159	49.202	1.8672	.18164	.54282
#1	.00032	-.00055	.00114	.00245	.07676	225.04	.12483
#2	.00024	-.00038	.00162	.00080	.07443	224.35	.12547
#3	.00020	-.00022	.00137	.00183	.07424	224.31	.12619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02420**	**.00018**	**.00619**	**319.30**	**.00030**	**.04536**	**.00324**
Stddev	.00385	.00004	.00011	3.82	.00031	.00503	.00209
%RSD	15.917	24.146	1.7287	1.1967	104.49	11.090	64.481
#1	.01976	.00022	.00609	321.59	.00060	.04888	.00085
#2	.02621	.00018	.00618	321.42	-.00002	.04759	.00470
#3	.02663	.00014	.00631	314.89	.00032	.03959	.00416
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311049201 Acquired: 11/12/2013 16:16:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.09890**	**.27476**	**-.01619**	**.35407**	**-.00642**	**-.00460**
Stddev	.00238	.00160	.00675	.00029	.00043	.00032	.00133
%RSD	2198.0	1.6194	2.4559	1.8163	.12241	4.9725	28.931
#1	.00184	.09715	.27584	-.01651	.35438	-.00648	-.00478
#2	.00059	.09926	.28091	-.01614	.35357	-.00608	-.00319
#3	-.00276	.10029	.26754	-.01593	.35425	-.00671	-.00583
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00000**	**.04499**	F **-.89341**
Stddev	.00010	.00006	.70402
%RSD	2666.5	.13123	78.801
#1	-.00009	.04500	-.76287
#2	.00011	.04503	-1.6536
#3	.00000	.04492	-.26381
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23399.**	**32953.**
Stddev	60.	114.
%RSD	.25832	.34622
#1	23453.	32825.
#2	23409.	32988.
#3	23334.	33045.

Approved: November 13, 2013

Sample Name: L1311049301 Acquired: 11/12/2013 16:20:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.02471**	**-.00258**	**.25502**	**.08279**	**.00004**	F **412.55**
Stddev	.00017	.00402	.00078	.00137	.00018	.00002	2.07
%RSD	43.443	16.280	30.312	.53826	.22232	43.008	.50057
#1	-.00060	.02124	-.00257	.25496	.08273	.00005	413.04
#2	-.00035	.02912	-.00337	.25368	.08264	.00002	414.33
#3	-.00026	.02378	-.00180	.25642	.08299	.00006	410.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00307**	**-.00037**	**.00109**	**.01640**	**.04816**	**250.42**	**.11740**
Stddev	.00009	.00014	.00024	.00019	.00170	.54	.00180
%RSD	2.7869	37.932	22.302	1.1682	3.5335	.21515	1.5339
#1	.00298	-.00021	.00113	.01619	.04979	250.90	.11796
#2	.00310	-.00048	.00132	.01656	.04639	249.84	.11539
#3	.00314	-.00043	.00083	.01646	.04830	250.52	.11886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.460**	**.05514**	**.01617**	**329.61**	**.00001**	**.03849**	**.00091**
Stddev	.043	.00048	.00012	2.41	.00072	.00455	.00123
%RSD	.25944	.87654	.73458	.73115	7458.9	11.831	134.84
#1	16.439	.05458	.01631	330.93	.00049	.03541	.00233
#2	16.509	.05535	.01608	331.07	-.00082	.04372	.00030
#3	16.431	.05548	.01613	326.83	.00035	.03635	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311049301 Acquired: 11/12/2013 16:20:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00535**	**.17840**	**.13579**	**-.01563**	**.33816**	**-.00701**	**-.00464**
Stddev	.00190	.00203	.00513	.00030	.00107	.00021	.00167
%RSD	35.513	1.1367	3.7796	1.9293	.31619	3.0501	35.958
#1	.00653	.17923	.14141	-.01555	.33860	-.00695	-.00287
#2	.00316	.17987	.13136	-.01538	.33694	-.00725	-.00488
#3	.00636	.17609	.13460	-.01597	.33894	-.00684	-.00618
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00076**	**.00417**	F **-1.7093**
Stddev	.00031	.00013	.1242
%RSD	41.225	3.0209	7.2657
#1	.00040	.00431	-1.5790
#2	.00097	.00413	-1.8264
#3	.00091	.00406	-1.7224
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23240.**	**32707.**
Stddev	21.	177.
%RSD	.09179	.54258
#1	23264.	32912.
#2	23233.	32603.
#3	23224.	32605.

Approved: November 13, 2013

Sample Name: L1311049501 Acquired: 11/12/2013 16:24:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00059**	**.23677**	**-.00060**	**.01139**	**.14066**	**.00007**	F **338.88**
Stddev	.00017	.01664	.00048	.00028	.00056	.00002	1.22
%RSD	28.255	7.0301	80.189	2.4786	.39849	23.102	.36010
#1	-.00054	.24220	-.00084	.01171	.14006	.00009	339.66
#2	-.00045	.25002	-.00005	.01124	.14075	.00006	337.47
#3	-.00077	.21809	-.00091	.01121	.14117	.00007	339.49
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**-.00025**	**.00145**	**.00144**	**.11008**	**226.23**	**.30357**
Stddev	.00010	.00006	.00030	.00051	.00322	.16	.00131
%RSD	35.130	23.283	20.537	35.411	2.9268	.07078	.43286
#1	.00029	-.00019	.00179	.00091	.10645	226.05	.30501
#2	.00038	-.00030	.00133	.00193	.11118	226.29	.30327
#3	.00018	-.00028	.00124	.00148	.11260	226.35	.30244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.16827**	**.00283**	**.00147**	**341.45**	**.00018**	**.10303**	**.00656**
Stddev	.02233	.00008	.00005	2.39	.00087	.00364	.00059
%RSD	13.272	2.7747	3.6278	.69969	494.48	3.5302	8.9580
#1	.14380	.00291	.00145	343.24	-.00013	.10399	.00589
#2	.17347	.00275	.00153	342.36	-.00050	.10609	.00695
#3	.18754	.00283	.00144	338.73	.00116	.09901	.00686
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311049501 Acquired: 11/12/2013 16:24:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**.19665**	**.09126**	**-.01633**	**.23436**	**-.00523**	**-.00390**
Stddev	.00114	.00222	.00525	.00028	.00067	.00011	.00192
%RSD	295.67	1.1297	5.7562	1.7228	.28756	2.0141	49.304
#1	.00166	.19747	.08656	-.01615	.23373	-.00513	-.00609
#2	-.00056	.19835	.09693	-.01666	.23429	-.00534	-.00315
#3	.00007	.19414	.09029	-.01619	.23507	-.00521	-.00246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00030**	**.07461**	**.11486**
Stddev	.00025	.00043	.44484
%RSD	84.873	.57023	387.28
#1	.00056	.07486	.47202
#2	.00006	.07486	.25599
#3	.00028	.07412	-.38343
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23539.**	**33173.**
Stddev	29.	49.
%RSD	.12162	.14862
#1	23527.	33119.
#2	23572.	33183.
#3	23518.	33216.

Approved: November 13, 2013
Sheri L. Babcock

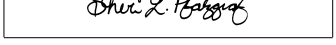
Sample Name: L1311051901 Acquired: 11/12/2013 16:28:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.02274**	**-.00125**	**.05300**	**.01884**	**.00001**	**75.173**	**.00034**
Stddev	.00053	.00437	.00084	.00124	.00017	.00000	.180	.00003
%RSD	130.50	19.239	67.072	2.3421	.89249	22.534	.24005	9.2924
#1	.00000	.02197	-.00185	.05442	.01901	.00001	75.115	.00037
#2	-.00022	.01880	-.00161	.05213	.01883	.00000	75.030	.00031
#3	-.00100	.02744	-.00029	.05244	.01867	.00001	75.376	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.00134**	**-.00014**	**.06440**	**1.4569**	**.00730**	**1.3340**	**.06641**
Stddev	.00005	.00024	.00069	.00628	.0120	.00156	.0124	.00057
%RSD	9.1762	17.970	498.22	9.7447	.82598	21.378	.93111	.85313
#1	.00050	.00132	-.00021	.05768	1.4708	.00785	1.3374	.06639
#2	.00060	.00111	.00058	.06541	1.4495	.00553	1.3203	.06585
#3	.00055	.00159	-.00079	.07011	1.4504	.00850	1.3444	.06698
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**151.36**	**.00358**	**.02836**	**.00084**	**-.00055**	**.00184**	**1.8586**
Stddev	.00011	.36	.00075	.00166	.00034	.00173	.00098	.0295
%RSD	22.756	.23744	20.854	5.8591	40.782	316.73	53.008	1.5846
#1	.00051	151.72	.00420	.02907	.00066	-.00051	.00262	1.8454
#2	.00038	151.36	.00379	.02646	.00124	.00116	.00074	1.8923
#3	.00061	151.00	.00275	.02955	.00063	-.00229	.00216	1.8380
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

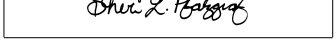


Sample Name: L1311051901 Acquired: 11/12/2013 16:28:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01597**	**.10892**	**.00056**	**-.00473**	**.00187**	**.06504**	**.48559**
Stddev	.00047	.00029	.00039	.00153	.00009	.00099	1.0300
%RSD	2.9492	.26587	69.206	32.333	5.0318	1.5190	212.10
#1	-.01543	.10925	.00011	-.00300	.00177	.06392	-.18496
#2	-.01630	.10876	.00079	-.00530	.00186	.06579	-.02978
#3	-.01617	.10874	.00078	-.00590	.00196	.06541	1.6715
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24857.**	**34204.**
Stddev	71.	160.
%RSD	.28601	.46662
#1	24778.	34066.
#2	24876.	34379.
#3	24917.	34166.

Approved: November 13, 2013



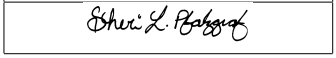
Sample Name: L1311051901S Acquired: 11/12/2013 16:31:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20093**	**4.9247**	**.19519**	**1.0251**	**.49972**	**.02453**	**81.525**	**.02486**
Stddev	.00056	.0539	.00012	.0017	.00526	.00004	.902	.00012
%RSD	.27723	1.0952	.06215	.16900	1.0522	.15577	1.1065	.49415
#1	.20149	4.8642	.19518	1.0233	.49365	.02450	80.497	.02490
#2	.20092	4.9679	.19507	1.0268	.50275	.02458	82.184	.02472
#3	.20037	4.9419	.19532	1.0252	.50277	.02451	81.893	.02495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09859**	**.25063**	**.24502**	**2.2240**	**25.413**	**.49432**	**6.1087**	**.30239**
Stddev	.00010	.00089	.00032	.0284	.240	.00577	.0514	.00226
%RSD	.10076	.35613	.13083	1.2750	.94417	1.1675	.84128	.74710
#1	.09849	.25165	.24537	2.1935	25.136	.48767	6.0512	.30102
#2	.09858	.25020	.24475	2.2495	25.554	.49724	6.1502	.30500
#3	.09869	.25003	.24493	2.2291	25.549	.49804	6.1247	.30116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50728**	**172.79**	**.24805**	**.03301**	**.24470**	**.59230**	**.19741**	**4.3889**
Stddev	.00060	5.28	.00081	.00396	.00090	.00137	.00319	.0174
%RSD	.11746	3.0539	.32667	11.994	.36768	.23091	1.6156	.39705
#1	.50782	166.72	.24857	.02944	.24557	.59098	.19977	4.4059
#2	.50664	175.40	.24846	.03232	.24476	.59221	.19866	4.3711
#3	.50738	176.26	.24712	.03726	.24377	.59371	.19378	4.3897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

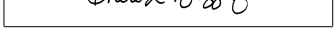


Sample Name: L1311051901S Acquired: 11/12/2013 16:31:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51682**	**.58418**	**.48748**	**.23933**	**.50506**	**.54411**	**1.6563**
Stddev	.00115	.00743	.00642	.00196	.00025	.00029	.4037
%RSD	.22201	1.2710	1.3165	.82059	.04859	.05338	24.373
#1	.51588	.57561	.48008	.23707	.50523	.54413	2.1193
#2	.51649	.58818	.49086	.24062	.50517	.54381	1.3774
#3	.51810	.58875	.49150	.24029	.50478	.54439	1.4724
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24748.**	**34267.**
Stddev	23.	219.
%RSD	.09446	.63776
#1	24725.	34453.
#2	24748.	34026.
#3	24772.	34322.

Approved: November 13, 2013



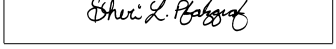
Sample Name: L1311051901SD Acquired: 11/12/2013 16:35:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19956**	**4.8678**	**.19697**	**1.0247**	**.49827**	**.02436**	**82.633**	**.02492**
Stddev	.00093	.0798	.00066	.0055	.00487	.00021	.975	.00007
%RSD	.46687	1.6387	.33521	.53933	.97783	.84523	1.1801	.26687
#1	.20061	4.7760	.19751	1.0304	.49266	.02460	81.507	.02492
#2	.19883	4.9076	.19623	1.0194	.50135	.02425	83.182	.02499
#3	.19925	4.9199	.19716	1.0241	.50082	.02424	83.210	.02485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09901**	**.24762**	**.24460**	**1.9852**	**25.576**	**.49613**	**6.0771**	**.30205**
Stddev	.00032	.00189	.00043	.0211	.251	.00572	.0476	.00197
%RSD	.32034	.76283	.17493	1.0609	.98127	1.1526	.78299	.65349
#1	.09936	.24942	.24509	1.9609	25.290	.48990	6.0221	.29994
#2	.09874	.24778	.24439	1.9966	25.674	.49736	6.1042	.30237
#3	.09894	.24566	.24431	1.9981	25.762	.50114	6.1048	.30385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50984**	**176.56**	**.24820**	**.02813**	**.24534**	**.59521**	**.19837**	**4.3585**
Stddev	.00027	6.19	.00034	.00351	.00231	.00298	.00154	.0259
%RSD	.05220	3.5039	.13874	12.495	.94335	.50096	.77706	.59442
#1	.51001	169.93	.24843	.02513	.24709	.59347	.20000	4.3700
#2	.50999	177.56	.24836	.02727	.24272	.59865	.19693	4.3289
#3	.50954	182.18	.24780	.03200	.24622	.59351	.19818	4.3767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311051901SD Acquired: 11/12/2013 16:35:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452368-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53063**	**.59107**	**.48844**	**.23452**	**.50298**	**.54596**	**1.1087**
Stddev	.00341	.00659	.00529	.00101	.00170	.00043	.8867
%RSD	.64247	1.1151	1.0828	.43261	.33729	.07831	79.975
#1	.53413	.58348	.48251	.23430	.50490	.54645	2.0322
#2	.52731	.59440	.49268	.23364	.50233	.54569	1.0296
#3	.53046	.59534	.49014	.23563	.50171	.54573	.26420
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24895.**	**33975.**
Stddev	23.	350.
%RSD	.09403	1.0298
#1	24870.	34355.
#2	24917.	33903.
#3	24899.	33666.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 16:38:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40511**	**10.174**	**.40525**	**.51182**	**1.0074**	**.04981**	**10.032**
Stddev	.00081	.030	.00138	.00087	.0013	.00017	.025
%RSD	.19991	.29373	.34027	.17081	.12999	.33989	.25275
#1	.40426	10.208	.40466	.51272	1.0078	.04966	10.003
#2	.40588	10.152	.40426	.51097	1.0060	.04999	10.047
#3	.40519	10.161	.40683	.51178	1.0085	.04979	10.046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05120**	**.20569**	**.50359**	**.51456**	**4.0431**	**50.119**	**1.0021**
Stddev	.00004	.00019	.00114	.00097	.0123	.099	.0019
%RSD	.07846	.09048	.22711	.18866	.30444	.19769	.18913
#1	.05120	.20553	.50436	.51345	4.0451	50.054	1.0043
#2	.05124	.20565	.50413	.51500	4.0299	50.070	1.0011
#3	.05116	.20590	.50228	.51524	4.0543	50.233	1.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.066**	**.50488**	**1.0139**	**50.002**	**.51596**	**10.129**	**.51844**
Stddev	.048	.00274	.0015	.067	.00074	.033	.00071
%RSD	.47714	.54237	.14393	.13323	.14396	.32488	.13652
#1	10.011	.50178	1.0137	50.073	.51514	10.092	.51888
#2	10.089	.50697	1.0155	49.992	.51613	10.141	.51881
#3	10.099	.50588	1.0126	49.941	.51660	10.155	.51762
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

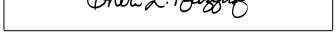
Sample Name: CCV Acquired: 11/12/2013 16:38:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2314**	**.40613**	**5.1642**	**1.0249**	**1.0155**	**1.0062**	**.51848**
Stddev	.0052	.00183	.0367	.0014	.0009	.0027	.00238
%RSD	.42404	.45058	.71050	.13659	.08659	.26561	.45892
#1	1.2257	.40530	5.1230	1.0253	1.0160	1.0031	.51888
#2	1.2323	.40486	5.1935	1.0233	1.0145	1.0081	.52064
#3	1.2360	.40822	5.1761	1.0260	1.0160	1.0073	.51593
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0095**	**1.0130**	F **.72518**
Stddev	.0038	.0017	1.5051
%RSD	.37199	.16950	207.54
#1	1.0073	1.0111	.88967
#2	1.0138	1.0137	2.1412
#3	1.0074	1.0143	-.85537
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25884.**	**34033.**
Stddev	62.	195.
%RSD	.24004	.57305
#1	25955.	34257.
#2	25857.	33947.
#3	25839.	33897.

Approved: November 13, 2013



Sample Name: CCB Acquired: 11/12/2013 16:41:49 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.00977**	**-.00047**	**.00510**	**.00010**	**.00001**	**.00742**
Stddev	.00016	.02597	.00097	.00111	.00009	.00001	.01242
%RSD	94.341	265.72	204.83	21.715	91.744	66.491	167.33
#1	.00000	-.01157	.00004	.00464	.00013	.00002	.01208
#2	-.00032	.03869	-.00159	.00636	.00016	.00001	.01683
#3	-.00019	.00220	.00013	.00430	.00000	.00001	-.00665
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00019**	**.00020**	**-.00025**	**-.00393**	**.01322**	**.00254**
Stddev	.00006	.00014	.00029	.00037	.00272	.02077	.00124
%RSD	71.376	72.063	143.52	149.51	69.180	157.16	48.744
#1	.00015	.00027	.00018	-.00003	-.00156	.00757	.00130
#2	.00007	.00003	.00051	-.00067	-.00332	.03624	.00378
#3	.00003	.00027	-.00008	-.00004	-.00690	-.00414	.00255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00139**	**-.00018**	**.00425**	**.06657**	**-.00021**	**.00380**	**.00156**
Stddev	.00406	.00003	.00036	.00147	.00036	.00429	.00013
%RSD	292.85	15.355	8.5717	2.2100	165.68	112.86	8.0332
#1	.00521	-.00016	.00383	.06491	-.00050	.00497	.00143
#2	.00182	-.00017	.00438	.06771	-.00033	-.00095	.00156
#3	-.00288	-.00021	.00452	.06709	.00018	.00739	.00168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

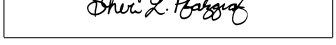
Sample Name: CCB Acquired: 11/12/2013 16:41:49 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00115**	**.00008**	**.00077**	**-.00045**	**.00002**	**-.00018**	**-.00228**
Stddev	.00129	.00162	.00299	.00027	.00006	.00037	.00108
%RSD	112.23	2109.5	387.13	59.392	274.50	200.37	47.118
#1	.00016	.00181	.00359	-.00071	.00010	.00003	-.00327
#2	-.00119	-.00019	.00110	-.00018	.00000	.00003	-.00245
#3	-.00241	-.00139	-.00237	-.00047	-.00002	-.00061	-.00114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00020**	**-.00089**	F **-.36969**
Stddev	.00006	.00011	1.2464
%RSD	29.996	12.258	337.14
#1	.00018	-.00085	-.36958
#2	.00016	-.00102	.87663
#3	.00027	-.00081	-1.6161
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26052.**	**33946.**
Stddev	64.	217.
%RSD	.24757	.64000
#1	26125.	34097.
#2	26032.	34044.
#3	26001.	33697.

Approved: November 13, 2013



Sample Name: PBW 4P Acquired: 11/12/2013 16:45:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.01533**	**.00032**	**.00320**	**.00028**	**-.00002**	**.02216**
Stddev	.00048	.00961	.00107	.00094	.00005	.00003	.00991
%RSD	328.52	62.697	337.58	29.330	19.404	158.80	44.712
#1	.00002	.02310	.00085	.00417	.00034	.00001	.01962
#2	.00067	.01830	.00102	.00312	.00028	-.00004	.01377
#3	-.00025	.00458	-.00092	.00230	.00023	-.00001	.03309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00012**	**.00090**	**.00037**	**.00072**	**.03993**	**.00100**
Stddev	.00009	.00014	.00036	.00037	.00203	.02623	.00139
%RSD	79.780	113.36	39.509	98.650	281.43	65.694	139.34
#1	.00022	-.00002	.00118	.00018	.00304	.01137	.00227
#2	.00006	.00026	.00102	.00080	-.00012	.04548	-.00049
#3	.00007	.00012	.00050	.00014	-.00075	.06294	.00122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01381**	**-.00011**	**.00027**	**.06199**	**.00031**	**.00144**	**.00076**
Stddev	.00463	.00004	.00019	.00988	.00014	.00320	.00012
%RSD	33.550	38.420	69.343	15.945	46.026	222.54	15.710
#1	.01340	-.00009	.00013	.05067	.00044	.00087	.00062
#2	.00939	-.00016	.00020	.06636	.00016	.00488	.00083
#3	.01863	-.00008	.00049	.06893	.00034	-.00144	.00082
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: PBW 4P Acquired: 11/12/2013 16:45:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00106**	**.00121**	**.00051**	**-.01632**	**.00003**	**.00001**	**-.00331**
Stddev	.00381	.00125	.00232	.00013	.00005	.00092	.00046
%RSD	360.34	103.40	457.95	.81667	181.76	7423.7	14.013
#1	.00193	.00215	.00014	-.01624	.00004	.00103	-.00338
#2	-.00534	.00168	.00298	-.01647	.00008	-.00021	-.00281
#3	.00024	-.00021	-.00160	-.01625	-.00003	-.00078	-.00373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00005**	**.00021**	F **-.30489**
Stddev	.00013	.00014	.51006
%RSD	232.44	66.187	167.29
#1	.00004	.00023	-.80338
#2	-.00020	.00007	-.32730
#3	.00000	.00035	.21601
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25732.**	**34097.**
Stddev	16.	88.
%RSD	.06224	.25748
#1	25716.	34180.
#2	25733.	34005.
#3	25748.	34106.

Approved: November 13, 2013

Sample Name: LCSW 4P Acquired: 11/12/2013 16:48:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20043**	**4.8729**	**.19365**	**.99209**	**.48142**	**.02439**	**4.8871**	**.02481**
Stddev	.00073	.0228	.00114	.00366	.00030	.00012	.0248	.00005
%RSD	.36265	.46884	.58647	.36898	.06276	.47907	.50682	.19313
#1	.19993	4.8747	.19308	.98801	.48150	.02426	4.8748	.02487
#2	.20126	4.8492	.19496	.99508	.48108	.02443	4.8710	.02477
#3	.20009	4.8948	.19292	.99318	.48167	.02449	4.9156	.02480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10058**	**.24847**	**.25083**	**1.9469**	**23.842**	**.48243**	**4.8684**	**.24861**
Stddev	.00017	.00090	.00022	.0131	.020	.00051	.0365	.00073
%RSD	.17097	.36376	.08733	.67025	.08553	.10564	.74876	.29221
#1	.10048	.24744	.25068	1.9330	23.823	.48242	4.8489	.24853
#2	.10048	.24916	.25108	1.9490	23.863	.48192	4.8458	.24792
#3	.10078	.24880	.25072	1.9588	23.839	.48294	4.9104	.24937
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49940**	**23.823**	**.25190**	**.00087**	**.25418**	**.59701**	**.19590**	**2.4481**
Stddev	.00069	.018	.00053	.00432	.00066	.00201	.00320	.0028
%RSD	.13849	.07388	.21060	494.65	.25949	.33726	1.6340	.11474
#1	.49959	23.820	.25251	-.00132	.25343	.59531	.19851	2.4464
#2	.49863	23.807	.25164	-.00191	.25443	.59649	.19685	2.4513
#3	.49997	23.841	.25155	.00585	.25467	.59923	.19233	2.4465
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: LCSW 4P Acquired: 11/12/2013 16:48:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51296**	**.48118**	**.48755**	**.25698**	**.49368**	**.49062**	**.93831**
Stddev	.00294	.00039	.00092	.00159	.00260	.00088	.48431
%RSD	.57398	.08024	.18797	.61793	.52747	.18011	51.616
#1	.51003	.48074	.48684	.25530	.49069	.49025	1.3203
#2	.51294	.48146	.48722	.25718	.49493	.48999	1.1011
#3	.51592	.48133	.48858	.25846	.49543	.49163	.39358
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25676.**	**33767.**
Stddev	107.	164.
%RSD	.41592	.48481
#1	25777.	33743.
#2	25687.	33941.
#3	25564.	33616.

Approved: November 13, 2013
Sheri L. Babcock

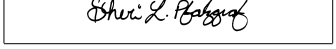
Sample Name: L1311032013 Acquired: 11/12/2013 16:52:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.01869**	**.00053**	**.01516**	**.01127**	**.00000**	**45.306**	**.00024**
Stddev	.00073	.01915	.00021	.00020	.00006	.00001	.137	.00018
%RSD	411.91	102.47	40.594	1.3426	.51197	347.96	.30223	77.587
#1	.00081	.01349	.00055	.01540	.01130	.00002	45.421	.00028
#2	.00036	.00268	.00073	.01505	.01130	.00000	45.155	.00040
#3	-.00063	.03990	.00030	.01504	.01120	.00000	45.343	.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**.00070**	**-.00015**	**.85869**	**.56677**	**.00434**	**6.3338**	**.07554**
Stddev	.00002	.00015	.00034	.00564	.03003	.00229	.0330	.00011
%RSD	8.0042	21.630	216.46	.65679	5.2978	52.717	.52159	.14342
#1	.00024	.00053	-.00022	.86177	.59931	.00180	6.3430	.07543
#2	.00028	.00079	.00021	.86211	.56088	.00623	6.2971	.07554
#3	.00025	.00079	-.00045	.85218	.54013	.00500	6.3612	.07565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00164**	**2.5635**	**.00025**	**.00305**	**.00082**	**-.00089**	**-.00019**	**3.0719**
Stddev	.00028	.0090	.00066	.00232	.00039	.00171	.00111	.0218
%RSD	17.310	.35005	262.07	75.850	48.218	191.11	578.88	.71087
#1	.00139	2.5690	-.00002	.00364	.00070	.00055	-.00048	3.0630
#2	.00159	2.5683	-.00023	.00502	.00049	-.00278	-.00113	3.0558
#3	.00195	2.5531	.00101	.00050	.00125	-.00045	.00103	3.0967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

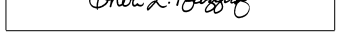


Sample Name: L1311032013 Acquired: 11/12/2013 16:52:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01625**	**.04983**	**-.00076**	**-.00201**	**.00027**	**.00183**	**1.0459**
Stddev	.00035	.00010	.00019	.00127	.00018	.00007	.5341
%RSD	2.1686	.19791	25.083	63.051	63.829	4.0383	51.064
#1	-.01657	.04990	-.00064	-.00057	.00047	.00178	.75575
#2	-.01587	.04972	-.00066	-.00294	.00020	.00192	.71973
#3	-.01631	.04987	-.00098	-.00252	.00014	.00179	1.6623
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25716.**	**33752.**
Stddev	65.	46.
%RSD	.25326	.13679
#1	25679.	33731.
#2	25791.	33805.
#3	25678.	33720.

Approved: November 13, 2013



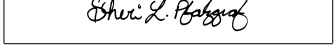
Sample Name: L1311032013S Acquired: 11/12/2013 16:55:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20150**	**4.9843**	**.19787**	**1.0152**	**.49908**	**.02440**	**51.278**	**.02512**
Stddev	.00072	.0149	.00138	.0021	.00198	.00005	.099	.00005
%RSD	.35955	.29943	.69869	.20975	.39654	.18772	.19395	.17951
#1	.20230	4.9782	.19651	1.0168	.50118	.02445	51.168	.02511
#2	.20133	4.9734	.19928	1.0160	.49881	.02438	51.362	.02508
#3	.20088	5.0013	.19783	1.0128	.49725	.02437	51.304	.02516
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10059**	**.24692**	**.25091**	**2.8520**	**25.069**	**.49265**	**11.305**	**.32129**
Stddev	.00019	.00109	.00017	.0090	.017	.00088	.035	.00078
%RSD	.18999	.44262	.06659	.31669	.06631	.17958	.31220	.24194
#1	.10065	.24745	.25077	2.8492	25.086	.49334	11.266	.32060
#2	.10075	.24764	.25110	2.8621	25.069	.49296	11.334	.32113
#3	.10038	.24566	.25088	2.8447	25.053	.49165	11.315	.32213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50608**	**27.422**	**.25109**	**.00460**	**.25613**	**.61014**	**.19959**	**5.8252**
Stddev	.00133	.076	.00039	.00130	.00124	.00115	.00307	.0936
%RSD	.26335	.27563	.15545	28.230	.48334	.18861	1.5375	1.6062
#1	.50648	27.350	.25084	.00389	.25549	.61127	.20246	5.9093
#2	.50718	27.414	.25154	.00609	.25755	.61018	.19996	5.8419
#3	.50460	27.501	.25090	.00380	.25534	.60897	.19636	5.7244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

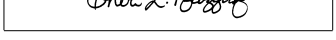


Sample Name: L1311032013S Acquired: 11/12/2013 16:55:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.52765**	**.54434**	**.49105**	**.25460**	**.49528**	**.49255**	**2.8856**
Stddev	.00351	.00037	.00176	.00237	.00149	.00059	.7296
%RSD	.66551	.06746	.35799	.92981	.29983	.12075	25.283
#1	.52914	.54408	.48996	.25481	.49657	.49188	3.1531
#2	.53016	.54416	.49011	.25686	.49561	.49300	3.4436
#3	.52363	.54476	.49308	.25214	.49366	.49278	2.0600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25475.**	**33621.**
Stddev	56.	53.
%RSD	.21970	.15672
#1	25415.	33642.
#2	25484.	33660.
#3	25526.	33561.

Approved: November 13, 2013



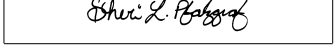
Sample Name: L1311032013SD Acquired: 11/12/2013 16:58:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20116**	**4.9929**	**.19822**	**1.0097**	**.49721**	**.02428**	**49.616**	**.02489**
Stddev	.00055	.0167	.00080	.0046	.00202	.00006	.108	.00022
%RSD	.27148	.33400	.40159	.45401	.40559	.23319	.21766	.87201
#1	.20071	5.0099	.19732	1.0097	.49794	.02428	49.697	.02514
#2	.20100	4.9923	.19882	1.0051	.49493	.02423	49.657	.02478
#3	.20177	4.9766	.19852	1.0143	.49876	.02434	49.493	.02475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10051**	**.24523**	**.25040**	**2.8155**	**25.085**	**.49001**	**11.082**	**.32008**
Stddev	.00019	.00084	.00053	.0043	.036	.00215	.019	.00136
%RSD	.19249	.34454	.20970	.15335	.14552	.43940	.17392	.42362
#1	.10069	.24596	.25081	2.8121	25.122	.48797	11.093	.31857
#2	.10031	.24430	.24981	2.8142	25.049	.48980	11.093	.32051
#3	.10054	.24544	.25059	2.8204	25.082	.49226	11.060	.32118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50588**	**27.394**	**.25098**	**.00456**	**.25583**	**.60646**	**.19794**	**5.7252**
Stddev	.00108	.082	.00050	.00502	.00061	.00137	.00272	.0326
%RSD	.21441	.29799	.20004	110.10	.23819	.22548	1.3748	.56885
#1	.50707	27.405	.25118	.00799	.25638	.60538	.20022	5.6876
#2	.50493	27.469	.25135	.00687	.25595	.60602	.19868	5.7447
#3	.50565	27.307	.25040	-.00120	.25518	.60800	.19493	5.7433
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

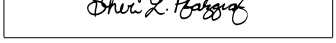


Sample Name: L1311032013SD Acquired: 11/12/2013 16:58:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452241-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48546**	**.54348**	**.49186**	**.25429**	**.49082**	**.49338**	**3.1210**
Stddev	.00448	.00162	.00137	.00322	.00142	.00057	.8691
%RSD	.92223	.29812	.27865	1.2651	.28979	.11488	27.848
#1	.48094	.54526	.49314	.25151	.49023	.49317	2.9451
#2	.48989	.54308	.49042	.25781	.48979	.49295	2.3533
#3	.48557	.54210	.49203	.25353	.49244	.49402	4.0647
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25589.**	**33383.**
Stddev	54.	41.
%RSD	.21004	.12147
#1	25563.	33429.
#2	25651.	33371.
#3	25553.	33350.

Approved: November 13, 2013



Sample Name: L1311032015 Acquired: 11/12/2013 17:02:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.02363**	**-.00012**	**.01664**	**.01137**	**.00001**	**44.794**	**.00014**
Stddev	.00034	.00911	.00129	.00020	.00022	.00001	.167	.00006
%RSD	408.19	38.571	1065.8	1.2287	1.9767	96.826	.37321	43.107
#1	.00028	.03258	.00137	.01686	.01137	.00000	44.915	.00018
#2	-.00040	.01436	-.00094	.01659	.01114	.00002	44.864	.00018
#3	-.00014	.02394	-.00079	.01646	.01159	.00002	44.603	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00043**	**.00014**	**.90351**	**.60007**	**.00364**	**6.3356**	**.07618**
Stddev	.00007	.00035	.00058	.00502	.01593	.00120	.0181	.00017
%RSD	58.220	81.304	410.20	.55611	2.6553	32.898	.28537	.21798
#1	.00018	.00078	.00041	.90120	.58174	.00466	6.3484	.07599
#2	.00012	.00044	-.00052	.90927	.60788	.00232	6.3436	.07631
#3	.00005	.00008	.00054	.90005	.61059	.00395	6.3149	.07623
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00145**	**2.6327**	**.00042**	**-.00034**	**.00245**	**.00212**	**.00175**	**3.2115**
Stddev	.00030	.0108	.00036	.00611	.00099	.00163	.00359	.0234
%RSD	20.396	.40981	86.753	1792.1	40.211	76.827	204.70	.72869
#1	.00118	2.6432	.00072	.00014	.00273	.00060	-.00160	3.1898
#2	.00176	2.6217	.00052	-.00668	.00136	.00383	.00132	3.2363
#3	.00140	2.6332	.00002	.00552	.00327	.00192	.00554	3.2085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032015 Acquired: 11/12/2013 17:02:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01618**	**.05112**	**-.00058**	**.00014**	**.00029**	**.00248**	**2.1033**
Stddev	.00012	.00035	.00057	.00073	.00037	.00010	.8107
%RSD	.75808	.68163	98.859	532.99	129.77	4.0229	38.545
#1	-.01628	.05078	-.00009	.00053	.00026	.00238	1.5088
#2	-.01622	.05110	-.00044	-.00071	-.00007	.00258	3.0267
#3	-.01605	.05148	-.00121	.00059	.00067	.00247	1.7743
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25590.**	**33888.**
Stddev	71.	110.
%RSD	.27928	.32325
#1	25645.	33995.
#2	25614.	33776.
#3	25509.	33892.

Approved: November 13, 2013

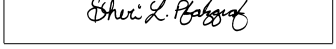
Sample Name: L1311032015DL Acquired: 11/12/2013 17:05:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452461-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.01783**	**.00054**	**.00563**	**.00254**	**-.00002**	**9.1821**	**.00004**
Stddev	.00041	.00561	.00146	.00025	.00014	.00002	.0391	.00006
%RSD	160.17	31.482	268.05	4.5182	5.5941	132.64	.42608	128.71
#1	.00006	.01495	.00151	.00562	.00270	-.00003	9.1417	-.00002
#2	-.00011	.02429	-.00113	.00538	.00250	-.00003	9.2198	.00008
#3	-.00073	.01424	.00125	.00589	.00243	.00001	9.1848	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.00051**	**-.00013**	**.18443**	**.12089**	**.00115**	**1.3378**	**.01659**
Stddev	.00006	.00058	.00043	.00172	.00088	.00061	.0064	.00008
%RSD	26.797	114.20	324.65	.93512	.73190	53.293	.47750	.45958
#1	.00015	.00119	-.00003	.18501	.12008	.00153	1.3314	.01652
#2	.00026	.00019	-.00060	.18579	.12075	.00044	1.3442	.01667
#3	.00022	.00015	.00023	.18249	.12184	.00148	1.3377	.01658
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.52801**	**-.00019**	**.00272**	**.00177**	**.00011**	**-.00073**	**.62764**
Stddev	.00038	.01074	.00033	.00487	.00120	.00084	.00083	.01029
%RSD	215.22	2.0344	178.90	179.22	67.676	744.19	113.92	1.6403
#1	-.00019	.53446	-.00020	.00778	.00313	-.00084	-.00009	.63952
#2	.00056	.51561	.00015	-.00193	.00126	.00045	-.00167	.62208
#3	.00015	.53395	-.00052	.00230	.00091	.00074	-.00043	.62133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311032015DL Acquired: 11/12/2013 17:05:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452461-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01627**	**.01035**	**-.00060**	**-.00122**	**.00016**	**.00048**	**.12183**
Stddev	.00044	.00004	.00175	.00133	.00034	.00007	.66095
%RSD	2.7079	.36552	291.36	109.13	212.36	13.967	542.50
#1	-.01581	.01039	.00129	-.00033	.00051	.00054	-.45227
#2	-.01633	.01032	-.00092	-.00058	-.00017	.00041	.84438
#3	-.01668	.01035	-.00217	-.00274	.00014	.00051	-.02660
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26177.**	**33826.**
Stddev	117.	68.
%RSD	.44863	.20178
#1	26229.	33903.
#2	26260.	33774.
#3	26043.	33800.

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032015PS Acquired: 11/12/2013 17:09:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452461-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20440**	**4.9873**	**.20079**	**1.0313**	**.50128**	**.02494**	**46.263**	**.02530**
Stddev	.00057	.0082	.00133	.0015	.00071	.00007	.089	.00017
%RSD	.28015	.16456	.66003	.14175	.14165	.28968	.19138	.65581
#1	.20376	4.9783	.20088	1.0329	.50209	.02502	46.362	.02548
#2	.20486	4.9944	.19942	1.0311	.50094	.02487	46.193	.02515
#3	.20458	4.9892	.20206	1.0300	.50080	.02493	46.232	.02528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10170**	**.25153**	**.25236**	**2.7873**	**25.021**	**.49837**	**10.662**	**.31767**
Stddev	.00032	.00027	.00045	.0093	.033	.00173	.046	.00140
%RSD	.31141	.10738	.17818	.33408	.13130	.34755	.42718	.44097
#1	.10199	.25159	.25203	2.7976	25.041	.49637	10.708	.31929
#2	.10136	.25124	.25287	2.7795	24.983	.49927	10.662	.31698
#3	.10175	.25177	.25219	2.7849	25.039	.49946	10.617	.31676
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50920**	**26.873**	**.25409**	**.00165**	**.25639**	**.60415**	**.19794**	**5.2907**
Stddev	.00129	.037	.00084	.00209	.00262	.00395	.00295	.0798
%RSD	.25289	.13892	.33180	126.89	1.0224	.65404	1.4885	1.5074
#1	.51060	26.836	.25506	-.00043	.25898	.60871	.20107	5.3828
#2	.50890	26.872	.25362	.00376	.25374	.60208	.19523	5.2439
#3	.50808	26.911	.25359	.00163	.25644	.60167	.19752	5.2453
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

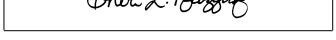
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032015PS Acquired: 11/12/2013 17:09:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452461-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49750**	**.53511**	**.49790**	**.25768**	**.50359**	**.49678**	**3.3737**
Stddev	.00715	.00089	.00023	.00482	.00132	.00008	.3226
%RSD	1.4375	.16705	.04553	1.8701	.26284	.01624	9.5617
#1	.50576	.53452	.49764	.26283	.50498	.49680	3.6476
#2	.49349	.53469	.49806	.25329	.50345	.49670	3.0181
#3	.49326	.53614	.49799	.25691	.50235	.49686	3.4552
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25378.**	**33505.**
Stddev	24.	71.
%RSD	.09431	.21214
#1	25387.	33423.
#2	25351.	33554.
#3	25397.	33538.

Approved: November 13, 2013



Sample Name: L1311032017 Acquired: 11/12/2013 17:12:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.01464**	**.00087**	**.01590**	**.01088**	**.00001**	**44.029**	**.00011**
Stddev	.00053	.01141	.00155	.00053	.00025	.00002	.038	.00013
%RSD	280.04	77.935	177.90	3.3144	2.3286	172.96	.08724	125.46
#1	-.00075	.01438	-.00074	.01592	.01114	.00000	44.069	.00011
#2	.00031	.02618	.00235	.01641	.01085	.00001	43.993	.00023
#3	-.00014	.00337	.00100	.01536	.01064	.00003	44.024	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.00028**	**-.00022**	**.83201**	**.57380**	**.00391**	**6.1984**	**.07236**
Stddev	.00013	.00016	.00029	.00376	.04512	.00081	.0100	.00044
%RSD	61.701	58.418	131.93	.45148	7.8636	20.626	.16076	.60807
#1	.00035	.00016	-.00006	.83512	.62468	.00349	6.2083	.07255
#2	.00011	.00047	-.00055	.83307	.53865	.00484	6.1884	.07268
#3	.00016	.00022	-.00005	.82784	.55806	.00340	6.1986	.07186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**2.5204**	**.00005**	**.00268**	**.00222**	**.00141**	**-.00010**	**2.9997**
Stddev	.00023	.0157	.00053	.00384	.00070	.00016	.00320	.0737
%RSD	14.427	.62200	1172.3	143.14	31.723	11.292	3226.2	2.4576
#1	.00132	2.5025	.00004	-.00122	.00294	.00146	-.00372	2.9605
#2	.00174	2.5270	.00057	.00645	.00220	.00123	.00107	2.9537
#3	.00168	2.5316	-.00048	.00282	.00153	.00153	.00236	3.0847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032017 Acquired: 11/12/2013 17:12:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01627**	**.04932**	**-.00097**	**-.00042**	**.00033**	**.00203**	**2.1338**
Stddev	.00050	.00021	.00076	.00112	.00029	.00003	.5428
%RSD	3.0823	.42660	77.753	268.92	87.454	1.6519	25.440
#1	-.01570	.04956	-.00166	-.00148	.00045	.00201	1.5968
#2	-.01648	.04919	-.00016	.00075	.00000	.00207	2.1223
#3	-.01663	.04921	-.00109	-.00052	.00055	.00201	2.6823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25573.**	**33501.**
Stddev	28.	144.
%RSD	.10902	.42974
#1	25551.	33422.
#2	25563.	33413.
#3	25604.	33667.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032019 Acquired: 11/12/2013 17:16:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**.00811**	**.00093**	**.01405**	**.01156**	**.00004**	**46.963**	**.00016**
Stddev	.00025	.01733	.00206	.00061	.00007	.00002	.002	.00005
%RSD	89.744	213.61	220.24	4.3566	.56912	43.535	.00454	31.062
#1	-.00005	-.00965	.00320	.01345	.01156	.00006	46.965	.00010
#2	-.00054	.00901	.00043	.01467	.01163	.00004	46.961	.00019
#3	-.00023	.02498	-.00082	.01402	.01150	.00002	46.962	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.00086**	**-.00017**	**.89268**	**.59255**	**.00421**	**6.6174**	**.07705**
Stddev	.00003	.00012	.00021	.00980	.03138	.00085	.0249	.00030
%RSD	15.115	14.100	123.55	1.0982	5.2956	20.121	.37597	.38580
#1	.00021	.00095	-.00038	.90120	.62855	.00509	6.6224	.07721
#2	.00020	.00072	-.00015	.89488	.57095	.00340	6.6394	.07723
#3	.00015	.00090	.00003	.88197	.57816	.00413	6.5904	.07670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00044**	**2.7140**	**-.00065**	**-.00040**	**.00086**	**.00113**	**.00129**	**3.2604**
Stddev	.00007	.0041	.00052	.00212	.00153	.00094	.00266	.0263
%RSD	15.011	.14966	79.413	532.87	177.30	83.318	206.39	.80545
#1	.00045	2.7184	-.00037	.00174	.00088	.00006	.00378	3.2904
#2	.00037	2.7105	-.00125	-.00251	.00238	.00184	-.00151	3.2414
#3	.00050	2.7129	-.00034	-.00043	-.00068	.00150	.00160	3.2495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pahlgren

Sample Name: L1311032019 Acquired: 11/12/2013 17:16:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01639**	**.05271**	**-.00126**	**-.00145**	**.00041**	**.00251**	**1.9729**
Stddev	.00027	.00014	.00033	.00159	.00005	.00010	1.0658
%RSD	1.6513	.25825	26.296	109.60	12.344	3.8997	54.022
#1	-.01610	.05260	-.00163	.00038	.00040	.00262	1.2426
#2	-.01664	.05286	-.00098	-.00229	.00036	.00244	3.1959
#3	-.01643	.05266	-.00118	-.00244	.00046	.00247	1.4802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25607.**	**33593.**
Stddev	11.	141.
%RSD	.04445	.41928
#1	25609.	33554.
#2	25617.	33475.
#3	25594.	33749.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 17:19:32 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40490**	**10.234**	**.40467**	**.51027**	**1.0086**	**.04954**	**9.9856**
Stddev	.00054	.033	.00180	.00146	.0022	.00009	.0026
%RSD	.13274	.32664	.44475	.28678	.22321	.18500	.02580
#1	.40462	10.199	.40305	.51001	1.0111	.04945	9.9865
#2	.40455	10.265	.40436	.50895	1.0070	.04954	9.9827
#3	.40552	10.239	.40661	.51185	1.0075	.04964	9.9876
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05073**	**.20476**	**.50508**	**.51406**	**4.0569**	**50.457**	**.99802**
Stddev	.00046	.00111	.00364	.00340	.0112	.053	.00166
%RSD	.90479	.54135	.72036	.66124	.27472	.10566	.16608
#1	.05020	.20348	.50338	.51022	4.0698	50.518	.99961
#2	.05102	.20533	.50260	.51669	4.0508	50.426	.99816
#3	.05096	.20546	.50926	.51528	4.0501	50.426	.99630
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.029**	**.50760**	**1.0119**	**51.320**	**.51258**	**10.196**	**.51792**
Stddev	.009	.00106	.0006	.056	.00331	.016	.00256
%RSD	.08975	.20795	.06321	.10935	.64575	.16118	.49355
#1	10.027	.50747	1.0126	51.259	.50888	10.212	.51639
#2	10.039	.50662	1.0113	51.370	.51526	10.197	.51649
#3	10.021	.50872	1.0117	51.332	.51361	10.179	.52087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 17:19:32 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2295**	**.40610**	**5.2583**	**1.0290**	**1.0241**	**1.0019**	**.51429**
Stddev	.0041	.00208	.0346	.0048	.0005	.0016	.00182
%RSD	.33378	.51227	.65806	.46800	.04738	.15705	.35316
#1	1.2248	.40465	5.2346	1.0258	1.0244	1.0019	.51327
#2	1.2308	.40515	5.2423	1.0267	1.0244	1.0035	.51322
#3	1.2327	.40848	5.2980	1.0345	1.0236	1.0003	.51639
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0027**	**1.0194**	F **1.9789**
Stddev	.0026	.0007	1.0612
%RSD	.26355	.06844	53.625
#1	1.0043	1.0188	2.4885
#2	.99966	1.0201	.75904
#3	1.0042	1.0192	2.6892
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25746.**	**33550.**
Stddev	52.	39.
%RSD	.20065	.11584
#1	25773.	33572.
#2	25779.	33573.
#3	25686.	33505.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 17:22:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00048**	**.01885**	**.00028**	**.00491**	**.00001**	**.00000**	**-.00649**
Stddev	.00025	.01175	.00157	.00073	.00011	.00000	.00288
%RSD	52.121	62.348	562.92	14.970	1284.8	300.59	44.436
#1	-.00022	.02474	.00144	.00535	-.00006	.00001	-.00800
#2	-.00071	.00532	.00090	.00532	.00014	.00000	-.00316
#3	-.00051	.02649	-.00151	.00406	-.00005	.00000	-.00829
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00009**	**.00045**	**.00004**	**-.00500**	**.02147**	**.00196**
Stddev	.00003	.00012	.00021	.00006	.00346	.04441	.00063
%RSD	99.771	124.93	46.388	179.58	69.209	206.83	32.230
#1	.00000	-.00001	.00068	.00011	-.00832	.00466	.00268
#2	.00004	.00022	.00027	.00001	-.00525	.07183	.00168
#3	.00004	.00007	.00040	-.00001	-.00142	-.01208	.00152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00877**	**-.00018**	**.00434**	**.01327**	**-.00076**	**.00179**	**.00029**
Stddev	.01783	.00002	.00060	.00682	.00033	.00071	.00043
%RSD	203.23	10.328	13.763	51.391	43.470	39.521	151.11
#1	.00506	-.00019	.00374	.01371	-.00039	.00098	.00075
#2	-.00249	-.00016	.00433	.01985	-.00103	.00231	.00020
#3	-.02890	-.00020	.00494	.00624	-.00085	.00207	-.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

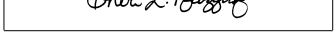
Sample Name: CCB Acquired: 11/12/2013 17:22:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**-.00140**	**.00189**	**-.00065**	**-.00006**	**.00017**	**-.00165**
Stddev	.00126	.00218	.00230	.00030	.00007	.00144	.00057
%RSD	304.10	156.20	121.76	45.698	115.67	825.66	34.401
#1	.00062	.00108	-.00052	-.00052	-.00014	.00129	-.00214
#2	-.00093	-.00222	.00212	-.00043	.00001	-.00145	-.00103
#3	.00156	-.00305	.00408	-.00098	-.00005	.00068	-.00177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00015**	**-.00100**	F **-.27018**
Stddev	.00037	.00009	.48785
%RSD	238.77	9.4453	180.56
#1	.00006	-.00101	.28386
#2	.00006	-.00110	-.63540
#3	-.00058	-.00091	-.45900
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25789.**	**33566.**
Stddev	84.	156.
%RSD	.32745	.46460
#1	25727.	33541.
#2	25755.	33424.
#3	25885.	33732.

Approved: November 13, 2013



Sample Name: L1311032021 Acquired: 11/12/2013 17:26:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.03397**	**-.00003**	**.01180**	**.01577**	**.00001**	**48.357**	**.00022**
Stddev	.00074	.02137	.00201	.00059	.00026	.00003	.220	.00008
%RSD	255.33	62.890	6475.0	4.9964	1.6313	385.44	.45430	33.804
#1	.00094	.03774	.00087	.01143	.01574	.00004	48.521	.00027
#2	.00044	.05321	-.00233	.01148	.01604	-.00002	48.108	.00014
#3	-.00051	.01098	.00137	.01248	.01553	.00001	48.443	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00105**	**.00000**	**3.3171**	**.58405**	**.00410**	**6.5951**	**.16987**
Stddev	.00007	.00010	.00032	.0121	.02341	.00221	.0109	.00041
%RSD	21.203	9.4864	7449.0	.36465	4.0089	53.918	.16547	.23878
#1	.00036	.00102	.00034	3.3054	.60291	.00239	6.5865	.16954
#2	.00035	.00097	-.00003	3.3295	.55784	.00331	6.5915	.17032
#3	.00024	.00116	-.00030	3.3165	.59140	.00659	6.6074	.16974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00060**	**2.6567**	**.00046**	**.00053**	**.00140**	**-.00116**	**-.00210**	**3.4916**
Stddev	.00015	.0130	.00112	.00501	.00084	.00005	.00122	.0342
%RSD	24.410	.48769	246.26	938.26	60.084	3.9423	58.170	.97869
#1	.00045	2.6463	.00095	-.00514	.00109	-.00120	-.00086	3.5284
#2	.00061	2.6712	.00124	.00242	.00235	-.00117	-.00214	3.4609
#3	.00074	2.6527	-.00083	.00433	.00076	-.00111	-.00330	3.4855
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032021 Acquired: 11/12/2013 17:26:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01609**	**.05273**	**-.00030**	**-.00135**	**.00108**	**.00579**	**5.1401**
Stddev	.00009	.00030	.00140	.00096	.00015	.00008	.2037
%RSD	.55400	.56367	468.46	70.910	14.368	1.3852	3.9620
#1	-.01612	.05257	-.00139	-.00232	.00125	.00581	5.3334
#2	-.01599	.05307	-.00078	-.00041	.00096	.00570	4.9275
#3	-.01616	.05255	.00128	-.00132	.00102	.00586	5.1592
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25625.**	**33893.**
Stddev	23.	119.
%RSD	.08797	.35013
#1	25621.	34027.
#2	25605.	33801.
#3	25650.	33852.

Approved: November 13, 2013

Sample Name: L1311032023 Acquired: 11/12/2013 17:29:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.01841**	**.00045**	**.01142**	**.01137**	**.00004**	**46.216**	**.00026**
Stddev	.00092	.02300	.00060	.00106	.00019	.00001	.056	.00003
%RSD	2446.8	124.94	132.73	9.2694	1.6660	37.138	.12191	12.537
#1	-.00029	-.00789	.00006	.01144	.01116	.00003	46.151	.00025
#2	.00098	.02836	.00016	.01247	.01144	.00005	46.246	.00030
#3	-.00081	.03477	.00115	.01035	.01152	.00003	46.250	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.00043**	**.00023**	**.91320**	**.56784**	**.00380**	**6.4690**	**.07980**
Stddev	.00011	.00042	.00047	.00467	.01362	.00151	.0233	.00018
%RSD	57.005	96.614	206.18	.51143	2.3989	39.656	.36056	.23080
#1	.00010	.00092	-.00021	.90909	.58307	.00338	6.4766	.07963
#2	.00016	.00020	.00071	.91828	.56362	.00255	6.4429	.08000
#3	.00031	.00019	.00018	.91224	.55683	.00548	6.4876	.07976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**2.6205**	**.00000**	**.00077**	**.00217**	**.00161**	**-.00194**	**3.1889**
Stddev	.00025	.0042	.0008	.00651	.00101	.00166	.00247	.0604
%RSD	113.13	.16137	18772.	846.62	46.527	103.52	127.48	1.8937
#1	-.00005	2.6205	.00076	-.00231	.00334	.00115	-.00053	3.1462
#2	.00043	2.6248	-.00085	-.00363	.00166	.00022	-.00479	3.1625
#3	.00028	2.6163	.00008	.00824	.00152	.00345	-.00050	3.2580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032023 Acquired: 11/12/2013 17:29:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01676**	**.05067**	**-.00008**	**-.00377**	**.00044**	**.00248**	**2.8395**
Stddev	.00014	.00023	.00072	.00054	.00023	.00002	.6612
%RSD	.83065	.45527	958.40	14.374	52.974	.70490	23.283
#1	-.01686	.05043	.00072	-.00315	.00055	.00248	3.4682
#2	-.01682	.05068	-.00069	-.00415	.00059	.00249	2.9004
#3	-.01660	.05089	-.00026	-.00400	.00017	.00246	2.1501
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25639.**	**33608.**
Stddev	53.	106.
%RSD	.20821	.31662
#1	25583.	33578.
#2	25689.	33519.
#3	25645.	33726.

Approved: November 13, 2013

Sample Name: L1311032025 Acquired: 11/12/2013 17:33:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.01644**	**.00016**	**.01166**	**.01144**	**.00004**	**45.262**	**.00031**
Stddev	.00041	.00882	.00130	.00035	.00033	.00003	.128	.00012
%RSD	101.20	53.671	823.70	3.0406	2.8579	90.341	.28233	37.985
#1	-.00087	.02633	.00055	.01177	.01118	.00007	45.181	.00043
#2	-.00017	.00940	.00122	.01126	.01132	.00000	45.195	.00029
#3	-.00016	.01358	-.00130	.01195	.01181	.00004	45.409	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00066**	**-.00008**	**.87893**	**.58668**	**.00637**	**6.3653**	**.07563**
Stddev	.00019	.00027	.00017	.00585	.01581	.00081	.0746	.00026
%RSD	190.39	40.762	210.60	.66552	2.6954	12.748	1.1726	.34807
#1	.00033	.00087	.00002	.88314	.57962	.00576	6.4029	.07549
#2	-.00003	.00036	.00001	.87225	.57562	.00605	6.2794	.07547
#3	.00001	.00076	-.00027	.88139	.60479	.00729	6.4137	.07594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**2.6549**	**.00005**	**.00482**	**.00231**	**.00055**	**-.00103**	**3.1797**
Stddev	.00009	.0089	.00058	.00076	.00145	.00233	.00222	.0409
%RSD	60.074	.33677	1114.0	15.774	62.590	420.35	215.40	1.2858
#1	.00006	2.6649	.00072	.00525	.00199	.00310	-.00094	3.2261
#2	.00025	2.6479	-.00032	.00394	.00106	-.00147	.00114	3.1638
#3	.00016	2.6518	-.00024	.00527	.00389	.00003	-.00330	3.1491
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032025 Acquired: 11/12/2013 17:33:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01656**	**.05110**	**-.00109**	**-.00113**	**.00032**	**.00230**	**2.1669**
Stddev	.00033	.00030	.00157	.00079	.00018	.00006	.7163
%RSD	1.9648	.58944	144.68	70.325	57.141	2.7389	33.055
#1	-.01636	.05102	-.00078	-.00043	.00046	.00238	2.9384
#2	-.01693	.05085	-.00279	-.00198	.00011	.00226	1.5230
#3	-.01638	.05143	.00031	-.00097	.00037	.00228	2.0393
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25630.**	**33617.**
Stddev	11.	98.
%RSD	.04171	.29201
#1	25639.	33620.
#2	25632.	33713.
#3	25618.	33517.

Approved: November 13, 2013

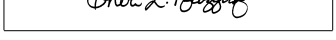
Sample Name: L1311032027 Acquired: 11/12/2013 17:36:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.02429**	**.00003**	**.01124**	**.01169**	**.00000**	**45.710**	**.00028**
Stddev	.00034	.00249	.00083	.00053	.00003	.00005	.125	.00009
%RSD	317.69	10.236	3008.5	4.7128	.21966	3664.6	.27357	31.264
#1	-.00005	.02404	-.00004	.01161	.01170	.00000	45.661	.00025
#2	-.00047	.02194	-.00076	.01147	.01170	-.00005	45.852	.00037
#3	.00020	.02689	.00088	.01063	.01166	.00006	45.616	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.00066**	**-.00017**	**.87403**	**.54976**	**.00511**	**6.4366**	**.07616**
Stddev	.00015	.00014	.00036	.00596	.01529	.00092	.0403	.00040
%RSD	168.38	21.222	218.41	.68217	2.7820	18.021	.62527	.52291
#1	.00021	.00081	-.00029	.87053	.56675	.00609	6.3935	.07631
#2	-.00008	.00053	-.00045	.87064	.53709	.00427	6.4430	.07646
#3	.00013	.00065	.00024	.88091	.54543	.00496	6.4733	.07571
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**2.6380**	**.00046**	**.00091**	**.00162**	**-.00013**	**-.00280**	**3.2468**
Stddev	.00014	.0082	.00053	.00366	.00125	.00256	.00446	.0160
%RSD	117.51	.31159	115.64	404.28	76.981	1912.4	159.62	.49142
#1	.00023	2.6391	.00075	-.00102	.00113	.00002	-.00297	3.2651
#2	-.00004	2.6293	-.00015	-.00139	.00069	-.00277	-.00717	3.2392
#3	.00018	2.6456	.00079	.00513	.00304	.00235	.00175	3.2361
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311032027 Acquired: 11/12/2013 17:36:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01642**	**.05142**	**-.00154**	**-.00288**	**.00029**	**.00262**	**2.9131**
Stddev	.00062	.00027	.00107	.00122	.00014	.00002	.5047
%RSD	3.7694	.53280	69.996	42.240	48.340	.58929	17.324
#1	-.01712	.05164	-.00031	-.00376	.00041	.00264	3.2559
#2	-.01621	.05149	-.00234	-.00149	.00031	.00261	3.1498
#3	-.01593	.05111	-.00195	-.00338	.00014	.00261	2.3336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25672.**	**33720.**
Stddev	75.	51.
%RSD	.29092	.15223
#1	25633.	33778.
#2	25758.	33696.
#3	25625.	33684.

Approved: November 13, 2013

Sample Name: L1311032029 Acquired: 11/12/2013 17:40:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.02569**	**-.00099**	**.01129**	**.01132**	**.00002**	**44.729**	**.00014**
Stddev	.00012	.01592	.00091	.00049	.00019	.00002	.026	.00012
%RSD	67.817	61.963	91.876	4.3833	1.7042	95.281	.05870	86.369
#1	-.00024	.01657	.00003	.01184	.01148	.00002	44.719	.00013
#2	-.00004	.04406	-.00171	.01115	.01110	.00000	44.709	.00003
#3	-.00024	.01642	-.00128	.01088	.01137	.00004	44.759	.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00081**	**.00013**	**.91164**	**.57300**	**.00465**	**6.3273**	**.07490**
Stddev	.00019	.00026	.00020	.00058	.01487	.00138	.0250	.00027
%RSD	78.809	32.472	158.54	.06402	2.5944	29.544	.39505	.35545
#1	.00044	.00080	.00022	.91144	.58815	.00323	6.3346	.07460
#2	.00007	.00055	.00026	.91118	.57242	.00597	6.3478	.07501
#3	.00020	.00107	-.00010	.91230	.55844	.00476	6.2994	.07509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**2.6413**	**-.00025**	**.00083**	**.00213**	**.00221**	**-.00276**	**3.2251**
Stddev	.00015	.0049	.00084	.00468	.00018	.00266	.00171	.0403
%RSD	270.80	.18466	337.37	563.79	8.3461	120.21	61.865	1.2480
#1	.00014	2.6391	.00065	-.00350	.00195	-.00045	-.00099	3.2240
#2	-.00012	2.6469	-.00101	.00019	.00215	.00221	-.00289	3.2658
#3	.00014	2.6380	-.00039	.00580	.00230	.00487	-.00440	3.1853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032029 Acquired: 11/12/2013 17:40:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01654**	**.05126**	**-.00176**	**-.00308**	**.00016**	**.00250**	**2.8195**
Stddev	.00043	.00011	.00019	.00146	.00021	.00007	.3134
%RSD	2.5747	.22223	10.682	47.237	128.18	2.9189	11.114
#1	-.01688	.05138	-.00191	-.00174	.00029	.00244	2.6576
#2	-.01606	.05124	-.00181	-.00288	.00027	.00249	3.1807
#3	-.01667	.05115	-.00155	-.00463	-.00008	.00258	2.6203
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25738.**	**33726.**
Stddev	59.	94.
%RSD	.23107	.27822
#1	25764.	33818.
#2	25780.	33631.
#3	25670.	33729.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032031 Acquired: 11/12/2013 17:43:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.01612**	**.00042**	**.01051**	**.01128**	**.00002**	**44.842**	**.00017**
Stddev	.00030	.00688	.00018	.00034	.00037	.00002	.062	.00006
%RSD	418.04	42.696	42.190	3.2682	3.3233	113.37	.13830	33.274
#1	.00028	.01678	.00040	.01073	.01168	.00005	44.906	.00023
#2	-.00027	.02264	.00061	.01069	.01094	.00000	44.837	.00011
#3	-.00023	.00893	.00026	.01012	.01122	.00001	44.782	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.00065**	**.00002**	**.86611**	**.56703**	**.00473**	**6.3431**	**.07470**
Stddev	.00014	.00046	.00053	.00222	.00689	.00145	.0111	.00044
%RSD	315.13	70.737	3369.6	.25607	1.2143	30.750	.17540	.58766
#1	-.00010	.00118	.00047	.86856	.56955	.00338	6.3307	.07520
#2	.00005	.00031	-.00058	.86554	.55924	.00453	6.3465	.07455
#3	.00019	.00047	.00016	.86423	.57230	.00627	6.3521	.07436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**2.6235**	**-.00017**	**-.00178**	**.00063**	**-.00044**	**-.00242**	**3.1601**
Stddev	.00007	.0089	.00044	.00066	.00167	.00035	.00256	.0321
%RSD	50.552	.33850	253.31	37.068	267.25	79.885	105.87	1.0160
#1	.00021	2.6295	.00032	-.00171	-.00015	-.00082	.00053	3.1941
#2	.00009	2.6278	-.00050	-.00116	.00255	-.00036	-.00365	3.1303
#3	.00009	2.6133	-.00034	-.00248	-.00052	-.00013	-.00412	3.1559
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032031 Acquired: 11/12/2013 17:43:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01636**	**.05103**	**-.00051**	**-.00372**	**.00025**	**.00286**	**2.3544**
Stddev	.00027	.00020	.00044	.00085	.00029	.00005	.1785
%RSD	1.6738	.38604	85.912	22.863	116.43	1.8908	7.5812
#1	-.01605	.05100	-.00097	-.00354	.00003	.00291	2.2618
#2	-.01651	.05125	-.00046	-.00465	.00015	.00287	2.5601
#3	-.01653	.05086	-.00010	-.00298	.00058	.00281	2.2412
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25487.**	**33612.**
Stddev	49.	139.
%RSD	.19099	.41469
#1	25437.	33455.
#2	25492.	33662.
#3	25534.	33720.

Approved: November 13, 2013

Sample Name: L1311032033 Acquired: 11/12/2013 17:47:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**.02338**	**.00060**	**.01117**	**.01129**	**-.00001**	**45.026**	**.00026**
Stddev	.00063	.00598	.00082	.00040	.00019	.00001	.224	.00003
%RSD	253.49	25.590	135.49	3.5551	1.7151	163.78	.49658	10.238
#1	.00016	.01694	.00154	.01126	.01149	-.00002	44.796	.00028
#2	-.00097	.02877	.00016	.01074	.01126	-.00001	45.040	.00023
#3	.00007	.02442	.00010	.01152	.01111	.00000	45.243	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00047**	**-.00025**	**.86812**	**.51289**	**.00633**	**6.3506**	**.07499**
Stddev	.00011	.00022	.00048	.00382	.02914	.00155	.0237	.00034
%RSD	52.737	46.821	190.84	.44059	5.6821	24.411	.37363	.45528
#1	.00011	.00043	-.00045	.87198	.48432	.00512	6.3438	.07460
#2	.00033	.00071	.00030	.86434	.51178	.00580	6.3309	.07513
#3	.00021	.00027	-.00060	.86802	.54258	.00808	6.3769	.07524
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**2.5868**	**-.00054**	**.00225**	**.00122**	**.00014**	**-.00112**	**3.0563**
Stddev	.00013	.0024	.00061	.00390	.00048	.00098	.00359	.0183
%RSD	45.991	.09167	114.18	172.90	39.156	675.65	321.88	.59743
#1	.00028	2.5895	-.00071	.00014	.00067	.00107	-.00390	3.0770
#2	.00015	2.5861	.00015	.00675	.00148	.00023	.00294	3.0492
#3	.00040	2.5849	-.00104	-.00013	.00150	-.00087	-.00239	3.0426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032033 Acquired: 11/12/2013 17:47:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01655**	**.04969**	**-.00016**	**-.00130**	**.00010**	**.00242**	**2.3263**
Stddev	.00033	.00019	.00050	.00187	.00010	.00005	.7648
%RSD	1.9648	.38949	302.54	143.58	97.715	1.9006	32.876
#1	-.01628	.04981	-.00042	-.00277	.00019	.00246	1.7713
#2	-.01646	.04947	.00041	.00081	-.00001	.00243	2.0090
#3	-.01691	.04980	-.00049	-.00195	.00012	.00237	3.1987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25465.**	**33376.**
Stddev	31.	162.
%RSD	.12031	.48534
#1	25481.	33557.
#2	25430.	33327.
#3	25486.	33244.

Approved: November 13, 2013

Sample Name: L1311032035 Acquired: 11/12/2013 17:50:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.04656**	**.00124**	**.01160**	**.01412**	**.00003**	**49.547**	**.00012**
Stddev	.00043	.01367	.00132	.00076	.00022	.00002	.043	.00013
%RSD	180.41	29.366	106.88	6.5819	1.5546	56.513	.08735	107.25
#1	.00026	.04546	.00004	.01126	.01388	.00002	49.588	.00006
#2	-.00049	.06075	.00101	.01105	.01430	.00004	49.502	.00004
#3	-.00047	.03347	.00266	.01247	.01420	.00002	49.550	.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.00059**	**-.00021**	**2.7438**	**.55667**	**.00521**	**6.7215**	**.12235**
Stddev	.00003	.00020	.00057	.0079	.01054	.00171	.0241	.00014
%RSD	10.112	33.605	275.47	.28746	1.8940	32.766	.35859	.11744
#1	.00030	.00056	-.00052	2.7349	.56614	.00577	6.7055	.12244
#2	.00025	.00080	-.00055	2.7498	.55856	.00656	6.7492	.12218
#3	.00029	.00041	.00045	2.7468	.54531	.00329	6.7098	.12243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**2.7170**	**-.00002**	**.00130**	**.00067**	**.00121**	**-.00190**	**3.5038**
Stddev	.00009	.0090	.00022	.00430	.00158	.00109	.00173	.0889
%RSD	46.923	.33103	992.13	330.83	236.67	89.729	90.995	2.5370
#1	.00010	2.7192	.00006	-.00273	-.00005	.00084	-.00070	3.5451
#2	.00019	2.7248	-.00028	.00582	-.00043	.00244	-.00387	3.5645
#3	.00027	2.7072	.00015	.00081	.00248	.00036	-.00112	3.4017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032035 Acquired: 11/12/2013 17:50:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01657**	**.05483**	**.00079**	**-.00264**	**.00102**	**.00516**	**3.9410**
Stddev	.00017	.00025	.00095	.00090	.00002	.00008	.6210
%RSD	.99620	.46391	119.69	34.166	1.8700	1.4621	15.756
#1	-.01639	.05455	-.00017	-.00191	.00103	.00524	3.6181
#2	-.01672	.05505	.00173	-.00364	.00102	.00516	4.6569
#3	-.01660	.05488	.00082	-.00235	.00100	.00509	3.5480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25527.**	**33497.**
Stddev	68.	81.
%RSD	.26669	.24293
#1	25452.	33525.
#2	25544.	33561.
#3	25584.	33406.

Approved: November 13, 2013

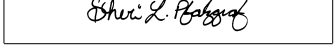
Sample Name: L1311032037 Acquired: 11/12/2013 17:54:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.00641**	**-.00010**	**.01111**	**.01143**	**.00003**	**47.396**	**.00020**
Stddev	.00027	.01853	.00162	.00045	.00022	.00002	.142	.00008
%RSD	179.05	288.93	1696.6	4.0923	1.8930	62.390	.30042	39.734
#1	-.00046	-.01281	.00170	.01067	.01130	.00005	47.232	.00013
#2	.00001	.02417	-.00056	.01158	.01131	.00002	47.481	.00029
#3	.00000	.00788	-.00143	.01109	.01168	.00002	47.475	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00054**	**.00005**	**.95043**	**.51322**	**.00550**	**6.6568**	**.08474**
Stddev	.00004	.00052	.00004	.01003	.01104	.00135	.0247	.00072
%RSD	22.181	96.146	75.105	1.0551	2.1512	24.492	.37074	.85463
#1	.00015	.00089	.00002	.93933	.52412	.00661	6.6293	.08410
#2	.00023	.00079	.00009	.95884	.51349	.00400	6.6641	.08458
#3	.00021	-.00006	.00004	.95311	.50205	.00589	6.6770	.08553
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**2.7100**	**.00041**	**.00151**	**.00123**	**-.00141**	**-.00105**	**3.1522**
Stddev	.00023	.0217	.00043	.00442	.00042	.00062	.00235	.0255
%RSD	265.05	.80008	103.29	292.79	33.692	44.085	222.93	.80895
#1	.00000	2.7007	.00080	.00649	.00167	-.00204	.00153	3.1372
#2	.00035	2.6944	-.00004	-.00196	.00085	-.00080	-.00305	3.1376
#3	-.00009	2.7347	.00048	.00000	.00118	-.00138	-.00164	3.1816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

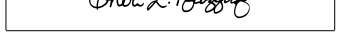


Sample Name: L1311032037 Acquired: 11/12/2013 17:54:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01645**	**.05195**	**-.00047**	**-.00207**	**.00038**	**.00302**	**1.3843**
Stddev	.00018	.00012	.00039	.00070	.00016	.00020	.7788
%RSD	1.0678	.22898	82.277	33.799	42.164	6.7713	56.264
#1	-.01665	.05182	-.00013	-.00170	.00055	.00287	.88048
#2	-.01632	.05205	-.00039	-.00287	.00037	.00326	2.2813
#3	-.01637	.05199	-.00090	-.00163	.00023	.00294	.99099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25490.**	**33344.**
Stddev	46.	239.
%RSD	.17868	.71807
#1	25474.	33562.
#2	25455.	33384.
#3	25542.	33088.

Approved: November 13, 2013



Sample Name: L1311046501 Acquired: 11/12/2013 17:57:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00030**	**.60132**	**-.00048**	**.05176**	**.04035**	**.00008**	**64.230**	**.00036**
Stddev	.00033	.00354	.00051	.00033	.00042	.00002	.172	.00002
%RSD	108.30	.58944	107.17	.64226	1.0407	22.981	.26773	5.3435
#1	-.00040	.60192	-.00013	.05168	.04034	.00006	64.425	.00034
#2	.00006	.60452	-.00024	.05212	.04077	.00009	64.162	.00035
#3	-.00057	.59751	-.00107	.05147	.03993	.00009	64.102	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00042**	**.00284**	**.00156**	**.73159**	**2.3062**	**.01850**	**11.991**	**.01456**
Stddev	.00013	.00042	.00069	.01082	.0621	.00047	.098	.00019
%RSD	29.858	14.850	43.916	1.4783	2.6939	2.5345	.81332	1.2985
#1	.00029	.00261	.00096	.71917	2.3345	.01820	11.920	.01477
#2	.00043	.00258	.00142	.73892	2.2350	.01825	12.102	.01448
#3	.00055	.00333	.00231	.73668	2.3492	.01904	11.951	.01442
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**28.916**	**.00115**	**.01656**	**.00206**	**.00126**	**.00012**	**17.458**
Stddev	.00009	.088	.00125	.00227	.00044	.00260	.00091	.067
%RSD	22.994	.30340	109.08	13.718	21.510	206.37	775.84	.38281
#1	.00047	28.997	.00012	.01701	.00166	-.00162	.00116	17.535
#2	.00029	28.823	.00254	.01410	.00198	.00197	-.00047	17.420
#3	.00042	28.928	.00078	.01857	.00254	.00344	-.00034	17.418
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046501 Acquired: 11/12/2013 17:57:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01614**	**.42429**	**.01611**	**-.00342**	**.00265**	**.01013**	**7.7403**
Stddev	.00026	.00099	.00045	.00096	.00010	.00009	.6930
%RSD	1.5932	.23398	2.8004	27.940	3.7570	.88169	8.9531
#1	-.01584	.42328	.01663	-.00447	.00264	.01020	8.4198
#2	-.01627	.42432	.01580	-.00320	.00276	.01003	7.0346
#3	-.01631	.42527	.01590	-.00260	.00256	.01016	7.7664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25305.**	**33055.**
Stddev	23.	159.
%RSD	.09020	.48210
#1	25310.	32871.
#2	25325.	33150.
#3	25280.	33144.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 18:01:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40467**	**10.258**	**.40832**	**.50755**	**1.0093**	**.04980**	**10.048**
Stddev	.00029	.038	.00314	.00073	.0023	.00006	.043
%RSD	.07096	.36686	.77002	.14329	.23119	.11754	.42496
#1	.40446	10.287	.40472	.50767	1.0067	.04983	10.097
#2	.40499	10.271	.41054	.50677	1.0113	.04973	10.016
#3	.40455	10.215	.40971	.50821	1.0099	.04983	10.032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05085**	**.20609**	**.50301**	**.51649**	**4.0737**	**50.219**	**1.0113**
Stddev	.00028	.00121	.00206	.00421	.0137	.029	.0002
%RSD	.54853	.58681	.40960	.81578	.33694	.05733	.02109
#1	.05054	.20471	.50297	.51205	4.0589	50.238	1.0115
#2	.05095	.20664	.50097	.52043	4.0860	50.186	1.0113
#3	.05107	.20693	.50509	.51698	4.0763	50.232	1.0111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.181**	**.51125**	**1.0198**	**51.543**	**.51330**	**10.143**	**.51545**
Stddev	.048	.00170	.0015	.146	.00322	.016	.00269
%RSD	.47633	.33346	.15128	.28317	.62688	.15639	.52132
#1	10.235	.51276	1.0216	51.702	.50988	10.159	.51236
#2	10.142	.50940	1.0190	51.414	.51627	10.142	.51680
#3	10.165	.51159	1.0188	51.515	.51374	10.128	.51720
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 18:01:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2253**	**.40753**	**5.1924**	**1.0288**	**1.0199**	**1.0077**	**.51899**
Stddev	.0071	.00259	.0260	.0045	.0011	.0021	.00490
%RSD	.57637	.63485	.50074	.43923	.10392	.21260	.94357
#1	1.2174	.40844	5.1720	1.0271	1.0200	1.0095	.51645
#2	1.2310	.40461	5.1836	1.0253	1.0188	1.0083	.51589
#3	1.2276	.40954	5.2217	1.0339	1.0210	1.0054	.52463
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0044**	**1.0239**	F **2.5292**
Stddev	.0008	.0020	.7083
%RSD	.07500	.19471	28.006
#1	1.0050	1.0262	2.4970
#2	1.0035	1.0229	3.2531
#3	1.0046	1.0226	1.8375
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25612.**	**33332.**
Stddev	32.	111.
%RSD	.12493	.33268
#1	25576.	33225.
#2	25638.	33446.
#3	25621.	33325.

Approved: November 13, 2013

Sample Name: CCB Acquired: 11/12/2013 18:04:24 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00117**	**.01588**	**.00044**	**.00315**	**-.00030**	**.00001**	**-.01223**
Stddev	.00022	.01008	.00076	.00077	.00005	.00001	.00735
%RSD	18.462	63.445	174.65	24.634	15.943	141.11	60.085
#1	-.00141	.01504	-.00024	.00404	-.00028	.00000	-.00380
#2	-.00098	.02635	.00028	.00272	-.00036	.00002	-.01726
#3	-.00113	.00625	.00126	.00267	-.00027	.00001	-.01565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00014**	**-.00005**	**.00007**	**-.00255**	**-.08538**	**.00487**
Stddev	.0000	.00008	.00015	.00023	.00245	.00737	.00086
%RSD	165.46	59.159	332.31	303.90	96.026	8.6300	17.555
#1	.00000	.00023	.00003	.00011	-.00241	-.08692	.00586
#2	-.00001	.00007	.00005	-.00017	-.00508	-.09185	.00430
#3	.00000	.00012	-.00022	.00028	-.00018	-.07736	.00446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00146**	**-.00022**	**.00381**	**.03320**	**-.00023**	**.00796**	**.00115**
Stddev	.01188	.00002	.00041	.00224	.00062	.00502	.00032
%RSD	811.89	7.9973	10.789	6.7407	268.27	63.007	27.416
#1	-.01486	-.00022	.00342	.03139	-.00094	.00625	.00151
#2	.00782	-.00024	.00424	.03250	.00004	.00402	.00100
#3	.00265	-.00020	.00378	.03570	.00021	.01361	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 18:04:24 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00112**	**.00093**	**.00091**	**-.00088**	**-.00002**	**-.00094**	**-.00069**
Stddev	.00118	.00114	.00265	.00010	.00014	.00044	.00184
%RSD	105.46	122.96	291.99	11.068	607.23	46.490	266.60
#1	.00247	.00089	.00394	-.00088	-.00016	-.00107	-.00154
#2	.00063	-.00019	-.00022	-.00097	-.00002	-.00045	-.00195
#3	.00027	.00208	-.00099	-.00078	.00011	-.00129	.00142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00016**	**-.00064**	F **-1.2758**
Stddev	.00027	.00012	.4903
%RSD	171.03	18.559	38.434
#1	.00032	-.00072	-1.1264
#2	.00030	-.00050	-.87747
#3	-.00015	-.00069	-1.8234
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25571.**	**33300.**
Stddev	59.	142.
%RSD	.23089	.42496
#1	25503.	33448.
#2	25607.	33285.
#3	25604.	33166.

Approved: November 13, 2013

Sample Name: L1311046502 Acquired: 11/12/2013 18:08:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.01777**	**-.00138**	**.08134**	**.04353**	**.00002**	**80.532**	**.00038**
Stddev	.00033	.01276	.00174	.00153	.00027	.00001	.427	.00007
%RSD	87.055	71.822	126.01	1.8764	.61524	31.257	.53072	18.422
#1	-.00018	.03248	-.00073	.08259	.04334	.00003	80.047	.00041
#2	-.00020	.01123	-.00334	.07964	.04342	.00003	80.697	.00030
#3	-.00076	.00960	-.00005	.08179	.04384	.00001	80.852	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00222**	**-.00023**	**.12350**	**2.4447**	**.02169**	**14.991**	**.00208**
Stddev	.00015	.00030	.00040	.00108	.0217	.00247	.200	.00002
%RSD	842.23	13.621	173.81	.87671	.88890	11.366	1.3311	1.0611
#1	-.00004	.00203	.00023	.12294	2.4233	.02302	14.772	.00210
#2	.00019	.00257	-.00047	.12475	2.4441	.01884	15.042	.00207
#3	-.00009	.00207	-.00047	.12281	2.4668	.02320	15.161	.00206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**34.891**	**-.00019**	**.00498**	**.00177**	**.00135**	**.00211**	**15.081**
Stddev	.00035	.119	.00041	.00073	.00028	.00094	.00243	.146
%RSD	56.405	.34122	222.31	14.696	15.721	69.263	115.35	.96738
#1	.00039	34.789	.00002	.00582	.00168	.00057	-.00068	15.102
#2	.00046	35.022	.00008	.00452	.00155	.00239	.00321	14.926
#3	.00103	34.862	-.00066	.00459	.00208	.00109	.00380	15.215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

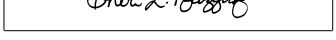
Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046502 Acquired: 11/12/2013 18:08:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01643**	**.55774**	**-.00198**	**-.00272**	**.00217**	**.00116**	**2.7824**
Stddev	.00038	.00054	.00045	.00138	.00029	.00005	.5123
%RSD	2.3141	.09728	22.718	50.751	13.187	4.7283	18.411
#1	-.01627	.55740	-.00245	-.00338	.00228	.00112	3.2247
#2	-.01687	.55837	-.00194	-.00114	.00238	.00122	2.9014
#3	-.01616	.55746	-.00155	-.00366	.00184	.00115	2.2211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24815.**	**32541.**
Stddev	89.	711.
%RSD	.35848	2.1848
#1	24731.	31721.
#2	24806.	32918.
#3	24908.	32984.

Approved: November 13, 2013



Sample Name: L1311046503 Acquired: 11/12/2013 18:11:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**.02148**	**-.00207**	**.02710**	**.07828**	**.00002**	**36.889**
Stddev	.00057	.00893	.00152	.00032	.00064	.00001	.043
%RSD	348.28	41.586	73.424	1.1871	.81122	67.359	.11793
#1	-.00054	.01524	-.00383	.02681	.07836	.00003	36.932
#2	.00050	.01748	-.00131	.02744	.07888	.00001	36.890
#3	-.00045	.03171	-.00108	.02706	.07762	.00001	36.845
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.00002**	**.00287**	**-.00037**	**.04811**	**1.9267**	**.01509**
Stddev	.00006	.00005	.00010	.00015	.00144	.0241	.00136
%RSD	19.697	217.37	3.4076	39.672	2.9985	1.2518	9.0297
#1	.00022	-.00002	.00276	-.00027	.04717	1.9321	.01445
#2	.00030	.00008	.00294	-.00054	.04977	1.9476	.01417
#3	.00033	.00001	.00292	-.00030	.04738	1.9003	.01666
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.6056**	**.00125**	**.00176**	**18.123**	**-.00132**	**.00825**	**.00082**
Stddev	.0341	.00007	.00014	.058	.00105	.00248	.00250
%RSD	.51573	5.3067	7.7318	.31915	79.606	30.071	304.09
#1	6.5713	.00127	.00161	18.143	-.00100	.00788	.00035
#2	6.6394	.00118	.00179	18.058	-.00047	.01090	.00352
#3	6.6060	.00131	.00188	18.169	-.00250	.00598	-.00141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311046503 Acquired: 11/12/2013 18:11:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00118**	**-.00053**	**14.207**	**-.01648**	**.31730**	**-.00067**	**-.00237**
Stddev	.00095	.00178	.043	.00002	.00027	.00061	.00135
%RSD	80.539	335.01	.29930	.10534	.08630	91.066	56.890
#1	-.00018	.00069	14.252	-.01650	.31743	-.00137	-.00114
#2	-.00128	-.00257	14.168	-.01648	.31699	-.00044	-.00381
#3	-.00206	.00028	14.200	-.01646	.31750	-.00021	-.00216
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00423**	**.00314**	F **-.31348**
Stddev	.00005	.00004	.67943
%RSD	1.0850	1.2657	216.74
#1	.00421	.00316	-1.0830
#2	.00420	.00309	-.06108
#3	.00428	.00316	.20363
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25338.**	**33119.**
Stddev	62.	39.
%RSD	.24275	.11738
#1	25400.	33093.
#2	25336.	33163.
#3	25277.	33100.

Approved: November 13, 2013

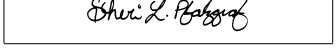
Sample Name: L1311046901 Acquired: 11/12/2013 18:15:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.18775**	**-.00066**	**.04878**	**.06964**	**.00002**	**55.294**	**.00047**
Stddev	.00048	.00651	.00056	.00065	.00023	.00002	.265	.00003
%RSD	139.44	3.4668	85.239	1.3374	.32545	83.210	.47989	6.9310
#1	-.00017	.18792	-.00003	.04951	.06962	.00001	55.141	.00050
#2	.00002	.19417	-.00084	.04857	.06987	.00004	55.140	.00048
#3	-.00090	.18116	-.00110	.04826	.06942	.00001	55.600	.00044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00112**	**.00070**	**.30560**	**4.4394**	**.01173**	**21.028**	**.14055**
Stddev	.00002	.00044	.00069	.00555	.0224	.00167	.083	.00084
%RSD	7.9976	39.373	97.269	1.8145	.50456	14.234	.39414	.59646
#1	.00022	.00162	.00129	.30832	4.4156	.01115	21.100	.13960
#2	.00026	.00079	-.00005	.30926	4.4425	.01043	21.046	.14089
#3	.00023	.00095	.00088	.29922	4.4601	.01362	20.937	.14117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**8.2106**	**.00144**	**.02888**	**.00037**	**.00113**	**-.00184**	**1.2990**
Stddev	.00006	.0214	.00028	.00030	.00107	.00112	.00195	.0210
%RSD	19.928	.26069	19.178	1.0382	288.79	98.501	106.17	1.6126
#1	.00025	8.1873	.00114	.02922	.00075	.00239	-.00402	1.3232
#2	.00037	8.2152	.00150	.02879	.00120	.00074	-.00026	1.2872
#3	.00028	8.2294	.00168	.02864	-.00084	.00027	-.00123	1.2867
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311046901 Acquired: 11/12/2013 18:15:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01628**	**.68762**	**.00195**	**-.00290**	**.00021**	**.00449**	**1.5424**
Stddev	.00024	.00193	.00030	.00119	.00017	.00007	.5901
%RSD	1.5010	.28118	15.282	40.975	80.219	1.5394	38.255
#1	-.01600	.68538	.00227	-.00193	.00039	.00441	2.2017
#2	-.01642	.68870	.00190	-.00254	.00019	.00454	1.0639
#3	-.01642	.68876	.00168	-.00423	.00005	.00453	1.3617
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25023.**	**33007.**
Stddev	33.	163.
%RSD	.13059	.49437
#1	25034.	33071.
#2	24986.	33129.
#3	25048.	32822.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311046902 Acquired: 11/12/2013 18:18:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00097**	**.02426**	**-.00040**	**.16871**	**.03110**	**.00003**	**110.37**
Stddev	.00082	.00215	.00128	.00015	.00011	.00000	.17
%RSD	84.750	8.8444	319.12	.08940	.35202	9.3756	.15217
#1	-.00015	.02338	-.00031	.16855	.03100	.00003	110.22
#2	-.00096	.02269	-.00172	.16875	.03108	.00003	110.55
#3	-.00180	.02671	.00083	.16885	.03121	.00002	110.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**.00023**	**.00079**	**.00009**	**.09258**	**5.6221**	**.03486**
Stddev	.00020	.00007	.00050	.00038	.00147	.0237	.00083
%RSD	26.180	30.303	63.440	414.93	1.5904	.42089	2.3731
#1	.00094	.00017	.00129	-.00014	.09116	5.6494	.03515
#2	.00054	.00030	.00077	.00053	.09410	5.6074	.03392
#3	.00081	.00021	.00030	-.00011	.09248	5.6096	.03549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**43.845**	**.11402**	**-.00017**	**47.456**	**.00076**	**.03001**	**.00150**
Stddev	.088	.00032	.00007	.071	.00021	.00164	.00273
%RSD	.20000	.28471	41.333	.14943	27.286	5.4557	182.06
#1	43.805	.11411	-.00018	47.381	.00053	.02937	.00115
#2	43.946	.11367	-.00009	47.466	.00092	.03187	-.00104
#3	43.785	.11430	-.00022	47.522	.00084	.02879	.00438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

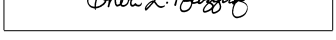
Sample Name: L1311046902 Acquired: 11/12/2013 18:18:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00076**	**-.00292**	**2.9593**	**-.01649**	**2.7023**	**-.00079**	**-.00234**
Stddev	.00124	.00273	.0289	.00014	.0083	.00141	.00102
%RSD	162.96	93.673	.97791	.86211	.30566	177.96	43.742
#1	-.00220	-.00057	2.9310	-.01634	2.6951	-.00065	-.00207
#2	-.00009	-.00592	2.9583	-.01662	2.7003	-.00226	-.00147
#3	.00000	-.00226	2.9888	-.01651	2.7113	.00054	-.00347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00013**	**.00212**	F **-.34043**
Stddev	.00015	.00002	.08771
%RSD	122.57	.79147	25.763
#1	-.00024	.00213	-.30423
#2	.00005	.00211	-.44044
#3	-.00019	.00210	-.27662
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24576.**	**32730.**
Stddev	10.	48.
%RSD	.04081	.14775
#1	24569.	32738.
#2	24570.	32774.
#3	24587.	32678.

Approved: November 13, 2013



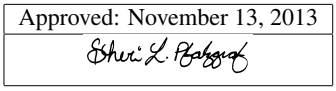
Sample Name: L1311046903 Acquired: 11/12/2013 18:21:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**.06505**	**-.00047**	**.10212**	**.02473**	**.00002**	**116.21**
Stddev	.00019	.01197	.00061	.00006	.00012	.00001	.09
%RSD	60.290	18.408	128.48	.05500	.47358	57.713	.07674
#1	-.00029	.07742	-.00074	.10215	.02486	.00003	116.26
#2	-.00013	.05351	-.00091	.10215	.02462	.00001	116.26
#3	-.00050	.06423	.00022	.10206	.02470	.00003	116.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00011**	**.00135**	**.00080**	**.11665**	**5.0663**	**.02772**
Stddev	.00001	.00008	.00033	.00012	.00201	.0374	.00066
%RSD	1.6608	70.750	24.196	14.841	1.7206	.73811	2.3738
#1	.00090	.00018	.00107	.00093	.11838	5.0638	.02839
#2	.00088	.00002	.00128	.00074	.11445	5.1049	.02771
#3	.00087	.00014	.00171	.00072	.11712	5.0303	.02707
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**57.586**	**.01840**	**-.00030**	**24.030**	**.00093**	**.02418**	**-.00002**
Stddev	.121	.00005	.00003	.033	.00084	.00239	.00049
%RSD	.21002	.27402	11.007	.13872	89.674	9.8713	2615.4
#1	57.588	.01837	-.00028	24.066	.00001	.02168	-.00027
#2	57.706	.01838	-.00034	24.001	.00164	.02643	.00054
#3	57.464	.01846	-.00029	24.022	.00114	.02442	-.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013



Sample Name: L1311046903 Acquired: 11/12/2013 18:21:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**-.00131**	**.78844**	**-.01654**	**1.7561**	**-.00262**	**-.00243**
Stddev	.00105	.00139	.00811	.00030	.0047	.00037	.00254
%RSD	79.711	105.75	1.0291	1.8095	.27076	14.230	104.63
#1	.00023	-.00153	.77921	-.01639	1.7591	-.00300	-.00521
#2	.00139	.00017	.79444	-.01634	1.7506	-.00260	-.00185
#3	.00233	-.00258	.79168	-.01688	1.7586	-.00225	-.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00009**	**.00518**	F **-.26117**
Stddev	.00030	.00010	.41303
%RSD	334.35	1.9449	158.14
#1	-.00022	.00507	-.09882
#2	.00010	.00521	.04601
#3	.00039	.00526	-.73071
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24693.**	**32837.**
Stddev	20.	24.
%RSD	.08071	.07374
#1	24681.	32840.
#2	24716.	32860.
#3	24683.	32812.

Approved: November 13, 2013

Sample Name: L1311046904 Acquired: 11/12/2013 18:25:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00071**	**.02977**	**.00093**	**.16248**	**.03158**	**.00004**	**99.317**
Stddev	.00032	.01050	.00114	.00133	.00028	.00002	.212
%RSD	45.426	35.285	122.75	.81882	.88935	47.779	.21347
#1	-.00108	.01848	.00208	.16131	.03179	.00005	99.365
#2	-.00058	.03155	-.00019	.16222	.03126	.00002	99.086
#3	-.00048	.03926	.00088	.16393	.03168	.00006	99.502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00079**	**.00021**	**.00097**	**.00005**	**.06416**	**5.6304**	**.03308**
Stddev	.00009	.00012	.00032	.00067	.00164	.0272	.00074
%RSD	10.913	56.449	33.022	1404.4	2.5632	.48314	2.2241
#1	.00069	.00022	.00064	.00066	.06491	5.6342	.03344
#2	.00085	.00033	.00128	-.00067	.06530	5.6556	.03356
#3	.00083	.00009	.00097	.00015	.06227	5.6016	.03223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**43.278**	**.05812**	**-.00023**	**46.146**	**.00051**	**.02700**	**.00035**
Stddev	.098	.00028	.00010	.101	.00105	.00472	.00072
%RSD	.22652	.47918	41.682	.21918	205.49	17.464	204.77
#1	43.331	.05845	-.00027	46.156	.00148	.03228	.00059
#2	43.164	.05795	-.00012	46.242	-.00060	.02551	.00093
#3	43.338	.05798	-.00030	46.040	.00066	.02321	-.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311046904 Acquired: 11/12/2013 18:25:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**-.00196**	**2.7843**	**-.01652**	**2.5808**	**-.00132**	**-.00149**
Stddev	.00103	.00080	.0202	.00016	.0045	.00042	.00084
%RSD	563.86	40.998	.72667	.96342	.17416	32.094	56.491
#1	-.00132	-.00110	2.7719	-.01669	2.5779	-.00158	-.00242
#2	.00068	-.00209	2.8076	-.01638	2.5860	-.00154	-.00127
#3	.00009	-.00269	2.7733	-.01649	2.5786	-.00083	-.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00022**	**.00202**	F **-.52829**
Stddev	.00018	.00008	.73580
%RSD	80.980	3.9557	139.28
#1	.00017	.00193	-.47685
#2	.00007	.00203	-1.2885
#3	.00043	.00209	.18044
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24815.**	**32709.**
Stddev	55.	107.
%RSD	.22144	.32697
#1	24871.	32586.
#2	24812.	32774.
#3	24761.	32768.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 18:28:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40548**	**10.220**	**.40899**	**.51062**	**1.0145**	**.05025**	**10.027**
Stddev	.00156	.017	.00067	.00155	.0016	.00010	.023
%RSD	.38427	.17115	.16269	.30349	.15856	.20368	.23050
#1	.40373	10.216	.40841	.50887	1.0164	.05031	10.026
#2	.40672	10.240	.40972	.51183	1.0134	.05031	10.050
#3	.40597	10.206	.40884	.51116	1.0138	.05013	10.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05132**	**.20697**	**.50714**	**.51986**	**4.0954**	**50.382**	**1.0116**
Stddev	.00017	.00020	.00117	.00080	.0124	.039	.0017
%RSD	.32843	.09732	.23038	.15345	.30323	.07648	.17208
#1	.05149	.20674	.50765	.52014	4.1068	50.425	1.0125
#2	.05115	.20707	.50797	.51896	4.0972	50.370	1.0096
#3	.05131	.20710	.50580	.52048	4.0822	50.350	1.0127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.175**	**.51013**	**1.0209**	**51.063**	**.51834**	**10.094**	**.51943**
Stddev	.016	.00188	.0009	.026	.00115	.041	.00241
%RSD	.16011	.36935	.09105	.05172	.22268	.40350	.46483
#1	10.188	.50800	1.0217	51.061	.51966	10.138	.52215
#2	10.157	.51079	1.0199	51.038	.51781	10.086	.51756
#3	10.180	.51159	1.0211	51.090	.51755	10.058	.51857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 18:28:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2256**	**.40688**	**5.1523**	**1.0320**	**1.0186**	**1.0084**	**.52448**
Stddev	.0026	.00222	.0252	.0016	.0012	.0014	.00636
%RSD	.21229	.54587	.48863	.15209	.11452	.14329	1.2117
#1	1.2271	.40929	5.1813	1.0325	1.0200	1.0080	.51760
#2	1.2226	.40493	5.1364	1.0302	1.0180	1.0100	.52569
#3	1.2271	.40641	5.1392	1.0331	1.0179	1.0072	.53014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0132**	**1.0258**	F **1.6119**
Stddev	.0029	.0010	.8554
%RSD	.28176	.09791	53.066
#1	1.0114	1.0266	1.8402
#2	1.0165	1.0262	.66556
#3	1.0117	1.0247	2.3300
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25289.**	**33153.**
Stddev	29.	141.
%RSD	.11607	.42491
#1	25323.	33298.
#2	25274.	33144.
#3	25271.	33016.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 18:32:12 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.01173**	**-.00198**	**.00277**	**-.00015**	**-.00001**	**-.02119**
Stddev	.00051	.01153	.00070	.00066	.00003	.00001	.01108
%RSD	235.00	98.320	35.165	23.739	21.726	218.09	52.280
#1	.00066	.01720	-.00251	.00281	-.00017	-.00001	-.02848
#2	-.00035	.01949	-.00119	.00341	-.00018	-.00001	-.00844
#3	.00035	-.00152	-.00224	.00210	-.00012	.00001	-.02664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00004**	**.00013**	**-.00020**	**-.00277**	**-.11477**	**.00552**
Stddev	.00006	.00010	.00026	.00021	.00152	.04285	.00083
%RSD	100.60	258.09	194.29	101.87	54.855	37.335	14.947
#1	.00009	-.00007	-.00017	.00001	-.00310	-.14341	.00555
#2	-.00001	.00008	.00030	-.00021	-.00111	-.06551	.00469
#3	.00010	.00010	.00027	-.00040	-.00409	-.13539	.00634
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**-.00019**	**.00392**	**.02850**	**.00013**	**.00074**	**.00077**
Stddev	.00428	.00004	.00028	.00432	.00008	.00101	.00075
%RSD	555.06	22.101	7.0352	15.167	57.536	136.12	97.663
#1	-.00417	-.00014	.00364	.02358	.00022	-.00042	.00140
#2	.00332	-.00021	.00392	.03024	.00009	.00139	-.00006
#3	.00317	-.00020	.00419	.03168	.00009	.00126	.00097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

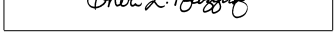
Sample Name: CCB Acquired: 11/12/2013 18:32:12 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00070**	**.00181**	**.00186**	**-.00118**	**-.00003**	**-.00007**	**-.00129**
Stddev	.00066	.00226	.00395	.00032	.00005	.00098	.00057
%RSD	93.399	124.90	212.46	27.163	158.94	1444.1	43.987
#1	.00021	-.00080	.00016	-.00100	-.00002	.00068	-.00066
#2	.00145	.00301	-.00096	-.00155	.00001	-.00118	-.00145
#3	.00045	.00322	.00638	-.00099	-.00008	.00030	-.00177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00019**	**-.00058**	F **-.66155**
Stddev	.00030	.00007	.42460
%RSD	153.02	11.850	64.182
#1	.00009	-.00061	-.55375
#2	-.00050	-.00050	-1.1297
#3	-.00017	-.00062	-.30125
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25645.**	**32915.**
Stddev	106.	124.
%RSD	.41361	.37567
#1	25760.	32933.
#2	25624.	33028.
#3	25551.	32783.

Approved: November 13, 2013



Sample Name: PBW 63 Acquired: 11/12/2013 18:35:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.00983**	**-.00236**	**.00191**	**-.00027**	**-.00002**	**-.02138**	**.00003**
Stddev	.00062	.01182	.00137	.00086	.00015	.00001	.00180	.00000
%RSD	563.76	120.20	57.914	45.203	56.009	78.201	8.4251	18.423
#1	-.00083	.00769	-.00252	.00140	-.00012	-.00002	-.02186	.00002
#2	.00019	.02258	-.00092	.00143	-.00042	.00000	-.01939	.00003
#3	.00030	-.00077	-.00364	.00291	-.00028	-.00003	-.02289	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.00006**	**-.00031**	**-.00213**	**-.14664**	**.00525**	**.00602**	**-.00012**
Stddev	.00015	.00034	.00021	.00290	.03864	.00105	.00717	.00000
%RSD	105.30	555.51	67.648	135.97	26.349	20.036	119.23	4.1024
#1	.00031	.00034	-.00055	-.00371	-.10226	.00478	-.00185	-.00012
#2	.00008	.00017	-.00016	.00121	-.16490	.00645	.01219	-.00013
#3	.00003	-.00032	-.00021	-.00389	-.17276	.00451	.00771	-.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**.03109**	**.00004**	**-.00090**	**-.00102**	**.00077**	**-.00075**	**.00115**
Stddev	.00005	.00540	.00042	.00399	.00253	.00104	.00340	.00511
%RSD	15.113	17.364	1167.6	441.20	248.24	134.60	454.91	446.06
#1	.00035	.03453	.00018	.00187	.00175	.00065	-.00217	.00583
#2	.00041	.03388	-.00044	.00089	-.00161	.00186	-.00320	-.00430
#3	.00031	.02487	.00037	-.00547	-.00320	-.00020	.00313	.00191
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: PBW 63 Acquired: 11/12/2013 18:35:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01656**	**-.00008**	**-.00013**	**-.00276**	**.00015**	**.00053**	**.39253**
Stddev	.00033	.00004	.00062	.00162	.00011	.00012	.24993
%RSD	1.9937	55.267	494.17	58.912	74.341	23.208	63.670
#1	-.01693	-.00007	-.00028	-.00400	.00026	.00040	.60059
#2	-.01647	-.00013	-.00065	-.00335	.00017	.00056	.11531
#3	-.01629	-.00004	.00056	-.00092	.00003	.00064	.46171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25586.**	**33040.**
Stddev	60.	31.
%RSD	.23441	.09356
#1	25518.	33027.
#2	25629.	33018.
#3	25613.	33076.

Approved: November 13, 2013

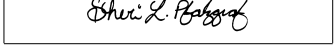
Sample Name: LCSW 63 Acquired: 11/12/2013 18:39:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20389**	**5.0622**	**.20123**	**1.0081**	**.49397**	**.02490**	**5.0984**	**.02551**
Stddev	.00036	.0081	.00144	.0052	.00089	.00012	.0248	.00005
%RSD	.17563	.15999	.71471	.51940	.18012	.46665	.48678	.18844
#1	.20356	5.0715	.20282	1.0102	.49294	.02503	5.1171	.02548
#2	.20382	5.0583	.20087	1.0021	.49440	.02482	5.1079	.02556
#3	.20427	5.0567	.20001	1.0120	.49456	.02485	5.0702	.02548
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10408**	**.25140**	**.25877**	**2.0142**	**24.403**	**.51027**	**5.1224**	**.25730**
Stddev	.00013	.00075	.00020	.0059	.058	.00179	.0343	.00070
%RSD	.12376	.29806	.07559	.29174	.23885	.35176	.66924	.27264
#1	.10403	.25178	.25898	2.0078	24.351	.51230	5.1614	.25744
#2	.10423	.25054	.25873	2.0193	24.392	.50966	5.1083	.25654
#3	.10399	.25189	.25860	2.0157	24.466	.50887	5.0974	.25792
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51588**	**24.880**	**.25919**	**-.00107**	**.26097**	**.60394**	**.20185**	**2.4781**
Stddev	.00113	.084	.00094	.00281	.00327	.00492	.00055	.0314
%RSD	.21871	.33601	.36432	261.81	1.2533	.81389	.27237	1.2673
#1	.51711	24.876	.25823	-.00360	.25780	.59881	.20146	2.4594
#2	.51563	24.799	.25922	.00195	.26077	.60441	.20161	2.4606
#3	.51490	24.966	.26012	-.00157	.26434	.60860	.20248	2.5144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

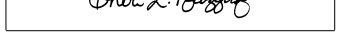


Sample Name: LCSW 63 Acquired: 11/12/2013 18:39:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01523**	**.49396**	**.50858**	**.26649**	**.50375**	**.50516**	**.06705**
Stddev	.00074	.00167	.00144	.00271	.00285	.00106	1.3811
%RSD	4.8584	.33847	.28297	1.0158	.56651	.21070	2059.9
#1	-.01467	.49360	.50976	.26404	.50688	.50449	1.5557
#2	-.01496	.49249	.50901	.26604	.50130	.50460	-1.1727
#3	-.01607	.49578	.50698	.26939	.50307	.50638	-.18186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25474.**	**33014.**
Stddev	66.	48.
%RSD	.26008	.14647
#1	25399.	33020.
#2	25523.	33059.
#3	25501.	32963.

Approved: November 13, 2013



Sample Name: L1311037201 Acquired: 11/12/2013 18:42:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00098**	**.01746**	**.00067**	**.02716**	**.03277**	**.00004**	**50.742**
Stddev	.00072	.01173	.00075	.00069	.00037	.00003	.096
%RSD	73.062	67.181	112.83	2.5274	1.1145	60.122	.18979
#1	-.00165	.02580	.00003	.02645	.03238	.00005	50.787
#2	-.00107	.00405	.00047	.02782	.03282	.00001	50.808
#3	-.00022	.02254	.00150	.02720	.03310	.00006	50.632
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00020**	**.00044**	**-.00052**	**.06577**	**.74258**	**.01252**
Stddev	.00005	.00006	.00041	.00052	.00406	.01733	.00068
%RSD	19.284	30.006	93.516	99.795	6.1727	2.3340	5.4077
#1	.00021	.00023	.00028	-.00060	.06979	.76091	.01288
#2	.00023	.00013	.00090	.00004	.06584	.74037	.01174
#3	.00029	.00025	.00013	-.00099	.06167	.72646	.01294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.146**	**.07602**	**.00193**	**8.8162**	**.00051**	**.00981**	**.00180**
Stddev	.137	.00032	.00024	.0273	.00045	.00162	.00056
%RSD	1.1262	.41672	12.203	.30957	88.581	16.537	30.814
#1	12.228	.07565	.00178	8.8473	.00103	.01134	.00117
#2	11.989	.07618	.00182	8.8050	.00023	.00998	.00220
#3	12.223	.07622	.00220	8.7962	.00027	.00811	.00204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311037201 Acquired: 11/12/2013 18:42:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00115**	**-.00073**	**2.8542**	**-.01642**	**.30759**	**-.00165**	**-.00192**
Stddev	.00123	.00155	.0308	.00034	.00099	.00122	.00120
%RSD	106.98	211.62	1.0805	2.0825	.32085	73.997	62.551
#1	.00011	.00067	2.8212	-.01676	.30871	-.00275	-.00153
#2	.00251	-.00240	2.8823	-.01640	.30683	-.00034	-.00096
#3	.00083	-.00047	2.8592	-.01608	.30724	-.00185	-.00327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**.00292**	F **-.73335**
Stddev	.00009	.00009	1.0809
%RSD	748.97	3.1080	147.39
#1	.00006	.00292	.46538
#2	.00001	.00284	-1.6338
#3	-.00011	.00302	-1.0317
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25205.**	**32878.**
Stddev	38.	65.
%RSD	.15003	.19777
#1	25224.	32897.
#2	25161.	32805.
#3	25229.	32931.

Approved: November 13, 2013

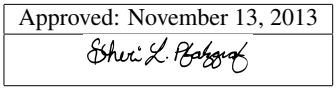
Sample Name: L1311037201DP Acquired: 11/12/2013 18:46:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.00945**	**-.00018**	**.02374**	**.03263**	**-.00001**	**48.565**	**.00030**
Stddev	.00019	.00926	.00124	.00074	.00021	.00003	.042	.00003
%RSD	87.067	98.058	702.93	3.1021	.64371	505.74	.08609	11.089
#1	-.00038	.01666	.00021	.02438	.03268	.00002	48.564	.00031
#2	-.00001	-.00100	-.00156	.02293	.03281	-.00004	48.607	.00026
#3	-.00027	.01268	.00082	.02390	.03240	.00000	48.524	.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00042**	**-.00008**	**.06354**	**.72758**	**.01243**	**11.689**	**.07445**
Stddev	.00016	.00033	.00041	.00131	.02990	.00067	.130	.00019
%RSD	83.361	79.072	536.06	2.0638	4.1089	5.3721	1.1078	.25565
#1	.00018	.00017	.00036	.06372	.73982	.01313	11.839	.07454
#2	.00004	.00079	-.00046	.06474	.74942	.01180	11.621	.07424
#3	.00037	.00029	-.00013	.06214	.69351	.01234	11.609	.07458
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**8.6555**	**.00003**	**.00889**	**.00060**	**-.00127**	**.00030**	**2.7898**
Stddev	.00012	.0072	.00010	.00096	.00043	.00102	.00317	.0085
%RSD	32.875	.08359	377.67	10.752	72.644	80.223	1063.0	.30598
#1	.00028	8.6530	.00007	.00842	.00030	-.00010	.00367	2.7864
#2	.00051	8.6499	.00010	.00826	.00039	-.00191	-.00016	2.7835
#3	.00032	8.6637	-.00009	.00999	.00109	-.00180	-.00262	2.7995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

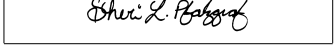


Sample Name: L1311037201DP Acquired: 11/12/2013 18:46:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01662**	**.30248**	**-.00206**	**-.00048**	**-.00003**	**.00331**	**.66284**
Stddev	.00030	.00082	.00104	.00052	.00011	.00002	.90461
%RSD	1.7944	.27075	50.367	109.55	400.02	.59854	136.47
#1	-.01628	.30232	-.00091	-.00012	-.00014	.00332	-.23022
#2	-.01684	.30175	-.00291	-.00107	.00007	.00329	1.5786
#3	-.01675	.30337	-.00235	-.00024	-.00001	.00332	.64017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25302.**	**32961.**
Stddev	50.	62.
%RSD	.19950	.18808
#1	25253.	32999.
#2	25299.	32994.
#3	25354.	32890.

Approved: November 13, 2013



Sample Name: L1311037201S Acquired: 11/12/2013 18:49:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20468**	**5.0827**	**.20246**	**1.0444**	**.52740**	**.02503**	**55.086**	**.02538**
Stddev	.00081	.0173	.00073	.0026	.00070	.00005	.153	.00014
%RSD	.39513	.33966	.36153	.25198	.13334	.20256	.27835	.53992
#1	.20403	5.1021	.20195	1.0421	.52683	.02502	55.262	.02544
#2	.20558	5.0768	.20330	1.0473	.52818	.02508	54.978	.02522
#3	.20442	5.0691	.20213	1.0438	.52719	.02498	55.019	.02548
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10144**	**.25133**	**.25396**	**2.0895**	**25.558**	**.50902**	**16.948**	**.32965**
Stddev	.00050	.00114	.00081	.0050	.029	.00066	.019	.00072
%RSD	.49386	.45331	.32018	.23961	.11421	.12900	.10985	.21744
#1	.10115	.25199	.25338	2.0864	25.574	.50967	16.945	.33002
#2	.10115	.25198	.25362	2.0868	25.524	.50903	16.968	.33010
#3	.10202	.25001	.25489	2.0953	25.576	.50835	16.931	.32882
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51242**	**34.376**	**.25287**	**.00996**	**.25500**	**.59755**	**.19708**	**5.3793**
Stddev	.00196	.029	.00147	.00274	.00327	.00126	.00082	.0247
%RSD	.38306	.08342	.57950	27.479	1.2809	.21035	.41397	.45882
#1	.51189	34.343	.25197	.01297	.25505	.59610	.19739	5.3885
#2	.51077	34.388	.25208	.00761	.25171	.59830	.19616	5.3513
#3	.51459	34.396	.25456	.00930	.25824	.59826	.19770	5.3980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

Sample Name: L1311037201S Acquired: 11/12/2013 18:49:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01522**	**.81460**	**.49971**	**.25291**	**.50299**	**.50659**	**.78764**
Stddev	.00035	.00071	.00140	.00075	.00166	.00086	.34356
%RSD	2.2925	.08662	.28023	.29495	.32949	.17052	43.619
#1	-.01524	.81391	.50092	.25238	.50117	.50749	.66727
#2	-.01486	.81457	.50004	.25259	.50441	.50650	.52046
#3	-.01556	.81532	.49818	.25377	.50340	.50576	1.1752
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25049.**	**32881.**
Stddev	23.	73.
%RSD	.09166	.22262
#1	25071.	32797.
#2	25050.	32913.
#3	25025.	32932.

Approved: November 13, 2013

Sample Name: L1311037301 Acquired: 11/12/2013 18:52:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.04848**	**-.00125**	**.03046**	**.01013**	**.00004**	**261.65**
Stddev	.00035	.03425	.00011	.00100	.00016	.00003	.76
%RSD	76.684	70.638	8.7978	3.2698	1.5412	65.833	.28988
#1	-.00061	.02743	-.00123	.03088	.01026	.00007	262.33
#2	-.00071	.03002	-.00137	.03118	.00996	.00001	261.79
#3	-.00006	.08800	-.00116	.02932	.01019	.00004	260.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00144**	**.00093**	**.00129**	**-.00044**	**.05727**	**3.5101**	**.03833**
Stddev	.00008	.00027	.00046	.00027	.00351	.0096	.00130
%RSD	5.8502	29.199	35.979	60.418	6.1321	.27260	3.4019
#1	.00138	.00109	.00180	-.00069	.06008	3.5176	.03954
#2	.00139	.00108	.00090	-.00017	.05841	3.5135	.03850
#3	.00153	.00062	.00115	-.00046	.05333	3.4993	.03695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**112.59**	**.38925**	**.00097**	**7.0133**	**.00693**	**.01329**	**.00009**
Stddev	.18	.00090	.00014	.0182	.00048	.00382	.00170
%RSD	.16022	.23115	14.483	.25947	6.9774	28.789	1798.4
#1	112.80	.38926	.00094	7.0230	.00722	.01684	-.00024
#2	112.48	.38835	.00084	6.9923	.00637	.01378	-.00141
#3	112.49	.39015	.00112	7.0245	.00720	.00924	.00193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037301 Acquired: 11/12/2013 18:52:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**-.00158**	**2.0202**	**-.01687**	**.88066**	**-.00482**	**-.00298**
Stddev	.00119	.00109	.0281	.00029	.00143	.00040	.00119
%RSD	200.76	69.093	1.3887	1.7357	.16250	8.2444	39.705
#1	-.00011	-.00150	2.0499	-.01668	.87917	-.00527	-.00435
#2	.00197	-.00053	2.0167	-.01671	.88077	-.00467	-.00230
#3	-.00008	-.00271	1.9941	-.01720	.88203	-.00451	-.00230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00030**	**.00226**	F **-1.3445**
Stddev	.00029	.00004	.6265
%RSD	97.710	1.6304	46.601
#1	-.00032	.00229	-1.0750
#2	-.00058	.00228	-2.0607
#3	.00000	.00222	-.89774
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24085.**	**32471.**
Stddev	76.	64.
%RSD	.31725	.19705
#1	24011.	32422.
#2	24164.	32544.
#3	24081.	32448.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037301DL Acquired: 11/12/2013 18:56:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452492-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.01041**	**-.00024**	**.00839**	**.00209**	**.00000**	**54.442**
Stddev	.00011	.00763	.00039	.00048	.00013	.00003	.108
%RSD	58.560	73.242	165.49	5.7247	6.4243	7671.0	.19810
#1	-.00025	.01747	-.00069	.00877	.00223	.00000	54.362
#2	-.00026	.00232	-.00007	.00855	.00197	-.00003	54.401
#3	-.00006	.01146	.00004	.00785	.00206	.00003	54.565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00027**	**.00042**	**-.00029**	**.00765**	**.58986**	**.01264**
Stddev	.00012	.00018	.00036	.00015	.00247	.05243	.00128
%RSD	36.030	66.525	87.124	52.989	32.294	8.8889	10.111
#1	.00030	.00045	.00008	-.00021	.01040	.58692	.01203
#2	.00046	.00027	.00037	-.00047	.00696	.64370	.01411
#3	.00023	.00009	.00080	-.00019	.00560	.53896	.01179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.787**	**.08447**	**.00001**	**1.4254**	**.00108**	**.00790**	**.00137**
Stddev	.131	.00024	.00011	.0138	.00054	.00133	.00118
%RSD	.54931	.28067	788.07	.96765	49.762	16.867	86.230
#1	23.670	.08433	.00013	1.4123	.00122	.00664	.00173
#2	23.928	.08475	-.00007	1.4241	.00154	.00930	.00005
#3	23.763	.08434	-.00003	1.4398	.00049	.00778	.00232
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311037301DL Acquired: 11/12/2013 18:56:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452492-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00109**	**-.00166**	**.40288**	**-.01635**	**.17809**	**-.00132**	**-.00088**
Stddev	.00225	.00117	.00692	.00025	.00009	.00100	.00030
%RSD	206.29	70.353	1.7180	1.5462	.05018	75.719	34.335
#1	.00136	-.00285	.40796	-.01622	.17819	-.00088	-.00085
#2	-.00158	-.00051	.40568	-.01620	.17801	-.00246	-.00120
#3	-.00305	-.00162	.39500	-.01665	.17807	-.00062	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00008**	**.00083**	F **-.35504**
Stddev	.00011	.00013	.25887
%RSD	138.56	15.125	72.913
#1	.00002	.00069	-.05884
#2	-.00006	.00091	-.46830
#3	-.00020	.00089	-.53798
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25384.**	**33040.**
Stddev	42.	84.
%RSD	.16353	.25478
#1	25431.	33137.
#2	25372.	32989.
#3	25350.	32994.

Approved: November 13, 2013

Sample Name: L1311037301PS Acquired: 11/12/2013 18:59:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452492-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20924**	**5.2066**	**.20927**	**1.0629**	**.50867**	**.02557**	**249.19**
Stddev	.00095	.0286	.00130	.0015	.00095	.00009	.59
%RSD	.45431	.54868	.62194	.14114	.18648	.33774	.23553
#1	.21012	5.1878	.21077	1.0624	.50887	.02562	248.54
#2	.20935	5.2395	.20837	1.0646	.50950	.02562	249.36
#3	.20823	5.1925	.20869	1.0618	.50763	.02547	249.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02740**	**.10292**	**.25275**	**.25430**	**2.0674**	**28.430**	**.56282**
Stddev	.00007	.00019	.00137	.00049	.0043	.084	.00148
%RSD	.26237	.18074	.54336	.19263	.20702	.29430	.26227
#1	.02735	.10285	.25170	.25412	2.0625	28.373	.56152
#2	.02737	.10278	.25430	.25485	2.0701	28.526	.56250
#3	.02748	.10313	.25223	.25392	2.0697	28.391	.56442
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**108.42**	**.60726**	**.52031**	**32.055**	**.25860**	**.01723**	**.25296**
Stddev	.22	.00243	.00032	.061	.00080	.00704	.00126
%RSD	.20467	.39934	.06080	.18905	.30838	40.869	.49750
#1	108.26	.60629	.52031	32.077	.25838	.02510	.25201
#2	108.67	.61002	.52063	31.986	.25793	.01150	.25248
#3	108.32	.60547	.52000	32.101	.25948	.01510	.25439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037301PS Acquired: 11/12/2013 18:59:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452492-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.62575**	**.20966**	**4.3160**	**.52127**	**1.2958**	**.50833**	**.25336**
Stddev	.00171	.00145	.0572	.00311	.0012	.00200	.00248
%RSD	.27335	.69152	1.3259	.59697	.09556	.39380	.97800
#1	.62673	.21099	4.2922	.51975	1.2946	.50617	.25530
#2	.62377	.20988	4.2744	.51920	1.2971	.51013	.25421
#3	.62674	.20812	4.3812	.52485	1.2955	.50868	.25057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.51811**	**.49529**	F **-.47260**
Stddev	.00225	.00057	.69191
%RSD	.43402	.11538	146.40
#1	.51958	.49483	-1.1554
#2	.51923	.49511	-.49038
#3	.51552	.49593	.22803
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23950.**	**32055.**
Stddev	37.	77.
%RSD	.15260	.23908
#1	23912.	32133.
#2	23954.	31980.
#3	23985.	32053.

Approved: November 13, 2013

Sample Name: L1311037401 Acquired: 11/12/2013 19:03:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00085**	**.01041**	**.00028**	**.25133**	**.00865**	**.00005**	**254.35**
Stddev	.00066	.01141	.00099	.00202	.00015	.00003	.65
%RSD	77.390	109.66	353.25	.80308	1.7030	51.022	.25417
#1	-.00131	-.00273	.00138	.25329	.00849	.00008	254.51
#2	-.00115	.01613	.00000	.24926	.00877	.00006	253.64
#3	-.00010	.01782	-.00054	.25144	.00870	.00002	254.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00099**	**-.00008**	**.00067**	**.00040**	**.08852**	**3.8987**	**.04687**
Stddev	.00015	.00015	.00063	.00016	.00294	.0113	.00038
%RSD	15.238	192.71	94.216	40.355	3.3193	.29009	.80374
#1	.00081	-.00011	.00101	.00059	.09030	3.8947	.04683
#2	.00107	-.00020	.00106	.00030	.08513	3.8899	.04651
#3	.00108	.00008	-.00006	.00032	.09014	3.9114	.04726
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**61.696**	**.01405**	**.00182**	F **482.66**	**.00095**	**.02727**	**-.00078**
Stddev	.132	.00005	.00016	1.15	.00060	.00310	.00184
%RSD	.21399	.32529	8.9542	.23825	63.092	11.364	234.84
#1	61.727	.01401	.00164	482.96	.00067	.02607	-.00076
#2	61.551	.01405	.00196	483.63	.00054	.02496	-.00263
#3	61.810	.01410	.00186	481.39	.00163	.03079	.00104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037401 Acquired: 11/12/2013 19:03:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00048**	**-.00319**	**1.6097**	**-.01656**	**3.3399**	**-.00609**	**-.00161**
Stddev	.00060	.00132	.0057	.00026	.0107	.00041	.00151
%RSD	124.25	41.447	.35714	1.5926	.31921	6.7867	93.940
#1	-.00096	-.00424	1.6143	-.01680	3.3313	-.00651	.00013
#2	.00019	-.00170	1.6116	-.01627	3.3518	-.00568	-.00264
#3	-.00067	-.00364	1.6033	-.01660	3.3366	-.00609	-.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00126**	F **-1.5916**
Stddev	.00012	.00004	.5952
%RSD	235.11	2.9799	37.397
#1	-.00008	.00124	-1.5557
#2	.00015	.00130	-1.0152
#3	.00007	.00124	-2.2040
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23694.**	**32145.**
Stddev	91.	94.
%RSD	.38609	.29344
#1	23648.	32247.
#2	23635.	32062.
#3	23800.	32125.

Approved: November 13, 2013

Sample Name: L1311037402 Acquired: 11/12/2013 19:06:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00044**	**.03792**	**-.00105**	**.25432**	**.00795**	**.00006**	F **300.25**
Stddev	.00043	.00870	.00061	.00172	.00007	.00002	.33
%RSD	98.708	22.954	57.792	.67690	.86876	36.345	.11106
#1	-.00092	.04610	-.00141	.25346	.00788	.00005	300.62
#2	-.00009	.03887	-.00035	.25319	.00802	.00004	299.96
#3	-.00030	.02877	-.00140	.25630	.00796	.00008	300.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00116**	**.00173**	**.00115**	**-.00010**	**2.0869**	**4.3643**	**.05532**
Stddev	.00009	.00008	.00084	.00092	.0113	.0083	.00204
%RSD	7.5084	4.6902	73.252	934.80	.54093	.18906	3.6953
#1	.00109	.00175	.00062	-.00045	2.0955	4.3665	.05693
#2	.00126	.00179	.00070	-.00079	2.0741	4.3551	.05302
#3	.00114	.00164	.00212	.00095	2.0910	4.3712	.05600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**64.668**	**.79691**	**-.00001**	F **429.25**	**.00524**	**.01804**	**.00293**
Stddev	.132	.00192	.00019	1.90	.00049	.00672	.00119
%RSD	.20350	.24133	3003.1	.44207	9.3194	37.228	40.483
#1	64.727	.79633	-.00022	430.94	.00476	.01381	.00414
#2	64.517	.79534	.00008	429.62	.00522	.02578	.00290
#3	64.759	.79905	.00012	427.20	.00574	.01452	.00176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013

Sample Name: L1311037402 Acquired: 11/12/2013 19:06:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**-.00266**	**2.4521**	**-.01640**	**3.3550**	**-.00575**	**-.00126**
Stddev	.00218	.00157	.0029	.00055	.0037	.00127	.00060
%RSD	804.95	59.203	.12031	3.3812	.10906	22.149	47.916
#1	.00187	-.00299	2.4550	-.01678	3.3581	-.00441	-.00146
#2	-.00019	-.00095	2.4523	-.01666	3.3560	-.00694	-.00173
#3	-.00250	-.00404	2.4491	-.01576	3.3510	-.00590	-.00058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00013**	**.00516**	F **-1.5035**
Stddev	.00025	.00003	.1955
%RSD	188.42	.54382	13.004
#1	-.00015	.00518	-1.6851
#2	.00022	.00516	-1.5287
#3	.00032	.00513	-1.2966
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23732.**	**32352.**
Stddev	54.	55.
%RSD	.22828	.16876
#1	23785.	32316.
#2	23677.	32415.
#3	23736.	32326.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 19:10:23 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40462**	**10.257**	**.40855**	**.51133**	**1.0145**	**.05016**	**10.105**
Stddev	.00250	.056	.00092	.00496	.0024	.00037	.008
%RSD	.61889	.54970	.22495	.96976	.23669	.73802	.07526
#1	.40358	10.236	.40778	.50766	1.0125	.04980	10.096
#2	.40280	10.213	.40957	.50935	1.0171	.05014	10.109
#3	.40747	10.321	.40830	.51697	1.0138	.05054	10.109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05117**	**.20695**	**.50518**	**.51937**	**4.1163**	**50.153**	**1.0216**
Stddev	.00014	.00062	.00372	.00066	.0078	.064	.0014
%RSD	.27534	.29821	.73721	.12618	.18975	.12767	.13839
#1	.05121	.20629	.50211	.51901	4.1085	50.091	1.0205
#2	.05101	.20704	.50412	.52013	4.1241	50.150	1.0232
#3	.05129	.20752	.50933	.51897	4.1165	50.219	1.0210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.252**	**.51536**	**1.0195**	**50.419**	**.51726**	**10.153**	**.51970**
Stddev	.031	.00571	.0008	.245	.00140	.020	.00228
%RSD	.30343	1.1078	.08113	.48682	.27068	.19279	.43862
#1	10.268	.51269	1.0185	50.540	.51565	10.155	.52141
#2	10.272	.51148	1.0199	50.137	.51821	10.172	.51711
#3	10.216	.52192	1.0201	50.581	.51793	10.133	.52059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 19:10:23 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2304**	**.40791**	**5.2041**	**1.0373**	**1.0156**	**1.0145**	**.52798**
Stddev	.0055	.00326	.0175	.0024	.0039	.0023	.00349
%RSD	.44544	.79951	.33593	.23586	.38636	.22597	.66077
#1	1.2247	.40987	5.2024	1.0348	1.0165	1.0133	.52520
#2	1.2356	.40971	5.2224	1.0397	1.0113	1.0172	.53190
#3	1.2309	.40415	5.1876	1.0373	1.0190	1.0131	.52684
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0084**	**1.0264**	F **.87765**
Stddev	.0075	.0011	.53901
%RSD	.74288	.10739	61.415
#1	1.0018	1.0260	.39597
#2	1.0068	1.0256	.77714
#3	1.0166	1.0277	1.4598
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25683.**	**33307.**
Stddev	79.	225.
%RSD	.30779	.67413
#1	25770.	33417.
#2	25663.	33455.
#3	25616.	33049.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 19:13:38 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.01235**	**-.00032**	**.00436**	**-.00007**	**-.00002**	**-.00042**
Stddev	.00029	.00954	.00068	.00052	.00016	.00002	.00859
%RSD	142.05	77.291	211.26	12.018	222.71	90.067	2036.5
#1	-.00054	.02219	.00004	.00496	.00000	.00000	.00780
#2	-.00008	.01171	-.00110	.00418	-.00025	-.00003	.00026
#3	.00000	.00314	.00010	.00396	.00004	-.00003	-.00933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00003**	**.00003**	**-.00037**	**-.00304**	**-.09832**	**.00627**
Stddev	.00011	.00010	.00030	.00013	.00199	.00902	.00179
%RSD	195.55	298.92	870.78	34.523	65.298	9.1736	28.577
#1	-.00006	.00015	.00015	-.00022	-.00515	-.09043	.00540
#2	.00006	.00000	-.00030	-.00043	-.00278	-.10815	.00834
#3	.00017	-.00004	.00025	-.00045	-.00120	-.09637	.00509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00571**	**-.00022**	**.00387**	**.07183**	**-.00023**	**.00173**	**-.00051**
Stddev	.01415	.00002	.00023	.00624	.00035	.00204	.00121
%RSD	247.70	8.6339	5.9111	8.6873	155.95	118.44	236.92
#1	.01039	-.00020	.00361	.07881	-.00020	.00268	-.00021
#2	-.01138	-.00022	.00404	.06989	-.00059	-.00062	-.00184
#3	-.01616	-.00024	.00396	.06679	.00011	.00312	.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 19:13:38 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00166**	**.00088**	**.00195**	**-.00065**	**.00014**	**-.00040**	**-.00179**
Stddev	.00091	.00094	.00394	.00021	.00006	.00092	.00155
%RSD	54.653	107.31	201.56	32.883	40.477	232.01	86.542
#1	-.00214	.00125	.00647	-.00051	.00008	-.00146	-.00186
#2	-.00222	.00157	.00018	-.00089	.00015	.00019	-.00021
#3	-.00061	-.00019	-.00079	-.00054	.00019	.00007	-.00331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00013**	**-.00064**	F **-.18505**
Stddev	.00013	.00010	1.0290
%RSD	105.39	15.471	556.09
#1	.00002	-.00055	-.75761
#2	-.00023	-.00062	1.0029
#3	-.00017	-.00074	-.80046
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25561.**	**33231.**
Stddev	38.	27.
%RSD	.14948	.08065
#1	25530.	33257.
#2	25549.	33204.
#3	25604.	33233.

Approved: November 13, 2013

Sample Name: L1311037502 Acquired: 11/12/2013 19:17:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00051**	**.02071**	**.00079**	**.04901**	**.04604**	**.00000**	**57.154**
Stddev	.00044	.01115	.00045	.00077	.00028	.00003	.163
%RSD	84.873	53.853	56.850	1.5615	.60452	9018.9	.28523
#1	-.00075	.01176	.00092	.04878	.04634	-.00002	57.148
#2	-.00001	.01717	.00029	.04987	.04599	.00003	56.995
#3	-.00078	.03320	.00115	.04839	.04579	-.00001	57.321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.00006**	**.00105**	**.00174**	**.19371**	**1.9003**	**.00997**
Stddev	.00005	.00005	.00036	.00041	.00067	.0194	.00162
%RSD	25.729	70.849	34.603	23.561	.34808	1.0208	16.257
#1	.00020	.00001	.00109	.00142	.19446	1.8782	.00934
#2	.00023	.00010	.00140	.00160	.19317	1.9080	.00876
#3	.00014	.00008	.00067	.00220	.19349	1.9146	.01181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9427**	**.00630**	**.00093**	**24.332**	**.00129**	**.05909**	**.00154**
Stddev	.0636	.00004	.00017	.092	.00059	.00673	.00151
%RSD	.63940	.68266	18.631	.37811	46.051	11.383	98.091
#1	9.9871	.00626	.00074	24.281	.00197	.06686	.00328
#2	9.8699	.00634	.00108	24.276	.00098	.05506	.00062
#3	9.9711	.00629	.00099	24.438	.00091	.05536	.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037502 Acquired: 11/12/2013 19:17:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**-.00003**	**2.4085**	**-.01623**	**.26835**	**-.00207**	**-.00152**
Stddev	.00167	.00439	.0339	.00023	.00066	.00067	.00075
%RSD	684.23	12696.	1.4090	1.4059	.24587	32.520	49.280
#1	.00216	-.00458	2.3710	-.01649	.26826	-.00284	-.00109
#2	-.00051	.00417	2.4177	-.01612	.26774	-.00161	-.00238
#3	-.00092	.00031	2.4369	-.01608	.26905	-.00176	-.00108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00027**	**.00215**	F **-1.0434**
Stddev	.00028	.00016	.7546
%RSD	103.08	7.4074	72.324
#1	.00033	.00227	-1.9037
#2	-.00003	.00220	-.73335
#3	.00051	.00197	-.49320
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25014.**	**32946.**
Stddev	44.	86.
%RSD	.17613	.25997
#1	25056.	32909.
#2	25018.	33044.
#3	24968.	32885.

Approved: November 13, 2013

Sample Name: L1311037504 Acquired: 11/12/2013 19:20:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.02463**	**-.00116**	**.04707**	**.04749**	**.00002**	**56.831**
Stddev	.00028	.00602	.00042	.00037	.00032	.00001	.095
%RSD	60.179	24.444	36.264	.77585	.66384	59.909	.16655
#1	-.00067	.02957	-.00131	.04666	.04786	.00001	56.754
#2	-.00015	.01792	-.00068	.04735	.04733	.00003	56.936
#3	-.00060	.02639	-.00148	.04719	.04729	.00003	56.802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00010**	**.00098**	**.00094**	**.02349**	**1.7854**	**.01015**
Stddev	.00004	.00007	.00023	.00043	.00207	.0145	.00083
%RSD	12.564	70.341	23.530	45.768	8.8208	.81433	8.1927
#1	.00026	.00009	.00099	.00136	.02110	1.7866	.00975
#2	.00031	.00018	.00120	.00050	.02454	1.7703	.00960
#3	.00033	.00003	.00074	.00097	.02483	1.7993	.01111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.7273**	**.00271**	**.00051**	**21.342**	**-.00044**	**.06146**	**-.00003**
Stddev	.0323	.00003	.00021	.055	.00024	.00678	.00137
%RSD	.33238	1.2725	41.936	.25549	53.373	11.032	4058.9
#1	9.7323	.00269	.00044	21.365	-.00019	.06864	-.00049
#2	9.7567	.00275	.00034	21.280	-.00049	.05516	.00151
#3	9.6927	.00268	.00075	21.382	-.00065	.06057	-.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037504 Acquired: 11/12/2013 19:20:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**-.00267**	**2.5587**	**-.01640**	**.23989**	**-.00153**	**-.00126**
Stddev	.00141	.00290	.0293	.00020	.00096	.00079	.00040
%RSD	191.53	108.35	1.1458	1.2497	.39918	51.894	31.563
#1	-.00222	-.00478	2.5266	-.01616	.24057	-.00244	-.00144
#2	.00059	-.00387	2.5656	-.01651	.23880	-.00118	-.00080
#3	-.00058	.00063	2.5840	-.01653	.24031	-.00097	-.00153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00027**	**.00395**	F **-.77249**
Stddev	.00005	.00017	.69785
%RSD	19.521	4.2690	90.337
#1	.00021	.00384	-.77089
#2	.00031	.00415	-.07545
#3	.00028	.00387	-1.4711
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25085.**	**32834.**
Stddev	51.	97.
%RSD	.20142	.29588
#1	25092.	32722.
#2	25131.	32879.
#3	25031.	32899.

Approved: November 13, 2013

Sample Name: L1311037601 Acquired: 11/12/2013 19:24:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00070**	**.27758**	**.00052**	**.04190**	**.04539**	**.00002**	**28.650**	**.00018**
Stddev	.00040	.01431	.00204	.00144	.00028	.00003	.019	.00006
%RSD	57.412	5.1537	395.74	3.4485	.60679	141.49	.06655	33.591
#1	-.00039	.29149	.00155	.04265	.04514	-.00001	28.670	.00018
#2	-.00115	.27834	-.00184	.04282	.04535	.00005	28.648	.00025
#3	-.00056	.26291	.00183	.04024	.04568	.00003	28.632	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00065**	**.00073**	**.00016**	**.41234**	**1.5806**	**.01180**	**5.4749**	**.05662**
Stddev	.00007	.00019	.00028	.00110	.0164	.00262	.0419	.00013
%RSD	11.104	26.571	177.73	.26680	1.0376	22.232	.76479	.22832
#1	.00057	.00095	.00013	.41114	1.5672	.00932	5.4338	.05668
#2	.00070	.00056	.00045	.41258	1.5989	.01153	5.5175	.05647
#3	.00068	.00069	-.00011	.41329	1.5758	.01455	5.4735	.05671
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00111**	**24.003**	**.00213**	**.01833**	**.00229**	**-.00058**	**-.00050**	**1.3439**
Stddev	.00023	.098	.00042	.00418	.00097	.00152	.00134	.0193
%RSD	20.228	.40822	19.914	22.792	42.462	262.23	269.26	1.4342
#1	.00089	24.104	.00255	.01442	.00305	-.00009	-.00200	1.3218
#2	.00134	23.908	.00213	.02273	.00262	-.00228	-.00008	1.3573
#3	.00111	23.997	.00170	.01784	.00119	.00064	.00058	1.3525
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311037601 Acquired: 11/12/2013 19:24:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01639**	**.15844**	**.00323**	**-.00215**	**.00051**	**.00322**	**.49252**
Stddev	.00069	.00046	.00017	.00058	.00014	.00008	.54996
%RSD	4.2165	.28783	5.4190	26.864	28.036	2.3737	111.66
#1	-.01707	.15867	.00343	-.00231	.00035	.00316	1.0025
#2	-.01569	.15791	.00316	-.00264	.00060	.00330	-.09017
#3	-.01641	.15873	.00310	-.00151	.00059	.00318	.56521
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25325.**	**32931.**
Stddev	17.	36.
%RSD	.06798	.10801
#1	25307.	32962.
#2	25341.	32939.
#3	25328.	32892.

Approved: November 13, 2013

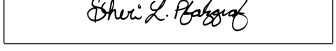
Sample Name: L1311037601S Acquired: 11/12/2013 19:27:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19923**	**5.1644**	**.19777**	**1.0358**	**.52467**	**.02449**	**31.757**	**.02481**
Stddev	.00038	.0164	.00052	.0037	.00101	.00002	.115	.00005
%RSD	.18889	.31752	.26347	.35951	.19174	.07692	.36131	.21334
#1	.19952	5.1717	.19772	1.0321	.52575	.02446	31.662	.02483
#2	.19880	5.1456	.19831	1.0359	.52451	.02449	31.725	.02485
#3	.19936	5.1758	.19727	1.0395	.52375	.02450	31.885	.02475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10079**	**.24628**	**.24998**	**2.3448**	**25.619**	**.50139**	**10.046**	**.30053**
Stddev	.00021	.00030	.00053	.0098	.074	.00134	.024	.00109
%RSD	.20877	.12009	.21394	.41681	.28981	.26773	.23835	.36147
#1	.10069	.24596	.24975	2.3561	25.666	.50100	10.074	.30175
#2	.10104	.24655	.25059	2.3398	25.657	.50029	10.029	.30013
#3	.10065	.24634	.24960	2.3386	25.533	.50288	10.035	.29969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50416**	**47.624**	**.25188**	**.01788**	**.25207**	**.59389**	**.19764**	**3.7261**
Stddev	.00073	.078	.00074	.00284	.00084	.00531	.00326	.0185
%RSD	.14390	.16290	.29245	15.889	.33226	.89461	1.6477	.49759
#1	.50472	47.535	.25117	.01481	.25120	.59514	.19706	3.7366
#2	.50441	47.655	.25183	.02041	.25214	.59847	.20114	3.7370
#3	.50334	47.680	.25264	.01841	.25287	.58806	.19471	3.7047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

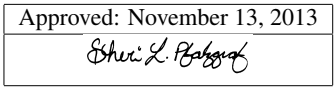


Sample Name: L1311037601S Acquired: 11/12/2013 19:27:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452177-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01530**	**.63615**	**.49538**	**.25223**	**.49368**	**.49395**	**.77974**
Stddev	.00008	.00078	.00236	.00148	.00050	.00061	.83859
%RSD	.51901	.12183	.47724	.58600	.10117	.12276	107.55
#1	-.01537	.63534	.49431	.25062	.49401	.49394	.88184
#2	-.01531	.63688	.49375	.25353	.49391	.49334	-.10523
#3	-.01521	.63621	.49809	.25255	.49310	.49456	1.5626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25289.**	**32982.**
Stddev	8.	147.
%RSD	.03167	.44536
#1	25282.	32817.
#2	25298.	33028.
#3	25288.	33100.

Approved: November 13, 2013



Sample Name: L1311037613 Acquired: 11/12/2013 19:31:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00075**	**.15827**	**.00061**	**.10232**	**.03847**	**.00002**	**30.078**
Stddev	.00043	.02017	.00130	.00163	.00016	.00001	.014
%RSD	57.142	12.742	215.29	1.5959	.42822	48.192	.04765
#1	-.00035	.17599	-.00090	.10411	.03848	.00001	30.093
#2	-.00070	.13632	.00129	.10195	.03829	.00001	30.076
#3	-.00120	.16250	.00142	.10091	.03862	.00003	30.065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.00031**	**.00072**	**.00158**	**.24782**	**2.3392**	**.01536**
Stddev	.00003	.00005	.00039	.00085	.00234	.0224	.00133
%RSD	15.179	16.909	54.627	54.097	.94558	.95949	8.6365
#1	.00021	.00036	.00070	.00247	.24636	2.3171	.01445
#2	.00027	.00026	.00112	.00148	.24657	2.3385	.01689
#3	.00021	.00032	.00034	.00078	.25052	2.3620	.01476
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.3135**	**.04545**	**.00360**	**25.058**	**.00176**	**.04228**	**.00092**
Stddev	.0725	.00020	.00026	.107	.00048	.00616	.00048
%RSD	.87182	.42933	7.1980	.42811	27.341	14.563	52.360
#1	8.3183	.04567	.00334	24.957	.00206	.04044	.00088
#2	8.2387	.04537	.00359	25.048	.00202	.04914	.00143
#3	8.3834	.04531	.00386	25.171	.00120	.03725	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037613 Acquired: 11/12/2013 19:31:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00160**	**.00190**	**1.6357**	**-.01646**	**.17586**	**.00216**	**-.00258**
Stddev	.00167	.00099	.0260	.00029	.00082	.00088	.00029
%RSD	104.40	52.183	1.5915	1.7743	.46638	40.839	11.101
#1	.00027	.00076	1.6310	-.01670	.17505	.00313	-.00227
#2	-.00213	.00245	1.6638	-.01614	.17586	.00193	-.00284
#3	-.00294	.00250	1.6123	-.01655	.17669	.00141	-.00262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00062**	**.00350**	F **-.36239**
Stddev	.00002	.00002	1.0585
%RSD	3.6850	.54928	292.08
#1	.00061	.00349	-.28551
#2	.00064	.00349	-1.4572
#3	.00060	.00353	.65553
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25482.**	**33166.**
Stddev	24.	82.
%RSD	.09549	.24688
#1	25509.	33134.
#2	25471.	33259.
#3	25465.	33105.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037615 Acquired: 11/12/2013 19:34:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00092**	**.02896**	**.00022**	**.02924**	**.04385**	**.00002**	**34.324**
Stddev	.00042	.01596	.00185	.00028	.00015	.00002	.093
%RSD	45.303	55.113	830.32	.95269	.34725	97.878	.27078
#1	-.00054	.02046	.00031	.02937	.04368	.00000	34.318
#2	-.00085	.01905	-.00167	.02892	.04388	.00004	34.420
#3	-.00136	.04737	.00202	.02943	.04398	.00002	34.234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.00001**	**.00103**	**.00059**	**.11959**	**1.4638**	**.00709**
Stddev	.00007	.00010	.00029	.00024	.00419	.0296	.00094
%RSD	31.919	848.41	27.866	41.313	3.4995	2.0242	13.284
#1	.00027	.00001	.00070	.00034	.11891	1.4645	.00617
#2	.00014	.00012	.00113	.00082	.11579	1.4338	.00707
#3	.00022	-.00009	.00125	.00060	.12408	1.4931	.00805
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.7832**	**.02496**	**.00011**	**12.889**	**.00057**	**.01832**	**.00094**
Stddev	.0109	.00033	.00012	.019	.00079	.00087	.00210
%RSD	.18810	1.3058	109.09	.14951	140.07	4.7695	224.86
#1	5.7711	.02461	.00012	12.868	.00115	.01911	.00173
#2	5.7922	.02525	-.00002	12.892	.00088	.01847	-.00145
#3	5.7862	.02504	.00022	12.906	-.00034	.01739	.00252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037615 Acquired: 11/12/2013 19:34:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00185**	**.00010**	**1.8357**	**-.01663**	**.13588**	**.00033**	**-.00136**
Stddev	.00111	.00200	.0215	.00051	.00008	.00084	.00059
%RSD	59.860	1919.6	1.1734	3.0865	.05971	257.11	43.489
#1	-.00313	.00113	1.8307	-.01605	.13597	.00063	-.00193
#2	-.00124	-.00220	1.8171	-.01704	.13585	-.00062	-.00075
#3	-.00118	.00138	1.8593	-.01680	.13582	.00098	-.00139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00022**	**.00383**	F **-.09541**
Stddev	.00016	.00024	.62639
%RSD	71.833	6.1926	656.54
#1	.00004	.00377	.57920
#2	.00030	.00363	-.65864
#3	.00032	.00409	-.20678
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25493.**	**33183.**
Stddev	88.	102.
%RSD	.34527	.30730
#1	25591.	33251.
#2	25421.	33066.
#3	25467.	33233.

Approved: November 13, 2013

Sample Name: L1311037617 Acquired: 11/12/2013 19:37:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00075**	**.05803**	**-.00120**	**.07642**	**.03697**	**.00001**	**75.455**
Stddev	.00014	.00694	.00204	.00097	.00014	.00002	.079
%RSD	18.615	11.955	169.86	1.2733	.36664	221.04	.10521
#1	-.00059	.05248	-.00017	.07727	.03711	.00001	75.369
#2	-.00082	.05579	.00012	.07536	.03684	.00002	75.526
#3	-.00084	.06580	-.00356	.07662	.03696	-.00001	75.470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.00009**	**.00110**	**.00068**	**.08456**	**1.6409**	**.01478**
Stddev	.00002	.00006	.00041	.00030	.00374	.0337	.00168
%RSD	3.9026	60.737	37.040	44.446	4.4285	2.0536	11.339
#1	.00043	.00010	.00069	.00079	.08875	1.6565	.01672
#2	.00042	.00014	.00111	.00091	.08153	1.6022	.01391
#3	.00040	.00003	.00151	.00034	.08341	1.6640	.01373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.510**	**.00390**	**.00029**	**88.167**	**.00219**	**.02065**	**.00031**
Stddev	.027	.00006	.00024	.072	.00402	.00240	.00148
%RSD	.16538	1.5248	80.719	.08148	183.39	11.600	473.71
#1	16.521	.00386	.00018	88.193	-.00055	.01985	-.00055
#2	16.529	.00387	.00013	88.086	.00033	.01876	-.00053
#3	16.478	.00397	.00057	88.223	.00680	.02335	.00202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037617 Acquired: 11/12/2013 19:37:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00249**	**-.00176**	**2.5792**	**-.01629**	**.76432**	**-.00061**	**-.00176**
Stddev	.00244	.00126	.0539	.00019	.00043	.00121	.00188
%RSD	97.878	71.701	2.0894	1.1964	.05571	198.59	106.86
#1	-.00044	-.00171	2.5659	-.01614	.76389	-.00201	-.00272
#2	-.00518	-.00052	2.5332	-.01651	.76431	.00018	.00041
#3	-.00184	-.00304	2.6385	-.01623	.76474	.00000	-.00298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00014**	**.00188**	F **-.83113**
Stddev	.00030	.00065	.16427
%RSD	218.21	34.741	19.765
#1	.00038	.00141	-.88539
#2	.00024	.00161	-.64660
#3	-.00020	.00262	-.96141
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24745.**	**33094.**
Stddev	59.	34.
%RSD	.23975	.10194
#1	24756.	33133.
#2	24798.	33075.
#3	24681.	33074.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037619 Acquired: 11/12/2013 19:41:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00075**	**.03415**	**.00013**	**.03714**	**.02975**	**.00000**	**40.069**
Stddev	.00052	.01178	.00133	.00088	.00029	.00005	.309
%RSD	69.803	34.483	1007.8	2.3623	.97431	14299.	.77024
#1	-.00126	.03569	.00137	.03643	.03008	.00000	39.724
#2	-.00021	.04508	-.00127	.03687	.02956	-.00004	40.165
#3	-.00077	.02168	.00029	.03812	.02960	.00005	40.318
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00000**	**.00053**	**.00037**	**.07160**	**2.0110**	**.00832**
Stddev	.00005	.0001	.00028	.00013	.00054	.0164	.00096
%RSD	51.973	2820.3	52.760	35.189	.75085	.81749	11.565
#1	.00005	.00009	.00064	.00050	.07120	2.0234	.00807
#2	.00015	.00003	.00073	.00024	.07221	2.0172	.00939
#3	.00010	-.00013	.00021	.00038	.07140	1.9923	.00751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.8885**	**.00813**	**-.00002**	**6.9942**	**.00047**	**.01932**	**.00170**
Stddev	.0612	.00007	.00002	.0116	.00028	.00312	.00118
%RSD	.68910	.81665	115.73	.16587	60.224	16.156	69.247
#1	8.8328	.00808	.00000	7.0070	.00017	.02224	.00135
#2	8.8787	.00810	-.00004	6.9844	.00073	.01969	.00302
#3	8.9541	.00820	-.00002	6.9912	.00049	.01603	.00074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037619 Acquired: 11/12/2013 19:41:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00124**	**-.00165**	**1.4865**	**-.01635**	**.20551**	**-.00069**	**-.00233**
Stddev	.00147	.00243	.0208	.00034	.00091	.00049	.00091
%RSD	118.59	147.43	1.3973	2.0565	.44331	71.947	38.961
#1	-.00096	-.00244	1.5105	-.01674	.20650	-.00121	-.00332
#2	-.00283	-.00358	1.4748	-.01617	.20534	-.00023	-.00212
#3	.00007	.00108	1.4743	-.01614	.20471	-.00062	-.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**.00094**	F **-.32217**
Stddev	.00017	.00014	.56600
%RSD	281.72	14.914	175.68
#1	-.00025	.00109	-.95506
#2	-.00002	.00091	-.14697
#3	.00009	.00081	.13552
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25321.**	**33228.**
Stddev	70.	126.
%RSD	.27812	.38012
#1	25244.	33291.
#2	25338.	33310.
#3	25382.	33082.

Approved: November 13, 2013

Sample Name: L1311037621 Acquired: 11/12/2013 19:44:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.15519**	**.00091**	**.02501**	**.04250**	**.00000**	**26.093**
Stddev	.00013	.00936	.00115	.00017	.00051	.00001	.071
%RSD	49.321	6.0309	126.37	.67072	1.2093	1050.7	.27139
#1	-.00012	.16600	.00072	.02483	.04209	-.00001	26.011
#2	-.00037	.15008	-.00013	.02516	.04232	.00000	26.132
#3	-.00027	.14950	.00215	.02506	.04307	.00001	26.135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00007**	**.00030**	**.00086**	**.19681**	**1.4323**	**.00845**
Stddev	.00006	.00012	.00023	.00023	.00281	.0196	.00057
%RSD	48.032	183.97	75.874	26.659	1.4288	1.3710	6.8041
#1	.00007	.00005	.00005	.00079	.19371	1.4207	.00821
#2	.00019	-.00005	.00049	.00111	.19754	1.4549	.00803
#3	.00014	.00020	.00036	.00067	.19919	1.4211	.00910
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.6351**	**.03531**	**.00023**	**15.288**	**.00105**	**.02645**	**.00205**
Stddev	.0132	.00012	.00006	.054	.00081	.00296	.00022
%RSD	.28525	.33052	24.959	.35308	77.054	11.192	10.547
#1	4.6207	.03525	.00026	15.226	.00153	.02663	.00229
#2	4.6377	.03524	.00017	15.320	.00149	.02931	.00196
#3	4.6468	.03545	.00027	15.318	.00012	.02340	.00189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037621 Acquired: 11/12/2013 19:44:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00360**	**1.2152**	**-.01671**	**.12357**	**.00130**	**-.00121**
Stddev	.00093	.00183	.0049	.00009	.00033	.00028	.00135
%RSD	624.53	50.802	.40487	.56471	.26894	21.409	111.16
#1	-.00083	-.00560	1.2208	-.01680	.12319	.00108	-.00258
#2	.00024	-.00201	1.2114	-.01661	.12369	.00161	-.00119
#3	.00103	-.00319	1.2135	-.01670	.12382	.00120	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00045**	**.00149**	F **-.98405**
Stddev	.00016	.00003	.27558
%RSD	35.347	1.9786	28.004
#1	.00041	.00150	-.68218
#2	.00063	.00146	-1.0478
#3	.00032	.00152	-1.2222
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25396.**	**33120.**
Stddev	13.	190.
%RSD	.05035	.57492
#1	25381.	33086.
#2	25406.	33325.
#3	25399.	32949.

Approved: November 13, 2013

Sample Name: L1311037623 Acquired: 11/12/2013 19:48:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.02404**	**-.00051**	**.02648**	**.04276**	**.00002**	**34.575**	**.00018**
Stddev	.00015	.01138	.00043	.00025	.00025	.00003	.076	.00009
%RSD	41.850	47.324	84.290	.93220	.57682	200.34	.21925	51.211
#1	-.00035	.01657	-.00005	.02659	.04265	.00003	34.550	.00022
#2	-.00022	.03714	-.00090	.02666	.04304	-.00002	34.660	.00008
#3	-.00053	.01842	-.00058	.02620	.04258	.00004	34.515	.00025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.00030**	**.00004**	**.08545**	**1.3521**	**.00934**	**5.7085**	**.02678**
Stddev	.00015	.00047	.00028	.00238	.0142	.00131	.0261	.00007
%RSD	278.69	158.10	710.57	2.7844	1.0476	14.022	.45792	.25359
#1	.00000	.00078	.00003	.08523	1.3655	.00827	5.6992	.02685
#2	.00022	-.00015	.00033	.08319	1.3536	.00895	5.7381	.02677
#3	-.00006	.00025	-.00024	.08794	1.3373	.01080	5.6884	.02671
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**12.908**	**.00057**	**.01300**	**.00190**	**-.00132**	**-.00160**	**1.7375**
Stddev	.00028	.046	.00094	.00202	.00176	.00045	.00127	.0129
%RSD	218.43	.35994	164.62	15.553	92.578	33.743	79.817	.74092
#1	-.00025	12.857	-.00033	.01240	.00254	-.00086	-.00304	1.7430
#2	.00019	12.919	.00050	.01134	.00326	-.00175	-.00062	1.7228
#3	-.00032	12.948	.00155	.01525	-.00009	-.00136	-.00113	1.7468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037623 Acquired: 11/12/2013 19:48:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01657**	**.13302**	**-.00149**	**-.00181**	**.00001**	**.00109**	**.01339**
Stddev	.00020	.00055	.00034	.00226	.00011	.00012	.94496
%RSD	1.1866	.41280	23.124	124.46	928.55	11.058	7055.8
#1	-.01668	.13258	-.00114	-.00060	-.00012	.00110	-1.0735
#2	-.01669	.13283	-.00149	-.00442	.00008	.00120	.47343
#3	-.01634	.13363	-.00182	-.00042	.00007	.00096	.64024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25365.**	**33003.**
Stddev	57.	100.
%RSD	.22535	.30302
#1	25426.	33118.
#2	25312.	32942.
#3	25357.	32948.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 19:51:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40700**	**10.267**	**.40926**	**.51205**	**1.0111**	**.05074**	**10.187**
Stddev	.00360	.013	.00013	.00266	.0024	.00036	.048
%RSD	.88464	.12295	.03228	.51925	.23982	.70332	.47316
#1	.41065	10.281	.40914	.51509	1.0087	.05115	10.241
#2	.40690	10.261	.40940	.51085	1.0136	.05055	10.147
#3	.40345	10.259	.40925	.51020	1.0111	.05051	10.173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05152**	**.20781**	**.50898**	**.51927**	**4.0920**	**50.251**	**1.0231**
Stddev	.00003	.00063	.00552	.00049	.0105	.180	.0032
%RSD	.04978	.30301	1.0849	.09492	.25581	.35902	.31451
#1	.05149	.20772	.51536	.51890	4.0960	50.085	1.0269
#2	.05154	.20848	.50601	.51983	4.0999	50.443	1.0215
#3	.05153	.20723	.50559	.51908	4.0801	50.226	1.0211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.315**	**.51533**	**1.0234**	**51.147**	**.52624**	**10.094**	**.51771**
Stddev	.009	.00168	.0006	.070	.01313	.018	.00112
%RSD	.08968	.32558	.06263	.13728	2.4952	.18331	.21629
#1	10.311	.51726	1.0240	51.148	.54136	10.115	.51675
#2	10.325	.51454	1.0234	51.217	.51966	10.082	.51894
#3	10.308	.51420	1.0227	51.077	.51771	10.084	.51744
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 19:51:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2259**	**.40969**	**5.1922**	**1.0328**	**1.0140**	**1.0167**	**.52802**
Stddev	.0012	.00111	.1527	.0013	.0026	.0014	.00390
%RSD	.09937	.27205	2.9405	.12117	.25507	.13972	.73948
#1	1.2259	.40923	5.3674	1.0343	1.0123	1.0182	.52757
#2	1.2246	.41096	5.1217	1.0322	1.0170	1.0162	.52435
#3	1.2271	.40888	5.0875	1.0320	1.0126	1.0155	.53212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0212**	**1.0251**	F **.49379**
Stddev	.0095	.0037	.94089
%RSD	.92932	.35619	190.55
#1	1.0316	1.0293	.10659
#2	1.0189	1.0224	-.19172
#3	1.0130	1.0237	1.5665
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25318.**	**33107.**
Stddev	114.	53.
%RSD	.44831	.16132
#1	25195.	33146.
#2	25339.	33129.
#3	25419.	33046.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 19:55:13 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.01058**	**.00012**	**.00407**	**.00004**	**.00002**	**-.02000**
Stddev	.00022	.01452	.00075	.00111	.00010	.00002	.01041
%RSD	251.09	137.22	653.47	27.270	274.33	65.005	52.063
#1	.00034	.02387	-.00061	.00350	.00000	.00001	-.00800
#2	-.00001	-.00491	.00090	.00534	-.00004	.00004	-.02532
#3	-.00007	.01278	.00006	.00335	.00014	.00002	-.02668
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00004**	**.00039**	**-.00009**	**-.00383**	**-.12569**	**.00691**
Stddev	.00001	.00002	.00054	.00021	.00287	.04359	.00105
%RSD	63.949	46.864	139.31	242.34	75.107	34.678	15.171
#1	.00000	.00002	.00048	.00003	-.00192	-.08122	.00803
#2	-.00002	.00006	.00087	-.00033	-.00242	-.16834	.00596
#3	-.00002	.00006	-.00019	.00004	-.00713	-.12751	.00673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00682**	**-.00021**	**.00373**	**.03987**	**-.00022**	**.00023**	**-.00039**
Stddev	.00832	.00004	.00021	.00607	.00068	.00515	.00171
%RSD	121.89	17.232	5.7432	15.223	305.32	2282.8	441.87
#1	-.01569	-.00022	.00349	.03925	-.00080	.00163	-.00235
#2	.00081	-.00017	.00384	.03413	.00053	.00453	.00073
#3	-.00559	-.00024	.00388	.04622	-.00040	-.00548	.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 19:55:13 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**-.00062**	**.00690**	**-.00074**	**-.00009**	**-.00063**	**.00026**
Stddev	.00049	.00141	.00215	.00024	.00006	.00054	.00143
%RSD	138.67	226.61	31.141	32.534	68.774	86.027	557.01
#1	.00001	-.00090	.00641	-.00100	-.00017	-.00001	-.00088
#2	-.00091	.00091	.00925	-.00069	-.00007	-.00102	-.00021
#3	-.00016	-.00187	.00504	-.00053	-.00004	-.00086	.00186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00017**	**-.00067**	F **.76666**
Stddev	.00021	.00003	1.1175
%RSD	127.32	4.3874	145.77
#1	-.00036	-.00064	-.39199
#2	.00006	-.00070	.85402
#3	-.00019	-.00067	1.8380
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25801.**	**33093.**
Stddev	41.	82.
%RSD	.16031	.24739
#1	25833.	33027.
#2	25815.	33185.
#3	25754.	33069.

Approved: November 13, 2013

Sample Name: L1311037701 Acquired: 11/12/2013 19:58:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.05309**	**.00025**	**.02221**	**.05975**	**.00002**	**61.778**
Stddev	.00057	.01702	.00112	.00057	.00037	.00000	.144
%RSD	208.09	32.060	441.17	2.5621	.62320	13.945	.23275
#1	.00081	.07246	.00114	.02285	.05978	.00002	61.864
#2	.00035	.04052	.00062	.02175	.06011	.00002	61.612
#3	-.00033	.04629	-.00100	.02204	.05936	.00002	61.857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00033**	**.00079**	**-.00019**	**.25892**	**1.1331**	**.00976**
Stddev	.00007	.00017	.00023	.00013	.00272	.0137	.00107
%RSD	21.045	50.464	29.253	70.365	1.0497	1.2122	10.928
#1	.00032	.00031	.00105	-.00004	.25826	1.1409	.01092
#2	.00037	.00017	.00061	-.00025	.25659	1.1172	.00881
#3	.00024	.00051	.00071	-.00028	.26191	1.1411	.00955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.895**	**.70722**	**.00042**	**8.5097**	**.00005**	**.01081**	**-.00004**
Stddev	.023	.00178	.00010	.0359	.00051	.00721	.00100
%RSD	.19523	.25117	23.212	.42224	981.73	66.743	2735.2
#1	11.916	.70605	.00033	8.5272	-.00050	.01899	.00074
#2	11.900	.70926	.00041	8.5336	.00050	.00807	.00031
#3	11.870	.70634	.00052	8.4684	.00016	.00536	-.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037701 Acquired: 11/12/2013 19:58:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00383**	**3.0723**	**-.01640**	**.27083**	**-.00043**	**-.00016**
Stddev	.00097	.00222	.0225	.00015	.00096	.00107	.00122
%RSD	957.41	57.986	.73377	.91927	.35392	249.06	752.23
#1	.00107	-.00233	3.0733	-.01655	.27071	.00079	-.00061
#2	.00010	-.00638	3.0944	-.01641	.27184	-.00088	-.00109
#3	-.00087	-.00278	3.0493	-.01625	.26994	-.00120	.00122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00003**	**.00674**	F **-.08865**
Stddev	.00023	.00012	.86157
%RSD	831.17	1.7518	971.89
#1	-.00025	.00672	-.91312
#2	.00020	.00687	-.15858
#3	-.00003	.00663	.80576
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25331.**	**33112.**
Stddev	33.	106.
%RSD	.12995	.32048
#1	25294.	33071.
#2	25358.	33032.
#3	25342.	33232.

Approved: November 13, 2013

Sample Name: L1311037703 Acquired: 11/12/2013 20:02:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.03318**	**.00079**	**.02424**	**.05734**	**.00004**	**49.254**
Stddev	.00051	.01286	.00099	.00094	.00047	.00001	.133
%RSD	103.46	38.762	125.35	3.8585	.81922	16.555	.26982
#1	-.00001	.03283	.00141	.02390	.05707	.00005	49.336
#2	-.00103	.04622	-.00035	.02352	.05708	.00003	49.326
#3	-.00045	.02050	.00131	.02529	.05789	.00004	49.101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.00023**	**.00043**	**.00061**	**.06232**	**2.4596**	**.01147**
Stddev	.00003	.00006	.00008	.00031	.00179	.0298	.00062
%RSD	11.120	26.357	18.679	51.089	2.8777	1.2117	5.3913
#1	.00028	.00020	.00047	.00053	.06313	2.4322	.01116
#2	.00031	.00019	.00034	.00094	.06027	2.4913	.01106
#3	.00025	.00030	.00047	.00034	.06357	2.4554	.01218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.131**	**.06365**	**.00072**	**42.800**	**.00101**	**.02168**	**.00064**
Stddev	.017	.00044	.00028	.085	.00040	.00080	.00085
%RSD	.15040	.69060	39.029	.19884	39.616	3.7026	133.21
#1	11.131	.06369	.00093	42.857	.00130	.02145	-.00024
#2	11.148	.06407	.00040	42.840	.00055	.02257	.00145
#3	11.115	.06319	.00082	42.702	.00117	.02102	.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037703 Acquired: 11/12/2013 20:02:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**-.00069**	**1.6426**	**-.01666**	**.39627**	**.00020**	**-.00220**
Stddev	.00070	.00061	.0224	.00006	.00086	.00073	.00066
%RSD	213.14	88.589	1.3615	.37041	.21697	360.25	30.164
#1	-.00070	-.00066	1.6642	-.01662	.39686	.00104	-.00143
#2	-.00077	-.00010	1.6441	-.01673	.39667	-.00018	-.00260
#3	.00048	-.00133	1.6195	-.01663	.39528	-.00025	-.00257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00019**	**.00205**	F **-.36908**
Stddev	.00023	.00009	.04348
%RSD	120.51	4.4779	11.782
#1	.00022	.00199	-.38485
#2	.00041	.00216	-.40248
#3	-.00005	.00200	-.31991
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25100.**	**33145.**
Stddev	59.	204.
%RSD	.23328	.61631
#1	25154.	33242.
#2	25108.	32910.
#3	25038.	33282.

Approved: November 13, 2013

Sample Name: L1311037705 Acquired: 11/12/2013 20:05:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.33189**	**.00150**	**.12801**	**.03221**	**.00001**	**31.730**	**.00020**
Stddev	.00008	.00977	.00118	.00065	.00006	.00001	.142	.00001
%RSD	384.32	2.9451	78.549	.50473	.19151	115.36	.44875	6.1192
#1	.00009	.34062	.00180	.12792	.03215	.00000	31.590	.00019
#2	.00004	.32133	.00020	.12870	.03227	.00001	31.724	.00021
#3	-.00007	.33372	.00250	.12742	.03221	.00002	31.874	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.00076**	**.00089**	**.18060**	**2.5683**	**.02027**	**8.7055**	**.04080**
Stddev	.00013	.00012	.00033	.00213	.0235	.00103	.0814	.00021
%RSD	44.125	15.698	36.493	1.1792	.91390	5.0960	.93450	.52079
#1	.00016	.00082	.00070	.17843	2.5819	.02011	8.6182	.04071
#2	.00029	.00083	.00072	.18269	2.5412	.01933	8.7793	.04064
#3	.00042	.00062	.00127	.18068	2.5818	.02138	8.7189	.04104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00680**	**151.00**	**.00151**	**.02230**	**.00103**	**.00080**	**-.00007**	**1.9915**
Stddev	.00007	1.69	.00034	.00577	.00110	.00155	.00334	.0165
%RSD	1.0061	1.1163	22.185	25.872	106.98	193.35	4945.7	.83069
#1	.00673	152.37	.00122	.01570	.00145	.00219	.00158	2.0084
#2	.00687	149.12	.00188	.02639	.00187	-.00087	.00213	1.9753
#3	.00681	151.53	.00144	.02480	-.00022	.00107	-.00392	1.9909
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

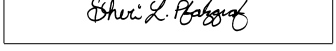
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311037705 Acquired: 11/12/2013 20:05:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01639**	**.50574**	**.00299**	**-.00182**	**.00064**	**.00271**	**1.8252**
Stddev	.00009	.00165	.00049	.00228	.00019	.00015	.4464
%RSD	.53760	.32562	16.470	125.29	29.051	5.6951	24.460
#1	-.01632	.50748	.00242	.00077	.00086	.00260	1.9737
#2	-.01635	.50552	.00329	-.00353	.00050	.00288	2.1785
#3	-.01649	.50421	.00327	-.00270	.00057	.00263	1.3234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25031.**	**32780.**
Stddev	35.	166.
%RSD	.14137	.50718
#1	25064.	32771.
#2	25037.	32951.
#3	24994.	32619.

Approved: November 13, 2013



Sample Name: L1311038101 Acquired: 11/12/2013 20:09:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00056**	**.02523**	**-.00084**	**.02780**	**.03719**	**.00001**	**78.552**
Stddev	.00031	.00758	.00088	.00045	.00011	.00002	.099
%RSD	54.535	30.045	104.26	1.6204	.30496	301.92	.12601
#1	-.00084	.02137	.00017	.02750	.03719	.00003	78.631
#2	-.00060	.02035	-.00137	.02758	.03730	-.00001	78.583
#3	-.00024	.03396	-.00132	.02832	.03707	.00000	78.441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**-.00004**	**.00082**	**-.00010**	**.03555**	**1.7586**	**.01169**
Stddev	.00009	.00012	.00018	.00027	.00388	.0242	.00126
%RSD	23.929	314.04	21.610	266.87	10.912	1.3763	10.808
#1	.00045	-.00010	.00064	.00019	.03127	1.7642	.01199
#2	.00037	.00010	.00082	-.00014	.03652	1.7321	.01030
#3	.00028	-.00012	.00099	-.00034	.03884	1.7796	.01278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.549**	**.00916**	**-.00017**	**35.150**	**.00042**	**.01006**	**.00118**
Stddev	.031	.00002	.00017	.026	.00045	.00666	.00062
%RSD	.18650	.22420	98.657	.07405	108.71	66.210	52.141
#1	16.568	.00917	-.00016	35.177	-.00006	.01333	.00123
#2	16.566	.00917	-.00034	35.146	.00046	.01447	.00055
#3	16.514	.00913	-.00001	35.126	.00085	.00240	.00178
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311038101 Acquired: 11/12/2013 20:09:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00073**	**-.00114**	**2.7691**	**-.01662**	**.23120**	**-.00084**	**-.00091**
Stddev	.00313	.00023	.0217	.00026	.00045	.00060	.00065
%RSD	430.34	20.112	.78541	1.5619	.19312	70.587	72.282
#1	-.00433	-.00141	2.7924	-.01639	.23069	-.00075	-.00080
#2	.00112	-.00102	2.7657	-.01656	.23144	-.00030	-.00031
#3	.00104	-.00100	2.7493	-.01690	.23148	-.00148	-.00161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00024**	**.00103**	F **-.22955**
Stddev	.00026	.00013	.27413
%RSD	108.30	12.772	119.42
#1	.00032	.00114	-.30213
#2	-.00005	.00106	-.46008
#3	.00046	.00088	.07357
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24979.**	**33019.**
Stddev	3.	26.
%RSD	.01232	.07794
#1	24976.	33041.
#2	24982.	33026.
#3	24980.	32991.

Approved: November 13, 2013

Sample Name: L1311038102 Acquired: 11/12/2013 20:12:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00083**	**.07768**	**-.00168**	**.10740**	**.02218**	**.00003**	**109.53**
Stddev	.00032	.01105	.00090	.00038	.00011	.00002	.03
%RSD	38.599	14.226	53.769	.35642	.51265	75.435	.02492
#1	-.00077	.08357	-.00073	.10713	.02207	.00001	109.51
#2	-.00117	.08454	-.00253	.10723	.02230	.00003	109.56
#3	-.00054	.06493	-.00177	.10783	.02218	.00006	109.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**.00021**	**.00071**	**.00077**	**.20054**	**4.9139**	**.02369**
Stddev	.00007	.00010	.00035	.00036	.00407	.0506	.00183
%RSD	10.817	46.659	48.970	47.345	2.0277	1.0301	7.7299
#1	.00060	.00028	.00078	.00118	.20082	4.9414	.02158
#2	.00070	.00010	.00103	.00059	.19635	4.8554	.02477
#3	.00057	.00024	.00034	.00052	.20446	4.9447	.02473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**35.285**	**.14644**	**-.00026**	**209.56**	**.00087**	**.01331**	**.00040**
Stddev	.049	.00004	.00006	1.55	.00065	.00141	.00147
%RSD	.13796	.03051	21.360	.74031	75.384	10.594	369.79
#1	35.300	.14643	-.00032	207.83	.00154	.01409	.00200
#2	35.231	.14641	-.00021	210.81	.00083	.01169	-.00088
#3	35.324	.14649	-.00025	210.05	.00023	.01416	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311038102 Acquired: 11/12/2013 20:12:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**-.00117**	**2.1390**	**-.01675**	**.80443**	**-.00158**	**-.00248**
Stddev	.00116	.00144	.0014	.00073	.00234	.00135	.00089
%RSD	157.71	122.79	.06374	4.3691	.29150	86.001	35.720
#1	-.00041	-.00121	2.1374	-.01652	.80364	-.00209	-.00338
#2	-.00202	-.00259	2.1396	-.01616	.80707	-.00004	-.00160
#3	.00022	.00029	2.1399	-.01757	.80258	-.00260	-.00247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00010**	**.00114**	F **-.59869**
Stddev	.00032	.00007	.35364
%RSD	304.15	6.4378	59.070
#1	.00029	.00123	-.40029
#2	-.00026	.00112	-1.0070
#3	.00028	.00109	-.38879
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24491.**	**32559.**
Stddev	23.	97.
%RSD	.09549	.29900
#1	24464.	32663.
#2	24504.	32471.
#3	24506.	32543.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048401 Acquired: 11/12/2013 20:16:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**10.719**	**-.00035**	**.02014**	**.02254**	**.00002**	**17.990**	**.00004**
Stddev	.00065	.021	.00131	.00119	.00019	.00002	.049	.00005
%RSD	130.32	.19269	378.91	5.9240	.85842	89.545	.27025	136.41
#1	-.00118	10.720	.00067	.02150	.02265	.00003	17.936	-.00001
#2	.00011	10.699	.00012	.01927	.02232	.00000	18.001	.00003
#3	-.00043	10.740	-.00183	.01965	.02266	.00003	18.032	.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00459**	**.01192**	**.37531**	**3.2475**	**.00742**	**4.1972**	**.01729**
Stddev	.00014	.00032	.00022	.00463	.0161	.00103	.0080	.00012
%RSD	58.192	6.8905	1.8249	1.2348	.49713	13.825	.19169	.71780
#1	.00008	.00494	.01185	.37735	3.2452	.00705	4.2064	.01715
#2	.00031	.00451	.01216	.37001	3.2326	.00664	4.1918	.01740
#3	.00033	.00433	.01175	.37858	3.2646	.00858	4.1933	.01732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**39.343**	**.00953**	**.15913**	**.00145**	**.00276**	**.00033**	**1.5899**
Stddev	.00024	.150	.00038	.00266	.00190	.00008	.00179	.0178
%RSD	431.91	.38146	4.0161	1.6713	131.49	2.9993	551.26	1.1216
#1	-.00003	39.456	.00912	.15627	-.00050	.00276	-.00155	1.5945
#2	.00033	39.173	.00988	.16152	.00153	.00283	.00202	1.5702
#3	-.00013	39.400	.00958	.15959	.00331	.00267	.00051	1.6050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311048401 Acquired: 11/12/2013 20:16:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.29193**	**.07920**	**.00273**	**-.00060**	**.00196**	**.00600**	**1.2502**
Stddev	.00261	.00027	.00073	.00042	.00013	.00005	1.7648
%RSD	.89459	.34117	26.819	70.481	6.5692	.83602	141.16
#1	.29381	.07950	.00273	-.00048	.00182	.00605	1.8071
#2	.28895	.07898	.00200	-.00107	.00206	.00598	-.72586
#3	.29304	.07911	.00347	-.00025	.00202	.00595	2.6694
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25708.**	**33452.**
Stddev	73.	169.
%RSD	.28306	.50660
#1	25640.	33644.
#2	25700.	33323.
#3	25785.	33390.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 20:19:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40775**	**10.310**	**.40684**	**.51322**	**1.0172**	**.05034**	**10.149**	**.05135**
Stddev	.00182	.012	.00175	.00168	.0008	.00002	.031	.00017
%RSD	.44744	.11369	.42930	.32773	.07695	.03887	.30439	.32506
#1	.40683	10.312	.40578	.51175	1.0165	.05034	10.145	.05145
#2	.40657	10.297	.40886	.51287	1.0171	.05036	10.181	.05145
#3	.40985	10.320	.40589	.51505	1.0180	.05033	10.120	.05116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20734**	**.50903**	**.52074**	**4.1077**	**50.541**	**1.0238**	**10.301**	**.51947**
Stddev	.00015	.00060	.00085	.0073	.041	.0039	.024	.00070
%RSD	.07215	.11708	.16395	.17789	.08084	.37930	.23581	.13400
#1	.20719	.50852	.51978	4.1071	50.494	1.0279	10.324	.51957
#2	.20736	.50968	.52104	4.1008	50.565	1.0201	10.302	.51873
#3	.20748	.50887	.52140	4.1153	50.565	1.0235	10.276	.52011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0229**	**51.277**	**.51806**	**10.164**	**.52104**	**1.2308**	**.40657**	**5.1950**
Stddev	.0017	.020	.00050	.026	.00036	.0048	.00575	.0612
%RSD	.16185	.03957	.09611	.25233	.06846	.39292	1.4148	1.1783
#1	1.0245	51.273	.51765	10.138	.52086	1.2254	.40002	5.1246
#2	1.0230	51.259	.51862	10.189	.52145	1.2321	.40885	5.2251
#3	1.0211	51.299	.51792	10.165	.52081	1.2348	.41082	5.2353
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 20:19:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0317**	**1.0203**	**1.0175**	**.52296**	**1.0126**	**1.0293**	**1.0938**
Stddev	.0046	.0005	.0014	.00253	.0011	.0008	.4182
%RSD	.44705	.05003	.14244	.48285	.10888	.07492	38.235
#1	1.0264	1.0197	1.0192	.52248	1.0138	1.0285	.63098
#2	1.0341	1.0205	1.0165	.52072	1.0116	1.0301	1.2058
#3	1.0345	1.0206	1.0169	.52570	1.0125	1.0294	1.4446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25579.**	**33017.**
Stddev	36.	17.
%RSD	.14063	.05193
#1	25614.	33026.
#2	25580.	33027.
#3	25543.	32997.

Approved: November 13, 2013

Sample Name: CCB Acquired: 11/12/2013 20:23:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**.01339**	**-.00055**	**.00312**	**-.00008**	**-.00001**	**-.01736**
Stddev	.00026	.01906	.00067	.00067	.00011	.00001	.00434
%RSD	80.545	142.28	121.09	21.475	138.36	92.109	24.969
#1	-.00062	.02756	-.00118	.00272	.00004	-.00001	-.01252
#2	-.00022	-.00827	.00015	.00390	-.00012	.00000	-.01870
#3	-.00013	.02089	-.00062	.00276	-.00016	.00000	-.02088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00001**	**.00004**	**.00004**	**-.00283**	**-.13459**	**.00612**
Stddev	.00005	.00015	.00033	.00035	.00276	.02652	.00179
%RSD	52.208	1104.7	784.24	886.27	97.466	19.704	29.227
#1	.00006	.00008	-.00034	-.00010	-.00056	-.11523	.00542
#2	.00015	.00007	.00018	-.00022	-.00590	-.16482	.00479
#3	.00008	-.00019	.00029	.00044	-.00203	-.12373	.00815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00571**	**-.00014**	**.00395**	**.05292**	**-.00024**	**.00088**	**-.00016**
Stddev	.00529	.00003	.00025	.01412	.00102	.00265	.00196
%RSD	92.731	20.883	6.2067	26.680	431.42	300.75	1209.1
#1	.00601	-.00018	.00371	.06446	-.00013	-.00213	.00208
#2	.01084	-.00012	.00395	.03718	-.00131	.00192	-.00150
#3	.00027	-.00013	.00420	.05712	.00073	.00285	-.00107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 20:23:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00177**	**.00172**	**-.00100**	**-.00054**	**-.00008**	**-.00019**	**-.00050**
Stddev	.00141	.00265	.00417	.00025	.00004	.00070	.00124
%RSD	79.525	154.32	417.00	46.303	53.329	374.19	249.31
#1	.00258	.00259	-.00392	-.00082	-.00008	-.00086	.00041
#2	.00260	-.00126	-.00286	-.00043	-.00012	-.00023	.00001
#3	.00015	.00382	.00378	-.00036	-.00004	.00054	-.00191
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00007**	**-.00067**	F **-.78220**
Stddev	.00010	.00015	.73986
%RSD	131.74	22.471	94.586
#1	.00004	-.00084	-1.0174
#2	-.00013	-.00057	-1.3759
#3	-.00013	-.00060	.04665
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25839.**	**32976.**
Stddev	79.	124.
%RSD	.30757	.37451
#1	25827.	33043.
#2	25924.	33052.
#3	25767.	32834.

Approved: November 13, 2013

Sample Name: PBW C5 Acquired: 11/12/2013 20:26:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00051**	**.01413**	**-.00063**	**.00205**	**-.00010**	**.00002**	**.00249**
Stddev	.00056	.01463	.00079	.00028	.00004	.00003	.00436
%RSD	109.71	103.56	125.70	13.513	44.316	183.12	175.36
#1	.00009	.02692	-.00152	.00225	-.00006	.00004	-.00151
#2	-.00102	.01728	-.00036	.00217	-.00014	.00004	.00184
#3	-.00060	-.00182	.00000	.00173	-.00009	-.00002	.00713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.00005**	**.00020**	**-.00009**	**-.00222**	**-.11540**	**.00625**
Stddev	.00009	.00013	.00040	.00049	.00045	.05161	.00100
%RSD	140.46	262.69	205.84	540.22	20.418	44.720	15.983
#1	.00015	-.00019	.00062	-.00018	-.00271	-.14547	.00633
#2	.00007	.00008	-.00018	-.00053	-.00216	-.05581	.00721
#3	-.00003	-.00004	.00015	.00044	-.00181	-.14492	.00522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01123**	**-.00011**	**.00047**	**.05529**	**-.00048**	**.00002**	**.00067**
Stddev	.02458	.00008	.00019	.00999	.00049	.00094	.00118
%RSD	218.86	69.995	39.732	18.063	100.74	5618.1	175.04
#1	.03930	-.00016	.00062	.06254	-.00024	.00109	-.00040
#2	.00088	-.00016	.00053	.05942	-.00104	-.00036	.00193
#3	-.00648	-.00002	.00026	.04390	-.00016	-.00067	.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: PBW C5 Acquired: 11/12/2013 20:26:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	-.00049	.00898	-.01646	.00004	-.00025	-.00171
Stddev	.00096	.00028	.00311	.00049	.00008	.00082	.00052
%RSD	209.09	57.887	34.662	2.9867	199.25	333.72	30.640
#1	.00065	-.00073	.01038	-.01702	.00008	.00063	-.00112
#2	-.00103	-.00056	.00541	-.01620	.00008	-.00037	-.00212
#3	-.00099	-.00018	.01114	-.01615	-.00005	-.00100	-.00189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00006	.00086	F -.21299
Stddev	.00034	.00005	.88506
%RSD	539.71	5.4230	415.54
#1	.00028	.00087	.20519
#2	-.00039	.00081	.38550
#3	-.00008	.00090	-1.2296
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25809.	33032.
Stddev	103.	175.
%RSD	.40052	.52889
#1	25928.	33120.
#2	25758.	33145.
#3	25741.	32831.

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: LCSW C5 Acquired: 11/12/2013 20:30:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20425**	**5.0914**	**.19886**	**1.0064**	**.49987**	**.02496**	**5.0213**
Stddev	.00081	.0229	.00054	.0034	.00088	.00002	.0215
%RSD	.39630	.45038	.26907	.34248	.17565	.07017	.42727
#1	.20468	5.0655	.19868	1.0055	.49891	.02495	5.0438
#2	.20476	5.0998	.19946	1.0102	.50063	.02498	5.0010
#3	.20332	5.1091	.19844	1.0035	.50008	.02495	5.0192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02545**	**.10380**	**.25414**	**.25853**	**2.0411**	**24.700**	**.50625**
Stddev	.00007	.00032	.00087	.00029	.0038	.063	.00179
%RSD	.26022	.31189	.34358	.11390	.18738	.25566	.35416
#1	.02551	.10371	.25509	.25874	2.0445	24.649	.50484
#2	.02538	.10352	.25337	.25820	2.0418	24.770	.50565
#3	.02547	.10415	.25396	.25866	2.0369	24.680	.50827
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.0696**	**.25807**	**.51773**	**25.027**	**.25978**	F **-.01375**	**.26102**
Stddev	.0422	.00152	.00090	.054	.00156	.00183	.00247
%RSD	.83237	.58758	.17424	.21461	.59930	13.335	.94759
#1	5.0412	.25667	.51836	24.992	.26067	-.01217	.26310
#2	5.0495	.25785	.51669	25.088	.25798	-.01332	.25829
#3	5.1181	.25968	.51813	24.999	.26068	-.01576	.26167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013

Sample Name: LCSW C5 Acquired: 11/12/2013 20:30:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.60515**	**.19856**	**2.4810**	**.52370**	**.50015**	**.50337**	**.26535**
Stddev	.00574	.00103	.0441	.00603	.00139	.00101	.00530
%RSD	.94927	.51996	1.7784	1.1508	.27780	.20115	1.9970
#1	.61084	.19975	2.5282	.52985	.49913	.50407	.26669
#2	.59935	.19791	2.4408	.51780	.50173	.50221	.25951
#3	.60526	.19803	2.4739	.52343	.49958	.50382	.26986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50380**	**.50913**	**6.0430**
Stddev	.00056	.00031	.3447
%RSD	.11039	.06083	5.7038
#1	.50435	.50949	6.1617
#2	.50380	.50896	6.3126
#3	.50324	.50895	5.6546
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25500.**	**32984.**
Stddev	80.	147.
%RSD	.31490	.44603
#1	25427.	33138.
#2	25488.	32970.
#3	25586.	32844.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: FLT_BLK Acquired: 11/12/2013 20:33:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00044**	**.00661**	**-.00170**	**.00541**	**-.00017**	**-.00002**	**.00092**
Stddev	.00012	.00694	.00117	.00064	.00004	.00000	.01067
%RSD	26.116	104.93	68.809	11.819	21.029	22.590	1155.8
#1	-.00033	.00704	-.00085	.00568	-.00014	-.00002	.00853
#2	-.00056	-.00053	-.00121	.00469	-.00016	-.00001	-.01127
#3	-.00043	.01333	-.00303	.00588	-.00021	-.00002	.00551
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00000**	**.00024**	**-.00039**	**.00133**	**-.08551**	**.00542**
Stddev	.00002	.0001	.00021	.00025	.00356	.03310	.00248
%RSD	139.78	7884.2	90.505	63.561	267.00	38.707	45.789
#1	-.00001	.00008	.00034	-.00011	-.00272	-.12353	.00257
#2	-.00004	.00007	-.00001	-.00050	.00273	-.06309	.00714
#3	.00000	-.00015	.00038	-.00056	.00399	-.06992	.00654
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00296**	**-.00001**	**.00119**	**.04974**	**.00016**	**-.00057**	**.00032**
Stddev	.00452	.00006	.00033	.00861	.00074	.00490	.00102
%RSD	152.62	678.72	27.322	17.316	455.29	861.72	318.18
#1	-.00792	-.00006	.00082	.05966	-.00067	-.00550	-.00044
#2	-.00190	.00005	.00138	.04426	.00073	-.00051	.00148
#3	.00093	-.00002	.00139	.04528	.00043	.00430	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: FLT_BLK Acquired: 11/12/2013 20:33:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**-.00045**	**.00170**	**-.01597**	**-.00004**	**-.00054**	**-.00166**
Stddev	.00214	.00169	.00195	.00039	.00004	.00114	.00219
%RSD	495.70	376.56	114.67	2.4503	93.087	211.68	131.72
#1	.00186	-.00239	.00201	-.01560	-.00008	-.00185	-.00069
#2	-.00076	.00039	-.00039	-.01594	.00000	-.00002	-.00013
#3	-.00239	.00065	.00347	-.01638	-.00005	.00025	-.00417
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00016**	**.00113**	F **-.07642**
Stddev	.00021	.00011	.52772
%RSD	130.07	9.4705	690.58
#1	.00026	.00121	.32058
#2	-.00008	.00101	-.67526
#3	.00029	.00116	.12543
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25790.**	**32986.**
Stddev	71.	98.
%RSD	.27350	.29579
#1	25827.	33077.
#2	25834.	32998.
#3	25708.	32883.

Approved: November 13, 2013

Sample Name: L1311032002 Acquired: 11/12/2013 20:37:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00051**	**-.00191**	**-.00097**	**.01415**	**.01171**	**.00000**	**52.024**
Stddev	.00040	.01292	.00124	.00043	.00009	.00004	.151
%RSD	78.796	675.18	128.09	3.0550	.77571	7438.6	.29043
#1	-.00074	-.00367	-.00177	.01449	.01180	-.00003	51.972
#2	-.00075	-.01386	-.00160	.01366	.01162	.00004	52.194
#3	-.00005	.01180	.00046	.01429	.01172	-.00001	51.906
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**.00006**	**.00045**	**.00205**	**.04407**	**.62727**	**.00843**
Stddev	.00005	.00025	.00008	.00044	.00256	.04096	.00076
%RSD	14.114	426.53	16.619	21.349	5.8163	6.5296	9.0611
#1	.00045	-.00023	.00037	.00156	.04579	.63178	.00778
#2	.00034	.00020	.00051	.00219	.04112	.58424	.00927
#3	.00038	.00021	.00047	.00239	.04529	.66579	.00824
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.3231**	**.08011**	**.00049**	**3.0036**	**.00062**	F **-.01913**	**.00093**
Stddev	.0354	.00055	.00006	.0287	.00101	.00195	.00058
%RSD	.48289	.68041	11.599	.95480	164.10	10.210	62.300
#1	7.3523	.08051	.00046	2.9743	-.00013	-.02128	.00074
#2	7.3332	.08033	.00046	3.0316	.00021	-.01866	.00159
#3	7.2838	.07949	.00056	3.0050	.00177	-.01746	.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

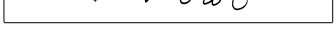
Sample Name: L1311032002 Acquired: 11/12/2013 20:37:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.00005**	**3.1928**	**-.01627**	**.05537**	**-.00190**	**-.00259**
Stddev	.00145	.00295	.0317	.00016	.00029	.00052	.00110
%RSD	316.72	6513.6	.99175	.99251	.51976	27.567	42.471
#1	-.00122	-.00205	3.2282	-.01612	.05564	-.00131	-.00366
#2	.00122	-.00124	3.1831	-.01625	.05540	-.00206	-.00147
#3	-.00137	.00342	3.1671	-.01644	.05507	-.00231	-.00263
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00017**	**.00830**	**10.693**
Stddev	.00026	.00011	.919
%RSD	152.13	1.2658	8.5976
#1	.00019	.00842	10.443
#2	.00041	.00827	9.9244
#3	-.00010	.00821	11.712
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25408.**	**33074.**
Stddev	10.	171.
%RSD	.03942	.51570
#1	25408.	32947.
#2	25398.	33007.
#3	25418.	33268.

Approved: November 13, 2013



Sample Name: L1311032002DL Acquired: 11/12/2013 20:40:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452498-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.00771**	**-.00043**	**.00417**	**.00208**	**-.00001**	**10.550**
Stddev	.00053	.01258	.00089	.00069	.00010	.00003	.009
%RSD	140.99	163.25	208.18	16.454	4.8381	195.92	.08898
#1	-.00031	.01109	.00045	.00340	.00206	.00001	10.558
#2	.00012	-.00622	-.00041	.00439	.00219	-.00001	10.540
#3	-.00094	.01824	-.00134	.00472	.00199	-.00004	10.554
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00027**	**.00015**	**.00008**	**.00555**	**.01486**	**.00657**
Stddev	.00007	.00009	.00034	.00021	.00312	.02706	.00101
%RSD	82.324	33.525	224.76	260.36	56.260	182.14	15.383
#1	.00011	.00030	.00011	.00030	.00240	.03568	.00573
#2	.00001	.00034	.00051	.00007	.00864	.02463	.00630
#3	.00014	.00017	-.00017	-.00012	.00561	-.01573	.00769
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.5135**	**.01746**	**-.00018**	**.62547**	**-.00042**	F **-.00439**	**.00103**
Stddev	.0144	.00024	.00009	.00421	.00086	.00544	.00084
%RSD	.94843	1.3500	47.872	.67363	201.93	123.82	82.104
#1	1.5242	.01772	-.00010	.63033	.00046	.00136	.00200
#2	1.4972	.01726	-.00027	.62282	-.00126	-.00945	.00059
#3	1.5191	.01739	-.00017	.62326	-.00047	-.00508	.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032002DL Acquired: 11/12/2013 20:40:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452498-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00058**	**-.00360**	**.67044**	**-.01682**	**.01116**	**-.00085**	**-.00108**
Stddev	.00098	.00091	.00568	.00049	.00002	.00031	.00049
%RSD	168.53	25.346	.84753	2.9108	.21750	35.978	45.350
#1	-.00160	-.00282	.67063	-.01714	.01114	-.00066	-.00099
#2	-.00051	-.00338	.67603	-.01707	.01118	-.00070	-.00065
#3	.00036	-.00461	.66467	-.01626	.01118	-.00121	-.00162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00004**	**.00188**	**1.8072**
Stddev	.00044	.00008	1.1605
%RSD	999.56	4.2181	64.216
#1	.00000	.00196	.61559
#2	-.00037	.00180	2.9339
#3	.00050	.00187	1.8721
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26001.**	**33167.**
Stddev	29.	188.
%RSD	.10969	.56639
#1	26031.	33007.
#2	25974.	33374.
#3	25997.	33120.

Approved: November 13, 2013

Sample Name: L1311032002PS Acquired: 11/12/2013 20:44:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452498-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20483**	**5.1065**	**.20005**	**1.0234**	**.50622**	**.02513**	**51.008**
Stddev	.00025	.0268	.00084	.0051	.00109	.00015	.069
%RSD	.12335	.52427	.41972	.49750	.21557	.58073	.13577
#1	.20458	5.0884	.20026	1.0183	.50503	.02496	51.022
#2	.20481	5.0938	.19913	1.0235	.50718	.02524	51.070
#3	.20509	5.1372	.20077	1.0285	.50645	.02518	50.933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02560**	**.10291**	**.25297**	**.25717**	**2.0637**	**25.433**	**.51204**
Stddev	.00010	.00004	.00143	.00062	.0047	.065	.00150
%RSD	.39404	.03778	.56598	.24207	.22744	.25503	.29257
#1	.02571	.10290	.25142	.25744	2.0668	25.384	.51337
#2	.02558	.10287	.25325	.25646	2.0661	25.408	.51233
#3	.02551	.10295	.25424	.25762	2.0583	25.506	.51042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.485**	**.32743**	**.51822**	**28.025**	**.25613**	F **-.01676**	**.25868**
Stddev	.021	.00107	.00053	.117	.00033	.00592	.00201
%RSD	.18661	.32812	.10277	.41827	.13038	35.333	.77734
#1	11.482	.32621	.51802	27.895	.25580	-.01580	.25880
#2	11.507	.32822	.51782	28.056	.25612	-.01138	.25661
#3	11.465	.32787	.51883	28.123	.25647	-.02310	.26063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013

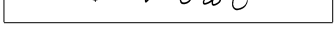
Sample Name: L1311032002PS Acquired: 11/12/2013 20:44:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452498-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.61053**	**.19979**	**5.5841**	**.52546**	**.54950**	**.50565**	**.26355**
Stddev	.00117	.00164	.0130	.00054	.00154	.00188	.00180
%RSD	.19091	.81989	.23292	.10286	.28005	.37157	.68340
#1	.61126	.19809	5.5991	.52593	.54773	.50696	.26223
#2	.61115	.19991	5.5776	.52487	.55042	.50648	.26282
#3	.60919	.20136	5.5757	.52558	.55036	.50350	.26560
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50679**	**.50809**	**13.133**
Stddev	.00171	.00024	.519
%RSD	.33720	.04761	3.9497
#1	.50482	.50823	12.535
#2	.50776	.50823	13.403
#3	.50779	.50781	13.461
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25290.**	**32849.**
Stddev	38.	40.
%RSD	.15092	.12140
#1	25312.	32841.
#2	25312.	32814.
#3	25246.	32892.

Approved: November 13, 2013



Sample Name: L1311032004 Acquired: 11/12/2013 20:47:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.01484**	**-.00011**	**.01531**	**.01026**	**.00000**	**46.244**
Stddev	.00033	.00429	.00108	.00054	.00026	.0000	.055
%RSD	70.789	28.887	968.99	3.5075	2.5214	730.67	.11910
#1	-.00079	.01109	.00107	.01526	.01044	.00000	46.248
#2	-.00013	.01391	-.00105	.01587	.00996	.00001	46.298
#3	-.00047	.01951	-.00036	.01480	.01037	-.00002	46.188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00013**	**.00038**	**-.00025**	**.04797**	**.45896**	**.00657**
Stddev	.00005	.00003	.00007	.00011	.00093	.04130	.00080
%RSD	24.573	20.879	18.425	44.775	1.9319	8.9991	12.110
#1	.00021	.00013	.00045	-.00013	.04727	.41452	.00607
#2	.00028	.00010	.00038	-.00035	.04902	.46619	.00616
#3	.00017	.00015	.00031	-.00028	.04762	.49617	.00749
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.5669**	**.06902**	**.00165**	**2.6960**	**.00036**	F **-.00442**	**-.00033**
Stddev	.0448	.00025	.00023	.0086	.00068	.00188	.00060
%RSD	.68209	.35703	14.214	.31801	191.12	42.540	181.26
#1	6.5306	.06923	.00140	2.6861	-.00030	-.00440	.00031
#2	6.6170	.06907	.00167	2.7013	.00031	-.00255	-.00089
#3	6.5531	.06875	.00187	2.7006	.00105	-.00630	-.00042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

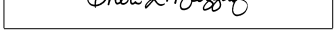
Sample Name: L1311032004 Acquired: 11/12/2013 20:47:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.00059**	**3.0052**	**-.01634**	**.05041**	**-.00060**	**-.00172**
Stddev	.00113	.00281	.0119	.00011	.00039	.00010	.00174
%RSD	439.28	477.65	.39605	.66377	.77216	16.294	101.24
#1	-.00094	-.00136	2.9963	-.01621	.04999	-.00071	.00029
#2	.00105	.00381	3.0007	-.01641	.05076	-.00057	-.00284
#3	-.00088	-.00068	3.0188	-.01639	.05048	-.00052	-.00262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00003**	**.06708**	**1.1402**
Stddev	.00018	.00021	.7902
%RSD	584.59	.30805	69.302
#1	.00019	.06706	1.9880
#2	-.00015	.06689	.42433
#3	.00005	.06730	1.0082
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25566.**	**32962.**
Stddev	66.	65.
%RSD	.25960	.19792
#1	25567.	32993.
#2	25631.	32888.
#3	25499.	33006.

Approved: November 13, 2013



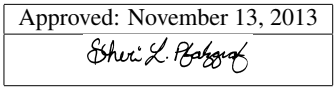
Sample Name: L1311032006 Acquired: 11/12/2013 20:50:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.01373**	**.00012**	**.01380**	**.01056**	**.00002**	**47.610**	**.00029**
Stddev	.00026	.00371	.00079	.00034	.00034	.00000	.203	.00009
%RSD	175.21	27.030	653.56	2.4428	3.1910	20.450	.42727	31.953
#1	.00015	.01798	.00075	.01367	.01018	.00001	47.376	.00019
#2	-.00028	.01111	-.00076	.01354	.01081	.00002	47.704	.00037
#3	-.00032	.01210	.00037	.01418	.01070	.00002	47.749	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.00045**	**-.00003**	**.03925**	**.49506**	**.00811**	**6.7548**	**.06176**
Stddev	.00006	.00041	.00052	.00192	.03224	.00103	.0198	.00028
%RSD	31.438	90.260	1806.9	4.8879	6.5115	12.720	.29374	.45839
#1	.00014	.00066	-.00061	.04141	.46466	.00698	6.7771	.06156
#2	.00015	-.00002	.00015	.03775	.49167	.00900	6.7392	.06164
#3	.00024	.00071	.00037	.03859	.52886	.00835	6.7480	.06209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**2.7714**	**.00032**	**-.00087**	**.00131**	**-.00031**	**-.00279**	**3.1304**
Stddev	.00011	.0099	.00060	.00278	.00137	.00191	.00212	.0278
%RSD	27.516	.35850	185.55	319.16	105.07	625.51	75.954	.88671
#1	.00027	2.7812	.00088	-.00301	.00280	-.00176	-.00425	3.1307
#2	.00047	2.7717	.00041	-.00187	.00010	.00186	-.00036	3.1025
#3	.00043	2.7614	-.00032	.00227	.00102	-.00101	-.00374	3.1580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311032006 Acquired: 11/12/2013 20:50:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01652**	**.05232**	**-.00146**	**-.00083**	**.00011**	**.00157**	**1.9886**
Stddev	.00015	.00001	.00108	.00159	.00019	.00007	.2873
%RSD	.93651	.02332	74.156	192.28	162.77	4.6537	14.446
#1	-.01642	.05230	-.00115	.00099	.00005	.00155	2.2960
#2	-.01644	.05233	-.00057	-.00150	-.00003	.00151	1.7268
#3	-.01670	.05232	-.00266	-.00196	.00032	.00165	1.9431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25607.**	**32961.**
Stddev	63.	63.
%RSD	.24779	.19230
#1	25655.	33032.
#2	25535.	32943.
#3	25631.	32909.

Approved: November 13, 2013

Sample Name: L1311032008 Acquired: 11/12/2013 20:54:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00039**	**.02467**	**-.00096**	**.01323**	**.01046**	**.00002**	**46.253**	**.00023**
Stddev	.00037	.01776	.00139	.00051	.00020	.00002	.221	.00017
%RSD	95.556	72.011	144.31	3.8189	1.9280	133.48	.47792	72.659
#1	-.00081	.04143	-.00229	.01368	.01035	.00003	46.481	.00020
#2	-.00022	.02653	-.00109	.01331	.01069	.00002	46.238	.00041
#3	-.00013	.00605	.00048	.01269	.01033	-.00001	46.040	.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00043**	**-.00018**	**.05164**	**.49214**	**.01024**	**7.1063**	**.03496**
Stddev	.00010	.00024	.00042	.00450	.04801	.00151	.0085	.00017
%RSD	306.76	56.160	232.13	8.7199	9.7549	14.730	.11956	.49091
#1	-.00007	.00049	-.00043	.05217	.44621	.00867	7.0969	.03508
#2	.00004	.00016	-.00041	.05586	.54198	.01167	7.1135	.03476
#3	.00013	.00063	.00030	.04690	.48823	.01039	7.1084	.03504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**5.4430**	**.00009**	**-.00110**	**.00073**	**.00026**	**-.00110**	**3.0268**
Stddev	.00008	.0235	.00073	.00174	.00037	.00085	.00243	.0286
%RSD	15.600	.43176	788.90	157.90	50.531	334.30	222.12	.94569
#1	.00049	5.4562	-.00020	-.00082	.00055	.00120	-.00191	3.0180
#2	.00041	5.4569	-.00045	-.00297	.00048	.00004	-.00302	3.0588
#3	.00056	5.4159	.00092	.00048	.00116	-.00047	.00164	3.0036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032008 Acquired: 11/12/2013 20:54:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01618**	**.05979**	**-.00100**	**-.00184**	**.00017**	**.00228**	**1.1200**
Stddev	.00043	.00032	.00055	.00199	.00012	.00006	.4157
%RSD	2.6845	.53284	54.912	108.10	70.076	2.8125	37.116
#1	-.01591	.05965	-.00155	-.00374	.00023	.00235	1.5233
#2	-.01594	.06015	-.00044	.00023	.00003	.00222	.69294
#3	-.01668	.05956	-.00102	-.00201	.00025	.00228	1.1436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25593.**	**33139.**
Stddev	38.	38.
%RSD	.14821	.11590
#1	25554.	33095.
#2	25597.	33160.
#3	25629.	33162.

Approved: November 13, 2013

Sample Name: L1311032010 Acquired: 11/12/2013 20:57:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**.00091**	**.00014**	**.01182**	**.01073**	**.00000**	**45.771**	**.00019**
Stddev	.00024	.01094	.00110	.00107	.00026	.00003	.229	.00022
%RSD	96.136	1207.5	764.25	9.0475	2.3971	78614.	.49987	111.70
#1	-.00020	.00773	-.00109	.01284	.01048	-.00003	45.718	.00012
#2	-.00052	.00671	.00103	.01190	.01074	.00000	45.573	.00044
#3	-.00004	-.01172	.00049	.01071	.01099	.00003	46.021	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00064**	**-.00012**	**.06628**	**.48545**	**.00880**	**6.5709**	**.06978**
Stddev	.00013	.00059	.00040	.00427	.01362	.00144	.0339	.00097
%RSD	574.62	92.179	336.20	6.4450	2.8047	16.363	.51619	1.3898
#1	-.00017	.00074	-.00036	.06447	.48048	.01045	6.6045	.07070
#2	.00001	.00001	.00035	.07116	.50085	.00812	6.5713	.06877
#3	.00009	.00118	-.00035	.06321	.47502	.00782	6.5367	.06988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**2.6712**	**.00142**	**-.00012**	**.00096**	**.00046**	**.00021**	**3.0359**
Stddev	.00010	.0083	.00124	.00452	.00059	.00048	.00331	.0454
%RSD	103.97	.30995	87.428	3633.3	61.935	105.40	1577.9	1.4948
#1	.00021	2.6765	.00127	.00461	.00156	.00087	-.00332	2.9972
#2	.00003	2.6755	.00274	-.00059	.00092	-.00007	.00070	3.0247
#3	.00005	2.6617	.00026	-.00440	.00038	.00057	.00325	3.0858
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032010 Acquired: 11/12/2013 20:57:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01618**	**.05066**	**-.00173**	**-.00218**	**.00014**	**.00165**	**.57972**
Stddev	.00023	.00038	.00126	.00164	.00008	.00026	.58563
%RSD	1.3956	.75552	72.902	75.289	57.675	15.864	101.02
#1	-.01593	.05085	-.00207	-.00377	.00023	.00152	.41309
#2	-.01634	.05092	-.00278	-.00227	.00012	.00195	1.2306
#3	-.01629	.05022	-.00033	-.00049	.00007	.00148	.09547
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25711.**	**32537.**
Stddev	140.	71.
%RSD	.54501	.21899
#1	25604.	32527.
#2	25658.	32472.
#3	25869.	32613.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 21:01:12 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40904**	**10.312**	**.40748**	**.51402**	**1.0183**	**.05091**	**10.156**
Stddev	.00035	.022	.00135	.00088	.0017	.00009	.026
%RSD	.08531	.20873	.33244	.17217	.17107	.17022	.25647
#1	.40932	10.320	.40804	.51391	1.0163	.05090	10.149
#2	.40916	10.328	.40594	.51319	1.0194	.05083	10.134
#3	.40865	10.287	.40847	.51495	1.0191	.05100	10.185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05148**	**.20729**	**.51250**	**.52009**	**4.1164**	**50.638**	**1.0224**
Stddev	.00019	.00096	.00149	.00191	.0152	.018	.0019
%RSD	.36909	.46330	.28982	.36815	.36870	.03651	.18112
#1	.05154	.20756	.51163	.52085	4.1040	50.642	1.0206
#2	.05127	.20623	.51165	.51791	4.1333	50.654	1.0222
#3	.05163	.20809	.51421	.52151	4.1119	50.617	1.0243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.334**	**.52032**	**1.0285**	**51.408**	**.51855**	**10.146**	**.51882**
Stddev	.031	.00086	.0012	.137	.00156	.016	.00126
%RSD	.30271	.16593	.11498	.26560	.30070	.15942	.24296
#1	10.352	.52131	1.0293	51.346	.51891	10.143	.51801
#2	10.352	.51983	1.0291	51.564	.51684	10.164	.52027
#3	10.298	.51981	1.0272	51.313	.51989	10.132	.51817
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 21:01:12 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2263**	**.40575**	**5.1160**	**1.0273**	**1.0210**	**1.0199**	**.52504**
Stddev	.0022	.00455	.0418	.0083	.0025	.0005	.00798
%RSD	.17796	1.1226	.81654	.81069	.24607	.04952	1.5193
#1	1.2280	.40946	5.0972	1.0248	1.0192	1.0198	.52170
#2	1.2238	.40067	5.0870	1.0205	1.0239	1.0205	.51928
#3	1.2270	.40712	5.1639	1.0366	1.0200	1.0195	.53414
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0216**	**1.0302**	F **1.1494**
Stddev	.0015	.0005	1.2451
%RSD	.14358	.04435	108.32
#1	1.0214	1.0307	.00674
#2	1.0203	1.0301	.96521
#3	1.0232	1.0298	2.4764
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25529.**	**33145.**
Stddev	49.	42.
%RSD	.19120	.12596
#1	25564.	33132.
#2	25551.	33192.
#3	25473.	33111.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 21:04:27 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.00415**	**-.00026**	**.00267**	**-.00008**	**-.00001**	**-.01172**
Stddev	.00033	.00814	.00175	.00075	.00017	.00002	.01448
%RSD	264.67	196.00	668.84	28.127	206.87	159.08	123.59
#1	-.00010	-.00524	-.00123	.00277	.00011	-.00004	-.00977
#2	-.00046	.00858	-.00131	.00337	-.00014	-.00001	-.02707
#3	.00019	.00912	.00176	.00188	-.00022	.00001	.00169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00019**	**.00006**	**-.00008**	**-.00650**	**-.09345**	**.00667**
Stddev	.00007	.00017	.00049	.00044	.00277	.02398	.00091
%RSD	684.31	89.530	827.97	535.46	42.708	25.657	13.641
#1	.00009	.00039	.00046	-.00041	-.00464	-.11615	.00770
#2	-.00001	.00008	.00020	-.00025	-.00516	-.06837	.00598
#3	-.00004	.00010	-.00048	.00042	-.00969	-.09583	.00634
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**-.00022**	**.00366**	**.02034**	**-.00035**	**.00221**	**-.00022**
Stddev	.02143	.00004	.00016	.00237	.00017	.00071	.00268
%RSD	12005.	19.227	4.3473	11.673	49.424	32.061	1223.6
#1	.01732	-.00017	.00353	.01955	-.00045	.00227	-.00243
#2	.00622	-.00025	.00361	.01847	-.00015	.00147	-.00099
#3	-.02407	-.00025	.00384	.02301	-.00046	.00289	.00277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 21:04:27 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.00019**	**.00220**	**-.00051**	**-.00014**	**-.00021**	**-.00181**
Stddev	.00208	.00206	.00091	.00041	.00006	.00036	.00051
%RSD	979.88	1066.9	41.326	81.056	44.463	170.29	27.928
#1	.00260	-.00087	.00325	-.00012	-.00007	-.00061	-.00235
#2	-.00077	.00257	.00164	-.00046	-.00018	.00010	-.00135
#3	-.00120	-.00112	.00172	-.00094	-.00017	-.00013	-.00172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00021**	**-.00106**	F **-.16376**
Stddev	.00017	.00014	.03999
%RSD	79.465	13.486	24.421
#1	-.00002	-.00120	-.20965
#2	-.00031	-.00091	-.14525
#3	-.00031	-.00108	-.13637
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25768.**	**33090.**
Stddev	85.	73.
%RSD	.33105	.22156
#1	25854.	33136.
#2	25767.	33006.
#3	25683.	33129.

Approved: November 13, 2013

Sample Name: L1311032012 Acquired: 11/12/2013 21:08:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.01155**	**.00010**	**.01287**	**.01050**	**.00001**	**47.809**
Stddev	.00034	.01077	.00094	.00121	.00018	.00002	.169
%RSD	719.25	93.231	916.50	9.4276	1.6899	146.38	.35258
#1	.00021	.01774	-.00029	.01409	.01030	.00002	47.737
#2	-.00034	.01780	.00118	.01285	.01065	.00003	48.002
#3	.00028	-.00088	-.00058	.01167	.01055	-.00001	47.690
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00001**	**.00075**	**.00025**	**.04065**	**.51911**	**.00810**
Stddev	.00007	.00022	.00044	.00031	.00214	.02630	.00229
%RSD	22.164	2415.8	59.433	124.38	5.2543	5.0654	28.281
#1	.00036	-.00018	.00073	-.00007	.03820	.48905	.00546
#2	.00032	-.00003	.00031	.00026	.04162	.53046	.00929
#3	.00023	.00024	.00120	.00056	.04212	.53783	.00954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.7437**	**.06588**	**.00088**	**2.7161**	**.00012**	F **-.00813**	**.00152**
Stddev	.0506	.00020	.00013	.0080	.00036	.00281	.00140
%RSD	.75025	.31055	15.069	.29430	298.78	34.636	91.854
#1	6.7074	.06588	.00077	2.7207	.00051	-.00500	.00088
#2	6.8015	.06609	.00086	2.7207	.00003	-.00893	.00313
#3	6.7222	.06568	.00103	2.7068	-.00019	-.01045	.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Pfalzgraf

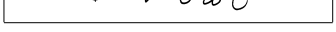
Sample Name: L1311032012 Acquired: 11/12/2013 21:08:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**-.00276**	**2.9594**	**-.01644**	**.05076**	**-.00138**	**-.00290**
Stddev	.00139	.00214	.0535	.00046	.00039	.00143	.00027
%RSD	1916.1	77.546	1.8068	2.7883	.76424	103.57	9.3275
#1	.00132	-.00200	2.9328	-.01608	.05048	-.00028	-.00261
#2	-.00146	-.00518	2.9245	-.01627	.05120	-.00087	-.00294
#3	-.00008	-.00111	3.0210	-.01695	.05061	-.00301	-.00315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00014**	**.00187**	**4.8353**
Stddev	.00004	.00006	.6542
%RSD	31.820	3.3850	13.529
#1	-.00018	.00184	4.8591
#2	-.00009	.00183	5.4773
#3	-.00015	.00194	4.1696
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25443.**	**33040.**
Stddev	35.	50.
%RSD	.13735	.15175
#1	25440.	33066.
#2	25410.	32983.
#3	25480.	33072.

Approved: November 13, 2013



Sample Name: L1311032014 Acquired: 11/12/2013 21:11:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00075**	**.00778**	**-.00047**	**.01193**	**.01052**	**.00001**	**47.493**	**.00021**
Stddev	.00014	.00487	.00071	.00030	.00009	.00001	.107	.00005
%RSD	19.428	62.626	149.96	2.4792	.83101	112.80	.22510	22.006
#1	-.00088	.01304	-.00122	.01219	.01043	.00000	47.440	.00018
#2	-.00076	.00686	-.00039	.01198	.01054	.00001	47.616	.00018
#3	-.00059	.00343	.00019	.01161	.01060	.00002	47.423	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.00058**	**-.00041**	**.06136**	**.45898**	**.00987**	**6.7289**	**.07002**
Stddev	.00007	.00012	.00019	.00188	.02438	.00104	.0297	.00061
%RSD	104.14	20.718	47.031	3.0691	5.3121	10.545	.44132	.87636
#1	.00006	.00062	-.00053	.06344	.43552	.00915	6.7106	.06932
#2	.00000	.00044	-.00019	.05978	.48419	.01107	6.7632	.07043
#3	.00014	.00067	-.00051	.06086	.45724	.00940	6.7130	.07032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**2.6882**	**-.00005**	**-.00042**	**-.00013**	**-.00148**	**-.00128**	**2.9920**
Stddev	.00016	.0264	.00042	.00669	.00179	.00036	.00050	.0051
%RSD	45.958	.98296	789.20	1606.6	1415.8	24.087	38.634	.16966
#1	.00027	2.6643	-.00039	-.00308	.00122	-.00165	-.00132	2.9862
#2	.00026	2.7166	.00042	.00720	-.00216	-.00107	-.00176	2.9940
#3	.00055	2.6838	-.00019	-.00536	.00056	-.00172	-.00077	2.9958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032014 Acquired: 11/12/2013 21:11:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01635**	**.05125**	**-.00094**	**-.00230**	**.00014**	**.00121**	**1.5619**
Stddev	.00013	.00069	.00080	.00183	.00007	.00005	.6492
%RSD	.80433	1.3377	84.663	79.635	50.827	4.1518	41.562
#1	-.01650	.05058	-.00014	-.00429	.00014	.00127	2.0698
#2	-.01629	.05195	-.00174	-.00069	.00021	.00118	.83054
#3	-.01625	.05123	-.00094	-.00191	.00007	.00118	1.7853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25553.**	**33135.**
Stddev	66.	126.
%RSD	.25720	.38102
#1	25629.	33237.
#2	25519.	32994.
#3	25511.	33175.

Approved: November 13, 2013

Sample Name: L1311032016 Acquired: 11/12/2013 21:14:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.00902**	**-.00076**	**.01175**	**.01014**	**.00002**	**45.860**	**.00025**
Stddev	.00046	.01133	.00199	.00024	.00040	.00002	.032	.00004
%RSD	129.55	125.54	261.80	2.0611	3.9419	134.42	.06957	17.961
#1	-.00077	-.00126	.00143	.01157	.01009	.00004	45.865	.00021
#2	-.00041	.02117	-.00124	.01202	.00976	.00003	45.889	.00029
#3	.00013	.00717	-.00246	.01164	.01055	-.00001	45.826	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.00037**	**.00023**	**.04387**	**.46310**	**.00869**	**6.5305**	**.06280**
Stddev	.00008	.00029	.00041	.00136	.05760	.00163	.0390	.00040
%RSD	86.845	77.601	177.91	3.1048	12.437	18.772	.59701	.63155
#1	.00002	.00040	.00040	.04539	.49193	.00831	6.4881	.06326
#2	.00007	.00007	.00053	.04343	.50059	.00728	6.5647	.06265
#3	.00017	.00064	-.00024	.04277	.39678	.01047	6.5387	.06251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**2.6212**	**.00048**	**-.00258**	**.00179**	**.00081**	**-.00004**	**2.9509**
Stddev	.00017	.0179	.00044	.00267	.00189	.00005	.00170	.0209
%RSD	44.911	.68203	90.201	103.59	105.27	5.7753	4291.0	.70974
#1	.00019	2.6018	.00077	-.00509	.00005	.00085	.00193	2.9592
#2	.00052	2.6246	-.00002	-.00287	.00153	.00076	-.00103	2.9664
#3	.00046	2.6371	.00070	.00023	.00379	.00082	-.00102	2.9271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

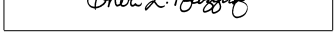
Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032016 Acquired: 11/12/2013 21:14:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01630**	**.04994**	**-.00093**	**-.00206**	**.00006**	**.00159**	**1.6896**
Stddev	.00019	.00020	.00095	.00083	.00025	.00009	.6817
%RSD	1.1758	.40314	102.07	40.144	403.48	5.5440	40.346
#1	-.01649	.04972	-.00019	-.00115	.00034	.00168	2.3387
#2	-.01611	.05002	-.00060	-.00229	-.00005	.00159	1.7505
#3	-.01629	.05010	-.00199	-.00276	-.00011	.00151	.97947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25568.**	**33026.**
Stddev	80.	83.
%RSD	.31386	.24982
#1	25660.	32995.
#2	25518.	33119.
#3	25525.	32963.

Approved: November 13, 2013



Sample Name: L1311032018 Acquired: 11/12/2013 21:18:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00052**	**.01445**	**-.00165**	**.01086**	**.01057**	**.00001**	**45.946**	**.00017**
Stddev	.00024	.01059	.00036	.00090	.00014	.00001	.021	.00005
%RSD	46.927	73.267	21.717	8.2739	1.3703	103.04	.04563	29.156
#1	-.00026	.01877	-.00134	.00983	.01040	.00000	45.939	.00022
#2	-.00074	.00239	-.00158	.01144	.01067	.00002	45.929	.00013
#3	-.00055	.02219	-.00205	.01133	.01063	.00001	45.970	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.00050**	**.00003**	**.07532**	**.45557**	**.00853**	**6.5739**	**.06668**
Stddev	.00008	.00060	.00019	.00583	.01147	.00112	.0192	.00014
%RSD	82.971	119.38	630.04	7.7434	2.5169	13.084	.29238	.21523
#1	.00001	.00108	.00004	.07069	.46754	.00917	6.5525	.06654
#2	.00012	.00054	.00021	.07341	.45447	.00724	6.5897	.06682
#3	.00015	-.00012	-.00016	.08187	.44469	.00917	6.5794	.06667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**2.6403**	**-.00003**	**.00117**	**.00117**	**.00036**	**-.00127**	**3.0229**
Stddev	.00023	.0119	.00057	.00502	.00130	.00085	.00105	.0213
%RSD	220.90	.45194	1856.4	430.17	111.69	233.25	82.924	.70389
#1	-.00008	2.6354	-.00007	-.00463	.00013	.00134	-.00025	3.0408
#2	.00003	2.6315	.00056	.00415	.00074	-.00013	-.00120	3.0285
#3	.00037	2.6539	-.00058	.00398	.00263	-.00012	-.00235	2.9994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032018 Acquired: 11/12/2013 21:18:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01652**	**.05059**	**-.00156**	**-.00507**	**.00010**	**.00142**	**1.0112**
Stddev	.00008	.00048	.00047	.00157	.00023	.00013	1.1623
%RSD	.48719	.95374	30.229	31.049	231.57	9.3668	114.95
#1	-.01656	.05005	-.00120	-.00460	.00029	.00133	2.3468
#2	-.01658	.05075	-.00210	-.00379	-.00015	.00136	.45770
#3	-.01643	.05097	-.00139	-.00683	.00016	.00157	.22901
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25613.**	**32937.**
Stddev	25.	62.
%RSD	.09811	.18859
#1	25637.	32995.
#2	25615.	32872.
#3	25587.	32945.

Approved: November 13, 2013

Sample Name: L1311032020 Acquired: 11/12/2013 21:21:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**.02461**	**-.00035**	**.01201**	**.01117**	**.00001**	**49.268**
Stddev	.00076	.00493	.00090	.00087	.00015	.00002	.109
%RSD	151.30	20.041	256.07	7.2805	1.3015	112.01	.22024
#1	-.00033	.02554	.00069	.01260	.01125	.00000	49.158
#2	.00016	.02901	-.00093	.01101	.01127	.00003	49.375
#3	-.00133	.01928	-.00082	.01243	.01101	.00001	49.272
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00002**	**.00056**	**-.00026**	**.05411**	**.50563**	**.00956**
Stddev	.00005	.00017	.00011	.00029	.00093	.01058	.00070
%RSD	42.821	774.15	20.201	110.72	1.7243	2.0920	7.2970
#1	.00016	-.00012	.00044	.00005	.05357	.51757	.00920
#2	.00011	.00018	.00057	-.00032	.05357	.50189	.01036
#3	.00006	-.00012	.00066	-.00051	.05519	.49743	.00911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.0379**	**.06859**	**.00007**	**2.8700**	**-.00023**	F **-.00342**	**.00184**
Stddev	.0269	.00074	.00024	.0065	.00022	.00131	.00151
%RSD	.38229	1.0786	325.00	.22798	96.070	38.147	82.405
#1	7.0169	.06909	.00008	2.8689	-.00022	-.00493	.00010
#2	7.0683	.06774	.00031	2.8770	-.00046	-.00266	.00254
#3	7.0287	.06894	-.00017	2.8641	-.00001	-.00268	.00287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032020 Acquired: 11/12/2013 21:21:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00147**	**-.00088**	**3.2111**	**-.01623**	**.05437**	**-.00130**	**-.00253**
Stddev	.00058	.00208	.0352	.00048	.00020	.00092	.00083
%RSD	39.706	236.97	1.0970	2.9301	.37695	71.278	32.805
#1	-.00213	.00134	3.2162	-.01578	.05458	-.00208	-.00331
#2	-.00124	-.00279	3.1736	-.01673	.05437	-.00028	-.00262
#3	-.00103	-.00119	3.2434	-.01617	.05417	-.00153	-.00166
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00396**	**1.5926**
Stddev	.00019	.00010	.2299
%RSD	393.62	2.5825	14.434
#1	-.00011	.00391	1.4284
#2	.00026	.00408	1.8553
#3	-.00001	.00389	1.4941
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25606.**	**33057.**
Stddev	41.	75.
%RSD	.15862	.22810
#1	25559.	32982.
#2	25629.	33056.
#3	25630.	33133.

Approved: November 13, 2013
Sheri L. Babcock

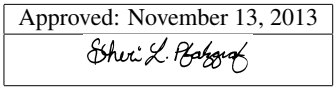
Sample Name: L1311032022 Acquired: 11/12/2013 21:25:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.02773**	**.00042**	**.01086**	**.00971**	**.00000**	**44.191**
Stddev	.00016	.00750	.00106	.00100	.00022	.0000	.176
%RSD	25.036	27.050	254.37	9.2244	2.2564	1059.9	.39786
#1	-.00074	.01997	-.00010	.00993	.00996	.00000	44.390
#2	-.00076	.02828	.00164	.01192	.00956	.00001	44.057
#3	-.00046	.03494	-.00029	.01073	.00961	-.00001	44.126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00001**	**.00069**	**.00012**	**.04911**	**.43567**	**.00960**
Stddev	.00008	.00014	.00008	.00029	.00273	.04921	.00230
%RSD	42.866	1007.7	11.630	251.34	5.5686	11.295	23.926
#1	.00016	-.00005	.00072	.00044	.05135	.47910	.00841
#2	.00014	.00017	.00076	-.00013	.04606	.44569	.01225
#3	.00029	-.00008	.00060	.00004	.04991	.38222	.00815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.3692**	**.01804**	**.00003**	**2.5815**	**.00055**	F **-.00387**	**.00065**
Stddev	.0273	.00007	.00013	.0044	.00018	.00294	.00015
%RSD	.42866	.40406	374.04	.17100	32.826	76.089	22.928
#1	6.3961	.01807	.00013	2.5865	.00065	-.00413	.00066
#2	6.3415	.01796	.00009	2.5781	.00066	-.00080	.00080
#3	6.3701	.01811	-.00011	2.5798	.00034	-.00667	.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013



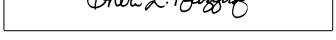
Sample Name: L1311032022 Acquired: 11/12/2013 21:25:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00039**	**2.9280**	**-.01646**	**.04908**	**-.00202**	**-.00282**
Stddev	.00212	.00339	.0245	.00020	.00014	.00057	.00035
%RSD	4079.1	876.85	.83579	1.2426	.29400	28.242	12.397
#1	-.00231	.00322	2.9562	-.01626	.04910	-.00140	-.00318
#2	.00178	-.00352	2.9148	-.01645	.04892	-.00253	-.00279
#3	.00069	-.00086	2.9129	-.01667	.04921	-.00212	-.00248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00026**	**.00139**	**3.3250**
Stddev	.00007	.00008	.4954
%RSD	27.497	5.4088	14.900
#1	.00019	.00135	3.7157
#2	.00027	.00148	2.7678
#3	.00033	.00135	3.4917
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25613.**	**33052.**
Stddev	51.	134.
%RSD	.20090	.40488
#1	25561.	32902.
#2	25612.	33159.
#3	25664.	33095.

Approved: November 13, 2013



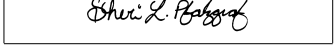
Sample Name: L1311032024 Acquired: 11/12/2013 21:28:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**-.00132**	**.00028**	**.01108**	**.01069**	**.00002**	**46.834**	**.00021**
Stddev	.00039	.01713	.00145	.00043	.00005	.00000	.143	.00009
%RSD	159.95	1298.2	528.31	3.8914	.43189	18.056	.30641	44.750
#1	-.00002	-.01801	-.00074	.01093	.01064	.00002	46.686	.00030
#2	-.00002	.01622	-.00038	.01156	.01073	.00002	46.844	.00012
#3	-.00069	-.00217	.00194	.01074	.01070	.00003	46.972	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00048**	**-.00011**	**.06489**	**.46697**	**.00838**	**6.6660**	**.07157**
Stddev	.00014	.00033	.00055	.00355	.01261	.00058	.0253	.00056
%RSD	358.39	69.515	503.72	5.4702	2.7006	6.9809	.38013	.78581
#1	.00007	.00010	.00035	.06833	.45728	.00863	6.6938	.07092
#2	.00016	.00069	.00004	.06510	.46240	.00771	6.6600	.07196
#3	-.00011	.00066	-.00071	.06124	.48123	.00879	6.6442	.07182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**2.7230**	**-.00006**	**.00119**	**.00102**	**-.00025**	**-.00208**	**3.0692**
Stddev	.00015	.0024	.00083	.00493	.00050	.00275	.00276	.0308
%RSD	122.85	.08702	1442.2	413.47	49.272	1082.7	132.92	1.0035
#1	-.00005	2.7255	.00085	.00158	.00045	-.00237	-.00093	3.0763
#2	.00024	2.7225	-.00078	-.00392	.00122	-.00125	-.00523	3.0959
#3	.00019	2.7208	-.00025	.00592	.00140	.00286	-.00007	3.0355
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311032024 Acquired: 11/12/2013 21:28:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01632**	**.05154**	**-.00077**	**-.00170**	**.00020**	**.00112**	**1.2142**
Stddev	.00012	.00041	.00088	.00117	.00029	.00008	.8140
%RSD	.74777	.80187	115.14	68.985	147.07	7.1710	67.038
#1	-.01619	.05199	-.00036	-.00068	.00035	.00114	2.1537
#2	-.01643	.05118	-.00016	-.00298	-.00014	.00119	.72080
#3	-.01632	.05144	-.00178	-.00144	.00039	.00103	.76808
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25673.**	**33270.**
Stddev	63.	81.
%RSD	.24382	.24253
#1	25739.	33364.
#2	25614.	33220.
#3	25667.	33228.

Approved: November 13, 2013

Sample Name: L1311032026 Acquired: 11/12/2013 21:32:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**.00571**	**-.00122**	**.01079**	**.01055**	**.00002**	**46.776**	**.00016**
Stddev	.00055	.00431	.00077	.00042	.00016	.00003	.082	.00008
%RSD	73.745	75.489	62.976	3.8697	1.5207	177.35	.17541	48.823
#1	-.00132	.01040	-.00035	.01058	.01073	-.00001	46.800	.00021
#2	-.00068	.00482	-.00150	.01052	.01047	.00001	46.843	.00020
#3	-.00023	.00192	-.00182	.01127	.01044	.00004	46.685	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00042**	**.00030**	**.04201**	**.47026**	**.00871**	**6.7067**	**.06392**
Stddev	.00012	.00033	.00059	.00199	.04023	.00021	.0133	.00048
%RSD	143.41	79.639	195.59	4.7271	8.5554	2.4344	.19801	.75751
#1	-.00003	.00009	-.00031	.04431	.42571	.00866	6.7214	.06422
#2	.00007	.00076	.00086	.04084	.48115	.00895	6.7033	.06419
#3	.00021	.00041	.00036	.04089	.50393	.00853	6.6955	.06336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**2.6963**	**.00047**	**-.00149**	**.00108**	**.00076**	**-.00246**	**3.0919**
Stddev	.00012	.0209	.00049	.00444	.00068	.00023	.00154	.0752
%RSD	39.189	.77356	102.96	296.93	62.867	30.333	62.613	2.4332
#1	.00017	2.6910	.00005	.00354	.00035	.00097	-.00146	3.0064
#2	.00040	2.7193	.00101	-.00482	.00120	.00052	-.00168	3.1217
#3	.00032	2.6786	.00037	-.00321	.00169	.00079	-.00423	3.1477
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032026 Acquired: 11/12/2013 21:32:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01641**	**.05152**	**-.00069**	**-.00118**	**.00005**	**.00175**	**1.0444**
Stddev	.00027	.00018	.00032	.00088	.00015	.00002	.3217
%RSD	1.6299	.34685	45.545	74.387	273.24	1.4121	30.797
#1	-.01611	.05144	-.00058	-.00167	-.00012	.00173	.93615
#2	-.01661	.05173	-.00105	-.00017	.00014	.00178	.79091
#3	-.01652	.05140	-.00045	-.00169	.00014	.00175	1.4063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25685.**	**33079.**
Stddev	80.	222.
%RSD	.31028	.67214
#1	25777.	33013.
#2	25638.	32897.
#3	25640.	33327.

Approved: November 13, 2013

Sample Name: L1311032028 Acquired: 11/12/2013 21:35:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00056**	**.00306**	**-.00186**	**.01191**	**.01047**	**.00001**	**45.266**	**.00025**
Stddev	.00008	.01170	.00112	.00040	.00024	.00002	.043	.00010
%RSD	14.599	382.30	59.906	3.3576	2.2821	145.25	.09512	40.684
#1	-.00058	-.01038	-.00066	.01145	.01074	.00003	45.278	.00028
#2	-.00047	.00864	-.00207	.01218	.01039	.00001	45.301	.00034
#3	-.00063	.01092	-.00286	.01211	.01028	-.00001	45.218	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.00045**	**-.00052**	**.03440**	**.48731**	**.00882**	**6.5143**	**.06488**
Stddev	.00006	.00009	.00046	.00118	.03295	.00099	.0470	.00016
%RSD	39.807	19.138	90.119	3.4366	6.7620	11.279	.72107	.25124
#1	-.00023	.00055	-.00013	.03475	.44950	.00929	6.4747	.06486
#2	-.00012	.00043	-.00038	.03309	.50253	.00949	6.5021	.06505
#3	-.00012	.00038	-.00103	.03537	.50991	.00767	6.5662	.06473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**2.6390**	**-.00012**	**-.00201**	**.00212**	**.00033**	**-.00166**	**2.9930**
Stddev	.00017	.0103	.00092	.00537	.00046	.00249	.00225	.0191
%RSD	141.83	.38987	788.68	267.30	21.608	755.04	135.20	.63879
#1	.00003	2.6506	.00053	-.00806	.00190	.00319	-.00337	3.0003
#2	.00001	2.6355	-.00116	.00215	.00265	-.00080	-.00250	3.0073
#3	.00031	2.6309	.00028	-.00011	.00182	-.00140	.00088	2.9713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032028 Acquired: 11/12/2013 21:35:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01625**	**.05054**	**-.00089**	**-.00078**	**.00000**	**.00173**	**1.0519**
Stddev	.00025	.00003	.00082	.00125	.0002	.00004	1.1001
%RSD	1.5352	.06299	91.658	159.54	34454.	2.2963	104.58
#1	-.01645	.05051	-.00135	-.00005	-.00007	.00173	2.2633
#2	-.01632	.05057	.00005	-.00223	-.00019	.00178	.11510
#3	-.01597	.05054	-.00137	-.00007	.00026	.00170	.77745
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25673.**	**33225.**
Stddev	58.	66.
%RSD	.22397	.19933
#1	25682.	33201.
#2	25726.	33174.
#3	25612.	33300.

Approved: November 13, 2013

Sample Name: L1311032030 Acquired: 11/12/2013 21:39:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00104**	**.01463**	**-.00088**	**.01081**	**.01052**	**-.00001**	**46.089**
Stddev	.00082	.02249	.00058	.00089	.00022	.00002	.162
%RSD	79.222	153.73	66.010	8.2248	2.0883	400.62	.35118
#1	-.00019	.03685	-.00061	.01181	.01030	-.00003	46.269
#2	-.00110	.01518	-.00154	.01049	.01073	.00002	46.045
#3	-.00182	-.00813	-.00048	.01012	.01053	.00000	45.955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**-.00003**	**.00020**	**.00018**	**.03621**	**.47353**	**.00809**
Stddev	.00010	.00008	.00009	.00019	.00304	.06090	.00189
%RSD	49.895	276.74	45.654	104.39	8.3909	12.862	23.328
#1	.00018	-.00009	.00028	.00018	.03381	.44547	.00647
#2	.00029	-.00005	.00010	-.00001	.03520	.54340	.00763
#3	.00010	.00006	.00020	.00037	.03962	.43171	.01016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.5556**	**.06238**	**-.00004**	**2.6698**	**.00021**	F **-.00323**	**-.00020**
Stddev	.0602	.00025	.00015	.0108	.00017	.00590	.00024
%RSD	.91871	.40324	377.39	.40510	81.630	182.74	117.82
#1	6.6231	.06210	.00011	2.6686	.00021	-.00240	-.00036
#2	6.5075	.06258	-.00004	2.6811	.00004	-.00951	-.00032
#3	6.5361	.06247	-.00019	2.6596	.00039	.00221	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032030 Acquired: 11/12/2013 21:39:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.00023**	**2.9926**	**-.01583**	**.05080**	**-.00096**	**-.00378**
Stddev	.00155	.00278	.0588	.00017	.00040	.00033	.00140
%RSD	913.36	1193.0	1.9663	1.0789	.78045	34.139	36.959
#1	-.00159	.00342	3.0374	-.01580	.05124	-.00126	-.00539
#2	.00148	-.00169	3.0145	-.01602	.05068	-.00100	-.00286
#3	-.00040	-.00103	2.9260	-.01568	.05048	-.00061	-.00309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**.00139**	**1.4900**
Stddev	.00023	.00012	1.6176
%RSD	341.26	8.9528	108.56
#1	-.00002	.00125	.47395
#2	-.00011	.00150	3.3553
#3	.00033	.00142	.64070
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25604.**	**33056.**
Stddev	33.	52.
%RSD	.13039	.15654
#1	25602.	33077.
#2	25639.	32997.
#3	25572.	33094.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 21:42:51 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40680**	**10.315**	**.41221**	**.51079**	**1.0170**	**.05177**	**10.323**
Stddev	.00113	.025	.00083	.00355	.0012	.00031	.008
%RSD	.27884	.23752	.20074	.69555	.11714	.59977	.07906
#1	.40576	10.287	.41199	.50717	1.0157	.05142	10.316
#2	.40663	10.333	.41313	.51427	1.0180	.05186	10.322
#3	.40801	10.325	.41152	.51092	1.0171	.05202	10.332
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05176**	**.20943**	**.51587**	**.52057**	**4.1052**	**50.415**	**1.0302**
Stddev	.00008	.00034	.00329	.00089	.0103	.121	.0029
%RSD	.15230	.16111	.63837	.17095	.25039	.24027	.27662
#1	.05182	.20935	.51215	.52155	4.1017	50.286	1.0286
#2	.05179	.20980	.51841	.52033	4.1167	50.432	1.0286
#3	.05167	.20914	.51706	.51982	4.0971	50.526	1.0335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.439**	**.52616**	**1.0278**	**50.796**	**.52091**	**9.9880**	**.51395**
Stddev	.023	.00321	.0016	.187	.00117	.0205	.00150
%RSD	.22358	.60977	.15163	.36904	.22527	.20575	.29152
#1	10.447	.52246	1.0288	50.581	.52227	9.9864	.51339
#2	10.456	.52783	1.0285	50.925	.52020	9.9683	.51280
#3	10.412	.52818	1.0260	50.882	.52027	10.009	.51564
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

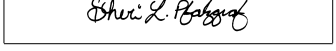
Sample Name: CCV Acquired: 11/12/2013 21:42:51 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2111**	**.40939**	**4.8673**	**1.0132**	**1.0068**	**1.0270**	**.53334**
Stddev	.0014	.00170	.0185	.0102	.0036	.0025	.00239
%RSD	.11774	.41495	.37955	1.0084	.36182	.24414	.44809
#1	1.2114	.40949	4.8777	1.0023	1.0027	1.0284	.53431
#2	1.2096	.41103	4.8783	1.0226	1.0077	1.0286	.53509
#3	1.2124	.40764	4.8460	1.0148	1.0098	1.0241	.53062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0346**	**1.0218**	F **1.4858**
Stddev	.0021	.0010	.2386
%RSD	.20357	.10243	16.057
#1	1.0322	1.0206	1.2601
#2	1.0352	1.0224	1.4617
#3	1.0363	1.0224	1.7354
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25529.**	**33099.**
Stddev	22.	133.
%RSD	.08681	.40187
#1	25554.	33252.
#2	25513.	33015.
#3	25520.	33029.

Approved: November 13, 2013



Sample Name: CCB Acquired: 11/12/2013 21:46:06 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.00983**	**.00002**	**.00340**	**-.00025**	**-.00001**	**-.01741**
Stddev	.00060	.00983	.00130	.00070	.00006	.00003	.01209
%RSD	235.96	100.01	5500.0	20.603	23.587	188.85	69.471
#1	.00041	.00259	-.00057	.00383	-.00024	-.00002	-.01813
#2	-.00076	.00588	-.00087	.00259	-.00031	.00002	-.00497
#3	-.00042	.02103	.00151	.00377	-.00020	-.00004	-.02913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.00020**	**.00069**	**-.00044**	**-.00142**	**-.10916**	**.00484**
Stddev	.00011	.00002	.00028	.00016	.00040	.06872	.00118
%RSD	159.85	9.9250	39.880	37.826	28.409	62.958	24.419
#1	-.00006	.00022	.00100	-.00026	-.00167	-.06052	.00395
#2	.00011	.00019	.00047	-.00059	-.00096	-.07917	.00618
#3	.00016	.00018	.00061	-.00046	-.00165	-.18778	.00439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00490**	**-.00016**	**.00372**	**.03184**	**-.00030**	**.00183**	**.00072**
Stddev	.00942	.00003	.00034	.00900	.00087	.00254	.00104
%RSD	192.21	17.024	9.1155	28.263	288.56	138.78	143.83
#1	.00589	-.00015	.00339	.03382	.00043	-.00101	-.00032
#2	-.00909	-.00019	.00370	.02201	-.00008	.00262	.00176
#3	-.01151	-.00014	.00407	.03968	-.00126	.00388	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 21:46:06 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.00036**	**.00676**	**-.00046**	**-.00010**	**-.00176**	**-.00092**
Stddev	.00098	.00367	.00415	.00031	.00002	.00058	.00042
%RSD	150.23	1010.9	61.324	66.077	16.091	32.790	45.626
#1	.00042	.00338	.00817	-.00054	-.00009	-.00114	-.00139
#2	-.00149	.00144	.01002	-.00072	-.00012	-.00228	-.00059
#3	-.00089	-.00372	.00209	-.00013	-.00010	-.00186	-.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00015**	**-.00102**	F **-.28651**
Stddev	.00017	.00008	.80540
%RSD	113.03	8.1940	281.11
#1	-.00001	-.00111	-.07999
#2	-.00011	-.00094	.39552
#3	-.00033	-.00101	-1.1751
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25711.**	**32839.**
Stddev	103.	98.
%RSD	.40162	.29793
#1	25592.	32758.
#2	25769.	32947.
#3	25773.	32811.

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032032 Acquired: 11/12/2013 21:49:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.01019**	**-.00151**	**.01176**	**.01028**	**.00002**	**45.774**
Stddev	.00003	.00809	.00130	.00075	.00020	.00004	.139
%RSD	95.622	79.408	86.433	6.3773	1.9110	226.24	.30394
#1	-.00002	.00604	-.00288	.01203	.01009	.00002	45.618
#2	-.00001	.00501	-.00029	.01234	.01048	-.00002	45.884
#3	-.00007	.01951	-.00136	.01091	.01028	.00005	45.821
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**.00004**	**.00066**	**-.00033**	**.03272**	**.51014**	**.00840**
Stddev	.00004	.00010	.00007	.00039	.00564	.05105	.00081
%RSD	15.661	235.85	11.017	117.22	17.240	10.008	9.6098
#1	.00030	.00015	.00073	-.00037	.03920	.46974	.00819
#2	.00022	.00001	.00059	-.00070	.02893	.49317	.00772
#3	.00026	-.00004	.00064	.00008	.03003	.56752	.00929
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.4743**	**.06446**	**.00092**	**2.6169**	**.00018**	F **-.00399**	**.00236**
Stddev	.0432	.00045	.00004	.0187	.00013	.00220	.00220
%RSD	.66730	.70122	4.4418	.71454	73.367	55.075	93.396
#1	6.5046	.06400	.00089	2.6089	.00022	-.00590	.00490
#2	6.4934	.06448	.00092	2.6034	.00003	-.00159	.00116
#3	6.4248	.06491	.00097	2.6382	.00028	-.00448	.00101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013

Sample Name: L1311032032 Acquired: 11/12/2013 21:49:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00147**	**-.00122**	**2.9481**	**-.01599**	**.04977**	**-.00163**	**-.00330**
Stddev	.00452	.00181	.0290	.00006	.00031	.00013	.00074
%RSD	308.39	148.84	.98525	.38197	.62280	7.7667	22.541
#1	-.00264	-.00303	2.9719	-.01599	.04987	-.00165	-.00244
#2	.00630	.00060	2.9567	-.01592	.05001	-.00174	-.00375
#3	.00074	-.00123	2.9157	-.01605	.04942	-.00149	-.00370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00003**	**.00115**	**1.7877**
Stddev	.00020	.00002	1.0260
%RSD	641.19	2.1181	57.393
#1	-.00025	.00118	1.7304
#2	.00014	.00113	.79148
#3	.00002	.00116	2.8411
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25547.**	**33007.**
Stddev	41.	186.
%RSD	.16105	.56202
#1	25538.	33168.
#2	25511.	33050.
#3	25592.	32804.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032034 Acquired: 11/12/2013 21:53:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00052**	**.00401**	**.00039**	**.01109**	**.01016**	**.00001**	**45.229**	**.00014**
Stddev	.00032	.01496	.00125	.00069	.00009	.00002	.153	.00007
%RSD	61.309	372.61	319.39	6.2053	.89276	137.43	.33769	48.664
#1	-.00020	.00633	.00078	.01030	.01013	-.00001	45.065	.00013
#2	-.00051	-.01197	.00140	.01157	.01026	.00002	45.255	.00021
#3	-.00084	.01768	-.00101	.01140	.01009	.00002	45.367	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.00059**	**-.00041**	**.04212**	**.42843**	**.00894**	**6.4540**	**.06123**
Stddev	.00006	.00028	.00006	.00291	.02368	.00267	.0442	.00021
%RSD	43.377	47.263	15.004	6.8995	5.5270	29.853	.68499	.33926
#1	.00020	.00027	-.00040	.04306	.45496	.01093	6.4391	.06110
#2	.00013	.00072	-.00047	.03886	.40942	.00591	6.4191	.06113
#3	.00008	.00079	-.00035	.04444	.42091	.00999	6.5037	.06147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**2.6098**	**-.00015**	**-.00220**	**.00009**	**-.00100**	**.00065**	**2.9581**
Stddev	.00016	.0103	.00064	.00481	.00147	.00133	.00156	.0224
%RSD	63.500	.39547	411.59	218.04	1715.0	133.41	238.90	.75795
#1	.00022	2.5988	.00054	-.00114	.00039	-.00017	-.00033	2.9331
#2	.00043	2.6192	-.00070	.00198	.00138	-.00254	.00245	2.9765
#3	.00011	2.6115	-.00031	-.00745	-.00152	-.00029	-.00016	2.9646
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032034 Acquired: 11/12/2013 21:53:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01634**	**.04980**	**-.00041**	**-.00174**	**.00011**	**.00109**	**1.2915**
Stddev	.00021	.00040	.00073	.00157	.00026	.00010	.2198
%RSD	1.2780	.80444	177.79	90.114	236.17	9.4753	17.020
#1	-.01616	.04946	.00000	-.00162	-.00019	.00119	1.4825
#2	-.01630	.04971	.00002	-.00024	.00027	.00098	1.0512
#3	-.01657	.05024	-.00125	-.00337	.00026	.00111	1.3409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25621.**	**33074.**
Stddev	26.	94.
%RSD	.10188	.28539
#1	25618.	33136.
#2	25597.	33122.
#3	25649.	32966.

Approved: November 13, 2013

Sample Name: L1311032036 Acquired: 11/12/2013 21:56:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00054**	**.00855**	**-.00013**	**.01202**	**.01004**	**.00001**	**46.111**	**.00018**
Stddev	.00010	.01422	.00140	.00025	.00014	.00002	.046	.00000
%RSD	17.922	166.29	1094.2	2.0778	1.3685	294.95	.09937	1.3985
#1	-.00058	.02418	-.00140	.01208	.00996	.00004	46.067	.00018
#2	-.00043	-.00363	-.00035	.01175	.01020	-.00001	46.106	.00018
#3	-.00062	.00510	.00137	.01224	.00997	-.00001	46.158	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00044**	**.00004**	**.04405**	**.45112**	**.00981**	**6.6161**	**.00567**
Stddev	.00011	.00033	.00033	.00085	.01112	.00097	.0733	.00003
%RSD	811.89	74.894	908.48	1.9216	2.4659	9.9361	1.1075	.55335
#1	.00010	.00026	.00026	.04307	.45509	.00878	6.5370	.00565
#2	-.00010	.00024	.00019	.04455	.43855	.01072	6.6817	.00570
#3	.00004	.00082	-.00034	.04453	.45971	.00992	6.6297	.00565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00046**	**2.7920**	**.00007**	**.00066**	**.00079**	**-.00095**	**-.00137**	**3.0637**
Stddev	.00006	.0200	.00036	.00363	.00171	.00101	.00265	.0228
%RSD	13.242	.71652	559.51	548.57	217.89	106.50	193.10	.74480
#1	.00044	2.7723	-.00030	-.00040	.00213	-.00111	.00166	3.0798
#2	.00053	2.8123	.00043	-.00232	-.00114	-.00188	-.00327	3.0376
#3	.00042	2.7916	.00007	.00471	.00137	.00013	-.00250	3.0738
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032036 Acquired: 11/12/2013 21:56:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01637**	**.05109**	**-.00132**	**-.00268**	**.00026**	**.00197**	**.94108**
Stddev	.00019	.00048	.00049	.00252	.00004	.00011	.11661
%RSD	1.1663	.93782	37.302	94.062	16.227	5.5799	12.391
#1	-.01659	.05053	-.00097	-.00278	.00021	.00195	1.0606
#2	-.01625	.05140	-.00188	-.00011	.00030	.00187	.93503
#3	-.01628	.05132	-.00110	-.00516	.00026	.00208	.82761
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25681.**	**33190.**
Stddev	56.	116.
%RSD	.21710	.34893
#1	25660.	33320.
#2	25640.	33098.
#3	25745.	33153.

Approved: November 13, 2013

Sample Name: L1311032038 Acquired: 11/12/2013 22:00:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**.00773**	**-.00042**	**.01410**	**.01001**	**.00001**	**45.456**
Stddev	.00066	.01981	.00079	.00102	.00028	.00001	.138
%RSD	89.868	256.34	188.27	7.2389	2.8231	46.163	.30284
#1	-.00135	.00367	.00026	.01452	.01032	.00002	45.394
#2	-.00003	-.00974	-.00129	.01484	.00994	.00001	45.360
#3	-.00083	.02925	-.00023	.01294	.00977	.00002	45.613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00001**	**.00033**	**.00033**	**.04370**	**.41786**	**.00986**
Stddev	.00009	.00012	.00030	.00005	.00221	.02504	.00146
%RSD	38.314	1386.5	92.376	14.479	5.0579	5.9927	14.851
#1	.00013	-.00014	.00000	.00039	.04129	.39534	.00975
#2	.00025	.00002	.00039	.00031	.04563	.44483	.01137
#3	.00031	.00010	.00059	.00030	.04417	.41343	.00845
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.4849**	**.06500**	**.00021**	**3.0650**	**.00016**	F **-.00786**	**.00054**
Stddev	.0532	.00045	.00007	.0031	.00059	.00462	.00063
%RSD	.82006	.68622	32.923	.10082	364.70	58.783	117.01
#1	6.4235	.06451	.00014	3.0684	-.00016	-.01029	.00015
#2	6.5140	.06514	.00027	3.0643	.00084	-.00253	.00020
#3	6.5171	.06537	.00021	3.0624	-.00020	-.01076	.00127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032038 Acquired: 11/12/2013 22:00:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00141**	**-.00192**	**2.9971**	**-.01643**	**.04960**	**-.00071**	**-.00370**
Stddev	.00210	.00444	.0234	.00025	.00050	.00049	.00157
%RSD	148.93	230.71	.78191	1.4929	.99927	68.369	42.507
#1	.00198	-.00009	2.9925	-.01672	.04915	-.00112	-.00206
#2	.00316	.00130	2.9763	-.01631	.05013	-.00017	-.00520
#3	-.00091	-.00698	3.0225	-.01627	.04953	-.00084	-.00383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00027**	**.00166**	**1.9618**
Stddev	.00017	.00002	.3259
%RSD	63.250	1.0084	16.611
#1	.00008	.00166	1.9196
#2	.00033	.00167	2.3067
#3	.00040	.00164	1.6590
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25691.**	**33225.**
Stddev	98.	124.
%RSD	.38265	.37230
#1	25578.	33233.
#2	25743.	33344.
#3	25753.	33097.

Approved: November 13, 2013

Sample Name: L1311032038S Acquired: 11/12/2013 22:03:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19821**	**4.9415**	**.19541**	**.99376**	**.48976**	**.02438**	**50.768**	**.02462**
Stddev	.00085	.0253	.00036	.00289	.00109	.00014	.224	.00020
%RSD	.43095	.51109	.18437	.29080	.22255	.57834	.44039	.79237
#1	.19723	4.9143	.19576	.99345	.49055	.02422	50.596	.02458
#2	.19882	4.9460	.19542	.99103	.49020	.02444	50.687	.02445
#3	.19856	4.9643	.19504	.99679	.48852	.02449	51.020	.02483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09975**	**.24385**	**.24754**	**2.0122**	**24.561**	**.49835**	**11.350**	**.31211**
Stddev	.00012	.00093	.00026	.0048	.028	.00208	.037	.00084
%RSD	.12434	.38228	.10627	.24016	.11588	.41645	.33005	.27070
#1	.09987	.24287	.24774	2.0091	24.592	.49830	11.309	.31115
#2	.09962	.24473	.24724	2.0177	24.556	.50045	11.359	.31243
#3	.09977	.24393	.24764	2.0097	24.536	.49630	11.382	.31275
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50240**	**27.647**	**.25244**	**-.00133**	**.25059**	**.59074**	**.19278**	**5.4429**
Stddev	.00029	.021	.00128	.00233	.00136	.00174	.00037	.0201
%RSD	.05800	.07698	.50712	174.38	.54238	.29480	.19215	.37010
#1	.50234	27.651	.25205	-.00211	.25214	.59109	.19310	5.4507
#2	.50271	27.624	.25140	.00128	.25003	.58885	.19238	5.4201
#3	.50213	27.666	.25387	-.00317	.24961	.59228	.19287	5.4581
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311032038S Acquired: 11/12/2013 22:03:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.52149**	**.53214**	**.48839**	**.25523**	**.49166**	**.48938**	**1.5318**
Stddev	.00066	.00063	.00147	.00160	.00271	.00111	.3544
%RSD	.12730	.11889	.30099	.62725	.55199	.22632	23.135
#1	.52224	.53272	.48873	.25534	.48890	.49033	1.3377
#2	.52124	.53223	.48678	.25358	.49176	.48965	1.3169
#3	.52099	.53146	.48966	.25678	.49432	.48817	1.9409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25440.**	**33022.**
Stddev	33.	20.
%RSD	.13140	.05932
#1	25466.	33045.
#2	25453.	33010.
#3	25403.	33012.

Approved: November 13, 2013

Sample Name: L1311032038SD Acquired: 11/12/2013 22:06:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19615**	**4.9144**	**.19221**	**.98596**	**.48432**	**.02408**	**51.745**	**.02416**
Stddev	.00018	.0182	.00096	.00331	.00052	.00004	.066	.00013
%RSD	.09127	.36954	.49893	.33539	.10703	.17173	.12709	.51940
#1	.19631	4.9246	.19252	.98951	.48380	.02412	51.678	.02406
#2	.19596	4.9251	.19297	.98296	.48484	.02405	51.745	.02430
#3	.19619	4.8934	.19113	.98543	.48433	.02405	51.810	.02414
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09811**	**.24323**	**.24286**	**2.0144**	**24.283**	**.49163**	**11.479**	**.31264**
Stddev	.00039	.00135	.00102	.0082	.031	.00178	.064	.00019
%RSD	.39397	.55397	.42019	.40654	.12642	.36263	.55626	.06226
#1	.09766	.24477	.24169	2.0056	24.268	.49258	11.409	.31270
#2	.09837	.24268	.24337	2.0217	24.262	.49273	11.495	.31280
#3	.09829	.24224	.24353	2.0159	24.318	.48957	11.533	.31242
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49606**	**27.452**	**.24504**	**-.00240**	**.24834**	**.58249**	**.19075**	**5.5163**
Stddev	.00163	.077	.00113	.00176	.00073	.00781	.00105	.0717
%RSD	.32914	.27907	.46241	73.054	.29455	1.3400	.55155	1.2991
#1	.49430	27.532	.24374	-.00225	.24898	.57431	.19083	5.4601
#2	.49753	27.379	.24562	-.00073	.24848	.58330	.18966	5.4919
#3	.49633	27.444	.24577	-.00423	.24754	.58986	.19176	5.5970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

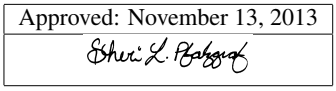
Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311032038SD Acquired: 11/12/2013 22:06:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452333-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42768**	**.52770**	**.48659**	**.24607**	**.48495**	**.48100**	**2.9001**
Stddev	.00362	.00211	.00061	.00426	.00125	.00024	.3209
%RSD	.84595	.39946	.12598	1.7309	.25710	.05020	11.064
#1	.42359	.52998	.48682	.24126	.48619	.48116	2.7899
#2	.42902	.52582	.48705	.24762	.48370	.48072	2.6488
#3	.43044	.52731	.48589	.24935	.48494	.48111	3.2615
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25490.**	**32903.**
Stddev	63.	32.
%RSD	.24576	.09857
#1	25422.	32940.
#2	25545.	32878.
#3	25502.	32892.

Approved: November 13, 2013



Sample Name: CCV Acquired: 11/12/2013 22:10:08 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40484**	**10.319**	**.40934**	**.51340**	**1.0172**	**.05063**	**10.181**
Stddev	.00157	.028	.00211	.00329	.0023	.00020	.048
%RSD	.38814	.26679	.51571	.64171	.22990	.40283	.46744
#1	.40320	10.290	.40806	.51013	1.0198	.05047	10.155
#2	.40498	10.345	.40818	.51336	1.0153	.05056	10.153
#3	.40633	10.324	.41178	.51672	1.0165	.05086	10.236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05130**	**.20760**	**.50784**	**.51871**	**4.1289**	**50.663**	**1.0281**
Stddev	.00001	.00021	.00225	.00029	.0117	.198	.0016
%RSD	.02140	.10170	.44221	.05501	.28364	.39133	.15863
#1	.05129	.20766	.50691	.51893	4.1367	50.887	1.0272
#2	.05130	.20737	.50621	.51881	4.1346	50.588	1.0271
#3	.05132	.20778	.51040	.51839	4.1154	50.513	1.0299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.414**	**.52478**	**1.0244**	**51.647**	**.51702**	**10.108**	**.51731**
Stddev	.009	.00196	.0004	.145	.00092	.015	.00169
%RSD	.08559	.37378	.04168	.28074	.17796	.15063	.32703
#1	10.406	.52418	1.0243	51.793	.51784	10.115	.51784
#2	10.424	.52319	1.0240	51.644	.51720	10.090	.51867
#3	10.411	.52697	1.0248	51.504	.51602	10.118	.51541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 22:10:08 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2220**	**.40872**	**5.0552**	**1.0274**	**1.0199**	**1.0215**	**.52747**
Stddev	.0047	.00140	.0209	.0056	.0041	.0039	.00656
%RSD	.38643	.34190	.41391	.54415	.40350	.37700	1.2444
#1	1.2213	.40712	5.0774	1.0306	1.0245	1.0183	.52869
#2	1.2177	.40935	5.0359	1.0306	1.0189	1.0204	.53334
#3	1.2271	.40969	5.0523	1.0209	1.0164	1.0258	.52038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0131**	**1.0269**	F **.24944**
Stddev	.0036	.0007	.81635
%RSD	.35768	.06562	327.27
#1	1.0094	1.0273	.92738
#2	1.0132	1.0272	-.65673
#3	1.0167	1.0261	.47769
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25826.**	**33036.**
Stddev	62.	62.
%RSD	.24122	.18702
#1	25892.	33075.
#2	25818.	33069.
#3	25769.	32965.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 22:13:23 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00082**	**.00395**	**.00005**	**.00436**	**-.00009**	**.00001**	**-.01789**
Stddev	.00023	.01261	.00109	.00028	.00023	.00001	.00488
%RSD	28.420	318.90	2063.5	6.4351	249.94	166.94	27.263
#1	-.00056	.00644	.00132	.00408	.00005	.00001	-.01698
#2	-.00092	-.00971	-.00053	.00464	-.00036	-.00001	-.01353
#3	-.00099	.01514	-.00062	.00437	.00003	.00002	-.02315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.00005**	**-.00003**	**-.00013**	**-.00481**	**-.16388**	**.00784**
Stddev	.00006	.00013	.00013	.00027	.00254	.03396	.00025
%RSD	109.97	231.11	380.90	208.46	52.665	20.721	3.1620
#1	.00003	.00000	-.00017	-.00032	-.00189	-.13330	.00788
#2	.00001	.00020	-.00001	.00018	-.00612	-.20042	.00758
#3	.00011	-.00004	.00008	-.00024	-.00643	-.15792	.00807
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00548**	**-.00018**	**.00404**	**.03482**	**.00013**	**.00366**	**.00047**
Stddev	.00823	.00003	.00045	.01012	.00026	.00515	.00158
%RSD	150.01	15.299	11.013	29.066	209.46	140.80	333.08
#1	-.01365	-.00021	.00357	.04619	.00036	.00116	.00160
#2	.00280	-.00018	.00411	.02681	-.00016	.00023	-.00133
#3	-.00559	-.00015	.00445	.03145	.00018	.00958	.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

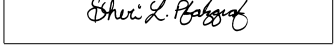
Sample Name: CCB Acquired: 11/12/2013 22:13:23 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00111**	**.00318**	**-.00122**	**-.00051**	**-.00012**	**-.00073**	**-.00099**
Stddev	.00137	.00165	.00361	.00030	.00014	.00108	.00057
%RSD	123.58	51.785	295.12	58.402	119.01	148.58	57.804
#1	-.00017	.00479	.00177	-.00083	.00004	.00043	-.00034
#2	-.00269	.00150	-.00524	-.00023	-.00024	-.00089	-.00124
#3	-.00048	.00325	-.00020	-.00048	-.00016	-.00171	-.00140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**-.00103**	F **-1.0848**
Stddev	.00024	.00016	.2671
%RSD	406.21	15.373	24.622
#1	-.00001	-.00089	-1.3292
#2	.00015	-.00120	-1.1256
#3	-.00032	-.00099	-.79970
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25915.**	**32814.**
Stddev	45.	83.
%RSD	.17500	.25304
#1	25965.	32888.
#2	25906.	32830.
#3	25876.	32724.

Approved: November 13, 2013



Sample Name: PBW 6A Acquired: 11/12/2013 22:16:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00085**	**.01640**	**-.00071**	**.00338**	**-.00012**	**.00000**	**-.01336**
Stddev	.00069	.00190	.00050	.00166	.00019	.00001	.00147
%RSD	81.476	11.568	70.759	49.082	161.13	397.15	11.004
#1	-.00125	.01750	-.00119	.00149	.00009	.00000	-.01395
#2	-.00126	.01421	-.00019	.00406	-.00026	-.00001	-.01445
#3	-.00005	.01748	-.00075	.00458	-.00018	.00001	-.01169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00002**	**.00055**	**.00021**	**-.00147**	**-.11163**	**.00831**
Stddev	.00004	.00013	.00021	.00051	.00098	.01249	.00124
%RSD	1038.9	561.33	38.686	246.57	66.535	11.184	14.970
#1	.00001	.00010	.00076	.00061	-.00232	-.09756	.00974
#2	-.00004	.00010	.00034	.00037	-.00040	-.11598	.00751
#3	.00004	-.00013	.00054	-.00036	-.00170	-.12137	.00767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00292**	**-.00007**	**.00033**	**.03884**	**-.00024**	**.00088**	**.00079**
Stddev	.01888	.00002	.00027	.00863	.00022	.00470	.00145
%RSD	645.76	32.582	82.358	22.219	88.523	532.59	182.98
#1	-.01492	-.00006	.00003	.04835	-.00027	.00618	.00015
#2	.02269	-.00006	.00041	.03665	-.00044	-.00278	-.00022
#3	.00100	-.00010	.00054	.03151	-.00001	-.00075	.00246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: PBW 6A Acquired: 11/12/2013 22:16:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00105**	**.00509**	**-.01639**	**-.00014**	**-.00054**	**-.00169**
Stddev	.00108	.00097	.00390	.00033	.00010	.00114	.00202
%RSD	453.01	92.544	76.508	2.0106	68.422	210.15	119.45
#1	-.00096	.00138	.00059	-.01616	-.00019	-.00098	.00052
#2	.00114	-.00004	.00731	-.01624	-.00003	-.00139	-.00343
#3	.00053	.00182	.00738	-.01677	-.00020	.00075	-.00216
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00010**	**.00073**	F **-.86780**
Stddev	.00023	.00010	.79631
%RSD	237.75	13.649	91.762
#1	.00036	.00084	-1.5641
#2	.00000	.00070	.00043
#3	-.00007	.00064	-1.0397
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25933.**	**32906.**
Stddev	43.	78.
%RSD	.16686	.23693
#1	25905.	32826.
#2	25982.	32910.
#3	25911.	32981.

Approved: November 13, 2013

Sample Name: LCSW 6A Acquired: 11/12/2013 22:20:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20068**	**5.0397**	**.19829**	**1.0006**	**.49042**	**.02453**	**4.9713**	**.02495**
Stddev	.00053	.0327	.00116	.0021	.00061	.00006	.0137	.00007
%RSD	.26503	.64802	.58518	.21196	.12454	.26181	.27631	.27922
#1	.20124	5.0161	.19939	1.0029	.49085	.02450	4.9860	.02496
#2	.20018	5.0261	.19839	.99868	.49069	.02460	4.9692	.02500
#3	.20061	5.0770	.19708	1.0002	.48972	.02448	4.9588	.02487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10257**	**.24847**	**.25583**	**2.0130**	**24.378**	**.50255**	**5.0326**	**.25834**
Stddev	.00034	.00126	.00092	.0068	.035	.00081	.0112	.00145
%RSD	.33361	.50564	.35844	.33951	.14315	.16059	.22156	.55994
#1	.10218	.24961	.25518	2.0059	24.339	.50347	5.0285	.25670
#2	.10271	.24869	.25543	2.0196	24.389	.50201	5.0240	.25943
#3	.10282	.24712	.25688	2.0135	24.406	.50215	5.0452	.25889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50878**	**25.016**	**.25581**	**.00050**	**.25794**	**.60096**	**.19896**	**2.4992**
Stddev	.00028	.139	.00039	.00301	.00133	.00249	.00228	.0311
%RSD	.05464	.55654	.15061	603.58	.51416	.41375	1.1448	1.2431
#1	.50909	24.857	.25561	-.00291	.25906	.60282	.19635	2.5350
#2	.50871	25.119	.25625	.00158	.25648	.60192	.20000	2.4843
#3	.50855	25.071	.25556	.00282	.25828	.59814	.20053	2.4785
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

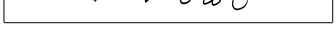
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: LCSW 6A Acquired: 11/12/2013 22:20:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00186**	**.49473**	**.49937**	**.26170**	**.49390**	**.50318**	**.25773**
Stddev	.00045	.00216	.00093	.00205	.00093	.00054	.18419
%RSD	24.349	.43577	.18600	.78283	.18789	.10688	71.467
#1	.00236	.49228	.49957	.26406	.49492	.50351	.45125
#2	.00147	.49634	.50018	.26071	.49310	.50348	.08456
#3	.00176	.49557	.49835	.26034	.49369	.50256	.23737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25715.**	**32768.**
Stddev	59.	158.
%RSD	.22938	.48290
#1	25647.	32945.
#2	25748.	32641.
#3	25750.	32717.

Approved: November 13, 2013



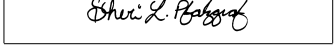
Sample Name: L1311043601 Acquired: 11/12/2013 22:23:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.49533**	**-.00057**	**.02233**	**.04526**	**.00004**	**61.913**	**.00074**
Stddev	.00033	.01590	.00070	.00036	.00024	.00003	.117	.00004
%RSD	179.22	3.2105	122.63	1.6331	.53144	82.235	.18924	6.0760
#1	.00004	.49846	-.00051	.02250	.04501	.00004	61.859	.00079
#2	-.00057	.47810	-.00129	.02191	.04528	.00001	62.047	.00070
#3	-.00003	.50944	.00010	.02258	.04548	.00007	61.832	.00073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00042**	**.00141**	**.00110**	**.36321**	**5.4727**	**.01510**	**48.973**	**.05597**
Stddev	.00003	.00053	.00037	.00425	.0779	.00106	.066	.00032
%RSD	6.2297	37.405	33.871	1.1707	1.4227	7.0199	.13411	.56703
#1	.00039	.00200	.00103	.35898	5.5440	.01567	48.903	.05592
#2	.00044	.00120	.00150	.36314	5.3896	.01575	48.983	.05568
#3	.00042	.00101	.00076	.36749	5.4846	.01388	49.033	.05631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00122**	**7.4743**	**.00154**	**.00688**	**.00222**	**.00090**	**.00249**	**2.5707**
Stddev	.00034	.0371	.00016	.00167	.00029	.00174	.00367	.0153
%RSD	28.113	.49660	10.660	24.340	13.237	192.50	147.56	.59463
#1	.00086	7.5166	.00172	.00696	.00190	.00228	.00491	2.5612
#2	.00154	7.4589	.00140	.00517	.00229	-.00105	.00429	2.5625
#3	.00125	7.4474	.00150	.00852	.00247	.00148	-.00174	2.5883
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311043601 Acquired: 11/12/2013 22:23:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01647**	**.37332**	**.01515**	**-.00379**	**.00065**	**.00528**	**3.1171**
Stddev	.00025	.00107	.00098	.00031	.00007	.00007	.8468
%RSD	1.5080	.28715	6.4944	8.2862	11.014	1.4065	27.165
#1	-.01621	.37453	.01402	-.00410	.00070	.00529	3.5071
#2	-.01670	.37295	.01580	-.00347	.00057	.00520	3.6986
#3	-.01648	.37248	.01563	-.00379	.00069	.00535	2.1456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25244.**	**32841.**
Stddev	40.	226.
%RSD	.15658	.68842
#1	25277.	32923.
#2	25254.	33015.
#3	25200.	32586.

Approved: November 13, 2013
Sheri L. Pfalzgraf

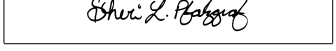
Sample Name: L1311043601DP Acquired: 11/12/2013 22:27:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00051**	**.40252**	**-.00134**	**.02002**	**.04552**	**.00004**	**63.068**	**.00070**
Stddev	.00035	.00295	.00075	.00080	.00039	.00002	.169	.00006
%RSD	69.070	.73183	55.686	3.9949	.86534	47.644	.26782	8.9368
#1	-.00018	.40505	-.00065	.02074	.04554	.00006	62.873	.00073
#2	-.00047	.40322	-.00123	.01916	.04591	.00002	63.162	.00063
#3	-.00087	.39929	-.00213	.02016	.04512	.00004	63.168	.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.00093**	**.00094**	**.38896**	**5.5584**	**.01567**	**49.731**	**.05823**
Stddev	.00003	.00007	.00014	.00080	.0114	.00109	.115	.00026
%RSD	7.2031	7.9504	14.546	.20678	.20415	6.9252	.23078	.43796
#1	.00046	.00101	.00078	.38946	5.5503	.01520	49.599	.05805
#2	.00051	.00090	.00100	.38939	5.5535	.01490	49.803	.05812
#3	.00045	.00087	.00103	.38803	5.5714	.01691	49.792	.05853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**7.5281**	**.00139**	**.00538**	**.00124**	**-.00183**	**-.00150**	**2.3045**
Stddev	.0001	.0152	.00066	.00242	.00189	.00100	.00152	.0119
%RSD	2374.6	.20165	47.599	45.040	153.05	54.616	101.03	.51625
#1	.00006	7.5394	.00099	.00663	-.00001	-.00074	.00020	2.3176
#2	-.00009	7.5108	.00103	.00692	.00030	-.00271	-.00201	2.2944
#3	.00003	7.5340	.00216	.00259	.00342	-.00202	-.00270	2.3014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311043601DP Acquired: 11/12/2013 22:27:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01594**	**.37778**	**.01007**	**-.00309**	**.00042**	**.00551**	**2.4937**
Stddev	.00021	.00075	.00054	.00220	.00029	.00009	1.0346
%RSD	1.3373	.19754	5.3843	71.206	68.204	1.6247	41.491
#1	-.01604	.37830	.01029	-.00342	.00030	.00542	3.1983
#2	-.01608	.37692	.00945	-.00511	.00022	.00550	1.3058
#3	-.01569	.37811	.01046	-.00075	.00075	.00560	2.9769
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25231.**	**32889.**
Stddev	57.	76.
%RSD	.22666	.23067
#1	25217.	32920.
#2	25293.	32945.
#3	25181.	32803.

Approved: November 13, 2013

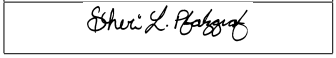
Sample Name: L1311043601S Acquired: 11/12/2013 22:30:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19999**	**5.4064**	**.19780**	**1.0084**	**.52440**	**.02444**	**66.840**	**.02559**
Stddev	.00042	.0279	.00068	.0027	.00063	.00008	.066	.00010
%RSD	.21026	.51505	.34488	.26653	.12102	.34181	.09908	.37390
#1	.19954	5.3995	.19793	1.0075	.52492	.02450	66.904	.02549
#2	.20036	5.4371	.19841	1.0114	.52458	.02447	66.844	.02560
#3	.20008	5.3827	.19706	1.0063	.52369	.02434	66.772	.02568
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09978**	**.24477**	**.24746**	**2.3047**	**29.483**	**.50764**	**53.473**	**.30266**
Stddev	.00029	.00119	.00020	.0185	.079	.00060	.069	.00025
%RSD	.28782	.48764	.08053	.80162	.26797	.11754	.12872	.08268
#1	.10006	.24533	.24727	2.2920	29.551	.50784	53.395	.30284
#2	.09980	.24558	.24743	2.2961	29.396	.50811	53.526	.30278
#3	.09948	.24340	.24767	2.3259	29.501	.50697	53.498	.30238
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50139**	**31.921**	**.24906**	**.00329**	**.25048**	**.59028**	**.19739**	**4.8665**
Stddev	.00054	.084	.00041	.00187	.00362	.00290	.00328	.0401
%RSD	.10785	.26422	.16381	56.989	1.4461	.49135	1.6593	.82460
#1	.50141	31.996	.24931	.00543	.24858	.58823	.19895	4.8566
#2	.50085	31.830	.24859	.00243	.25466	.59360	.19960	4.9106
#3	.50193	31.938	.24929	.00199	.24821	.58900	.19363	4.8322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311043601S Acquired: 11/12/2013 22:30:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00189**	**.84629**	**.50536**	**.25046**	**.49476**	**.48890**	**4.2596**
Stddev	.00039	.00249	.00165	.00172	.00095	.00039	.1011
%RSD	20.605	.29423	.32614	.68753	.19253	.08034	2.3744
#1	.00234	.84847	.50555	.25204	.49464	.48865	4.1496
#2	.00175	.84357	.50690	.25072	.49577	.48869	4.2806
#3	.00159	.84683	.50362	.24862	.49387	.48935	4.3486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24974.**	**32531.**
Stddev	16.	43.
%RSD	.06560	.13326
#1	24955.	32521.
#2	24984.	32579.
#3	24982.	32495.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043603 Acquired: 11/12/2013 22:34:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00058**	**.07835**	**-.00155**	**.02130**	**.03946**	**.00006**	**60.632**	**.00078**
Stddev	.00008	.00810	.00061	.00128	.00035	.00001	.109	.00001
%RSD	14.498	10.344	39.197	6.0128	.89590	15.709	.18048	1.6374
#1	-.00067	.08376	-.00089	.02263	.03935	.00005	60.599	.00077
#2	-.00055	.08226	-.00165	.02007	.03917	.00007	60.754	.00078
#3	-.00051	.06904	-.00209	.02120	.03985	.00005	60.543	.00079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00058**	**.00045**	**.09738**	**5.2998**	**.01487**	**49.162**	**.02009**
Stddev	.00011	.00029	.00054	.00201	.0224	.00128	.213	.00011
%RSD	105.92	50.970	119.82	2.0603	.42272	8.6156	.43308	.55652
#1	.00015	.00028	.00047	.09577	5.3209	.01430	49.278	.02018
#2	-.00002	.00058	.00098	.09674	5.3021	.01398	49.292	.01997
#3	.00018	.00087	-.00010	.09963	5.2763	.01634	48.916	.02013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00103**	**7.6430**	**.00122**	**.00532**	**.00046**	**.00037**	**-.00159**	**1.8683**
Stddev	.00017	.0120	.00010	.00314	.00086	.00181	.00114	.0119
%RSD	16.678	.15692	8.1700	59.071	189.24	493.23	71.426	.63524
#1	.00092	7.6398	.00111	.00306	-.00033	-.00121	-.00145	1.8814
#2	.00094	7.6330	.00128	.00891	.00033	.00235	-.00279	1.8652
#3	.00122	7.6563	.00127	.00399	.00137	-.00004	-.00053	1.8583
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311043603 Acquired: 11/12/2013 22:34:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01659**	**.36517**	**.00094**	**-.00206**	**.00029**	**.00342**	**.44863**
Stddev	.00025	.00043	.00077	.00026	.00012	.00011	.11646
%RSD	1.4834	.11772	81.578	12.598	40.116	3.1371	25.960
#1	-.01673	.36519	.00101	-.00176	.00042	.00329	.37477
#2	-.01672	.36473	.00014	-.00222	.00020	.00347	.38823
#3	-.01630	.36559	.00167	-.00221	.00026	.00349	.58288
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25285.**	**32688.**
Stddev	19.	49.
%RSD	.07443	.14992
#1	25294.	32731.
#2	25299.	32635.
#3	25264.	32699.

Approved: November 13, 2013

Sample Name: L1311043603DL Acquired: 11/12/2013 22:37:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452500-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00090**	**.01949**	**-.00086**	**.00666**	**.00770**	**.00000**	**12.288**
Stddev	.00029	.00776	.00056	.00089	.00013	.00001	.058
%RSD	32.429	39.811	64.327	13.335	1.7484	2837.3	.47028
#1	-.00074	.01301	-.00028	.00764	.00785	.00001	12.228
#2	-.00124	.02809	-.00139	.00593	.00767	-.00001	12.344
#3	-.00072	.01737	-.00091	.00639	.00759	.00000	12.291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.00023**	**.00056**	**-.00029**	**.01630**	**.92704**	**.00949**
Stddev	.00006	.00013	.00057	.00075	.00146	.00774	.00041
%RSD	27.786	57.976	102.34	260.35	8.9418	.83482	4.3237
#1	.00025	.00034	.00025	.00049	.01522	.93576	.00937
#2	.00014	.00008	.00021	-.00035	.01573	.92099	.00995
#3	.00023	.00026	.00121	-.00101	.01796	.92437	.00915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.294**	**.00410**	**-.00011**	**1.5684**	**.00021**	**.00086**	**-.00029**
Stddev	.062	.00005	.00019	.0121	.00019	.00357	.00027
%RSD	.60120	1.1146	177.08	.77178	87.453	414.17	92.432
#1	10.227	.00405	-.00018	1.5571	.00025	-.00033	-.00021
#2	10.349	.00415	-.00025	1.5669	.00001	-.00196	-.00007
#3	10.305	.00410	.00011	1.5812	.00038	.00487	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043603DL Acquired: 11/12/2013 22:37:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452500-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00109**	**-.00294**	**.39041**	**-.01692**	**.07455**	**-.00028**	**-.00077**
Stddev	.00161	.00182	.00227	.00013	.00045	.00051	.00006
%RSD	147.58	61.903	.58064	.78417	.59937	184.38	7.2839
#1	-.00294	-.00204	.38955	-.01692	.07405	-.00086	-.00075
#2	-.00028	-.00504	.38870	-.01679	.07468	.00011	-.00073
#3	-.00005	-.00175	.39299	-.01705	.07491	-.00009	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00007**	**.00039**	F **-.02312**
Stddev	.00014	.00006	.50020
%RSD	197.50	14.850	2163.4
#1	.00005	.00033	-.44007
#2	-.00003	.00039	.53150
#3	-.00023	.00045	-.16079
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26031.**	**33095.**
Stddev	87.	246.
%RSD	.33453	.74447
#1	26130.	33375.
#2	25999.	32913.
#3	25965.	32996.

Approved: November 13, 2013

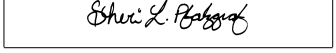
Sample Name: L1311043603PS Acquired: 11/12/2013 22:40:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452500-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20674**	**5.2164**	**.20441**	**1.0435**	**.53404**	**.02520**	**61.059**	**.02647**
Stddev	.00021	.0289	.00119	.0053	.00122	.00009	.201	.00009
%RSD	.10119	.55444	.58394	.50658	.22920	.35483	.32851	.34773
#1	.20698	5.2498	.20304	1.0391	.53264	.02515	61.260	.02637
#2	.20668	5.1986	.20515	1.0494	.53490	.02531	60.859	.02655
#3	.20657	5.2010	.20505	1.0421	.53458	.02515	61.058	.02648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10346**	**.25318**	**.25673**	**2.1190**	**29.964**	**.52526**	**50.153**	**.27648**
Stddev	.00026	.00066	.00051	.0030	.094	.00145	.167	.00124
%RSD	.25588	.26080	.19959	.14050	.31237	.27530	.33320	.44835
#1	.10345	.25259	.25729	2.1164	30.002	.52401	50.303	.27754
#2	.10320	.25389	.25663	2.1183	30.034	.52494	49.973	.27679
#3	.10373	.25305	.25628	2.1222	29.858	.52684	50.183	.27512
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.52054**	**32.747**	**.25779**	**.01202**	**.25812**	**.61863**	**.20569**	**4.2526**
Stddev	.00039	.138	.00105	.00877	.00073	.00071	.00150	.0661
%RSD	.07560	.42210	.40882	72.959	.28123	.11442	.72729	1.5544
#1	.52092	32.770	.25733	.00932	.25735	.61900	.20472	4.2238
#2	.52014	32.873	.25900	.00492	.25821	.61781	.20742	4.2058
#3	.52057	32.599	.25705	.02182	.25880	.61908	.20494	4.3283
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

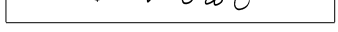


Sample Name: L1311043603PS Acquired: 11/12/2013 22:40:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452500-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.52492**	**.83921**	**.51165**	**.26278**	**.51138**	**.50527**	**.79035**
Stddev	.00502	.00441	.00026	.00398	.00101	.00054	.46758
%RSD	.95586	.52574	.05163	1.5141	.19724	.10738	59.160
#1	.52056	.83891	.51144	.26017	.51167	.50467	.91823
#2	.52380	.84377	.51155	.26080	.51222	.50544	1.1807
#3	.53040	.83496	.51194	.26736	.51026	.50571	.27214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24950.**	**32411.**
Stddev	15.	130.
%RSD	.06022	.40155
#1	24946.	32270.
#2	24937.	32435.
#3	24966.	32527.

Approved: November 13, 2013



Sample Name: L1311043605 Acquired: 11/12/2013 22:44:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00041**	**.04963**	**-.00131**	**.01576**	**.02839**	**.00002**	**11.230**
Stddev	.00012	.00630	.00158	.00093	.00002	.00000	.020
%RSD	30.065	12.688	120.54	5.9304	.07702	20.250	.17520
#1	-.00049	.04865	-.00282	.01682	.02839	.00003	11.209
#2	-.00047	.04389	.00033	.01505	.02838	.00002	11.249
#3	-.00027	.05637	-.00144	.01543	.02842	.00002	11.231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00014**	**.00056**	**.00183**	**.22758**	**1.3856**	**.00762**
Stddev	.00012	.00010	.00008	.00025	.00118	.0110	.00103
%RSD	70.042	69.900	13.624	13.558	.51938	.79245	13.540
#1	.00027	.00022	.00065	.00164	.22624	1.3741	.00675
#2	.00020	.00016	.00050	.00173	.22849	1.3867	.00735
#3	.00004	.00003	.00053	.00211	.22801	1.3960	.00876
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.3851**	**.01171**	**.00127**	**1.1693**	**.00079**	**.07336**	**.00087**
Stddev	.0172	.00006	.00031	.0127	.00064	.00407	.00157
%RSD	.39170	.54199	24.412	1.0832	81.154	5.5518	179.63
#1	4.3655	.01167	.00098	1.1630	.00035	.07186	.00006
#2	4.3973	.01178	.00124	1.1838	.00152	.07797	-.00012
#3	4.3926	.01168	.00160	1.1609	.00049	.07025	.00268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043605 Acquired: 11/12/2013 22:44:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00107**	**.00066**	**2.5797**	**-.01650**	**.10423**	**.00178**	**-.00200**
Stddev	.00053	.00324	.0213	.00071	.00021	.00028	.00086
%RSD	49.436	489.82	.82573	4.2988	.20359	15.507	42.971
#1	-.00156	.00431	2.5809	-.01572	.10400	.00210	-.00102
#2	-.00115	-.00045	2.6004	-.01711	.10427	.00163	-.00261
#3	-.00051	-.00188	2.5578	-.01665	.10441	.00161	-.00237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**.00552**	F **-.70061**
Stddev	.00011	.00002	.79057
%RSD	869.17	.30464	112.84
#1	-.00001	.00552	-.01959
#2	-.00012	.00550	-1.5676
#3	.00009	.00554	-.51464
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25870.**	**32862.**
Stddev	38.	112.
%RSD	.14767	.33988
#1	25906.	32991.
#2	25875.	32803.
#3	25830.	32793.

Approved: November 13, 2013

Sample Name: L1311043701 Acquired: 11/12/2013 22:47:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00064**	**.03414**	**-.00030**	**.02438**	**.03377**	**.00001**	**137.52**	**.00126**
Stddev	.00040	.00757	.00138	.00007	.00010	.00001	.33	.00003
%RSD	62.759	22.167	465.19	.30229	.28513	146.89	.23929	2.5089
#1	-.00094	.02588	-.00142	.02431	.03370	.00003	137.18	.00129
#2	-.00018	.03579	-.00073	.02438	.03374	.00000	137.53	.00122
#3	-.00079	.04075	.00125	.02445	.03388	.00000	137.84	.00126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00106**	**-.00024**	**.10115**	**8.6850**	**.03034**	**139.89**	**.11445**
Stddev	.00004	.00030	.00033	.00474	.0634	.00115	.16	.00064
%RSD	13.395	28.659	136.89	4.6848	.73018	3.7903	.11745	.55922
#1	.00034	.00140	-.00062	.10544	8.6130	.02964	139.78	.11464
#2	.00026	.00084	.00001	.09606	8.7327	.02972	139.80	.11498
#3	.00029	.00093	-.00011	.10196	8.7092	.03167	140.07	.11374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**26.866**	**.00493**	**.00616**	**-.00044**	**.00137**	**-.00043**	**1.9110**
Stddev	.00015	.102	.00038	.00152	.00113	.00146	.00175	.0144
%RSD	38.892	.38034	7.7294	24.734	257.95	106.70	403.83	.75271
#1	.00023	26.875	.00529	.00442	-.00149	.00026	-.00214	1.9276
#2	.00042	26.964	.00453	.00724	.00076	.00083	-.00052	1.9032
#3	.00053	26.760	.00495	.00682	-.00059	.00302	.00136	1.9022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

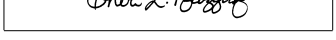
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043701 Acquired: 11/12/2013 22:47:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01649**	**.82122**	**-.00209**	**-.00178**	**-.00023**	**.00288**	**.18355**
Stddev	.00040	.00361	.00035	.00095	.00032	.00011	.48020
%RSD	2.4175	.44015	16.681	53.389	140.17	3.8148	261.61
#1	-.01691	.82151	-.00247	-.00271	-.00022	.00292	.59891
#2	-.01646	.82468	-.00200	-.00082	.00009	.00276	.29400
#3	-.01611	.81746	-.00179	-.00180	-.00055	.00297	-.34225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24540.**	**32320.**
Stddev	37.	101.
%RSD	.15069	.31232
#1	24578.	32322.
#2	24504.	32218.
#3	24538.	32420.

Approved: November 13, 2013



Sample Name: CCV Acquired: 11/12/2013 22:51:14 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40439**	**10.331**	**.40868**	**.50665**	**1.0157**	**.05052**	**10.316**
Stddev	.00157	.038	.00138	.00111	.0010	.00013	.048
%RSD	.38844	.36893	.33759	.21810	.09445	.25011	.46724
#1	.40503	10.372	.40866	.50718	1.0147	.05067	10.318
#2	.40554	10.324	.41007	.50739	1.0157	.05047	10.363
#3	.40260	10.297	.40732	.50538	1.0166	.05043	10.266
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05143**	**.20820**	**.50660**	**.51930**	**4.1360**	**50.461**	**1.0356**
Stddev	.00003	.00034	.00134	.00182	.0066	.098	.0029
%RSD	.06390	.16213	.26466	.34990	.16048	.19457	.28294
#1	.05140	.20819	.50815	.52128	4.1371	50.352	1.0352
#2	.05146	.20854	.50572	.51891	4.1289	50.488	1.0386
#3	.05143	.20786	.50595	.51771	4.1421	50.543	1.0328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.489**	**.52918**	**1.0236**	**51.416**	**.51939**	**10.092**	**.51728**
Stddev	.007	.00279	.0029	.055	.00045	.034	.00067
%RSD	.06996	.52711	.28187	.10778	.08746	.33772	.13030
#1	10.483	.52685	1.0268	51.362	.51979	10.091	.51665
#2	10.488	.53227	1.0227	51.472	.51950	10.058	.51799
#3	10.497	.52841	1.0212	51.413	.51890	10.126	.51719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 22:51:14 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2199**	**.40859**	**5.0628**	**1.0314**	**1.0132**	**1.0297**	**.52957**
Stddev	.0024	.00614	.0512	.0029	.0015	.0027	.00234
%RSD	.19283	1.5020	1.0116	.28574	.14744	.26439	.44102
#1	1.2177	.41342	5.0326	1.0295	1.0117	1.0310	.53160
#2	1.2195	.41067	5.0338	1.0299	1.0134	1.0314	.53010
#3	1.2224	.40168	5.1219	1.0348	1.0146	1.0265	.52702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0166**	**1.0264**	F **.77244**
Stddev	.0049	.0013	.28603
%RSD	.47868	.12675	37.030
#1	1.0212	1.0256	1.0954
#2	1.0170	1.0258	.67103
#3	1.0115	1.0279	.55092
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25737.**	**32717.**
Stddev	80.	127.
%RSD	.31256	.38686
#1	25645.	32838.
#2	25769.	32586.
#3	25796.	32728.

Approved: November 13, 2013

Sample Name: CCB Acquired: 11/12/2013 22:54:29 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00042**	**.00230**	**-.00087**	**.00373**	**-.00030**	**.00000**	**-.02417**
Stddev	.00048	.00822	.00088	.00105	.00022	.00002	.00482
%RSD	114.06	357.85	101.66	28.213	72.998	434.55	19.932
#1	-.00068	.00214	-.00187	.00438	-.00010	.00000	-.02137
#2	.00013	.01059	-.00021	.00431	-.00054	-.00001	-.02141
#3	-.00071	-.00585	-.00052	.00252	-.00027	.00002	-.02973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00001**	**.00043**	**-.00002**	**-.00408**	**-.18475**	**.00928**
Stddev	.00010	.00025	.00029	.00074	.00348	.00502	.00046
%RSD	176.27	2116.4	66.601	3018.6	85.259	2.7157	4.9661
#1	-.00018	.00021	.00015	.00040	-.00551	-.18976	.00979
#2	-.00003	.00009	.00073	-.00088	-.00661	-.18475	.00916
#3	.00003	-.00026	.00042	.00040	-.00011	-.17973	.00890
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00386**	**-.00020**	**.00379**	**.04051**	**.00010**	**.00246**	**.00083**
Stddev	.01913	.00007	.00019	.01007	.00082	.00501	.00081
%RSD	495.73	34.072	5.0639	24.848	801.73	203.45	97.965
#1	.00779	-.00019	.00357	.03104	.00043	.00676	.00173
#2	-.01693	-.00027	.00389	.05108	.00070	.00368	.00062
#3	.02071	-.00013	.00392	.03940	-.00083	-.00305	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

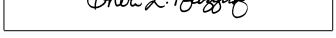
Sample Name: CCB Acquired: 11/12/2013 22:54:29 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**.00069**	**-.00112**	**-.00049**	**-.00008**	**-.00005**	**-.00090**
Stddev	.00252	.00311	.00265	.00015	.00007	.00072	.00160
%RSD	243.08	449.86	236.76	30.337	94.710	1341.3	176.46
#1	.00335	.00369	.00165	-.00056	.00001	-.00018	-.00251
#2	.00140	.00090	-.00137	-.00032	-.00011	-.00071	.00068
#3	-.00164	-.00251	-.00364	-.00060	-.00012	.00073	-.00088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00015**	**-.00103**	F **-.39779**
Stddev	.00019	.00008	.97643
%RSD	125.78	7.4897	245.46
#1	-.00028	-.00112	-1.2879
#2	.00007	-.00097	-.55208
#3	-.00023	-.00099	.64660
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25956.**	**32791.**
Stddev	28.	29.
%RSD	.10655	.08818
#1	25927.	32818.
#2	25981.	32760.
#3	25962.	32795.

Approved: November 13, 2013



Sample Name: L1311043702 Acquired: 11/12/2013 22:58:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**.27650**	**-.00089**	**.01796**	**.04258**	**.00003**	**58.877**	**.00073**
Stddev	.00057	.00595	.00066	.00042	.00050	.00001	.159	.00010
%RSD	101.36	2.1513	73.926	2.3158	1.1665	40.876	.26944	13.210
#1	-.00015	.27984	-.00164	.01769	.04278	.00002	58.927	.00083
#2	-.00122	.28003	-.00056	.01844	.04201	.00002	59.004	.00072
#3	-.00033	.26963	-.00046	.01776	.04294	.00004	58.699	.00064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**.00088**	**.00039**	**.27695**	**5.1334**	**.01351**	**46.781**	**.05025**
Stddev	.00015	.00033	.00017	.00413	.0334	.00105	.132	.00011
%RSD	33.040	37.919	43.659	1.4927	.65069	7.7902	.28258	.21523
#1	.00029	.00108	.00047	.27224	5.0994	.01237	46.857	.05018
#2	.00057	.00049	.00019	.27862	5.1662	.01445	46.628	.05038
#3	.00051	.00106	.00051	.27999	5.1346	.01371	46.858	.05020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**7.1011**	**.00091**	**.00731**	**.00113**	**-.00111**	**-.00129**	**2.1580**
Stddev	.00005	.0302	.00021	.00574	.00041	.00254	.00105	.0225
%RSD	16.147	.42542	22.495	78.551	36.361	228.98	81.756	1.0405
#1	.00025	7.0865	.00115	.00298	.00139	-.00395	-.00028	2.1753
#2	.00031	7.1358	.00077	.00512	.00065	-.00031	-.00238	2.1326
#3	.00035	7.0809	.00082	.01382	.00133	.00093	-.00121	2.1660
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311043702 Acquired: 11/12/2013 22:58:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01622**	**.35570**	**.00761**	**-.00194**	**.00030**	**.00347**	**1.3738**
Stddev	.00010	.00066	.00087	.00040	.00014	.00003	.6687
%RSD	.62649	.18521	11.465	20.850	47.987	.88583	48.672
#1	-.01623	.35574	.00851	-.00165	.00023	.00347	1.9707
#2	-.01631	.35633	.00677	-.00240	.00020	.00343	1.4996
#3	-.01611	.35502	.00754	-.00177	.00046	.00349	.65121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25305.**	**32774.**
Stddev	107.	33.
%RSD	.42413	.09941
#1	25201.	32809.
#2	25299.	32744.
#3	25415.	32770.

Approved: November 13, 2013

Sample Name: L1311043703 Acquired: 11/12/2013 23:01:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.07599**	**-.00008**	**.01995**	**.04294**	**.00003**	**64.235**	**.00081**
Stddev	.00020	.01151	.00072	.00040	.00039	.00002	.077	.00009
%RSD	46.972	15.145	851.20	1.9812	.90585	72.589	.12033	10.802
#1	-.00021	.08301	-.00091	.01975	.04307	.00002	64.161	.00082
#2	-.00060	.06271	.00037	.02041	.04325	.00001	64.229	.00089
#3	-.00048	.08224	.00029	.01970	.04251	.00005	64.316	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.00079**	**.00006**	**.07510**	**5.6325**	**.01562**	**52.554**	**.02205**
Stddev	.00018	.00024	.00023	.00057	.0399	.00100	.116	.00012
%RSD	65.715	31.052	415.98	.75684	.70900	6.4134	.22022	.56605
#1	.00009	.00080	.00020	.07558	5.6300	.01664	52.686	.02202
#2	.00030	.00053	.00018	.07447	5.5940	.01464	52.469	.02219
#3	.00046	.00102	-.00021	.07526	5.6737	.01556	52.507	.02195
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**8.1844**	**.00173**	**.00582**	**.00021**	**.00031**	**-.00158**	**2.0365**
Stddev	.00016	.0086	.00039	.00394	.00052	.00188	.00160	.0200
%RSD	1144.6	.10480	22.490	67.741	250.91	612.58	101.81	.98272
#1	-.00012	8.1745	.00185	.00275	-.00036	-.00152	-.00170	2.0143
#2	-.00002	8.1889	.00205	.00443	.00065	.00021	.00009	2.0419
#3	.00019	8.1897	.00130	.01026	.00033	.00223	-.00312	2.0531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043703 Acquired: 11/12/2013 23:01:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00566**	**.39325**	**.00227**	**-.00322**	**-.00010**	**.00286**	**1.6373**
Stddev	.00002	.00017	.00196	.00058	.00016	.00009	.2632
%RSD	.29317	.04291	86.503	17.931	155.41	3.3155	16.076
#1	-.00567	.39326	.00044	-.00310	.00001	.00276	1.3357
#2	-.00564	.39342	.00434	-.00271	-.00029	.00287	1.7554
#3	-.00566	.39308	.00203	-.00385	-.00003	.00295	1.8208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25277.**	**32777.**
Stddev	43.	100.
%RSD	.16834	.30608
#1	25306.	32840.
#2	25297.	32662.
#3	25228.	32830.

Approved: November 13, 2013

Sample Name: L1311043704 Acquired: 11/12/2013 23:04:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**.07908**	**-.00061**	**.02142**	**.03248**	**.00004**	**131.50**
Stddev	.00009	.01451	.00083	.00066	.00018	.00002	.32
%RSD	15.494	18.354	137.72	3.0999	.54630	46.441	.24269
#1	-.00047	.06258	-.00151	.02092	.03266	.00006	131.86
#2	-.00063	.08476	.00013	.02116	.03249	.00002	131.39
#3	-.00061	.08989	-.00043	.02218	.03230	.00004	131.26
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00144**	**.00059**	**.00135**	**-.00037**	**.10180**	**8.6058**	**.03046**
Stddev	.00008	.00018	.00009	.00048	.00371	.0457	.00028
%RSD	5.3316	30.702	6.3419	128.74	3.6443	.53143	.93375
#1	.00150	.00078	.00135	-.00037	.10384	8.5948	.03047
#2	.00135	.00054	.00126	-.00086	.10404	8.5665	.03074
#3	.00146	.00043	.00143	.00010	.09752	8.6560	.03017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**135.34**	**.13998**	**.00049**	**26.843**	**.00535**	**.11286**	**-.00131**
Stddev	.26	.00045	.00002	.033	.00067	.00276	.00264
%RSD	.19416	.32014	4.4580	.12327	12.547	2.4430	200.85
#1	135.63	.13982	.00048	26.823	.00612	.11511	-.00432
#2	135.12	.13963	.00047	26.824	.00489	.10978	-.00021
#3	135.26	.14049	.00051	26.881	.00504	.11368	.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043704 Acquired: 11/12/2013 23:04:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00077**	**.00113**	**1.9319**	**-.01606**	**.80159**	**-.00139**	**-.00153**
Stddev	.00104	.00201	.0194	.00004	.00173	.00046	.00136
%RSD	136.08	178.03	1.0066	.27663	.21557	33.150	88.897
#1	-.00174	.00046	1.9354	-.01611	.80239	-.00192	-.00306
#2	.00034	-.00046	1.9494	-.01605	.79961	-.00109	-.00107
#3	-.00090	.00338	1.9110	-.01602	.80278	-.00115	-.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00018**	**.00377**	F **-.25146**
Stddev	.00029	.00004	1.0425
%RSD	166.78	1.1206	414.57
#1	.00011	.00376	-.60736
#2	-.00017	.00374	.92236
#3	-.00047	.00382	-1.0694
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24629.**	**32489.**
Stddev	41.	89.
%RSD	.16524	.27328
#1	24611.	32421.
#2	24675.	32590.
#3	24600.	32458.

Approved: November 13, 2013

Sample Name: L1311043801 Acquired: 11/12/2013 23:08:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00039**	**.05259**	**.00099**	**.01124**	**.07112**	**.00001**	**28.800**
Stddev	.00063	.00690	.00145	.00050	.00050	.00002	.157
%RSD	159.55	13.112	145.97	4.4570	.69744	159.02	.54541
#1	.00018	.05952	-.00065	.01146	.07152	.00003	28.959
#2	-.00029	.04573	.00153	.01160	.07056	-.00001	28.797
#3	-.00107	.05252	.00209	.01067	.07127	.00003	28.645
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.00017**	**.00023**	**.00032**	**.28236**	**1.3982**	**.03678**
Stddev	.00004	.00008	.00004	.00056	.00518	.0205	.00165
%RSD	18.758	46.034	19.078	177.64	1.8358	1.4680	4.4804
#1	.00023	.00024	.00019	.00077	.28457	1.4115	.03705
#2	.00019	.00019	.00028	.00049	.27644	1.4085	.03501
#3	.00016	.00009	.00023	-.00031	.28607	1.3745	.03828
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.1995**	**.02152**	**-.00030**	**36.404**	**-.00020**	**.00708**	**.00060**
Stddev	.0425	.00002	.00015	.077	.00038	.00055	.00074
%RSD	.46234	.11363	50.839	.21262	187.00	7.8070	122.60
#1	9.1965	.02150	-.00045	36.340	.00014	.00683	.00015
#2	9.2435	.02153	-.00032	36.383	-.00061	.00771	.00146
#3	9.1586	.02155	-.00014	36.490	-.00014	.00669	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043801 Acquired: 11/12/2013 23:08:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00207**	**2.6983**	**-.01690**	**.54783**	**.00050**	**-.00158**
Stddev	.00170	.00228	.0287	.00026	.00168	.00192	.00099
%RSD	3753.7	110.16	1.0647	1.5140	.30701	381.81	62.687
#1	.00174	-.00015	2.6798	-.01661	.54596	-.00077	-.00052
#2	.00005	-.00459	2.7314	-.01702	.54829	.00271	-.00248
#3	-.00166	-.00147	2.6837	-.01708	.54923	-.00043	-.00175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00010**	**.00135**	F **-.53377**
Stddev	.00044	.00005	.24198
%RSD	442.99	4.0523	45.335
#1	.00058	.00131	-.50065
#2	-.00001	.00132	-.79061
#3	-.00027	.00141	-.31006
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25507.**	**32817.**
Stddev	54.	100.
%RSD	.21057	.30396
#1	25567.	32905.
#2	25489.	32838.
#3	25464.	32709.

Approved: November 13, 2013

Sample Name: L1311043801S Acquired: 11/12/2013 23:11:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19898**	**4.9778**	**.19677**	**1.0024**	**.55531**	**.02445**	**33.290**
Stddev	.00094	.0258	.00056	.0011	.00054	.00004	.080
%RSD	.47474	.51879	.28389	.10772	.09669	.18094	.24069
#1	.19895	4.9649	.19697	1.0027	.55506	.02448	33.337
#2	.19805	4.9610	.19721	1.0032	.55593	.02440	33.198
#3	.19994	5.0076	.19614	1.0012	.55494	.02446	33.336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02491**	**.10057**	**.24578**	**.25072**	**2.1621**	**25.729**	**.52821**
Stddev	.00019	.00008	.00044	.00034	.0098	.042	.00109
%RSD	.75246	.07583	.17797	.13437	.45194	.16380	.20571
#1	.02477	.10066	.24623	.25111	2.1510	25.738	.52909
#2	.02512	.10052	.24535	.25052	2.1660	25.683	.52699
#3	.02482	.10054	.24575	.25054	2.1694	25.765	.52854
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.789**	**.27123**	**.50383**	**60.623**	**.24933**	F **-.01742**	**.25073**
Stddev	.024	.00114	.00019	.045	.00057	.00720	.00116
%RSD	.17417	.42202	.03758	.07474	.22890	41.339	.46309
#1	13.785	.27109	.50398	60.671	.24872	-.01052	.24945
#2	13.767	.27017	.50362	60.616	.24985	-.02489	.25172
#3	13.815	.27244	.50388	60.582	.24943	-.01686	.25100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013

Sample Name: L1311043801S Acquired: 11/12/2013 23:11:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment: WG452388-07

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59236**	**.19759**	**5.0712**	**.00173**	**1.0299**	**.49451**	**.25597**
Stddev	.00259	.00229	.0260	.00047	.0011	.00102	.00263
%RSD	.43763	1.1604	.51264	26.940	.10926	.20629	1.0270
#1	.59099	.19653	5.0460	.00134	1.0298	.49334	.25492
#2	.59073	.20022	5.0698	.00225	1.0311	.49497	.25897
#3	.59534	.19601	5.0979	.00161	1.0289	.49522	.25404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49148**	**.49822**	**11.134**
Stddev	.00063	.00056	1.052
%RSD	.12749	.11237	9.4479
#1	.49089	.49775	10.316
#2	.49143	.49807	12.321
#3	.49213	.49884	10.765
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25336.**	**32794.**
Stddev	22.	90.
%RSD	.08665	.27489
#1	25337.	32857.
#2	25313.	32833.
#3	25357.	32691.

Approved: November 13, 2013

Sample Name: L1311043802 Acquired: 11/12/2013 23:15:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00042**	**.02372**	**-.00058**	**.01472**	**.06850**	**.00001**	**27.983**
Stddev	.00042	.00986	.00084	.00074	.00029	.00003	.111
%RSD	100.17	41.590	144.62	5.0101	.42733	246.48	.39759
#1	-.00048	.01793	.00033	.01521	.06883	.00004	28.103
#2	.00003	.03511	-.00074	.01387	.06836	-.00002	27.964
#3	-.00080	.01812	-.00133	.01507	.06830	.00002	27.883
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00007**	**.00043**	**.00030**	**.13438**	**1.3585**	**.03391**
Stddev	.00009	.00010	.00036	.00037	.00131	.0353	.00009
%RSD	42.351	140.56	83.292	124.23	.97474	2.6010	.25862
#1	.00026	.00007	.00054	.00030	.13573	1.3654	.03385
#2	.00028	.00018	.00003	-.00007	.13312	1.3202	.03401
#3	.00011	-.00003	.00073	.00066	.13428	1.3898	.03387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.9845**	**.01219**	**.00107**	**34.796**	**.00053**	**.00393**	**.00162**
Stddev	.0507	.00011	.00017	.043	.00046	.00321	.00216
%RSD	.56385	.90767	15.689	.12302	85.942	81.553	133.75
#1	8.9964	.01230	.00088	34.795	.00060	.00724	.00344
#2	9.0281	.01218	.00119	34.839	.00096	.00372	-.00077
#3	8.9289	.01208	.00114	34.753	.00005	.00084	.00218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043802 Acquired: 11/12/2013 23:15:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00089**	**-.00352**	**2.4809**	**-.01654**	**.51892**	**.00019**	**-.00321**
Stddev	.00273	.00264	.0165	.00043	.00115	.00051	.00152
%RSD	305.20	75.133	.66490	2.5940	.22213	274.51	47.450
#1	.00268	-.00094	2.4744	-.01605	.51824	-.00029	-.00455
#2	.00225	-.00340	2.4687	-.01675	.52025	.00072	-.00155
#3	-.00225	-.00622	2.4997	-.01683	.51826	.00013	-.00354
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00006**	**.00140**	F **-.51536**
Stddev	.00019	.00012	.65196
%RSD	315.26	8.8050	126.50
#1	.00023	.00127	-.87686
#2	-.00014	.00150	.23725
#3	.00009	.00144	-.90649
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25582.**	**32847.**
Stddev	39.	175.
%RSD	.15348	.53208
#1	25538.	32656.
#2	25614.	32885.
#3	25595.	33000.

Approved: November 13, 2013

Sample Name: L1311044101 Acquired: 11/12/2013 23:18:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00117**	**.01003**	**.00026**	**.04443**	**.54735**	**.00000**	**44.593**
Stddev	.00034	.00976	.00130	.00087	.00150	.00002	.043
%RSD	29.114	97.370	497.82	1.9572	.27452	1523.2	.09695
#1	-.00152	.00740	-.00087	.04367	.54786	.00002	44.560
#2	-.00085	.02084	-.00003	.04538	.54853	-.00002	44.642
#3	-.00113	.00185	.00169	.04423	.54566	.00001	44.578
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.00024**	**.00050**	**.00030**	**.06939**	**3.6278**	**.06656**
Stddev	.00006	.00017	.00036	.00035	.00300	.0322	.00036
%RSD	21.211	70.699	72.005	114.44	4.3194	.88697	.53349
#1	.00023	.00010	.00023	.00008	.06754	3.5911	.06695
#2	.00029	.00019	.00036	.00013	.07285	3.6514	.06648
#3	.00035	.00042	.00091	.00070	.06779	3.6409	.06625
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.769**	**.14486**	**.00360**	F **402.34**	**.00144**	**.01054**	**.00058**
Stddev	.090	.00034	.00015	2.54	.00019	.00391	.00100
%RSD	.50861	.23796	4.0280	.63194	13.159	37.080	173.82
#1	17.667	.14447	.00355	404.05	.00166	.01368	.00173
#2	17.802	.14511	.00376	403.55	.00137	.00616	-.00009
#3	17.839	.14500	.00349	399.42	.00130	.01178	.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013
Sheri L. Babcock

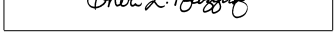
Sample Name: L1311044101 Acquired: 11/12/2013 23:18:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**-.00052**	**2.6439**	**-.01562**	**1.2303**	**-.00110**	**-.00191**
Stddev	.00085	.00043	.0125	.00014	.0014	.00011	.00085
%RSD	156.26	81.865	.47422	.87535	.11355	10.007	44.557
#1	.00048	-.00059	2.6429	-.01573	1.2289	-.00104	-.00102
#2	.00143	-.00092	2.6568	-.01547	1.2303	-.00103	-.00202
#3	-.00027	-.00006	2.6318	-.01567	1.2316	-.00123	-.00271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00020**	**.00148**	**.19245**
Stddev	.00018	.00007	1.1768
%RSD	90.777	4.9454	611.45
#1	.00035	.00156	-1.1170
#2	.00000	.00142	1.1615
#3	.00025	.00145	.53278
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24213.**	**32515.**
Stddev	10.	189.
%RSD	.03947	.58215
#1	24215.	32718.
#2	24203.	32344.
#3	24222.	32482.

Approved: November 13, 2013



Sample Name: L1311044103 Acquired: 11/12/2013 23:22:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**.02252**	**.00081**	**.04143**	**.56465**	**-.00002**	**44.803**
Stddev	.00055	.01518	.00210	.00035	.00124	.00001	.118
%RSD	96.260	67.401	257.72	.83826	.21905	54.706	.26279
#1	-.00034	.03274	.00026	.04183	.56431	-.00003	44.724
#2	-.00120	.00508	-.00095	.04121	.56362	-.00001	44.938
#3	-.00018	.02974	.00314	.04126	.56602	-.00002	44.746
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**.00021**	**.00064**	**.00065**	**.15450**	**3.5425**	**.06638**
Stddev	.00007	.00003	.00030	.00027	.00175	.0353	.00139
%RSD	26.040	14.277	47.161	41.020	1.1312	.99724	2.0897
#1	.00021	.00020	.00033	.00095	.15471	3.5076	.06485
#2	.00024	.00019	.00093	.00050	.15266	3.5782	.06673
#3	.00034	.00024	.00065	.00049	.15614	3.5417	.06755
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.603**	**.37279**	**.00354**	F **371.68**	**.00098**	**.01444**	**.00179**
Stddev	.112	.00054	.00011	3.65	.00064	.00458	.00128
%RSD	.63731	.14444	3.1628	.98330	65.519	31.678	71.666
#1	17.648	.37242	.00362	373.99	.00110	.01860	.00248
#2	17.475	.37341	.00359	373.58	.00029	.00954	.00031
#3	17.686	.37255	.00341	367.46	.00155	.01519	.00259
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311044103 Acquired: 11/12/2013 23:22:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00077**	**-.00308**	**2.5440**	**-.01668**	**1.1686**	**-.00155**	**-.00226**
Stddev	.00113	.00195	.0179	.00026	.0024	.00106	.00130
%RSD	146.20	63.364	.70262	1.5703	.20392	68.279	57.493
#1	.00017	-.00339	2.5412	-.01682	1.1707	-.00033	-.00257
#2	-.00203	-.00486	2.5631	-.01638	1.1690	-.00205	-.00084
#3	-.00046	-.00099	2.5277	-.01685	1.1660	-.00226	-.00339
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00012**	**.00124**	F **-.19680**
Stddev	.00042	.00007	.59295
%RSD	352.34	6.0110	301.30
#1	.00027	.00115	-.58953
#2	-.00006	.00128	.48528
#3	-.00057	.00127	-.48614
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24302.**	**32410.**
Stddev	14.	60.
%RSD	.05658	.18449
#1	24289.	32426.
#2	24316.	32344.
#3	24299.	32461.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311044507 Acquired: 11/12/2013 23:25:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.02148**	**-.00112**	**.01477**	**.03753**	**.00000**	**21.556**
Stddev	.00051	.00303	.00104	.00100	.00015	.0000	.056
%RSD	230.93	14.129	92.490	6.7896	.39363	273.30	.25827
#1	-.00063	.01947	-.00229	.01364	.03752	.00000	21.617
#2	.00035	.02497	-.00029	.01552	.03738	.00000	21.545
#3	-.00038	.02000	-.00079	.01517	.03768	.00000	21.507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00256**	**.00043**	**.00216**	**.51318**	**2.0831**	**.00919**
Stddev	.00005	.00019	.00038	.00034	.00508	.0266	.00206
%RSD	14.681	7.3332	86.763	15.564	.99078	1.2765	22.415
#1	.00034	.00260	.00079	.00202	.51576	2.0642	.01153
#2	.00028	.00236	.00046	.00254	.50732	2.0717	.00765
#3	.00038	.00273	.00004	.00191	.51646	2.1135	.00839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.3751**	**1.4246**	**-.00039**	**28.808**	**.01663**	**.00117**	**.00262**
Stddev	.0336	.0043	.00005	.081	.00048	.00136	.00053
%RSD	.40126	.30181	13.944	.28014	2.8928	116.39	20.395
#1	8.3364	1.4290	-.00034	28.725	.01647	.00086	.00200
#2	8.3968	1.4205	-.00045	28.815	.01624	-.00001	.00287
#3	8.3920	1.4243	-.00038	28.886	.01716	.00265	.00298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311044507 Acquired: 11/12/2013 23:25:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00206**	**-.00039**	**3.6607**	**-.01574**	**.24619**	**-.00064**	**-.00071**
Stddev	.00119	.00082	.0278	.00032	.00108	.00059	.00067
%RSD	57.528	211.12	.76041	2.0386	.43867	92.103	94.523
#1	-.00335	-.00131	3.6880	-.01563	.24507	-.00100	-.00001
#2	-.00181	.00025	3.6619	-.01610	.24626	.00004	-.00136
#3	-.00102	-.00010	3.6323	-.01549	.24723	-.00096	-.00077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00015**	**.01135**	F **-.25984**
Stddev	.00007	.00006	.80045
%RSD	48.601	.53299	308.05
#1	-.00010	.01141	-.07294
#2	-.00023	.01129	.43062
#3	-.00012	.01136	-1.1372
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25492.**	**32716.**
Stddev	62.	122.
%RSD	.24510	.37162
#1	25440.	32581.
#2	25561.	32816.
#3	25475.	32752.

Approved: November 13, 2013

Sample Name: L1311044509 Acquired: 11/12/2013 23:29:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**.02893**	**-.00091**	**.01154**	**.06135**	**.00002**	**29.675**	**.00022**
Stddev	.00030	.01666	.00032	.00100	.00023	.00002	.075	.00004
%RSD	55.610	57.599	35.097	8.6842	.36733	130.17	.25188	16.607
#1	-.00045	.04645	-.00126	.01080	.06127	.00002	29.741	.00019
#2	-.00086	.01328	-.00064	.01114	.06161	.00003	29.692	.00021
#3	-.00029	.02706	-.00083	.01268	.06118	-.00001	29.594	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00025**	**.00034**	**.07122**	**1.4825**	**.03270**	**9.9726**	**.00377**
Stddev	.00019	.00015	.00022	.00330	.0427	.00089	.0542	.00011
%RSD	219.67	58.567	64.956	4.6328	2.8831	2.7361	.54314	3.0348
#1	-.00003	.00041	.00055	.06931	1.4333	.03346	10.035	.00374
#2	.00030	.00023	.00011	.06933	1.5040	.03293	9.9476	.00368
#3	-.00002	.00012	.00035	.07503	1.5103	.03171	9.9355	.00390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**32.374**	**.00023**	**.00771**	**.00247**	**-.00004**	**-.00163**	**2.3347**
Stddev	.00003	.146	.00055	.00340	.00096	.00060	.00185	.0092
%RSD	16.716	.45249	233.96	44.060	38.825	1540.4	113.15	.39564
#1	-.00017	32.294	.00051	.01022	.00308	-.00045	-.00156	2.3252
#2	-.00018	32.543	-.00040	.00385	.00136	.00065	.00018	2.3437
#3	-.00013	32.285	.00059	.00908	.00296	-.00032	-.00352	2.3353
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311044509 Acquired: 11/12/2013 23:29:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01638**	**.50792**	**-.00115**	**-.00200**	**.00014**	**.00205**	**.15181**
Stddev	.00049	.00179	.00019	.00092	.00018	.00004	.76538
%RSD	2.9719	.35165	16.863	46.090	132.71	2.1692	504.18
#1	-.01677	.50685	-.00114	-.00094	-.00006	.00210	-.52940
#2	-.01584	.50998	-.00096	-.00240	.00016	.00203	.98004
#3	-.01654	.50692	-.00135	-.00265	.00031	.00201	.00479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25319.**	**32441.**
Stddev	72.	401.
%RSD	.28619	1.2354
#1	25345.	32704.
#2	25374.	32640.
#3	25237.	31980.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/12/2013 23:32:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40567**	**10.391**	**.41086**	**.50842**	**1.0214**	**.05091**	**10.281**
Stddev	.00138	.029	.00103	.00379	.0006	.00014	.012
%RSD	.33949	.27436	.25047	.74617	.05839	.27702	.11616
#1	.40678	10.360	.41000	.51137	1.0221	.05107	10.268
#2	.40413	10.396	.41058	.50414	1.0210	.05088	10.285
#3	.40610	10.416	.41200	.50976	1.0211	.05079	10.291
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05164**	**.20886**	**.51064**	**.52021**	**4.1499**	**50.689**	**1.0366**
Stddev	.00011	.00019	.00259	.00122	.0225	.078	.0016
%RSD	.22153	.09048	.50678	.23482	.54312	.15365	.15284
#1	.05161	.20905	.51323	.52058	4.1390	50.632	1.0348
#2	.05154	.20886	.50805	.51885	4.1759	50.778	1.0378
#3	.05176	.20867	.51063	.52120	4.1350	50.658	1.0371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.449**	**.53100**	**1.0269**	**51.497**	**.52177**	**10.106**	**.51841**
Stddev	.025	.00208	.0013	.093	.00062	.010	.00343
%RSD	.23519	.39159	.12728	.18002	.11797	.09555	.66130
#1	10.476	.52974	1.0282	51.436	.52173	10.094	.51446
#2	10.428	.53340	1.0256	51.452	.52240	10.111	.52017
#3	10.443	.52986	1.0268	51.604	.52118	10.112	.52061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/12/2013 23:32:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2226**	**.40922**	**5.0357**	**1.0189**	**1.0196**	**1.0281**	**.53111**
Stddev	.0029	.00116	.0383	.0096	.0027	.0017	.00615
%RSD	.23580	.28306	.76103	.93893	.26202	.16029	1.1572
#1	1.2251	.40845	5.0672	1.0091	1.0168	1.0276	.53373
#2	1.2234	.41055	5.0468	1.0283	1.0198	1.0268	.53552
#3	1.2194	.40866	4.9930	1.0192	1.0221	1.0299	.52409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0189**	**1.0264**	F **1.3493**
Stddev	.0025	.0002	.1842
%RSD	.24349	.02302	13.653
#1	1.0213	1.0262	1.1366
#2	1.0164	1.0263	1.4568
#3	1.0191	1.0267	1.4546
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25632.**	**32623.**
Stddev	70.	104.
%RSD	.27466	.31893
#1	25559.	32678.
#2	25699.	32503.
#3	25638.	32688.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 23:36:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**.00334**	**-.00029**	**.00353**	**-.00026**	**-.00001**	**-.02970**
Stddev	.00056	.00158	.00051	.00041	.00006	.00003	.01291
%RSD	166.39	47.386	176.00	11.709	22.807	250.63	43.452
#1	.00031	.00402	-.00032	.00384	-.00030	.00002	-.01506
#2	-.00070	.00153	.00023	.00306	-.00019	-.00002	-.03464
#3	-.00062	.00446	-.00078	.00369	-.00029	-.00004	-.03941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00003**	**.00001**	**-.00054**	**-.00459**	**-.14836**	**.00828**
Stddev	.00005	.00013	.00033	.00038	.00128	.04826	.00107
%RSD	683.01	485.11	5180.8	70.631	27.839	32.529	12.964
#1	-.00006	.00017	.00007	-.00097	-.00378	-.20303	.00946
#2	.00002	-.00001	-.00035	-.00041	-.00393	-.13037	.00738
#3	.00002	-.00008	.00030	-.00024	-.00607	-.11167	.00798
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01200**	**-.00017**	**.00408**	**.05211**	**-.00039**	**-.00053**	**.00074**
Stddev	.00934	.00002	.00042	.00823	.00015	.00161	.00088
%RSD	77.869	14.693	10.261	15.794	38.190	301.41	118.71
#1	-.00979	-.00014	.00362	.04605	-.00055	.00001	.00004
#2	-.02225	-.00018	.00443	.06148	-.00030	-.00235	.00045
#3	-.00396	-.00018	.00421	.04880	-.00030	.00074	.00173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/12/2013 23:36:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00129**	**-.00033**	**.00539**	**-.00054**	**-.00007**	**-.00008**	**-.00132**
Stddev	.00048	.00144	.00507	.00025	.00011	.00084	.00111
%RSD	37.060	435.08	94.162	46.352	154.78	1014.6	84.223
#1	.00125	.00108	.01073	-.00080	.00003	-.00081	-.00099
#2	.00084	-.00181	.00064	-.00054	-.00018	-.00028	-.00042
#3	.00179	-.00027	.00479	-.00029	-.00006	.00084	-.00257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00018**	**-.00105**	F **-.50151**
Stddev	.00010	.00009	.60833
%RSD	54.970	8.2723	121.30
#1	-.00028	-.00108	-1.0923
#2	-.00018	-.00095	-.53524
#3	-.00008	-.00111	.12299
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25875.**	**32829.**
Stddev	64.	65.
%RSD	.24820	.19874
#1	25942.	32891.
#2	25815.	32761.
#3	25867.	32834.

Approved: November 13, 2013

Sample Name: L1311044510 Acquired: 11/12/2013 23:39:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00066**	**.03786**	**-.00007**	**.01231**	**.05676**	**.00002**	**30.822**
Stddev	.00016	.02020	.00223	.00096	.00016	.00001	.038
%RSD	24.650	53.358	3278.2	7.7919	.28277	73.486	.12276
#1	-.00053	.04225	.00006	.01316	.05693	.00002	30.846
#2	-.00062	.01583	-.00235	.01250	.05661	.00000	30.842
#3	-.00085	.05551	.00209	.01127	.05674	.00003	30.778
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**.00021**	**.00019**	**.00114**	**.12854**	**1.6792**	**.03712**
Stddev	.00005	.00014	.00022	.00049	.00416	.0212	.00140
%RSD	15.071	67.265	114.70	42.536	3.2336	1.2647	3.7844
#1	.00039	.00007	.00041	.00151	.12475	1.6681	.03801
#2	.00029	.00034	.00019	.00132	.13299	1.7037	.03550
#3	.00035	.00021	-.00003	.00059	.12789	1.6657	.03784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.850**	**.03262**	**.00049**	**46.096**	**-.00002**	**.00516**	**-.00014**
Stddev	.052	.00042	.00017	.183	.00036	.00666	.00092
%RSD	.40327	1.2905	34.916	.39669	1989.5	129.01	666.71
#1	12.791	.03282	.00061	46.254	.00002	-.00247	-.00106
#2	12.888	.03213	.00030	45.896	-.00039	.00976	-.00013
#3	12.870	.03290	.00057	46.138	.00032	.00820	.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311044510 Acquired: 11/12/2013 23:39:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00194**	**-.00002**	**2.5884**	**-.01636**	**.52779**	**-.00102**	**-.00237**
Stddev	.00293	.00064	.0163	.00032	.00140	.00014	.00123
%RSD	151.23	3511.8	.63018	1.9490	.26600	13.586	51.768
#1	.00075	-.00013	2.5839	-.01603	.52875	-.00105	-.00266
#2	-.00505	-.00059	2.5748	-.01666	.52618	-.00087	-.00103
#3	-.00151	.00067	2.6065	-.01640	.52843	-.00114	-.00343
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00016**	**.00451**	F **-.00529**
Stddev	.00008	.00012	.83408
%RSD	46.841	2.7116	15765.
#1	.00018	.00443	.95762
#2	.00008	.00446	-.50358
#3	.00022	.00465	-.46991
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25368.**	**32797.**
Stddev	15.	133.
%RSD	.06003	.40406
#1	25369.	32691.
#2	25382.	32945.
#3	25352.	32753.

Approved: November 13, 2013

Sample Name: L1311046407 Acquired: 11/12/2013 23:43:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00090**	**.22598**	**.00042**	**.02365**	**.18770**	**.00004**	**98.911**	**.00288**
Stddev	.00030	.00974	.00169	.00037	.00060	.00001	.129	.00006
%RSD	34.015	4.3102	401.29	1.5595	.32230	39.920	.13000	1.9331
#1	-.00109	.22879	.00212	.02352	.18700	.00002	99.054	.00281
#2	-.00054	.23400	.00040	.02336	.18811	.00005	98.807	.00289
#3	-.00105	.21514	-.00126	.02406	.18799	.00003	98.871	.00292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00149**	**.00249**	**.28005**	**2.4438**	**.01907**	**17.999**	**.03330**
Stddev	.00014	.00019	.00013	.00132	.0223	.00138	.030	.00007
%RSD	83.236	12.967	5.2374	.47280	.91235	7.2634	.16731	.20196
#1	.00001	.00153	.00262	.27898	2.4692	.01788	18.004	.03332
#2	.00024	.00165	.00236	.28153	2.4347	.01872	17.966	.03323
#3	.00025	.00128	.00247	.27963	2.4274	.02059	18.026	.03336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00049**	**38.193**	**.00029**	**.03267**	**.00159**	**.00010**	**-.00183**	**3.6985**
Stddev	.00025	.044	.00035	.00296	.00117	.00173	.00083	.0311
%RSD	49.781	.11621	122.06	9.0699	73.273	1663.0	45.434	.84158
#1	.00021	38.187	.00012	.03560	.00073	.00156	-.00136	3.7113
#2	.00062	38.240	.00006	.03273	.00113	.00056	-.00133	3.6631
#3	.00065	38.152	.00070	.02967	.00292	-.00181	-.00278	3.7212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046407 Acquired: 11/12/2013 23:43:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01631**	**2.1013**	**.00419**	**-.00317**	**.00053**	**.03551**	**1.3092**
Stddev	.00045	.0040	.00046	.00202	.00008	.00033	.8586
%RSD	2.7383	.19069	11.077	63.893	14.424	.93461	65.578
#1	-.01657	2.1002	.00446	-.00199	.00062	.03549	.31855
#2	-.01657	2.0979	.00365	-.00201	.00050	.03518	1.8372
#3	-.01580	2.1057	.00445	-.00550	.00049	.03584	1.7719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25125.**	**33162.**
Stddev	37.	163.
%RSD	.14814	.49095
#1	25084.	32993.
#2	25132.	33175.
#3	25157.	33318.

Approved: November 13, 2013

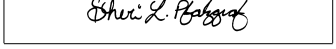
Sample Name: L1311046408 Acquired: 11/12/2013 23:46:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**2.0650**	**.00078**	**.03850**	**.19278**	**.00021**	**68.749**	**.00066**
Stddev	.00014	.0095	.00321	.00089	.00024	.00001	.252	.00006
%RSD	32.177	.46124	410.87	2.3125	.12202	6.0059	.36635	9.4628
#1	-.00059	2.0674	.00444	.03799	.19281	.00022	68.616	.00060
#2	-.00037	2.0731	-.00157	.03953	.19253	.00020	68.591	.00065
#3	-.00033	2.0545	-.00053	.03799	.19299	.00020	69.039	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00226**	**.00287**	**.00631**	**3.8238**	**7.6248**	**.01294**	**12.643**	**.15642**
Stddev	.00021	.00033	.00034	.0085	.0554	.00043	.075	.00085
%RSD	9.2425	11.503	5.4546	.22256	.72648	3.3006	.59095	.54424
#1	.00207	.00299	.00644	3.8162	7.6884	.01245	12.581	.15737
#2	.00248	.00249	.00592	3.8222	7.5993	.01321	12.622	.15572
#3	.00222	.00311	.00657	3.8330	7.5869	.01316	12.726	.15619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**10.294**	**.00509**	**.38372**	**.00449**	**-.00009**	**-.00308**	**6.4429**
Stddev	.00020	.043	.00047	.00653	.00314	.00065	.00160	.0801
%RSD	56.702	.41285	9.1881	1.7030	69.850	707.81	51.808	1.2428
#1	.00013	10.341	.00533	.37749	.00749	-.00081	-.00471	6.3545
#2	.00044	10.284	.00540	.39052	.00476	.00011	-.00152	6.4635
#3	.00051	10.257	.00455	.38313	.00123	.00043	-.00301	6.5107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013



Sample Name: L1311046408 Acquired: 11/12/2013 23:46:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01663**	**.24361**	**.03503**	**-.00229**	**.00376**	**.01280**	**4.8816**
Stddev	.00028	.00117	.00148	.00119	.00018	.00017	.1781
%RSD	1.6606	.48223	4.2137	52.157	4.7303	1.3656	3.6492
#1	-.01691	.24474	.03428	-.00318	.00394	.01265	5.0717
#2	-.01662	.24370	.03673	-.00093	.00358	.01276	4.7185
#3	-.01636	.24239	.03408	-.00276	.00376	.01299	4.8545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25784.**	**33171.**
Stddev	44.	142.
%RSD	.17197	.42764
#1	25804.	33008.
#2	25733.	33255.
#3	25814.	33251.

Approved: November 13, 2013

Sample Name: L1311046409 Acquired: 11/12/2013 23:50:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**.74950**	**-.00155**	**.20700**	**.04484**	**.00007**	**1.2227**	**.00356**
Stddev	.00042	.00890	.00092	.00274	.00024	.00002	.0036	.00004
%RSD	398.79	1.1878	59.312	1.3231	.53159	29.993	.29687	1.0586
#1	.00001	.74085	-.00060	.20996	.04511	.00005	1.2269	.00356
#2	.00024	.74902	-.00161	.20649	.04465	.00008	1.2212	.00360
#3	-.00057	.75864	-.00243	.20455	.04475	.00008	1.2201	.00353
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00042**	**.00145**	**.00274**	**1.0187**	**.71604**	**.01709**	**.34446**	**.04366**
Stddev	.00018	.00008	.00020	.0060	.05523	.00165	.01414	.00004
%RSD	43.734	5.6175	7.2676	.59187	7.7139	9.6416	4.1054	.08772
#1	.00048	.00136	.00295	1.0256	.69573	.01518	.35242	.04367
#2	.00056	.00151	.00271	1.0143	.77855	.01801	.35282	.04362
#3	.00021	.00148	.00256	1.0162	.67383	.01807	.32813	.04369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00123**	**240.91**	**.00100**	**.12652**	**.00093**	**.00206**	**.00058**	**3.7907**
Stddev	.00013	1.05	.00011	.00107	.00088	.00222	.00230	.0492
%RSD	10.703	.43458	11.053	.84732	93.972	107.99	399.85	1.2977
#1	.00137	242.11	.00088	.12530	.00125	-.00007	.00137	3.7996
#2	.00112	240.46	.00110	.12733	.00161	.00436	-.00202	3.8348
#3	.00119	240.17	.00102	.12692	-.00006	.00189	.00238	3.7377
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046409 Acquired: 11/12/2013 23:50:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01639**	**.06778**	**.01384**	**-.00077**	**.00126**	**.01035**	**2.5549**
Stddev	.00049	.00052	.00044	.00185	.00015	.00015	.2056
%RSD	2.9710	.76044	3.1764	239.58	11.895	1.4544	8.0456
#1	-.01611	.06837	.01434	-.00177	.00141	.01023	2.7359
#2	-.01610	.06744	.01361	-.00190	.00111	.01052	2.3314
#3	-.01695	.06752	.01356	.00136	.00125	.01030	2.5975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25003.**	**33113.**
Stddev	32.	17.
%RSD	.12937	.05279
#1	24969.	33131.
#2	25009.	33096.
#3	25032.	33113.

Approved: November 13, 2013

Sample Name: L1311046410 Acquired: 11/12/2013 23:53:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**2.9632**	**.00584**	**.03931**	**.31389**	**.00027**	**82.635**	**.00101**
Stddev	.00064	.0095	.00067	.00058	.00020	.00001	.373	.00019
%RSD	100.78	.32221	11.423	1.4711	.06504	4.2280	.45105	18.573
#1	.00109	2.9585	.00589	.03905	.31375	.00026	83.062	.00080
#2	.00089	2.9570	.00516	.03890	.31379	.00028	82.468	.00106
#3	-.00009	2.9742	.00649	.03997	.31412	.00027	82.375	.00117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00280**	**.00472**	**.00536**	**9.0637**	**1.5352**	**.01507**	**10.812**	**3.6165**
Stddev	.00008	.00013	.00014	.0140	.0428	.00075	.032	.0120
%RSD	3.0152	2.6785	2.6515	.15461	2.7899	4.9866	.29503	.33296
#1	.00271	.00487	.00528	9.0637	1.4868	.01516	10.846	3.6243
#2	.00286	.00465	.00552	9.0497	1.5683	.01428	10.783	3.6026
#3	.00284	.00464	.00527	9.0777	1.5503	.01578	10.808	3.6225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**25.942**	**.00330**	**.32855**	**.00606**	**-.00102**	**.00020**	**7.5463**
Stddev	.00002	.123	.00041	.00672	.00221	.00121	.00075	.0533
%RSD	76.028	.47592	12.558	2.0464	36.405	118.43	375.72	.70688
#1	.00005	26.084	.00357	.33071	.00596	-.00240	-.00009	7.6021
#2	.00003	25.862	.00282	.33393	.00391	-.00013	-.00036	7.4958
#3	.00001	25.880	.00349	.32101	.00832	-.00054	.00104	7.5412
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046410 Acquired: 11/12/2013 23:53:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01636**	**.34627**	**.05273**	**.00127**	**.00476**	**.01327**	**6.8854**
Stddev	.00009	.00132	.00321	.00110	.00020	.00025	1.3686
%RSD	.52040	.37984	6.0946	86.071	4.2516	1.8672	19.877
#1	-.01627	.34773	.05130	.00051	.00499	.01339	6.1215
#2	-.01637	.34517	.05641	.00253	.00467	.01344	6.0692
#3	-.01644	.34593	.05047	.00079	.00462	.01299	8.4654
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25707.**	**33278.**
Stddev	33.	173.
%RSD	.13028	.51987
#1	25669.	33094.
#2	25732.	33438.
#3	25720.	33302.

Approved: November 13, 2013

Sample Name: L1311046411 Acquired: 11/12/2013 23:57:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.23264**	**-.00047**	**.11683**	**.03074**	**.00001**	**.60305**	**.00053**
Stddev	.00052	.00828	.00091	.00093	.00035	.00001	.01190	.00005
%RSD	239.74	3.5596	194.11	.79196	1.1446	102.95	1.9729	8.7602
#1	.00025	.22342	-.00121	.11636	.03111	.00003	.60130	.00053
#2	-.00012	.23506	.00054	.11789	.03041	.00000	.61573	.00058
#3	-.00078	.23944	-.00074	.11623	.03071	.00001	.59213	.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00104**	**.00212**	**.16858**	**.43538**	**.01427**	**.14664**	**.00444**
Stddev	.00001	.00035	.00045	.00487	.04560	.00172	.02037	.00005
%RSD	55.707	33.619	21.393	2.8913	10.474	12.054	13.894	1.1514
#1	.00001	.00064	.00223	.16892	.38361	.01532	.15965	.00446
#2	.00003	.00129	.00162	.16354	.45291	.01228	.15712	.00448
#3	.00001	.00118	.00250	.17328	.46962	.01519	.12316	.00438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00822**	**161.36**	**.00058**	**.02519**	**.00060**	**.00022**	**-.00205**	**3.5967**
Stddev	.00015	3.06	.00042	.00498	.00053	.00059	.00160	.0193
%RSD	1.8554	1.8955	73.232	19.787	88.436	268.48	78.286	.53597
#1	.00807	162.42	.00035	.02958	.00005	.00062	-.00087	3.6188
#2	.00837	163.75	.00107	.01977	.00064	.00049	-.00140	3.5883
#3	.00824	157.92	.00032	.02622	.00111	-.00045	-.00387	3.5831
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311046411 Acquired: 11/12/2013 23:57:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01657**	**.03477**	**.00463**	**.00064**	**.00007**	**.00371**	**.90723**
Stddev	.00033	.00003	.00114	.00022	.00018	.00004	.59963
%RSD	2.0170	.07936	24.608	34.994	235.88	1.1986	66.095
#1	-.01661	.03479	.00592	.00041	.00028	.00369	1.5812
#2	-.01622	.03477	.00426	.00064	-.00002	.00369	.43269
#3	-.01689	.03474	.00373	.00086	-.00003	.00377	.70784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25242.**	**33177.**
Stddev	34.	246.
%RSD	.13484	.74193
#1	25208.	33143.
#2	25277.	32950.
#3	25240.	33439.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/13/2013 0:00:49 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40701**	**10.364**	**.41079**	**.51194**	**1.0236**	**.05048**	**10.167**
Stddev	.00145	.016	.00077	.00243	.0009	.00022	.013
%RSD	.35718	.15056	.18735	.47515	.09051	.43439	.12661
#1	.40867	10.379	.41073	.51444	1.0239	.05068	10.169
#2	.40643	10.364	.41158	.51181	1.0225	.05052	10.178
#3	.40594	10.348	.41005	.50958	1.0242	.05024	10.153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05139**	**.20786**	**.50954**	**.52057**	**4.1632**	**50.736**	**1.0342**
Stddev	.00019	.00083	.00292	.00134	.0069	.096	.0016
%RSD	.36567	.40135	.57314	.25694	.16605	.18843	.15298
#1	.05119	.20695	.51072	.51941	4.1643	50.837	1.0358
#2	.05156	.20859	.51168	.52028	4.1558	50.723	1.0326
#3	.05143	.20803	.50621	.52204	4.1695	50.647	1.0343
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.372**	**.52328**	**1.0252**	**51.502**	**.51918**	**10.205**	**.52043**
Stddev	.020	.00268	.0012	.080	.00179	.020	.00430
%RSD	.19305	.51248	.11925	.15595	.34488	.19265	.82714
#1	10.368	.52434	1.0264	51.595	.51730	10.228	.51618
#2	10.354	.52528	1.0253	51.449	.51938	10.197	.52031
#3	10.393	.52023	1.0239	51.463	.52087	10.192	.52479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/13/2013 0:00:49 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2312**	**.40688**	**5.1762**	**1.0253**	**1.0246**	**1.0255**	**.52558**
Stddev	.0037	.00296	.0194	.0110	.0013	.0032	.00626
%RSD	.30125	.72649	.37574	1.0752	.12443	.31722	1.1917
#1	1.2284	.40354	5.1590	1.0231	1.0256	1.0289	.52018
#2	1.2298	.40914	5.1722	1.0372	1.0232	1.0251	.53245
#3	1.2354	.40797	5.1973	1.0155	1.0250	1.0224	.52410
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0140**	**1.0300**	F **.64314**
Stddev	.0023	.0021	.43324
%RSD	.22244	.20152	67.364
#1	1.0156	1.0323	.14291
#2	1.0151	1.0297	.88805
#3	1.0115	1.0282	.89847
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25852.**	**33239.**
Stddev	30.	73.
%RSD	.11428	.21844
#1	25853.	33252.
#2	25881.	33162.
#3	25822.	33305.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 0:04:03 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.00664**	**.00050**	**.00288**	**.00000**	**.00000**	**-.02577**
Stddev	.00038	.00404	.00130	.00101	.00016	.00001	.00237
%RSD	58.951	60.902	262.00	35.059	3988.2	266.97	9.1929
#1	-.00069	.00497	.00060	.00356	.00006	.00000	-.02492
#2	-.00101	.01125	.00175	.00337	-.00018	.00000	-.02394
#3	-.00025	.00370	-.00085	.00172	.00013	.00002	-.02845
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00013**	**.00034**	**-.00012**	**-.00393**	**-.16997**	**.00794**
Stddev	.00005	.00008	.00023	.00017	.00204	.01067	.00222
%RSD	86.105	63.326	66.988	136.25	51.836	6.2779	27.980
#1	.00003	.00004	.00026	.00007	-.00560	-.17784	.00967
#2	.00011	.00014	.00017	-.00019	-.00166	-.17425	.00873
#3	.00003	.00021	.00060	-.00024	-.00452	-.15782	.00544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00213**	**.00000**	**.00412**	**.06771**	**.00004**	**-.00199**	**-.00075**
Stddev	.00259	.00002	.00049	.00786	.00043	.00241	.00088
%RSD	121.59	703.73	11.949	11.602	1017.2	121.02	117.83
#1	.00086	-.00001	.00356	.05872	.00004	-.00203	-.00177
#2	-.00370	.00003	.00428	.07116	-.00038	-.00437	-.00023
#3	-.00354	-.00001	.00450	.07324	.00047	.00044	-.00025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

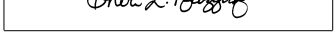
Sample Name: CCB Acquired: 11/13/2013 0:04:03 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**.00128**	**.00179**	**-.00020**	**-.00007**	**-.00066**	**-.00054**
Stddev	.00074	.00063	.00222	.00033	.00010	.00053	.00075
%RSD	230.43	49.130	123.94	165.51	142.54	80.655	138.03
#1	.00050	.00166	.00410	.00010	.00001	-.00042	-.00116
#2	-.00053	.00056	-.00033	-.00014	-.00004	-.00127	-.00076
#3	-.00093	.00163	.00160	-.00055	-.00018	-.00029	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00002**	**-.00103**	F **-.74129**
Stddev	.00007	.00007	1.0050
%RSD	347.71	6.9514	135.57
#1	.00004	-.00095	-1.2037
#2	-.00010	-.00109	.41168
#3	-.00001	-.00105	-1.4319
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25964.**	**33193.**
Stddev	12.	182.
%RSD	.04702	.54877
#1	25970.	33398.
#2	25950.	33049.
#3	25972.	33133.

Approved: November 13, 2013



Sample Name: PBW 6R Acquired: 11/13/2013 0:07:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.01712**	**.00044**	**.00198**	**-.00022**	**.00000**	**-.01619**
Stddev	.00032	.02014	.00085	.00048	.00036	.00001	.01411
%RSD	151.35	117.63	191.61	24.305	162.64	673.76	87.161
#1	-.00006	.01587	.00101	.00209	-.00058	.00000	-.02938
#2	.00001	-.00236	.00085	.00239	-.00022	-.00001	-.01789
#3	-.00058	.03786	-.00053	.00145	.00014	.00001	-.00131
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00004**	**-.00009**	**-.00005**	**-.00484**	**-.14569**	**.00765**
Stddev	.00011	.00017	.00036	.00071	.00211	.02740	.00087
%RSD	320.25	442.97	412.58	1322.3	43.609	18.810	11.382
#1	-.00004	.00021	-.00050	.00011	-.00687	-.16309	.00818
#2	.00016	.00004	.00009	-.00083	-.00500	-.11410	.00665
#3	-.00002	-.00014	.00015	.00056	-.00266	-.15989	.00812
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00213**	**-.00004**	**.00032**	**.05810**	**-.00066**	**.00424**	**-.00060**
Stddev	.02091	.00002	.00028	.01598	.00105	.00445	.00071
%RSD	979.92	36.993	86.222	27.504	158.33	105.06	118.56
#1	.00922	-.00006	.00001	.04060	-.00086	.00017	-.00116
#2	.01064	-.00003	.00055	.07193	.00047	.00355	-.00083
#3	-.02626	-.00004	.00040	.06177	-.00160	.00899	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: PBW 6R Acquired: 11/13/2013 0:07:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00036**	**.00087**	**.00068**	**-.01650**	**-.00016**	**.00002**	**-.00248**
Stddev	.00128	.00089	.00150	.00016	.00006	.00080	.00100
%RSD	359.64	102.79	220.38	.98806	35.386	3576.3	40.374
#1	.00110	.00138	-.00028	-.01634	-.00010	-.00088	-.00138
#2	-.00131	.00139	-.00008	-.01667	-.00020	.00066	-.00334
#3	-.00085	-.00016	.00241	-.01650	-.00019	.00029	-.00272
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**.00076**	F **-.69335**
Stddev	.00015	.00007	.66044
%RSD	970.97	9.0170	95.253
#1	.00015	.00074	.02490
#2	-.00013	.00083	-.83052
#3	-.00006	.00070	-1.2744
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25974.**	**33307.**
Stddev	62.	83.
%RSD	.23883	.24919
#1	25906.	33218.
#2	25988.	33322.
#3	26027.	33381.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: LCSW 6R Acquired: 11/13/2013 0:11:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20037**	**4.9708**	**.19566**	**.99755**	**.48652**	**.02429**	**4.8502**	**.02474**
Stddev	.00167	.0321	.00148	.00467	.00160	.00007	.0163	.00011
%RSD	.83107	.64654	.75567	.46791	.32940	.28919	.33583	.42953
#1	.20177	5.0056	.19627	1.0017	.48752	.02437	4.8686	.02462
#2	.19853	4.9643	.19398	.99250	.48737	.02423	4.8374	.02482
#3	.20081	4.9423	.19674	.99844	.48468	.02428	4.8447	.02478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10121**	**.24877**	**.25234**	**1.9978**	**24.120**	**.49607**	**4.9533**	**.25385**
Stddev	.00009	.00123	.00015	.0064	.064	.00273	.0139	.00033
%RSD	.08803	.49498	.05866	.31911	.26555	.55101	.28145	.12835
#1	.10126	.25018	.25219	2.0006	24.151	.49922	4.9421	.25348
#2	.10111	.24788	.25234	2.0022	24.164	.49424	4.9489	.25395
#3	.10127	.24826	.25249	1.9905	24.047	.49477	4.9689	.25411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50247**	**24.800**	**.25249**	**.00233**	**.25389**	**.59187**	**.19572**	**2.4674**
Stddev	.00071	.053	.00083	.00263	.00156	.00361	.00124	.0159
%RSD	.14158	.21411	.33020	112.87	.61627	.61003	.63572	.64537
#1	.50292	24.806	.25334	.00201	.25310	.58977	.19461	2.4493
#2	.50165	24.850	.25167	-.00012	.25569	.59604	.19549	2.4795
#3	.50283	24.744	.25245	.00511	.25287	.58980	.19706	2.4732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

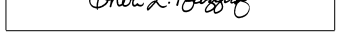
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: LCSW 6R Acquired: 11/13/2013 0:11:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00134**	**.49131**	**.49107**	**.25660**	**.48990**	**.49632**	**.55769**
Stddev	.00045	.00164	.00197	.00210	.00062	.00093	.41755
%RSD	33.332	.33294	.40139	.82011	.12610	.18700	74.872
#1	.00083	.49058	.49322	.25874	.49054	.49716	.38329
#2	.00168	.49318	.48935	.25454	.48985	.49532	1.0342
#3	.00150	.49016	.49065	.25653	.48931	.49649	.25561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25785.**	**33103.**
Stddev	22.	69.
%RSD	.08410	.20736
#1	25766.	33173.
#2	25808.	33098.
#3	25781.	33036.

Approved: November 13, 2013



Sample Name: L1311041802 Acquired: 11/13/2013 0:14:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00052**	**.02471**	**.00037**	**.01718**	**.05055**	**.00002**	**53.566**
Stddev	.00034	.01919	.00018	.00052	.00024	.00002	.129
%RSD	65.028	77.668	48.725	2.9998	.48228	122.65	.24050
#1	-.00015	.02045	.00017	.01761	.05083	.00000	53.712
#2	-.00060	.04567	.00040	.01733	.05044	.00001	53.469
#3	-.00081	.00800	.00053	.01661	.05038	.00004	53.516
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**.00112**	**.00086**	**.00057**	**.01055**	**4.6710**	**.01462**
Stddev	.00008	.00023	.00025	.00031	.00288	.0382	.00065
%RSD	10.996	20.468	28.875	54.440	27.268	.81732	4.4319
#1	.00071	.00096	.00092	.00054	.01312	4.6383	.01515
#2	.00075	.00138	.00107	.00089	.00744	4.6617	.01481
#3	.00060	.00101	.00058	.00027	.01107	4.7129	.01390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**42.781**	**.51693**	**.00107**	**11.631**	**.00246**	**.00272**	**.00106**
Stddev	.161	.00140	.00006	.021	.00090	.00198	.00134
%RSD	.37624	.27012	5.8798	.18362	36.501	72.902	126.53
#1	42.938	.51853	.00100	11.613	.00275	.00500	.00047
#2	42.789	.51596	.00108	11.624	.00145	.00173	.00012
#3	42.616	.51631	.00113	11.655	.00317	.00142	.00260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041802 Acquired: 11/13/2013 0:14:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**-.00043**	**1.9460**	**-.01637**	**.24116**	**-.00116**	**-.00143**
Stddev	.00198	.00148	.0571	.00027	.00062	.00121	.00066
%RSD	1126.3	342.94	2.9333	1.6564	.25708	104.42	46.541
#1	.00220	-.00030	1.8977	-.01651	.24107	-.00224	-.00190
#2	.00009	.00098	2.0090	-.01654	.24060	.00015	-.00170
#3	-.00176	-.00197	1.9314	-.01606	.24183	-.00140	-.00067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00028**	**.00283**	F **-.10631**
Stddev	.00034	.00003	.09560
%RSD	121.44	1.1322	89.926
#1	-.00026	.00281	-.13132
#2	-.00062	.00283	-.00069
#3	.00005	.00287	-.18692
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25320.**	**33080.**
Stddev	84.	24.
%RSD	.33166	.07153
#1	25252.	33053.
#2	25294.	33092.
#3	25414.	33095.

Approved: November 13, 2013

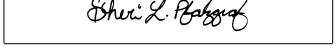
Sample Name: L1311041802DL Acquired: 11/13/2013 0:17:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.00532**	**-.00158**	**.00580**	**.00978**	**-.00001**	**10.639**	**.00019**
Stddev	.00015	.01643	.00067	.00144	.00032	.00002	.023	.00008
%RSD	35.520	308.97	42.445	24.912	3.2320	312.81	.22023	42.652
#1	-.00036	-.00898	-.00152	.00718	.01003	-.00001	10.624	.00014
#2	-.00060	.02327	-.00094	.00591	.00988	.00001	10.666	.00014
#3	-.00032	.00167	-.00228	.00430	.00942	-.00002	10.627	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.00031**	**.00005**	**-.00032**	**.77361**	**.01023**	**8.7798**	**.10608**
Stddev	.00015	.00036	.00059	.00324	.01638	.00129	.0517	.00039
%RSD	42.935	114.94	1103.7	1017.0	2.1170	12.650	.58901	.36358
#1	.00028	.00018	-.00062	.00251	.76586	.00881	8.7451	.10565
#2	.00053	.00004	.00044	.00038	.79242	.01134	8.7550	.10641
#3	.00025	.00072	.00034	-.00385	.76253	.01053	8.8392	.10618
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**2.3427**	**-.00022**	**.00289**	**.00027**	**-.00141**	**-.00126**	**.38813**
Stddev	.00015	.0210	.00053	.00666	.00062	.00069	.00206	.00301
%RSD	1134.6	.89625	240.49	230.27	233.38	48.907	163.06	.77623
#1	-.00005	2.3430	-.00076	.00442	-.00019	-.00195	.00073	.38870
#2	.00015	2.3216	-.00019	.00865	.00002	-.00063	-.00113	.38487
#3	-.00015	2.3636	.00029	-.00440	.00097	-.00164	-.00339	.39081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013

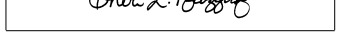


Sample Name: L1311041802DL Acquired: 11/13/2013 0:17:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01675**	**.04890**	**.00008**	**-.00041**	**-.00014**	**.00034**	**.04836**
Stddev	.00043	.00036	.00084	.00144	.00017	.00011	.90357
%RSD	2.5434	.74534	1114.8	351.56	121.60	32.340	1868.5
#1	-.01712	.04849	.00105	-.00040	.00006	.00040	-.93253
#2	-.01684	.04903	-.00044	-.00186	-.00025	.00040	.23086
#3	-.01628	.04918	-.00038	.00102	-.00024	.00021	.84675
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26198.**	**33450.**
Stddev	57.	171.
%RSD	.21632	.51073
#1	26224.	33643.
#2	26236.	33391.
#3	26133.	33317.

Approved: November 13, 2013



Sample Name: L1311041802PS Acquired: 11/13/2013 0:21:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20995**	**5.1385**	**.20479**	**1.0589**	**.54984**	**.02518**	**52.806**	**.02627**
Stddev	.00033	.0291	.00098	.0027	.00029	.00004	.147	.00014
%RSD	.15916	.56641	.48043	.25360	.05282	.15903	.27801	.53801
#1	.20966	5.1698	.20366	1.0618	.54998	.02523	52.710	.02639
#2	.21031	5.1334	.20534	1.0565	.55004	.02515	52.733	.02612
#3	.20987	5.1122	.20539	1.0584	.54951	.02518	52.975	.02630
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10456**	**.25671**	**.25865**	**2.0618**	**29.477**	**.52227**	**43.274**	**.71798**
Stddev	.00020	.00052	.00089	.0012	.069	.00042	.077	.00144
%RSD	.19336	.20343	.34275	.05843	.23552	.08130	.17850	.20047
#1	.10461	.25731	.25812	2.0605	29.466	.52227	43.266	.71941
#2	.10433	.25635	.25816	2.0628	29.551	.52185	43.201	.71800
#3	.10472	.25647	.25967	2.0622	29.413	.52270	43.355	.71653
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.52137**	**36.275**	**.26027**	**.00966**	**.26321**	**.62367**	**.20634**	**4.3802**
Stddev	.00026	.016	.00030	.00193	.00243	.00601	.00229	.0570
%RSD	.04954	.04424	.11428	19.939	.92381	.96301	1.1092	1.3019
#1	.52166	36.283	.26061	.01031	.26067	.61681	.20429	4.3151
#2	.52118	36.256	.26005	.00749	.26345	.62620	.20881	4.4044
#3	.52127	36.285	.26015	.01118	.26551	.62799	.20594	4.4212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041802PS Acquired: 11/13/2013 0:21:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01633**	**.72366**	**.50625**	**.26194**	**.50987**	**.51119**	**.50116**
Stddev	.00035	.00090	.00102	.00361	.00105	.00061	.31460
%RSD	2.1263	.12423	.20194	1.3773	.20676	.11974	62.774
#1	-.01593	.72268	.50521	.25786	.50888	.51050	.19776
#2	-.01659	.72385	.50725	.26325	.50974	.51138	.82588
#3	-.01645	.72445	.50630	.26471	.51098	.51168	.47986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25108.**	**32927.**
Stddev	45.	91.
%RSD	.17793	.27691
#1	25063.	32827.
#2	25153.	32948.
#3	25109.	33006.

Approved: November 13, 2013

Sample Name: L1311041804 Acquired: 11/13/2013 0:24:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**.01446**	**-.00079**	**.01925**	**.04550**	**.00000**	**59.492**
Stddev	.00041	.01496	.00153	.00060	.00066	.0000	.310
%RSD	131.46	103.50	193.56	3.1268	1.4484	196.02	.52061
#1	-.00026	.01898	-.00127	.01993	.04476	.00000	59.135
#2	.00007	.02663	-.00203	.01907	.04603	.00000	59.658
#3	-.00074	-.00225	.00092	.01877	.04572	.00000	59.683
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**.00037**	**.00064**	**.00059**	**.03102**	**4.7054**	**.01276**
Stddev	.00006	.00006	.00039	.00033	.00178	.0345	.00135
%RSD	7.6184	16.841	61.339	56.288	5.7490	.73410	10.569
#1	.00070	.00030	.00037	.00022	.02908	4.7230	.01282
#2	.00080	.00042	.00109	.00069	.03258	4.7277	.01138
#3	.00080	.00040	.00046	.00086	.03139	4.6656	.01407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**54.642**	**.15428**	**.00130**	**8.3103**	**.00064**	**.00472**	**.00069**
Stddev	.117	.00042	.00006	.0275	.00057	.00460	.00065
%RSD	.21402	.27005	4.7191	.33065	88.816	97.472	94.025
#1	54.523	.15385	.00128	8.2810	.00064	.00364	.00049
#2	54.757	.15431	.00125	8.3145	.00007	.00076	.00016
#3	54.646	.15469	.00137	8.3355	.00122	.00977	.00141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041804 Acquired: 11/13/2013 0:24:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00032**	**-.00175**	**2.2644**	**-.01646**	**.27662**	**-.00159**	**-.00152**
Stddev	.00197	.00248	.0182	.00020	.00037	.00054	.00135
%RSD	608.18	141.63	.80374	1.2080	.13224	33.710	88.824
#1	.00019	.00111	2.2817	-.01656	.27632	-.00186	-.00075
#2	-.00157	-.00326	2.2454	-.01623	.27652	-.00195	-.00307
#3	.00235	-.00311	2.2661	-.01659	.27703	-.00097	-.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**.00238**	F **-.20715**
Stddev	.00029	.00010	.56996
%RSD	2232.2	4.1563	275.14
#1	.00001	.00233	-.50796
#2	-.00031	.00231	.45020
#3	.00026	.00249	-.56369
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25312.**	**33248.**
Stddev	5.	56.
%RSD	.02111	.16888
#1	25308.	33295.
#2	25319.	33186.
#3	25311.	33263.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041806 Acquired: 11/13/2013 0:28:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00072**	**.01433**	**.00041**	**.01666**	**.04792**	**.00002**	**64.402**	**.00083**
Stddev	.00016	.01635	.00090	.00072	.00017	.00003	.023	.00008
%RSD	21.938	114.11	219.14	4.3124	.35713	140.93	.03539	9.3065
#1	-.00077	-.00194	-.00063	.01675	.04799	.00006	64.393	.00085
#2	-.00054	.01416	.00096	.01732	.04805	.00002	64.386	.00089
#3	-.00085	.03076	.00090	.01589	.04773	.00000	64.429	.00074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00062**	**.00036**	**.01572**	**4.9631**	**.01350**	**55.105**	**.00620**
Stddev	.00009	.00012	.00104	.00355	.0327	.00298	.035	.00004
%RSD	70.555	19.912	287.42	22.589	.65966	22.090	.06271	.60985
#1	.00007	.00073	-.00032	.01967	4.9309	.01184	55.096	.00624
#2	.00008	.00049	-.00016	.01470	4.9621	.01172	55.143	.00616
#3	.00024	.00066	.00156	.01279	4.9963	.01695	55.076	.00621
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**9.4041**	**.00040**	**.00360**	**-.00044**	**-.00060**	**.00017**	**2.0950**
Stddev	.00024	.0205	.00044	.00287	.00054	.00217	.00022	.0259
%RSD	308.19	.21835	107.68	79.963	122.22	359.54	127.74	1.2382
#1	.00009	9.4238	.00086	.00449	-.00004	.00104	.00042	2.1023
#2	-.00035	9.4058	.00036	.00038	-.00023	.00021	.00002	2.1165
#3	.00003	9.3828	-.00001	.00592	-.00106	-.00306	.00007	2.0662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311041806 Acquired: 11/13/2013 0:28:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01632**	**.31137**	**-.00169**	**-.00258**	**-.00015**	**.00173**	**.25916**
Stddev	.00022	.00097	.00094	.00118	.00014	.00009	.30304
%RSD	1.3668	.31087	55.716	45.769	94.519	5.1794	116.93
#1	-.01613	.31226	-.00088	-.00368	.00001	.00183	.38435
#2	-.01656	.31151	-.00147	-.00272	-.00022	.00171	.47954
#3	-.01626	.31034	-.00273	-.00133	-.00025	.00166	-.08642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25328.**	**33049.**
Stddev	58.	47.
%RSD	.23041	.14212
#1	25344.	33048.
#2	25264.	33097.
#3	25377.	33003.

Approved: November 13, 2013

Sample Name: L1311042103 Acquired: 11/13/2013 0:31:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**.00175**	**.00009**	**.01993**	**.08785**	**.00003**	**106.77**
Stddev	.00040	.00767	.00069	.00100	.00024	.00000	.40
%RSD	126.19	436.99	758.77	5.0088	.27084	12.792	.37255
#1	.00014	.00659	.00088	.02070	.08770	.00003	107.18
#2	-.00061	-.00709	-.00038	.02029	.08812	.00003	106.38
#3	-.00049	.00576	-.00022	.01880	.08773	.00003	106.75
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00111**	**.00051**	**.00132**	**.00031**	**.01932**	**9.3535**	**.01482**
Stddev	.00006	.00026	.00018	.00044	.00343	.0195	.00169
%RSD	5.6339	51.655	13.704	141.01	17.776	.20896	11.372
#1	.00115	.00042	.00137	.00077	.02301	9.3322	.01653
#2	.00104	.00031	.00147	.00028	.01873	9.3706	.01477
#3	.00114	.00081	.00112	-.00011	.01622	9.3578	.01316
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**108.61**	**.21477**	**.00021**	**10.473**	**.00107**	**.01280**	**.00012**
Stddev	.32	.00088	.00013	.034	.00017	.00175	.00047
%RSD	.29142	.41188	63.698	.32554	16.097	13.646	381.75
#1	108.95	.21545	.00006	10.472	.00098	.01117	-.00028
#2	108.32	.21377	.00031	10.439	.00127	.01465	.00063
#3	108.58	.21509	.00026	10.507	.00097	.01259	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311042103 Acquired: 11/13/2013 0:31:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00182**	**-.00093**	**1.7776**	**-.01652**	**.34128**	**-.00203**	**-.00199**
Stddev	.00080	.00285	.0147	.00037	.00011	.00074	.00157
%RSD	44.091	308.24	.82405	2.2409	.03150	36.424	78.913
#1	.00152	-.00345	1.7607	-.01664	.34129	-.00178	-.00377
#2	.00273	-.00149	1.7849	-.01682	.34116	-.00144	-.00142
#3	.00121	.00217	1.7872	-.01611	.34138	-.00286	-.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00265**	F **-.64682**
Stddev	.00013	.00004	.21798
%RSD	254.03	1.4344	33.700
#1	-.00002	.00261	-.58840
#2	.00020	.00265	-.88805
#3	-.00002	.00269	-.46400
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24852.**	**32929.**
Stddev	64.	66.
%RSD	.25813	.20165
#1	24920.	32866.
#2	24792.	32998.
#3	24844.	32923.

Approved: November 13, 2013

Sample Name: L1311042105 Acquired: 11/13/2013 0:35:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00056**	**.01777**	**-.00054**	**.01557**	**.04735**	**.00001**	**61.830**
Stddev	.00040	.01271	.00097	.00099	.00029	.00001	.122
%RSD	71.520	71.499	180.63	6.3717	.61071	83.016	.19796
#1	-.00046	.01950	-.00150	.01643	.04702	.00003	61.744
#2	-.00100	.00429	-.00055	.01448	.04755	.00000	61.775
#3	-.00022	.02953	.00044	.01579	.04748	.00001	61.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**.00043**	**.00063**	**.00034**	**.03003**	**4.8207**	**.01329**
Stddev	.00022	.00014	.00012	.00014	.00041	.0203	.00019
%RSD	33.015	32.328	18.885	40.653	1.3768	.42074	1.4372
#1	.00070	.00058	.00053	.00042	.02958	4.7977	.01351
#2	.00043	.00040	.00076	.00018	.03039	4.8284	.01314
#3	.00086	.00031	.00061	.00042	.03011	4.8361	.01323
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**56.791**	**.16112**	**-.00027**	**8.5739**	**.00104**	**.00518**	**.00069**
Stddev	.130	.00064	.00018	.0256	.00028	.00263	.00027
%RSD	.22930	.39547	69.432	.29853	26.648	50.728	38.668
#1	56.653	.16184	-.00043	8.5969	.00116	.00657	.00042
#2	56.807	.16092	-.00030	8.5463	.00124	.00681	.00095
#3	56.912	.16061	-.00007	8.5785	.00072	.00215	.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311042105 Acquired: 11/13/2013 0:35:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00064**	**.00043**	**2.3379**	**-.01660**	**.28750**	**-.00151**	**-.00211**
Stddev	.00189	.00208	.0144	.00005	.00110	.00080	.00174
%RSD	295.31	482.23	.61375	.29753	.38340	52.924	82.750
#1	.00012	.00075	2.3526	-.01655	.28777	-.00085	-.00406
#2	-.00279	.00234	2.3239	-.01665	.28845	-.00239	-.00156
#3	.00075	-.00179	2.3371	-.01661	.28629	-.00128	-.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00031**	**.00126**	F **-.70697**
Stddev	.00017	.00007	.38590
%RSD	54.407	5.5373	54.586
#1	-.00015	.00129	-1.1421
#2	-.00049	.00118	-.57252
#3	-.00029	.00131	-.40627
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25282.**	**32978.**
Stddev	29.	29.
%RSD	.11471	.08696
#1	25255.	32960.
#2	25312.	33011.
#3	25277.	32964.

Approved: November 13, 2013

Sample Name: L1311042107 Acquired: 11/13/2013 0:38:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00055**	**.00465**	**-.00168**	**.01614**	**.04902**	**.00002**	**65.115**
Stddev	.00028	.01180	.00099	.00044	.00036	.00001	.095
%RSD	51.694	253.69	59.236	2.7552	.73509	34.743	.14635
#1	-.00027	.01324	-.00061	.01565	.04887	.00001	65.131
#2	-.00053	.00951	-.00184	.01652	.04875	.00003	65.012
#3	-.00084	-.00880	-.00258	.01625	.04943	.00002	65.200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.00007**	**.00096**	**-.00016**	**.01431**	**5.1639**	**.01410**
Stddev	.00004	.00004	.00048	.00010	.00297	.0229	.00099
%RSD	5.2234	54.400	49.824	62.120	20.723	.44389	7.0478
#1	.00080	.00012	.00123	-.00013	.01431	5.1617	.01481
#2	.00085	.00004	.00041	-.00028	.01728	5.1879	.01296
#3	.00077	.00006	.00123	-.00009	.01135	5.1422	.01452
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**55.760**	**.00501**	**-.00040**	**9.6444**	**.00010**	**.00315**	**.00098**
Stddev	.115	.00008	.00019	.0299	.00021	.00706	.00115
%RSD	.20707	1.5698	48.395	.31015	217.76	223.82	117.27
#1	55.629	.00493	-.00036	9.6780	.00016	.00642	.00165
#2	55.849	.00502	-.00023	9.6347	.00027	-.00495	.00164
#3	55.802	.00509	-.00061	9.6206	-.00014	.00798	-.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311042107 Acquired: 11/13/2013 0:38:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**-.00253**	**2.1244**	**-.01690**	**.31642**	**-.00126**	**-.00213**
Stddev	.00168	.00094	.0385	.00023	.00149	.00123	.00184
%RSD	263.91	37.376	1.8120	1.3429	.47228	97.231	86.380
#1	.00098	-.00351	2.1389	-.01709	.31772	-.00050	-.00067
#2	.00211	-.00162	2.1534	-.01665	.31675	-.00061	-.00420
#3	-.00119	-.00245	2.0807	-.01694	.31479	-.00267	-.00152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00014**	**.00242**	F **-.34980**
Stddev	.00014	.00008	.99887
%RSD	99.528	3.3013	285.56
#1	.00003	.00237	-.07485
#2	.00029	.00251	.48280
#3	.00010	.00237	-1.4573
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25296.**	**33128.**
Stddev	22.	75.
%RSD	.08872	.22594
#1	25319.	33090.
#2	25295.	33215.
#3	25274.	33080.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/13/2013 0:42:11 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41355**	**10.487**	**.41373**	**.51959**	**1.0359**	**.05125**	**10.267**
Stddev	.00122	.006	.00084	.00233	.0014	.00017	.043
%RSD	.29501	.05811	.20355	.44906	.13379	.32421	.42300
#1	.41405	10.485	.41349	.52148	1.0368	.05128	10.317
#2	.41444	10.482	.41304	.52031	1.0343	.05140	10.248
#3	.41216	10.494	.41467	.51698	1.0367	.05107	10.237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05226**	**.21035**	**.51700**	**.52811**	**4.2053**	**51.433**	**1.0453**
Stddev	.00015	.00049	.00288	.00079	.0056	.071	.0008
%RSD	.27831	.23364	.55785	.15031	.13309	.13899	.07571
#1	.05228	.21002	.51820	.52831	4.2069	51.421	1.0462
#2	.05240	.21011	.51908	.52879	4.1991	51.368	1.0451
#3	.05211	.21091	.51371	.52724	4.2099	51.509	1.0447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.516**	**.52863**	**1.0372**	**52.545**	**.52771**	**10.349**	**.52641**
Stddev	.036	.00263	.0026	.204	.00020	.035	.00332
%RSD	.33785	.49686	.25195	.38850	.03763	.34182	.63017
#1	10.549	.52941	1.0393	52.353	.52761	10.384	.53021
#2	10.478	.52570	1.0381	52.522	.52758	10.350	.52410
#3	10.521	.53078	1.0343	52.759	.52794	10.313	.52493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/13/2013 0:42:11 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2559**	**.41348**	**5.2883**	**1.0452**	**1.0396**	**1.0362**	**.53503**
Stddev	.0036	.00299	.0263	.0142	.0025	.0012	.00101
%RSD	.28351	.72332	.49650	1.3559	.24278	.11116	.18911
#1	1.2559	.41564	5.2934	1.0541	1.0371	1.0359	.53583
#2	1.2594	.41007	5.3116	1.0526	1.0395	1.0353	.53389
#3	1.2523	.41474	5.2599	1.0288	1.0422	1.0375	.53536
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0271**	**1.0444**	F **.12527**
Stddev	.0016	.0027	.93533
%RSD	.15816	.25509	746.63
#1	1.0270	1.0475	-.13058
#2	1.0288	1.0427	1.1619
#3	1.0255	1.0431	-.65551
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25826.**	**33282.**
Stddev	65.	206.
%RSD	.25022	.61986
#1	25897.	33329.
#2	25770.	33461.
#3	25812.	33056.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 0:45:27 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.01541**	**.00014**	**.00249**	**-.00017**	**-.00002**	**-.01322**
Stddev	.00012	.02156	.00025	.00036	.00016	.00002	.00654
%RSD	43.987	139.96	177.28	14.484	98.701	123.11	49.508
#1	-.00040	.00682	.00023	.00213	-.00027	-.00004	-.00984
#2	-.00021	.03994	-.00014	.00249	-.00026	.00000	-.00906
#3	-.00019	-.00054	.00032	.00286	.00002	-.00001	-.02076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**-.00002**	**.00012**	**-.00026**	**-.00095**	**-.15972**	**.00761**
Stddev	.00012	.00014	.00035	.00044	.00132	.02035	.00086
%RSD	1133.3	808.96	293.50	172.97	138.46	12.743	11.285
#1	-.00014	.00005	.00052	-.00002	-.00045	-.15809	.00666
#2	.00001	.00007	-.00010	.00002	-.00245	-.14023	.00833
#3	.00010	-.00018	-.00006	-.00077	.00004	-.18084	.00783
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00435**	**-.00007**	**.00394**	**.04539**	**-.00025**	**.00221**	**.00065**
Stddev	.01390	.00002	.00031	.00321	.00059	.00096	.00118
%RSD	319.68	26.849	7.9443	7.0720	237.65	43.438	181.69
#1	-.01045	-.00006	.00358	.04214	-.00088	.00171	-.00070
#2	.01712	-.00006	.00410	.04856	.00030	.00331	.00114
#3	.00637	-.00010	.00414	.04547	-.00016	.00160	.00151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 0:45:27 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.00157**	**.00139**	**.00013**	**-.00011**	**-.00017**	**-.00058**
Stddev	.00059	.00322	.00271	.00022	.00006	.00009	.00034
%RSD	148.78	204.98	195.69	166.50	60.188	50.521	59.057
#1	-.00070	.00523	.00010	.00035	-.00018	-.00027	-.00075
#2	.00028	-.00081	.00451	.00014	-.00010	-.00011	-.00019
#3	-.00078	.00028	-.00044	-.00009	-.00005	-.00013	-.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00003**	**-.00071**	F **-.82205**
Stddev	.00016	.00002	.07074
%RSD	522.77	2.7070	8.6058
#1	.00014	-.00072	-.90084
#2	.00010	-.00069	-.80131
#3	-.00015	-.00072	-.76399
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25985.**	**33221.**
Stddev	18.	96.
%RSD	.06758	.29018
#1	26005.	33211.
#2	25972.	33130.
#3	25978.	33322.

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311043403 Acquired: 11/13/2013 0:49:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.00500**	**-.00026**	**.01796**	**.04144**	**.00000**	**59.580**
Stddev	.00022	.01273	.00096	.00018	.00011	.00001	.076
%RSD	44.271	254.77	365.70	.99138	.26584	715.65	.12685
#1	-.00064	.01883	-.00136	.01803	.04135	.00000	59.634
#2	-.00058	.00240	.00020	.01776	.04156	.00002	59.494
#3	-.00024	-.00623	.00038	.01810	.04140	-.00001	59.613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00070**	**.00006**	**.00061**	**.00011**	**.02333**	**5.3671**	**.01377**
Stddev	.00012	.00008	.00039	.00052	.00445	.0108	.00193
%RSD	16.866	139.62	63.769	492.84	19.090	.20158	13.991
#1	.00084	.00012	.00018	.00018	.02665	5.3794	.01342
#2	.00064	-.00003	.00072	-.00045	.01827	5.3624	.01585
#3	.00063	.00009	.00094	.00058	.02507	5.3594	.01205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.774**	**.03308**	**.00015**	**7.4083**	**.00092**	**.10850**	**.00066**
Stddev	.138	.00039	.00004	.0222	.00108	.00401	.00174
%RSD	.28944	1.1712	23.472	.29921	117.25	3.6917	263.90
#1	47.711	.03273	.00011	7.4311	-.00012	.11312	-.00127
#2	47.679	.03350	.00016	7.4069	.00084	.10611	.00210
#3	47.933	.03300	.00018	7.3868	.00204	.10626	.00115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043403 Acquired: 11/13/2013 0:49:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00085**	**-.00323**	**1.8558**	**-.01666**	**.36879**	**-.00062**	**-.00230**
Stddev	.00156	.00185	.0125	.00021	.00078	.00111	.00093
%RSD	182.93	57.359	.67159	1.2554	.21085	177.67	40.503
#1	.00092	-.00416	1.8601	-.01645	.36942	-.00164	-.00336
#2	-.00199	-.00110	1.8418	-.01687	.36904	-.00079	-.00158
#3	-.00149	-.00443	1.8656	-.01666	.36792	.00056	-.00196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00009**	**.00195**	F **-1.3788**
Stddev	.00031	.00003	.3127
%RSD	351.11	1.2802	22.678
#1	-.00026	.00194	-1.6799
#2	.00032	.00198	-1.4008
#3	.00019	.00194	-1.0557
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25389.**	**33154.**
Stddev	63.	150.
%RSD	.24725	.45307
#1	25317.	33323.
#2	25426.	33036.
#3	25425.	33103.

Approved: November 13, 2013

Sample Name: L1311043403DP Acquired: 11/13/2013 0:52:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.01636**	**-.00078**	**.01746**	**.04092**	**.00001**	**58.661**	**.00073**
Stddev	.00028	.00234	.00169	.00075	.00016	.00002	.075	.00018
%RSD	57.200	14.285	217.41	4.3000	.39572	135.11	.12826	25.153
#1	-.00019	.01742	-.00228	.01683	.04111	.00000	58.619	.00094
#2	-.00055	.01368	.00106	.01829	.04085	.00001	58.748	.00059
#3	-.00074	.01799	-.00111	.01727	.04081	.00004	58.617	.00067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00061**	**.00030**	**.01824**	**5.3288**	**.01492**	**46.999**	**.03248**
Stddev	.00014	.00023	.00015	.00200	.0228	.00134	.113	.00033
%RSD	107.27	38.360	51.175	10.954	.42737	8.9870	.24131	1.0070
#1	.00019	.00084	.00014	.01744	5.3034	.01638	47.126	.03279
#2	.00023	.00037	.00031	.02052	5.3473	.01373	46.961	.03214
#3	-.00003	.00062	.00044	.01677	5.3357	.01466	46.909	.03251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**7.3358**	**.00149**	**.07248**	**-.00015**	**-.00134**	**.00036**	**1.8652**
Stddev	.00020	.0016	.00081	.00943	.00028	.00148	.00086	.0183
%RSD	158.37	.02230	54.127	13.017	180.93	110.37	240.05	.98262
#1	-.00028	7.3376	.00200	.06172	.00008	-.00298	-.00027	1.8471
#2	-.00020	7.3351	.00056	.07931	-.00008	-.00091	.00134	1.8838
#3	.00010	7.3346	.00192	.07641	-.00046	-.00012	.00001	1.8649
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043403DP Acquired: 11/13/2013 0:52:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01659**	**.36525**	**-.00201**	**-.00150**	**.00019**	**.00315**	**16.496**
Stddev	.00021	.00058	.00055	.00123	.00019	.00002	.775
%RSD	1.2373	.15977	27.251	82.013	98.077	.51586	4.6969
#1	-.01637	.36591	-.00262	-.00154	.00022	.00313	17.329
#2	-.01678	.36506	-.00155	-.00025	-.00001	.00316	15.797
#3	-.01662	.36479	-.00187	-.00272	.00036	.00315	16.362
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25427.**	**33275.**
Stddev	49.	106.
%RSD	.19444	.31856
#1	25390.	33153.
#2	25407.	33341.
#3	25483.	33331.

Approved: November 13, 2013

Sample Name: L1311043403S Acquired: 11/13/2013 0:55:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20402**	**5.0063**	**.19972**	**1.0388**	**.53412**	**.02450**	**66.580**	**.02584**
Stddev	.00101	.0192	.00042	.0060	.00116	.00016	.087	.00004
%RSD	.49630	.38401	.20872	.57660	.21768	.66610	.13124	.13989
#1	.20439	5.0077	.19991	1.0391	.53318	.02463	66.523	.02588
#2	.20479	5.0247	.20001	1.0447	.53542	.02456	66.681	.02585
#3	.20287	4.9864	.19924	1.0327	.53376	.02432	66.537	.02580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10024**	**.24999**	**.25201**	**2.0262**	**30.341**	**.51097**	**54.243**	**.28250**
Stddev	.00012	.00194	.00018	.0120	.057	.00099	.046	.00026
%RSD	.11902	.77701	.07116	.59310	.18642	.19289	.08421	.09103
#1	.10026	.25076	.25192	2.0128	30.309	.51140	54.194	.28279
#2	.10011	.25144	.25222	2.0361	30.406	.51166	54.250	.28231
#3	.10034	.24779	.25190	2.0296	30.307	.50984	54.285	.28240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50849**	**33.045**	**.25209**	**.11207**	**.25626**	**.61072**	**.19900**	**4.5200**
Stddev	.00058	.084	.00176	.00412	.00146	.00232	.00442	.0211
%RSD	.11422	.25502	.69796	3.6759	.56990	.38025	2.2188	.46699
#1	.50897	33.055	.25042	.11068	.25768	.60876	.19402	4.5124
#2	.50864	33.123	.25392	.11670	.25634	.61011	.20056	4.5037
#3	.50784	32.956	.25192	.10882	.25476	.61329	.20243	4.5438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

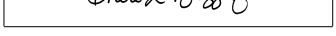
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043403S Acquired: 11/13/2013 0:55:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00183**	**.87912**	**.49413**	**.25159**	**.49670**	**.49720**	**.23659**
Stddev	.00078	.00128	.00073	.00147	.00244	.00090	.18746
%RSD	42.751	.14529	.14721	.58454	.49024	.18108	79.234
#1	.00093	.87910	.49344	.25026	.49877	.49810	.03544
#2	.00226	.88041	.49489	.25134	.49731	.49720	.40641
#3	.00229	.87786	.49405	.25317	.49402	.49630	.26793
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25151.**	**33056.**
Stddev	82.	80.
%RSD	.32459	.24104
#1	25148.	33120.
#2	25071.	33082.
#3	25234.	32967.

Approved: November 13, 2013



Sample Name: L1311043405 Acquired: 11/13/2013 0:59:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00039**	**.01818**	**.00034**	**.02634**	**.03515**	**.00003**	**134.12**	**.00126**
Stddev	.00043	.00462	.00095	.00038	.00022	.00001	.12	.00008
%RSD	110.35	25.442	281.51	1.4299	.63285	52.408	.08666	6.3396
#1	-.00001	.01417	.00091	.02642	.03504	.00001	134.21	.00117
#2	-.00030	.01713	-.00076	.02668	.03500	.00004	134.15	.00127
#3	-.00086	.02324	.00087	.02593	.03540	.00003	133.99	.00133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.00098**	**.00019**	**.02231**	**8.8895**	**.03082**	**138.40**	**.09557**
Stddev	.00017	.00034	.00064	.00218	.0110	.00143	.17	.00029
%RSD	41.821	34.319	343.43	9.7675	.12314	4.6328	.12138	.30679
#1	.00021	.00062	-.00054	.02414	8.9019	.02967	138.36	.09553
#2	.00051	.00103	.00045	.02287	8.8813	.03038	138.58	.09531
#3	.00050	.00129	.00065	.01990	8.8852	.03242	138.25	.09589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00172**	**27.029**	**.00529**	**.08866**	**.00083**	**-.00013**	**.00049**	**1.9696**
Stddev	.00030	.147	.00024	.00250	.00108	.00134	.00194	.0165
%RSD	17.319	.54287	4.4695	2.8159	130.30	1032.9	397.90	.83844
#1	.00138	27.087	.00536	.08839	.00054	-.00067	.00209	1.9553
#2	.00194	26.862	.00503	.09127	.00203	.00140	.00105	1.9658
#3	.00183	27.137	.00548	.08630	-.00007	-.00112	-.00167	1.9877
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043405 Acquired: 11/13/2013 0:59:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01667**	**.82995**	**-.00308**	**-.00115**	**-.00016**	**.00319**	**.10534**
Stddev	.00036	.00351	.00049	.00106	.00011	.00012	.51960
%RSD	2.1834	.42316	15.776	91.943	69.665	3.9117	493.26
#1	-.01694	.83004	-.00339	-.00228	-.00008	.00305	.37867
#2	-.01682	.82639	-.00332	-.00017	-.00012	.00325	-.49387
#3	-.01626	.83341	-.00252	-.00102	-.00029	.00328	.43122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24738.**	**33046.**
Stddev	28.	139.
%RSD	.11212	.42036
#1	24742.	33011.
#2	24764.	33199.
#3	24709.	32927.

Approved: November 13, 2013

Sample Name: L1311043408 Acquired: 11/13/2013 1:02:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.01762**	**-.00093**	**.02011**	**.04056**	**.00001**	**61.350**
Stddev	.00050	.00571	.00086	.00119	.00019	.00003	.296
%RSD	238.18	32.380	92.598	5.8930	.47977	208.53	.48206
#1	-.00028	.02164	-.00003	.02002	.04074	.00003	61.280
#2	-.00067	.01109	-.00175	.01898	.04036	-.00002	61.095
#3	.00032	.02013	-.00101	.02134	.04058	.00002	61.674
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00070**	**.00013**	**.00098**	**.00056**	**.00928**	**5.5213**	**.01547**
Stddev	.00005	.00026	.00025	.00072	.00195	.0127	.00063
%RSD	7.4172	209.46	25.092	128.76	21.034	.22996	4.0644
#1	.00071	.00026	.00096	.00060	.00840	5.5316	.01572
#2	.00074	.00029	.00075	-.00018	.00792	5.5253	.01476
#3	.00064	-.00018	.00124	.00126	.01151	5.5071	.01594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.369**	**.01416**	**-.00013**	**7.9407**	**.00086**	**.00672**	**-.00005**
Stddev	.164	.00011	.00014	.0091	.00014	.00175	.00338
%RSD	.32502	.78116	110.08	.11418	16.418	26.029	6934.1
#1	50.256	.01417	-.00027	7.9483	.00074	.00476	.00015
#2	50.296	.01404	.00000	7.9432	.00082	.00728	.00322
#3	50.557	.01426	-.00010	7.9307	.00101	.00811	-.00352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043408 Acquired: 11/13/2013 1:02:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00121**	**.00008**	**1.9545**	**-.01659**	**.38271**	**-.00184**	**-.00249**
Stddev	.00164	.00114	.0069	.00041	.00043	.00142	.00198
%RSD	135.70	1438.5	.35276	2.4612	.11244	77.476	79.186
#1	-.00241	.00101	1.9591	-.01632	.38286	-.00041	-.00323
#2	.00066	-.00119	1.9466	-.01639	.38304	-.00326	-.00400
#3	-.00189	.00042	1.9579	-.01706	.38222	-.00185	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00004**	**.00257**	F **-.50891**
Stddev	.00002	.00011	.51882
%RSD	48.583	4.2327	101.95
#1	.00003	.00263	-.55046
#2	.00007	.00245	.02944
#3	.00003	.00264	-1.0057
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25315.**	**33336.**
Stddev	8.	158.
%RSD	.03144	.47352
#1	25309.	33370.
#2	25324.	33474.
#3	25312.	33164.

Approved: November 13, 2013

Sample Name: L1311043502 Acquired: 11/13/2013 1:06:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00045**	**.00318**	**-.00124**	**.01899**	**.04376**	**.00002**	**63.031**
Stddev	.00082	.01066	.00047	.00149	.00022	.00000	.174
%RSD	183.19	335.71	37.878	7.8352	.49582	18.251	.27664
#1	-.00125	-.00561	-.00173	.02069	.04353	.00002	63.200
#2	.00038	.01504	-.00120	.01830	.04379	.00003	63.042
#3	-.00047	.00010	-.00079	.01796	.04396	.00002	62.852
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00014**	**.00038**	**.00056**	**.02563**	**5.7127**	**.01605**
Stddev	.00006	.00012	.00032	.00033	.00541	.0260	.00047
%RSD	7.7925	87.598	83.614	59.672	21.104	.45459	2.9399
#1	.00078	.00003	.00071	.00072	.02079	5.6834	.01640
#2	.00067	.00011	.00037	.00018	.03147	5.7330	.01623
#3	.00077	.00027	.00007	.00078	.02464	5.7217	.01551
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.585**	**.03491**	**-.00018**	**7.8685**	**.00071**	**.11997**	**.00121**
Stddev	.205	.00015	.00012	.0108	.00064	.00113	.00117
%RSD	.40430	.43887	66.046	.13700	90.470	.94122	95.929
#1	50.759	.03493	-.00005	7.8561	.00106	.12090	.00024
#2	50.637	.03505	-.00028	7.8739	.00109	.11872	.00090
#3	50.360	.03475	-.00019	7.8756	-.00003	.12031	.00250
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043502 Acquired: 11/13/2013 1:06:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**-.00178**	**1.9763**	**-.01658**	**.39105**	**-.00179**	**-.00441**
Stddev	.00076	.00133	.0191	.00014	.00061	.00054	.00065
%RSD	1506.6	74.489	.96525	.82571	.15521	30.359	14.670
#1	.00056	-.00165	1.9845	-.01673	.39043	-.00171	-.00507
#2	-.00090	-.00318	1.9545	-.01647	.39164	-.00130	-.00378
#3	.00019	-.00053	1.9899	-.01654	.39109	-.00237	-.00437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00016**	**.00242**	F **-1.0912**
Stddev	.00014	.00007	.3699
%RSD	85.507	2.7779	33.901
#1	-.00032	.00237	-1.2932
#2	-.00007	.00241	-1.3162
#3	-.00010	.00250	-.66426
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25407.**	**33155.**
Stddev	29.	171.
%RSD	.11222	.51551
#1	25437.	33152.
#2	25402.	32986.
#3	25381.	33328.

Approved: November 13, 2013

Sample Name: L1311043504 Acquired: 11/13/2013 1:09:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00066**	**.01711**	**-.00106**	**.02313**	**.03496**	**.00002**	**134.95**
Stddev	.00013	.00359	.00144	.00133	.00011	.00001	.09
%RSD	19.982	20.962	135.58	5.7547	.31274	23.292	.06445
#1	-.00081	.01921	-.00079	.02168	.03506	.00002	135.05
#2	-.00064	.01916	-.00262	.02343	.03497	.00002	134.92
#3	-.00055	.01297	.00022	.02429	.03484	.00003	134.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**.00046**	**.00108**	**.00025**	**.02092**	**8.9230**	**.03151**
Stddev	.00019	.00014	.00017	.00017	.00470	.0139	.00140
%RSD	14.295	29.545	15.488	66.239	22.457	.15618	4.4530
#1	.00135	.00047	.00100	.00031	.01640	8.9117	.03024
#2	.00112	.00031	.00127	.00006	.02058	8.9386	.03302
#3	.00149	.00058	.00097	.00038	.02578	8.9188	.03127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**138.90**	**.09596**	**.00007**	**27.158**	**.00502**	**.09940**	**.00017**
Stddev	.35	.00089	.00013	.096	.00080	.00200	.00156
%RSD	.25429	.93120	183.97	.35266	15.932	2.0093	912.65
#1	138.89	.09539	.00004	27.098	.00591	.10020	.00103
#2	139.26	.09549	.00022	27.107	.00478	.09712	.00111
#3	138.55	.09699	-.00004	27.268	.00437	.10087	-.00163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043504 Acquired: 11/13/2013 1:09:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00070**	**-.00199**	**1.9909**	**-.01671**	**.83294**	**-.00308**	**-.00329**
Stddev	.00137	.00168	.0163	.00021	.00199	.00100	.00040
%RSD	194.75	84.247	.82015	1.2506	.23944	32.422	12.278
#1	.00038	-.00335	2.0076	-.01664	.83117	-.00417	-.00289
#2	-.00025	-.00011	1.9899	-.01655	.83255	-.00289	-.00329
#3	-.00224	-.00252	1.9750	-.01695	.83510	-.00220	-.00370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00020**	**.00257**	F **-1.3282**
Stddev	.00014	.00008	.7763
%RSD	72.610	3.1509	58.446
#1	-.00025	.00258	-2.1155
#2	-.00004	.00265	-1.3058
#3	-.00031	.00249	-.56339
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24719.**	**32952.**
Stddev	70.	187.
%RSD	.28243	.56688
#1	24651.	33125.
#2	24791.	32975.
#3	24716.	32754.

Approved: November 13, 2013

Sample Name: L1311043510 Acquired: 11/13/2013 1:13:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.01353**	**.00072**	**.01746**	**.04159**	**.00000**	**61.371**
Stddev	.00052	.01542	.00148	.00047	.00017	.0000	.035
%RSD	218.11	113.94	204.82	2.6748	.40883	863.31	.05707
#1	.00030	.00572	.00145	.01721	.04178	-.00002	61.411
#2	-.00027	.00358	.00171	.01800	.04145	-.00001	61.346
#3	-.00074	.03129	-.00098	.01718	.04154	.00002	61.356
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**.00008**	**.00065**	**-.00038**	**.01004**	**5.5769**	**.01519**
Stddev	.00008	.00009	.00004	.00073	.00352	.0047	.00064
%RSD	10.486	117.95	6.7943	189.71	35.042	.08363	4.1907
#1	.00082	-.00003	.00063	-.00056	.01119	5.5732	.01585
#2	.00067	.00012	.00070	-.00101	.00609	5.5821	.01458
#3	.00079	.00014	.00062	.00042	.01284	5.5752	.01515
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.569**	**.01529**	**-.00052**	**7.9949**	**.00140**	**.00598**	**-.00048**
Stddev	.060	.00001	.00018	.0124	.00045	.00365	.00126
%RSD	.11807	.05290	34.361	.15467	32.041	61.019	263.13
#1	50.626	.01530	-.00042	7.9810	.00164	.00399	-.00162
#2	50.507	.01528	-.00072	7.9991	.00168	.01019	.00087
#3	50.575	.01529	-.00041	8.0046	.00088	.00376	-.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043510 Acquired: 11/13/2013 1:13:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00122**	**.00015**	**1.9646**	**-.01658**	**.38585**	**-.00128**	**-.00184**
Stddev	.00059	.00255	.0109	.00008	.00106	.00038	.00042
%RSD	48.088	1688.2	.55287	.49512	.27498	29.381	22.622
#1	.00062	-.00273	1.9574	-.01650	.38463	-.00129	-.00203
#2	.00179	.00211	1.9771	-.01666	.38660	-.00165	-.00213
#3	.00127	.00107	1.9593	-.01659	.38630	-.00090	-.00136
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00016**	**.00201**	F **-.12332**
Stddev	.00003	.00016	1.1193
%RSD	16.874	8.1639	907.60
#1	-.00018	.00193	1.0780
#2	-.00017	.00220	-1.1368
#3	-.00013	.00190	-.31116
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25330.**	**33202.**
Stddev	29.	53.
%RSD	.11416	.16057
#1	25332.	33262.
#2	25299.	33161.
#3	25357.	33182.

Approved: November 13, 2013

Sample Name: L1311043602 Acquired: 11/13/2013 1:16:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.00505**	**-.00060**	**.01772**	**.04140**	**.00001**	**59.626**
Stddev	.00062	.01721	.00164	.00016	.00009	.00002	.091
%RSD	144.04	340.96	274.96	.92562	.22548	133.22	.15222
#1	-.00047	.01533	.00130	.01773	.04132	.00000	59.676
#2	.00021	.01465	-.00159	.01787	.04139	.00003	59.681
#3	-.00104	-.01482	-.00150	.01754	.04150	.00000	59.522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00079**	**.00000**	**.00073**	**.00080**	**.01999**	**5.4138**	**.01374**
Stddev	.00012	.0001	.00031	.00035	.00288	.0192	.00127
%RSD	15.034	2235.8	41.932	44.013	14.397	.35515	9.2465
#1	.00093	.00006	.00098	.00108	.02089	5.4334	.01228
#2	.00070	-.00006	.00082	.00092	.01677	5.3949	.01464
#3	.00076	-.00001	.00039	.00040	.02231	5.4132	.01428
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.924**	**.03308**	**-.00034**	**7.4315**	**.00107**	**.10936**	**-.00035**
Stddev	.125	.00027	.00024	.0130	.00045	.00919	.00110
%RSD	.26007	.82051	70.573	.17537	42.133	8.4066	311.54
#1	48.064	.03276	-.00042	7.4303	.00126	.11060	-.00066
#2	47.885	.03325	-.00007	7.4451	.00140	.09961	-.00127
#3	47.824	.03322	-.00052	7.4191	.00056	.11786	.00087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043602 Acquired: 11/13/2013 1:16:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00125**	**-.00037**	**1.8758**	**-.01643**	**.36957**	**-.00166**	**-.00373**
Stddev	.00056	.00114	.0351	.00014	.00017	.00081	.00168
%RSD	45.134	310.57	1.8714	.82417	.04569	48.634	45.048
#1	-.00186	-.00138	1.8621	-.01657	.36938	-.00260	-.00408
#2	-.00075	-.00057	1.8496	-.01640	.36970	-.00118	-.00190
#3	-.00113	.00086	1.9157	-.01631	.36963	-.00121	-.00521
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**.00345**	F **-.44514**
Stddev	.00012	.00012	.58547
%RSD	1899.7	3.4635	131.53
#1	.00005	.00332	-.85587
#2	.00008	.00356	.22525
#3	-.00014	.00348	-.70480
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25458.**	**33198.**
Stddev	18.	38.
%RSD	.07248	.11441
#1	25442.	33174.
#2	25478.	33178.
#3	25454.	33242.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043604 Acquired: 11/13/2013 1:20:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00067**	**.00344**	**-.00123**	**.01794**	**.03998**	**.00001**	**59.291**
Stddev	.00008	.01679	.00107	.00138	.00067	.00001	.231
%RSD	11.366	487.48	86.834	7.7184	1.6667	112.14	.39009
#1	-.00059	-.00392	-.00160	.01830	.04066	.00001	59.071
#2	-.00074	-.00840	-.00003	.01912	.03933	.00000	59.532
#3	-.00068	.02265	-.00207	.01642	.03995	.00001	59.270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00017**	**.00042**	**.00030**	**.01004**	**5.3532**	**.01454**
Stddev	.00010	.00020	.00043	.00020	.00292	.0317	.00117
%RSD	13.876	115.42	102.48	66.778	29.118	.59176	8.0455
#1	.00063	.00025	.00063	.00014	.00742	5.3870	.01324
#2	.00076	.00033	.00072	.00023	.01319	5.3242	.01549
#3	.00083	-.00005	-.00008	.00052	.00949	5.3485	.01491
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.899**	**.01368**	**-.00038**	**7.7849**	**.00129**	**.00847**	**.00144**
Stddev	.078	.00016	.00027	.0262	.00042	.00947	.00122
%RSD	.16008	1.1667	71.746	.33662	32.778	111.75	84.644
#1	48.840	.01356	-.00065	7.7553	.00177	-.00203	.00265
#2	48.988	.01386	-.00012	7.7942	.00113	.01635	.00145
#3	48.870	.01363	-.00036	7.8052	.00097	.01111	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311043604 Acquired: 11/13/2013 1:20:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00106**	**-.00118**	**1.9278**	**-.01630**	**.37510**	**-.00098**	**-.00444**
Stddev	.00122	.00117	.0342	.00033	.00110	.00106	.00168
%RSD	115.15	99.514	1.7747	2.0311	.29251	108.01	37.818
#1	-.00057	-.00065	1.8969	-.01667	.37384	-.00005	-.00308
#2	-.00016	-.00252	1.9646	-.01618	.37561	-.00076	-.00632
#3	-.00245	-.00036	1.9221	-.01604	.37585	-.00213	-.00393
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00018**	**.00176**	F **-.71103**
Stddev	.00011	.00004	1.4490
%RSD	59.375	2.4361	203.79
#1	-.00006	.00181	.88085
#2	-.00027	.00173	-1.9532
#3	-.00021	.00175	-1.0608
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25424.**	**33317.**
Stddev	51.	217.
%RSD	.20064	.65145
#1	25481.	33567.
#2	25408.	33173.
#3	25384.	33211.

Approved: November 13, 2013

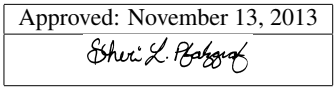
Sample Name: CCV Acquired: 11/13/2013 1:23:38 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41510**	**10.452**	**.41381**	**.52014**	**1.0429**	**.05128**	**10.195**
Stddev	.00078	.039	.00033	.00173	.0019	.00008	.012
%RSD	.18676	.37276	.08017	.33169	.17991	.16532	.11295
#1	.41519	10.416	.41344	.52161	1.0425	.05135	10.184
#2	.41583	10.446	.41392	.52057	1.0414	.05131	10.207
#3	.41428	10.493	.41407	.51824	1.0450	.05118	10.196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05214**	**.21059**	**.51917**	**.52818**	**4.2325**	**51.613**	**1.0464**
Stddev	.00012	.00024	.00412	.00140	.0074	.111	.0027
%RSD	.22485	.11315	.79446	.26564	.17450	.21457	.25302
#1	.05204	.21061	.52038	.52904	4.2240	51.514	1.0457
#2	.05227	.21034	.52255	.52656	4.2359	51.594	1.0442
#3	.05212	.21082	.51458	.52894	4.2375	51.733	1.0494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.497**	**.52844**	**1.0378**	**52.439**	**.52600**	**10.367**	**.52961**
Stddev	.025	.00180	.0008	.089	.00055	.004	.00166
%RSD	.24167	.33992	.07370	.16941	.10542	.03861	.31324
#1	10.513	.52643	1.0385	52.340	.52608	10.368	.52888
#2	10.510	.52989	1.0379	52.464	.52541	10.363	.52845
#3	10.467	.52899	1.0370	52.512	.52651	10.371	.53151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013



Sample Name: CCV Acquired: 11/13/2013 1:23:38 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2578**	**.41132**	**5.3739**	**1.0547**	**1.0395**	**1.0357**	**.53276**
Stddev	.0030	.00289	.0059	.0011	.0029	.0030	.00462
%RSD	.23620	.70236	.10989	.10241	.28225	.29147	.86671
#1	1.2574	.41086	5.3803	1.0541	1.0362	1.0343	.53323
#2	1.2550	.41442	5.3687	1.0541	1.0405	1.0335	.52793
#3	1.2609	.40870	5.3725	1.0560	1.0417	1.0391	.53713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0263**	**1.0466**	F **.54944**
Stddev	.0003	.0014	.53272
%RSD	.02899	.13346	96.957
#1	1.0264	1.0467	-.05324
#2	1.0260	1.0452	.74411
#3	1.0266	1.0479	.95745
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25818.**	**33320.**
Stddev	11.	123.
%RSD	.04252	.36846
#1	25806.	33462.
#2	25822.	33252.
#3	25827.	33247.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 1:26:53 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.00200**	**.00022**	**.00328**	**-.00035**	**-.00001**	**-.01208**
Stddev	.00028	.00815	.00085	.00065	.00032	.00004	.00364
%RSD	59.092	407.57	380.76	19.940	91.849	658.75	30.133
#1	-.00025	-.00680	-.00057	.00399	-.00006	.00004	-.00872
#2	-.00078	.00929	.00012	.00312	-.00029	-.00003	-.01158
#3	-.00038	.00351	.00112	.00272	-.00070	-.00002	-.01595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00007**	**.00031**	**-.00016**	**-.00371**	**-.19146**	**.00910**
Stddev	.00009	.00017	.00017	.00020	.00054	.02496	.00081
%RSD	72.340	258.98	55.587	128.28	14.516	13.037	8.9455
#1	.00015	.00007	.00023	-.00035	-.00322	-.19021	.00864
#2	.00018	-.00011	.00019	.00005	-.00429	-.16714	.00863
#3	.00002	.00024	.00050	-.00017	-.00363	-.21702	.01004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00739**	**-.00010**	**.00387**	**.04963**	**-.00040**	**.00015**	**.00154**
Stddev	.02107	.00005	.00024	.00367	.00060	.00257	.00033
%RSD	285.17	52.776	6.3048	7.3997	149.81	1663.1	21.288
#1	.03142	-.00014	.00359	.05378	-.00109	.00250	.00126
#2	-.00138	-.00004	.00402	.04678	-.00004	-.00260	.00147
#3	-.00788	-.00011	.00400	.04834	-.00007	.00057	.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 1:26:53 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.00080**	**.00185**	**-.00002**	**-.00009**	**-.00004**	**-.00187**
Stddev	.00115	.00120	.00131	.00043	.00003	.00048	.00139
%RSD	307.49	151.10	70.649	2073.2	30.326	1127.8	74.595
#1	.00072	.00103	.00060	.00003	-.00006	.00039	-.00312
#2	-.00158	-.00051	.00174	.00038	-.00012	.00005	-.00213
#3	-.00027	.00187	.00322	-.00048	-.00010	-.00057	-.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00002**	**-.00062**	F **-1.0490**
Stddev	.00012	.00010	.3272
%RSD	689.92	16.134	31.189
#1	.00008	-.00070	-1.4121
#2	-.00015	-.00065	-.77699
#3	.00002	-.00051	-.95805
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26026.**	**33322.**
Stddev	35.	93.
%RSD	.13315	.27790
#1	26002.	33243.
#2	26066.	33300.
#3	26011.	33424.

Approved: November 13, 2013
Sheri L. Pfalzgraf

Sample Name: L1311049702 Acquired: 11/13/2013 1:30:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00061**	**.00196**	**.00032**	**.04988**	**.04384**	**.00002**	**54.430**
Stddev	.00017	.01337	.00093	.00083	.00007	.00002	.066
%RSD	27.498	682.36	290.60	1.6718	.14926	118.98	.12145
#1	-.00055	-.00174	.00109	.05080	.04377	.00002	54.480
#2	-.00048	-.00917	-.00071	.04919	.04390	.00000	54.355
#3	-.00080	.01679	.00058	.04963	.04385	.00005	54.455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.00002**	**.00039**	**.00038**	**.06321**	**5.8368**	**.04950**
Stddev	.00004	.00013	.00053	.00035	.00297	.0480	.00088
%RSD	17.817	584.78	135.00	91.751	4.7038	.82271	1.7679
#1	.00027	-.00005	.00047	-.00001	.05981	5.8333	.04902
#2	.00019	.00017	.00088	.00048	.06446	5.7906	.05051
#3	.00023	-.00005	-.00017	.00067	.06535	5.8865	.04897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.6673**	**.04011**	**.00102**	**51.251**	**.00100**	**.01879**	**.00001**
Stddev	.0129	.00025	.00026	.218	.00110	.00410	.00064
%RSD	.14884	.63514	25.508	.42573	109.90	21.799	9841.5
#1	8.6779	.03991	.00095	51.002	-.00027	.02198	-.00071
#2	8.6529	.04004	.00080	51.407	.00166	.02022	.00053
#3	8.6711	.04040	.00130	51.345	.00160	.01417	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311049702 Acquired: 11/13/2013 1:30:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**-.00365**	**.91143**	**-.01659**	**.41010**	**-.00087**	**-.00274**
Stddev	.00130	.00097	.00321	.00038	.00128	.00046	.00100
%RSD	545.94	26.488	.35253	2.2847	.31212	53.070	36.392
#1	-.00109	-.00357	.91162	-.01670	.40862	-.00114	-.00160
#2	.00030	-.00272	.90812	-.01617	.41080	-.00034	-.00316
#3	.00150	-.00465	.91454	-.01691	.41088	-.00113	-.00346
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00017**	**.00171**	F **-.20052**
Stddev	.00018	.00021	1.1402
%RSD	104.89	12.528	568.59
#1	-.00001	.00157	-.85624
#2	.00034	.00160	-.86135
#3	.00017	.00195	1.1160
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25361.**	**33212.**
Stddev	45.	100.
%RSD	.17747	.30003
#1	25310.	33309.
#2	25379.	33218.
#3	25395.	33110.

Approved: November 13, 2013

Sample Name: L1311049704 Acquired: 11/13/2013 1:33:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.01110**	**-.00092**	**.04656**	**.04309**	**.00000**	**49.839**
Stddev	.00021	.00746	.00168	.00042	.00016	.0000	.054
%RSD	60.915	67.186	183.49	.89999	.37098	716.37	.10810
#1	-.00020	.01730	-.00210	.04633	.04296	-.00001	49.873
#2	-.00059	.00283	-.00166	.04631	.04327	-.00002	49.868
#3	-.00026	.01317	.00101	.04705	.04305	.00002	49.777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00027**	**.00051**	**.00044**	**.06773**	**5.0257**	**.04177**
Stddev	.00010	.00009	.00033	.00044	.00278	.0121	.00077
%RSD	39.070	32.191	65.054	101.00	4.1097	.24060	1.8541
#1	.00026	.00037	.00049	-.00006	.06627	5.0209	.04087
#2	.00035	.00019	.00019	.00060	.06599	5.0394	.04223
#3	.00015	.00026	.00085	.00077	.07094	5.0167	.04220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.3147**	**.03945**	**.00045**	**48.480**	**.00166**	**.02213**	**.00134**
Stddev	.0207	.00022	.00011	.119	.00068	.00183	.00087
%RSD	.24873	.55551	24.791	.24541	40.999	8.2586	65.070
#1	8.3365	.03950	.00032	48.509	.00235	.02008	.00035
#2	8.3121	.03963	.00050	48.582	.00163	.02275	.00199
#3	8.2954	.03920	.00053	48.349	.00099	.02357	.00166
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311049704 Acquired: 11/13/2013 1:33:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00089**	**-.00038**	**.88279**	**-.01661**	**.36464**	**-.00138**	**-.00095**
Stddev	.00056	.00131	.00757	.00054	.00041	.00059	.00150
%RSD	62.395	342.34	.85745	3.2443	.11275	43.050	157.96
#1	.00152	.00112	.88891	-.01693	.36416	-.00180	.00025
#2	.00070	-.00097	.88514	-.01599	.36485	-.00070	-.00046
#3	.00046	-.00129	.87433	-.01692	.36490	-.00164	-.00264
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00020**	**.00129**	F **-.86047**
Stddev	.00011	.00005	.72539
%RSD	53.976	3.4865	84.301
#1	.00029	.00134	-.19058
#2	.00008	.00126	-.75997
#3	.00023	.00128	-1.6309
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25456.**	**33283.**
Stddev	38.	128.
%RSD	.14858	.38503
#1	25488.	33190.
#2	25466.	33229.
#3	25414.	33429.

Approved: November 13, 2013

Sample Name: L1311049707 Acquired: 11/13/2013 1:37:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**.02663**	**-.00091**	**.56096**	**.05886**	**.00000**	F **803.37**
Stddev	.00112	.01356	.00072	.00182	.00035	.00002	6.33
%RSD	152.30	50.916	78.808	.32434	.59205	513.36	.78768
#1	-.00179	.01771	-.00025	.55918	.05847	.00002	810.15
#2	.00044	.01994	-.00167	.56089	.05897	.00001	797.62
#3	-.00086	.04223	-.00081	.56282	.05914	-.00002	802.34
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00096**	**-.00001**	**.00133**	**.00033**	**.09278**	**185.74**	**1.8431**
Stddev	.00011	.00012	.00037	.00031	.00333	.82	.0010
%RSD	11.130	926.25	27.898	94.385	3.5847	.43966	.05461
#1	.00099	-.00015	.00107	.00068	.08917	186.41	1.8442
#2	.00084	.00006	.00117	.00020	.09348	185.98	1.8423
#3	.00105	.00005	.00176	.00010	.09571	184.83	1.8427
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**55.714**	**.02432**	**.00825**	F **424.96**	**.00036**	**.02992**	**-.00094**
Stddev	.147	.00017	.00008	4.93	.00118	.00617	.00077
%RSD	.26387	.67869	1.0295	1.1598	330.12	20.627	81.140
#1	55.547	.02418	.00827	426.03	-.00038	.02988	-.00099
#2	55.824	.02427	.00816	429.26	.00172	.03610	-.00016
#3	55.771	.02450	.00833	419.58	-.00027	.02376	-.00169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311049707 Acquired: 11/13/2013 1:37:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00124**	**-.00053**	**1.5161**	**-.01696**	F **9.3117**	**-.01307**	**-.00364**
Stddev	.00288	.00408	.0131	.00028	.0182	.00125	.00208
%RSD	233.02	770.71	.86373	1.6525	.19598	9.5623	57.154
#1	-.00197	.00286	1.5272	-.01682	9.3093	-.01168	-.00604
#2	.00208	.00062	1.5195	-.01677	9.2948	-.01342	-.00235
#3	.00360	-.00507	1.5017	-.01728	9.3311	-.01410	-.00253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00015**	**.00277**	F **-2.7020**
Stddev	.00019	.00016	1.0110
%RSD	124.78	5.7255	37.416
#1	-.00031	.00292	-2.0644
#2	-.00021	.00279	-3.8677
#3	.00006	.00260	-2.1739
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22504.**	**31823.**
Stddev	65.	92.
%RSD	.28806	.28873
#1	22575.	31929.
#2	22447.	31779.
#3	22491.	31762.

Approved: November 13, 2013

Sample Name: L1311052303 Acquired: 11/13/2013 1:41:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00039**	**.00809**	**.00032**	**.02285**	**.05350**	**.00000**	**19.410**
Stddev	.00021	.01110	.00125	.00017	.00016	.00002	.026
%RSD	54.114	137.14	390.18	.75594	.30365	1055.4	.13304
#1	-.00053	-.00424	.00079	.02267	.05336	-.00002	19.387
#2	-.00015	.01729	.00126	.02301	.05367	.00002	19.406
#3	-.00050	.01124	-.00109	.02288	.05345	.00001	19.438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00015**	**.00019**	**.00053**	**.01213**	**1.8004**	**.02123**
Stddev	.00000	.00019	.00006	.00036	.00149	.0338	.00076
%RSD	2.8922	127.69	31.677	68.468	12.290	1.8745	3.5990
#1	.00013	.00030	.00025	.00036	.01232	1.8278	.02054
#2	.00013	.00020	.00019	.00029	.01055	1.7627	.02111
#3	.00013	-.00006	.00013	.00095	.01352	1.8107	.02205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.9045**	**.00332**	**.00001**	**8.8448**	**.00048**	**.03800**	**.00041**
Stddev	.0213	.00007	.00013	.0268	.00022	.00668	.00072
%RSD	.26914	1.9647	2433.3	.30251	46.702	17.586	174.71
#1	7.8801	.00325	-.00008	8.8601	.00074	.04403	-.00025
#2	7.9142	.00336	.00016	8.8139	.00034	.03081	.00118
#3	7.9192	.00336	-.00007	8.8605	.00036	.03917	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311052303 Acquired: 11/13/2013 1:41:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00007**	**3.7212**	**-.01633**	**.27853**	**-.00156**	**-.00218**
Stddev	.00116	.00288	.0394	.00041	.00038	.00090	.00109
%RSD	2042.9	4120.0	1.0603	2.5026	.13478	57.521	50.034
#1	.00114	.00155	3.7638	-.01587	.27865	-.00245	-.00154
#2	-.00118	.00164	3.7139	-.01663	.27811	-.00066	-.00344
#3	-.00013	-.00339	3.6859	-.01650	.27883	-.00157	-.00156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00169**	F **-.88665**
Stddev	.00011	.00010	.37338
%RSD	237.32	5.9105	42.112
#1	.00008	.00167	-1.2456
#2	.00015	.00160	-.91404
#3	-.00008	.00180	-.50032
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25928.**	**33336.**
Stddev	60.	163.
%RSD	.23257	.48782
#1	25896.	33394.
#2	25890.	33462.
#3	25997.	33152.

Approved: November 13, 2013

Sample Name: L1311052303S Acquired: 11/13/2013 1:44:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20301**	**5.0192**	**.19742**	**1.0350**	**.55096**	**.02472**	**24.650**	**.02529**
Stddev	.00110	.0056	.00133	.0061	.00048	.00019	.036	.00007
%RSD	.54368	.11188	.67556	.58598	.08796	.76370	.14713	.26113
#1	.20326	5.0146	.19852	1.0404	.55151	.02482	24.636	.02521
#2	.20397	5.0254	.19594	1.0363	.55078	.02484	24.623	.02531
#3	.20180	5.0175	.19781	1.0285	.55059	.02450	24.691	.02534
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10168**	**.25153**	**.25385**	**2.0457**	**26.594**	**.51787**	**12.870**	**.25782**
Stddev	.00012	.00075	.00044	.0055	.026	.00057	.025	.00058
%RSD	.11405	.29969	.17193	.26974	.09598	.11024	.19525	.22471
#1	.10166	.25232	.25336	2.0521	26.622	.51822	12.843	.25766
#2	.10157	.25082	.25419	2.0429	26.572	.51818	12.892	.25845
#3	.10180	.25145	.25402	2.0422	26.587	.51721	12.876	.25733
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50900**	**34.224**	**.25345**	**.03534**	**.25782**	**.60729**	**.19976**	**6.3414**
Stddev	.00078	.064	.00024	.00349	.00143	.00395	.00299	.0384
%RSD	.15238	.18827	.09666	9.8862	.55353	.65088	1.4961	.60527
#1	.50906	34.298	.25335	.03617	.25777	.60987	.19654	6.2980
#2	.50974	34.176	.25373	.03834	.25926	.60926	.20245	6.3710
#3	.50819	34.200	.25328	.03151	.25641	.60274	.20029	6.3551
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311052303S Acquired: 11/13/2013 1:44:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00220**	**.78290**	**.49557**	**.25980**	**.49534**	**.50168**	**.45393**
Stddev	.00047	.00123	.00173	.00116	.00313	.00066	.84292
%RSD	21.435	.15744	.34937	.44577	.63106	.13061	185.69
#1	.00170	.78426	.49720	.26113	.49758	.50104	1.3321
#2	.00225	.78185	.49375	.25921	.49668	.50235	-.34865
#3	.00264	.78259	.49576	.25904	.49177	.50166	.37834
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25654.**	**33220.**
Stddev	25.	107.
%RSD	.09653	.32257
#1	25635.	33335.
#2	25645.	33202.
#3	25682.	33123.

Approved: November 13, 2013

Sample Name: L1311052305 Acquired: 11/13/2013 1:48:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**.01026**	**-.00141**	**.01336**	**.05588**	**.00002**	**20.212**
Stddev	.00050	.00637	.00195	.00048	.00033	.00002	.018
%RSD	100.84	62.105	138.26	3.6075	.58246	132.28	.09117
#1	-.00013	.01477	-.00248	.01389	.05576	.00004	20.201
#2	-.00107	.00297	.00084	.01294	.05625	.00000	20.202
#3	-.00030	.01302	-.00259	.01324	.05563	.00001	20.233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00004**	**.00014**	**.00101**	**.01115**	**1.7963**	**.02009**
Stddev	.00009	.00007	.00033	.00045	.00468	.0078	.00058
%RSD	29.475	198.08	227.81	44.588	41.931	.43727	2.8679
#1	.00041	.00012	.00047	.00114	.01362	1.7874	.02040
#2	.00026	.00002	.00015	.00051	.00576	1.7989	.02045
#3	.00025	-.00003	-.00019	.00138	.01409	1.8025	.01943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.2626**	**.00371**	**.00121**	**9.2088**	**.00061**	**.00609**	**.00048**
Stddev	.0087	.00004	.00009	.0383	.00039	.00301	.00241
%RSD	.10503	1.1710	7.7803	.41607	64.041	49.395	498.43
#1	8.2698	.00366	.00119	9.1827	.00105	.00269	.00235
#2	8.2650	.00373	.00112	9.1909	.00048	.00717	-.00224
#3	8.2530	.00375	.00131	9.2528	.00030	.00840	.00134
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311052305 Acquired: 11/13/2013 1:48:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**-.00086**	**3.8529**	**-.01650**	**.28713**	**-.00101**	**-.00237**
Stddev	.00223	.00280	.0234	.00047	.00083	.00038	.00063
%RSD	322.92	325.29	.60676	2.8349	.28739	37.348	26.668
#1	.00244	-.00331	3.8537	-.01653	.28679	-.00065	-.00251
#2	-.00182	.00218	3.8291	-.01602	.28653	-.00140	-.00291
#3	.00144	-.00145	3.8758	-.01696	.28808	-.00098	-.00168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**.00444**	F **-.52270**
Stddev	.00012	.00010	.33218
%RSD	1362.9	2.2197	63.552
#1	.00002	.00451	-.34043
#2	-.00014	.00450	-.32154
#3	.00009	.00433	-.90611
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25981.**	**33309.**
Stddev	81.	176.
%RSD	.31015	.52944
#1	25891.	33467.
#2	26004.	33341.
#3	26047.	33119.

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/13/2013 1:51:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41593**	**10.438**	**.41330**	**.52792**	**1.0410**	**.05132**	**10.168**
Stddev	.00183	.056	.00113	.00325	.0017	.00021	.025
%RSD	.44113	.53805	.27372	.61637	.16040	.41468	.24753
#1	.41464	10.384	.41330	.52787	1.0430	.05124	10.139
#2	.41803	10.496	.41217	.53120	1.0403	.05156	10.183
#3	.41512	10.434	.41444	.52469	1.0399	.05116	10.182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05203**	**.21006**	**.52095**	**.52855**	**4.2355**	**51.627**	**1.0436**
Stddev	.00027	.00093	.00227	.00165	.0237	.013	.0010
%RSD	.51987	.44394	.43615	.31194	.55909	.02582	.09547
#1	.05225	.21052	.52010	.52958	4.2627	51.630	1.0437
#2	.05210	.21066	.52352	.52942	4.2194	51.613	1.0426
#3	.05173	.20898	.51922	.52665	4.2244	51.639	1.0446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.452**	**.52906**	**1.0391**	**52.595**	**.52580**	**10.378**	**.52911**
Stddev	.029	.00128	.0009	.123	.00219	.024	.00363
%RSD	.28071	.24263	.08576	.23375	.41577	.23050	.68623
#1	10.455	.52759	1.0400	52.453	.52814	10.401	.53153
#2	10.480	.52995	1.0390	52.663	.52547	10.353	.53086
#3	10.421	.52965	1.0382	52.670	.52380	10.380	.52494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/13/2013 1:51:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2508**	**.41003**	**5.3336**	**1.0516**	**1.0436**	**1.0350**	**.52768**
Stddev	.0099	.00232	.0456	.0091	.0012	.0015	.00640
%RSD	.78834	.56511	.85514	.86831	.11889	.14496	1.2129
#1	1.2580	.41124	5.3636	1.0568	1.0422	1.0338	.53032
#2	1.2547	.41150	5.3561	1.0569	1.0439	1.0367	.53233
#3	1.2395	.40736	5.2811	1.0410	1.0447	1.0344	.52038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0298**	**1.0510**	F **.84331**
Stddev	.0043	.0034	1.2159
%RSD	.41321	.32019	144.18
#1	1.0299	1.0489	-.20775
#2	1.0340	1.0493	.56270
#3	1.0255	1.0549	2.1750
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25770.**	**33378.**
Stddev	101.	97.
%RSD	.39083	.29033
#1	25797.	33485.
#2	25658.	33351.
#3	25854.	33297.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 1:54:57 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.00255**	**.00037**	**.00385**	**.00013**	**.00000**	**-.00194**
Stddev	.00069	.00121	.00055	.00117	.00025	.0000	.00633
%RSD	542.32	47.498	146.39	30.462	200.57	635.77	326.01
#1	.00031	.00123	.00088	.00355	.00012	-.00002	-.00806
#2	-.00092	.00280	.00045	.00286	.00038	.00003	-.00235
#3	.00023	.00361	-.00021	.00515	-.00013	-.00002	.00459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.00009**	**.00008**	**.00019**	**-.00037**	**-.16941**	**.00722**
Stddev	.00006	.00007	.00020	.00065	.00462	.03771	.00065
%RSD	122.57	80.678	251.08	343.80	1244.7	22.257	8.9588
#1	-.00012	.00013	.00022	.00000	-.00021	-.21261	.00657
#2	.00001	.00013	-.00015	-.00034	-.00507	-.15245	.00787
#3	-.00004	.00001	.00017	.00091	.00416	-.14315	.00722
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00674**	**-.00009**	**.00387**	**.04972**	**.00005**	**.00395**	**-.00063**
Stddev	.01620	.00003	.00015	.00721	.00012	.00241	.00048
%RSD	240.41	27.659	3.7675	14.495	231.75	60.987	76.173
#1	-.00846	-.00012	.00370	.04751	.00010	.00117	-.00032
#2	.00490	-.00007	.00397	.05777	-.00009	.00549	-.00040
#3	.02378	-.00009	.00394	.04387	.00014	.00520	-.00119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 1:54:57 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00101**	**.00205**	**.00154**	**.00009**	**.00007**	**-.00081**	**-.00102**
Stddev	.00332	.00133	.00669	.00014	.00012	.00054	.00143
%RSD	330.26	64.782	435.46	156.69	191.19	66.398	140.29
#1	.00356	.00296	.00876	.00019	.00019	-.00020	-.00260
#2	-.00275	.00266	-.00443	-.00007	.00007	-.00122	.00020
#3	.00221	.00053	.00027	.00014	-.00006	-.00100	-.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00015**	**-.00067**	F **-.43655**
Stddev	.00008	.00006	.47641
%RSD	56.449	8.3815	109.13
#1	-.00006	-.00072	-.84524
#2	-.00015	-.00069	.08669
#3	-.00023	-.00061	-.55111
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25961.**	**32965.**
Stddev	45.	116.
%RSD	.17354	.35274
#1	25998.	32874.
#2	25973.	33096.
#3	25911.	32925.

Approved: November 13, 2013

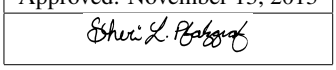
Sample Name: PBW AA Acquired: 11/13/2013 1:58:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**.01711**	**-.00073**	**.00320**	**-.00007**	**.00000**	**-.02151**
Stddev	.00070	.00522	.00113	.00034	.00011	.00000	.00902
%RSD	130.22	30.499	154.57	10.533	150.16	100.78	41.940
#1	-.00047	.01436	.00028	.00312	-.00014	.00000	-.01444
#2	-.00126	.02313	-.00053	.00357	-.00013	.00000	-.03167
#3	.00013	.01384	-.00194	.00291	.00005	.00001	-.01841
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00003**	**.00035**	**-.00016**	**-.00229**	**-.17800**	**.00869**
Stddev	.00015	.00006	.00021	.00076	.00402	.03223	.00094
%RSD	135.86	213.67	59.917	486.43	175.49	18.109	10.813
#1	.00028	-.00003	.00018	.00056	-.00539	-.20807	.00953
#2	.00001	.00003	.00028	-.00095	-.00373	-.18197	.00767
#3	.00004	.00008	.00058	-.00008	.00225	-.14397	.00886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00900**	**-.00016**	**.00027**	**.04652**	**-.00022**	**.00362**	**-.00017**
Stddev	.00045	.00004	.00009	.00273	.00056	.00196	.00051
%RSD	4.9534	27.452	31.832	5.8663	253.02	54.268	305.97
#1	.00857	-.00014	.00019	.04725	-.00059	.00379	.00038
#2	.00946	-.00021	.00026	.04350	-.00050	.00157	-.00025
#3	.00897	-.00013	.00036	.04881	.00043	.00549	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013



Sample Name: PBW AA Acquired: 11/13/2013 1:58:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00213**	**.00500**	**-.01623**	**-.00004**	**-.00064**	**-.00137**
Stddev	.00142	.00169	.00296	.00037	.00002	.00099	.00050
%RSD	929.85	79.396	59.328	2.3028	44.293	154.44	36.259
#1	.00174	-.00077	.00460	-.01594	-.00004	.00050	-.00101
#2	-.00025	-.00402	.00225	-.01665	-.00005	-.00113	-.00194
#3	-.00102	-.00160	.00814	-.01609	-.00002	-.00129	-.00117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00002**	**.00034**	F **-.46630**
Stddev	.00007	.00003	.48205
%RSD	347.54	7.6608	103.38
#1	.00001	.00034	-.60364
#2	.00003	.00036	.06952
#3	-.00010	.00031	-.86478
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25916.**	**32757.**
Stddev	112.	197.
%RSD	.43333	.60096
#1	25788.	32909.
#2	25999.	32829.
#3	25962.	32535.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: LCSW AA Acquired: 11/13/2013 2:02:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20341**	**5.0417**	**.19760**	**1.0094**	**.49555**	**.02452**	**4.8679**	**.02520**
Stddev	.00042	.0283	.00119	.0042	.00176	.00002	.0222	.00010
%RSD	.20762	.56098	.60337	.41553	.35595	.07904	.45712	.38184
#1	.20312	5.0692	.19780	1.0046	.49378	.02453	4.8870	.02513
#2	.20321	5.0127	.19632	1.0120	.49555	.02452	4.8732	.02516
#3	.20389	5.0434	.19868	1.0117	.49731	.02449	4.8435	.02531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10260**	**.25184**	**.25663**	**2.0292**	**24.613**	**.50566**	**5.0420**	**.25814**
Stddev	.00025	.00156	.00049	.0131	.099	.00130	.0284	.00124
%RSD	.23932	.62069	.19159	.64585	.40348	.25655	.56319	.47854
#1	.10238	.25012	.25617	2.0143	24.606	.50438	5.0617	.25783
#2	.10286	.25223	.25715	2.0347	24.518	.50562	5.0550	.25709
#3	.10256	.25317	.25658	2.0388	24.716	.50698	5.0095	.25950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50919**	**25.273**	**.25661**	**.00261**	**.26105**	**.60450**	**.20025**	**2.5861**
Stddev	.00074	.066	.00077	.00229	.00136	.00146	.00124	.0234
%RSD	.14565	.26091	.30163	87.517	.52273	.24160	.62080	.90606
#1	.50897	25.346	.25660	.00524	.25967	.60618	.20168	2.5860
#2	.50859	25.253	.25739	.00103	.26107	.60372	.19964	2.5628
#3	.51002	25.219	.25584	.00158	.26240	.60359	.19944	2.6096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: LCSW AA Acquired: 11/13/2013 2:02:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01661**	**.49969**	**.49700**	**.26227**	**.49172**	**.50777**	**.29346**
Stddev	.00024	.00025	.00158	.00013	.00186	.00060	.52504
%RSD	1.4508	.04988	.31787	.05049	.37735	.11732	178.91
#1	-.01646	.49992	.49744	.26239	.49006	.50709	.36214
#2	-.01648	.49943	.49830	.26230	.49138	.50798	.78077
#3	-.01689	.49972	.49524	.26213	.49373	.50823	-.26254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25767.**	**32745.**
Stddev	35.	110.
%RSD	.13639	.33621
#1	25728.	32635.
#2	25778.	32855.
#3	25796.	32745.

Approved: November 13, 2013

Sample Name: L1311048905 Acquired: 11/13/2013 2:05:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00041**	**.10064**	**-.00043**	**.23931**	**.01938**	**-.00001**	**42.449**
Stddev	.00011	.02602	.00166	.00080	.00014	.00001	.183
%RSD	25.767	25.851	382.01	.33307	.69727	103.26	.43058
#1	-.00036	.07285	-.00054	.23944	.01944	-.00001	42.483
#2	-.00054	.10467	.00127	.24004	.01947	-.00001	42.252
#3	-.00035	.12441	-.00203	.23846	.01922	.00000	42.613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00086**	**.00039**	**.00516**	**.02076**	**5.4186**	**.03428**
Stddev	.00008	.00024	.00021	.00026	.00327	.0296	.00097
%RSD	52.549	28.396	54.509	5.0934	15.764	.54533	2.8348
#1	.00008	.00079	.00054	.00498	.01884	5.4165	.03333
#2	.00024	.00066	.00049	.00546	.02454	5.4492	.03424
#3	.00013	.00113	.00015	.00504	.01890	5.3902	.03527
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.5227**	**.00539**	**.03871**	**358.45**	**.00600**	**.02109**	**.00013**
Stddev	.0606	.00003	.00014	2.11	.00035	.00209	.00116
%RSD	.92863	.60602	.36514	.58961	5.7955	9.9084	913.15
#1	6.4678	.00538	.03863	360.83	.00570	.02350	-.00108
#2	6.5127	.00542	.03887	357.77	.00591	.02007	.00024
#3	6.5877	.00536	.03862	356.77	.00638	.01971	.00123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048905 Acquired: 11/13/2013 2:05:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00256**	**.00131**	**.10756**	**-.01660**	**.76633**	**-.00163**	**-.00161**
Stddev	.00248	.00109	.00295	.00045	.00372	.00089	.00068
%RSD	96.962	83.647	2.7417	2.7113	.48558	54.690	41.871
#1	.00284	.00153	.10415	-.01708	.76414	-.00147	-.00219
#2	-.00005	.00227	.10941	-.01655	.77063	-.00083	-.00087
#3	.00489	.00012	.10911	-.01618	.76422	-.00260	-.00178
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00018**	**.00736**	F **-1.0494**
Stddev	.00019	.00002	.4045
%RSD	100.44	.30072	38.543
#1	-.00003	.00734	-.84961
#2	.00031	.00737	-1.5149
#3	.00027	.00738	-.78370
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24854.**	**32536.**
Stddev	85.	8.
%RSD	.34346	.02588
#1	24943.	32527.
#2	24773.	32543.
#3	24846.	32537.

Approved: November 13, 2013

Sample Name: L1311048905DP Acquired: 11/13/2013 2:08:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00041**	**.10396**	**-.00019**	**.24186**	**.01980**	**.00000**	**42.641**	**.00020**
Stddev	.00030	.01599	.00043	.00661	.00026	.0000	.204	.00007
%RSD	74.064	15.384	232.19	2.7329	1.3094	419.02	.47916	36.519
#1	-.00074	.11574	-.00051	.23750	.01966	.00002	42.622	.00027
#2	-.00035	.08575	-.00035	.23861	.01963	-.00001	42.854	.00013
#3	-.00014	.11038	.00030	.24946	.02010	-.00002	42.447	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00107**	**.00079**	**.00550**	**.01741**	**5.4271**	**.03605**	**6.5116**	**.00541**
Stddev	.00008	.00040	.00034	.00554	.0242	.00096	.0450	.00007
%RSD	7.1105	50.292	6.2499	31.838	.44528	2.6515	.69076	1.2889
#1	.00109	.00059	.00513	.01137	5.4504	.03633	6.4913	.00540
#2	.00098	.00125	.00581	.02227	5.4287	.03499	6.5631	.00535
#3	.00113	.00053	.00555	.01860	5.4022	.03684	6.4803	.00549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03769**	**352.29**	**.02713**	**.02650**	**-.00077**	**.00072**	**-.00164**	**.33637**
Stddev	.00023	.57	.03745	.01207	.00528	.00166	.00088	.39469
%RSD	.61740	.16139	138.04	45.543	688.15	230.21	53.762	117.34
#1	.03781	352.95	.00538	.01971	.00192	-.00110	-.00260	.10258
#2	.03784	351.97	.00563	.01935	.00264	.00213	-.00142	.11447
#3	.03742	351.96	.07037	.04043	-.00686	.00114	-.00088	.79206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

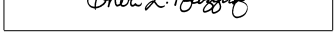
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048905DP Acquired: 11/13/2013 2:08:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01675**	**.76582**	**-.00078**	**-.00292**	**.00002**	**.01205**	**.20186**
Stddev	.00026	.00223	.00120	.00024	.00027	.00887	1.5070
%RSD	1.5270	.29066	153.38	8.1281	1436.5	73.603	746.53
#1	-.01645	.76746	-.00212	-.00264	-.00023	.00697	-.52908
#2	-.01692	.76329	.00019	-.00303	-.00003	.00689	1.9349
#3	-.01687	.76671	-.00041	-.00307	.00031	.02229	-.80023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24430.**	**32576.**
Stddev	604.	39.
%RSD	2.4708	.11963
#1	24856.	32621.
#2	24694.	32557.
#3	23739.	32550.

Approved: November 13, 2013



Sample Name: L1311048909 Acquired: 11/13/2013 2:12:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.02319**	**.00015**	**.02180**	**.02059**	**-.00002**	**16.289**
Stddev	.00014	.01352	.00081	.00029	.00019	.00001	.015
%RSD	31.539	58.308	549.66	1.3486	.91934	58.462	.09317
#1	-.00062	.01164	.00078	.02153	.02080	-.00001	16.274
#2	-.00036	.01987	-.00076	.02175	.02054	-.00001	16.304
#3	-.00039	.03807	.00043	.02211	.02043	-.00003	16.288
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.00015**	**.00053**	**.00112**	**.01963**	**1.5105**	**.00964**
Stddev	.00007	.00013	.00016	.00012	.00130	.0581	.00128
%RSD	38.592	88.586	31.210	10.344	6.6110	3.8468	13.269
#1	.00015	.00001	.00043	.00104	.02063	1.4450	.01085
#2	.00026	.00026	.00072	.00125	.02009	1.5558	.00830
#3	.00013	.00017	.00043	.00107	.01817	1.5307	.00977
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.1668**	**.00285**	**.00020**	**4.9482**	**.00042**	**.00733**	**.00204**
Stddev	.0255	.00002	.00009	.0203	.00047	.00549	.00300
%RSD	.61142	.76684	48.020	.41034	112.76	74.858	146.99
#1	4.1544	.00288	.00019	4.9711	.00009	.00602	.00407
#2	4.1960	.00284	.00029	4.9323	.00096	.00262	.00347
#3	4.1498	.00284	.00011	4.9412	.00020	.01335	-.00141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048909 Acquired: 11/13/2013 2:12:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00125**	**-.00117**	**.14386**	**-.01647**	**.07763**	**-.00090**	**-.00256**
Stddev	.00211	.00277	.00368	.00044	.00013	.00068	.00199
%RSD	169.13	236.43	2.5610	2.6725	.17057	75.387	77.794
#1	.00364	.00131	.14341	-.01685	.07778	-.00043	-.00477
#2	-.00034	-.00066	.14042	-.01599	.07755	-.00167	-.00200
#3	.00044	-.00416	.14775	-.01658	.07756	-.00059	-.00091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00012**	**.00111**	F **-1.0288**
Stddev	.00028	.00001	.5496
%RSD	234.81	.71775	53.419
#1	-.00002	.00111	-.64085
#2	-.00006	.00112	-.78778
#3	.00044	.00111	-1.6576
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25808.**	**32603.**
Stddev	153.	41.
%RSD	.59291	.12578
#1	25643.	32574.
#2	25835.	32650.
#3	25945.	32587.

Approved: November 13, 2013

Sample Name: L1311048909S Acquired: 11/13/2013 2:16:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19791**	**4.9487**	**.19363**	**1.0089**	**.50310**	**.02409**	**21.041**	**.02453**
Stddev	.00048	.0250	.00095	.0057	.00128	.00009	.059	.00010
%RSD	.24252	.50533	.48933	.56941	.25526	.35358	.27839	.39193
#1	.19740	4.9776	.19349	1.0134	.50210	.02417	21.108	.02448
#2	.19800	4.9347	.19464	1.0024	.50455	.02400	21.015	.02464
#3	.19834	4.9339	.19276	1.0109	.50265	.02410	20.999	.02447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09974**	**.24617**	**.25091**	**1.9995**	**25.792**	**.49233**	**8.9709**	**.25586**
Stddev	.00015	.00202	.00053	.0052	.076	.00073	.0478	.00094
%RSD	.15188	.82184	.21153	.26084	.29532	.14929	.53313	.36776
#1	.09975	.24784	.25076	1.9955	25.846	.49217	8.9290	.25668
#2	.09958	.24392	.25150	2.0054	25.825	.49313	9.0230	.25483
#3	.09989	.24674	.25048	1.9975	25.705	.49168	8.9608	.25605
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49877**	**29.600**	**.25093**	**.01535**	**.25352**	**.59142**	**.19318**	**2.6563**
Stddev	.00025	.121	.00129	.00403	.00058	.00033	.00123	.0202
%RSD	.05094	.40946	.51244	26.233	.22960	.05515	.63691	.76205
#1	.49875	29.724	.25104	.01421	.25287	.59180	.19176	2.6453
#2	.49904	29.595	.24959	.01201	.25370	.59126	.19385	2.6440
#3	.49853	29.482	.25215	.01982	.25399	.59120	.19392	2.6797
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

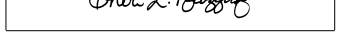
Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048909S Acquired: 11/13/2013 2:16:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01639**	**.56485**	**.48583**	**.25372**	**.48405**	**.49414**	**.33788**
Stddev	.00015	.00132	.00085	.00193	.00157	.00107	.66828
%RSD	.88739	.23305	.17425	.76042	.32407	.21604	197.78
#1	-.01632	.56630	.48668	.25158	.48494	.49361	-.23665
#2	-.01656	.56453	.48582	.25534	.48224	.49345	.17902
#3	-.01630	.56372	.48498	.25423	.48497	.49537	1.0713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25572.**	**32483.**
Stddev	17.	74.
%RSD	.06459	.22830
#1	25561.	32420.
#2	25564.	32465.
#3	25591.	32565.

Approved: November 13, 2013



Sample Name: L1311048911 Acquired: 11/13/2013 2:19:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00078**	**.02018**	**-.00040**	**.22049**	**.01694**	**.00000**	**87.791**
Stddev	.00006	.01387	.00146	.00182	.00016	.0000	.233
%RSD	7.2588	68.733	369.02	.82424	.95487	438.92	.26540
#1	-.00079	.01009	.00129	.22236	.01696	-.00002	87.565
#2	-.00072	.01445	-.00136	.22038	.01709	.00000	87.778
#3	-.00084	.03599	-.00111	.21873	.01677	.00001	88.030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00072**	**-.00017**	**.00101**	**.00017**	**.01430**	**6.8678**	**.09152**
Stddev	.00011	.00017	.00043	.00061	.00184	.0206	.00145
%RSD	14.789	101.25	42.271	357.41	12.842	.30018	1.5851
#1	.00076	.00000	.00072	.00044	.01335	6.8667	.09157
#2	.00060	-.00017	.00150	-.00053	.01642	6.8889	.09005
#3	.00080	-.00034	.00081	.00060	.01314	6.8477	.09295
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.297**	**.04382**	**.00115**	F **698.93**	**-.00007**	**.01192**	**-.00131**
Stddev	.071	.00023	.00027	12.94	.00091	.00097	.00127
%RSD	.14981	.52269	23.707	1.8508	1337.6	8.1174	97.252
#1	47.263	.04355	.00088	711.93	.00050	.01095	-.00023
#2	47.378	.04395	.00143	698.80	-.00111	.01192	-.00099
#3	47.249	.04395	.00113	686.06	.00041	.01288	-.00271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048911 Acquired: 11/13/2013 2:19:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00247**	**1.3614**	**-.01700**	**2.3407**	**-.00208**	**-.00308**
Stddev	.00163	.00081	.0163	.00008	.0055	.00079	.00083
%RSD	714.29	32.730	1.1947	.44813	.23636	38.051	27.049
#1	.00111	-.00175	1.3698	-.01697	2.3348	-.00270	-.00213
#2	.00123	-.00231	1.3717	-.01694	2.3415	-.00119	-.00371
#3	-.00165	-.00335	1.3426	-.01708	2.3457	-.00236	-.00340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00007**	**.00260**	F **-.49606**
Stddev	.00003	.00004	.48004
%RSD	43.707	1.3870	96.771
#1	-.00004	.00256	.04733
#2	-.00010	.00260	-.86256
#3	-.00007	.00263	-.67295
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23972.**	**32053.**
Stddev	66.	183.
%RSD	.27446	.56960
#1	23897.	32264.
#2	24003.	31953.
#3	24017.	31943.

Approved: November 13, 2013

Sample Name: L1311048911DL Acquired: 11/13/2013 2:23:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**.00990**	**-.00017**	**.04762**	**.00329**	**.00000**	**17.628**
Stddev	.00051	.01006	.00137	.00109	.00034	.00001	.048
%RSD	101.28	101.59	787.36	2.2947	10.288	337.36	.27027
#1	-.00053	.01809	.00091	.04885	.00360	.00000	17.573
#2	.00002	-.00132	.00029	.04724	.00293	.00000	17.655
#3	-.00099	.01292	-.00172	.04676	.00333	.00001	17.656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.00003**	**.00026**	**.00018**	**.00380**	**1.2328**	**.02488**
Stddev	.00008	.00006	.00033	.00062	.00181	.0422	.00175
%RSD	42.874	223.96	124.60	355.08	47.727	3.4214	7.0185
#1	.00014	-.00002	-.00001	.00089	.00360	1.2747	.02559
#2	.00029	.00000	.00018	-.00027	.00209	1.1903	.02289
#3	.00015	.00009	.00062	-.00009	.00570	1.2333	.02615
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.7464**	**.00985**	**-.00011**	**147.29**	**.00117**	**.00439**	**.00129**
Stddev	.0215	.00003	.00018	.83	.00055	.00143	.00118
%RSD	.22029	.34011	168.61	.56410	47.014	32.543	91.915
#1	9.7708	.00984	-.00027	146.33	.00172	.00553	-.00006
#2	9.7304	.00989	-.00015	147.70	.00062	.00485	.00178
#3	9.7381	.00982	.00009	147.83	.00117	.00279	.00215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048911DL Acquired: 11/13/2013 2:23:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00249**	**-.00276**	**.27426**	**-.01702**	**.46320**	**-.00017**	**-.00163**
Stddev	.00021	.00170	.00678	.00028	.00092	.00144	.00134
%RSD	8.3710	61.579	2.4712	1.6663	.19905	848.95	82.313
#1	-.00273	-.00436	.27831	-.01698	.46215	.00061	-.00163
#2	-.00235	-.00098	.26644	-.01733	.46353	.00071	-.00029
#3	-.00239	-.00294	.27804	-.01677	.46391	-.00184	-.00296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00029**	**.00123**	F **-.34309**
Stddev	.00024	.00002	.94269
%RSD	82.237	1.5809	274.77
#1	-.00032	.00123	-1.2539
#2	-.00004	.00120	-.40398
#3	-.00051	.00124	.62857
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25884.**	**32865.**
Stddev	419.	175.
%RSD	1.6203	.53337
#1	25447.	33061.
#2	26283.	32724.
#3	25923.	32808.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048911PS Acquired: 11/13/2013 2:26:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21150**	**5.1419**	**.20813**	**1.2435**	**.51887**	**.02529**	**83.715**
Stddev	.00066	.0157	.00140	.0102	.00035	.00015	.149
%RSD	.31302	.30529	.67357	.81834	.06706	.60610	.17824
#1	.21077	5.1241	.20794	1.2327	.51908	.02512	83.800
#2	.21206	5.1538	.20683	1.2449	.51847	.02533	83.803
#3	.21168	5.1477	.20961	1.2529	.51907	.02541	83.543
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02641**	**.09957**	**.24977**	**.24930**	**2.0764**	**32.136**	**.60583**
Stddev	.00024	.00029	.00165	.00154	.0093	.044	.00192
%RSD	.89395	.29582	.66249	.61936	.44996	.13798	.31757
#1	.02619	.09938	.24787	.24778	2.0866	32.185	.60714
#2	.02666	.09941	.25048	.25086	2.0683	32.123	.60362
#3	.02637	.09991	.25094	.24927	2.0745	32.099	.60673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.528**	**.28502**	**.51041**	F **641.54**	**.24872**	**.01545**	**.24553**
Stddev	.056	.00031	.00203	10.37	.00046	.00237	.00085
%RSD	.11839	.10938	.39828	1.6161	.18549	15.338	.34477
#1	47.463	.28486	.50890	652.60	.24834	.01487	.24552
#2	47.559	.28538	.51272	639.98	.24923	.01343	.24638
#3	47.562	.28482	.50961	632.04	.24860	.01806	.24469
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048911PS Acquired: 11/13/2013 2:26:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.61812**	**.20570**	**3.8080**	**-.01648**	**2.6097**	**.50868**	**.22877**
Stddev	.00573	.00363	.0386	.00044	.0024	.00190	.00248
%RSD	.92726	1.7623	1.0135	2.6962	.09164	.37351	1.0841
#1	.61453	.20586	3.7737	-.01692	2.6071	.50762	.22847
#2	.62473	.20925	3.8498	-.01603	2.6100	.51087	.23139
#3	.61510	.20200	3.8005	-.01649	2.6119	.50755	.22646
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50460**	**.51373**	F **-.63825**
Stddev	.00181	.00092	.36958
%RSD	.35945	.17843	57.906
#1	.50314	.51268	-.39890
#2	.50404	.51439	-1.0639
#3	.50663	.51411	-.45194
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24267.**	**32214.**
Stddev	39.	57.
%RSD	.15871	.17621
#1	24305.	32188.
#2	24268.	32175.
#3	24228.	32279.

Approved: November 13, 2013

Sample Name: L1311048914 Acquired: 11/13/2013 2:29:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**.01548**	**-.00057**	**.03350**	**.03462**	**.00001**	**14.744**
Stddev	.00048	.00705	.00042	.00037	.00015	.00001	.044
%RSD	501.25	45.513	73.801	1.0986	.44278	195.75	.30085
#1	.00028	.00752	-.00009	.03311	.03455	-.00001	14.698
#2	-.00064	.01801	-.00072	.03354	.03452	.00002	14.787
#3	.00007	.02091	-.00089	.03384	.03480	.00001	14.747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00002**	**.00067**	**.00043**	**.02712**	**2.0796**	**.01204**
Stddev	.00009	.00010	.00039	.00019	.00405	.0204	.00154
%RSD	68.486	522.84	57.948	43.976	14.948	.98124	12.810
#1	.00014	-.00002	.00107	.00057	.02530	2.0629	.01153
#2	.00004	.00013	.00062	.00021	.02429	2.0737	.01081
#3	.00022	-.00005	.00031	.00050	.03176	2.1024	.01377
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.2064**	**.00608**	**.00220**	**46.709**	**-.00031**	**.00586**	**-.00014**
Stddev	.0375	.00002	.00020	.170	.00036	.00161	.00163
%RSD	.52094	.28838	9.1248	.36396	117.01	27.514	1191.1
#1	7.1631	.00610	.00210	46.543	-.00032	.00597	.00090
#2	7.2294	.00609	.00206	46.700	-.00067	.00741	-.00202
#3	7.2269	.00607	.00243	46.882	.00006	.00419	.00070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048914 Acquired: 11/13/2013 2:29:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**-.00320**	**1.2575**	**-.01700**	**.23867**	**-.00104**	**-.00112**
Stddev	.00344	.00339	.0143	.00018	.00038	.00036	.00217
%RSD	2428.3	105.88	1.1338	1.0400	.16120	34.325	194.30
#1	-.00034	-.00359	1.2410	-.01693	.23839	-.00143	-.00021
#2	-.00348	-.00639	1.2664	-.01688	.23911	-.00074	-.00360
#3	.00339	.00037	1.2649	-.01721	.23852	-.00095	.00045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00022**	**.00066**	F **-.76162**
Stddev	.00018	.00003	.71012
%RSD	81.564	4.7925	93.238
#1	.00032	.00068	-1.3543
#2	.00001	.00067	-.95604
#3	.00032	.00062	.02546
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25744.**	**33091.**
Stddev	86.	53.
%RSD	.33224	.16088
#1	25837.	33115.
#2	25669.	33030.
#3	25725.	33128.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/13/2013 2:33:32 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41784**	**10.471**	**.41305**	**.52888**	**1.0401**	**.05138**	**10.225**
Stddev	.00295	.033	.00055	.00413	.0027	.00029	.019
%RSD	.70482	.31229	.13386	.78025	.26466	.57287	.18161
#1	.41453	10.499	.41349	.52415	1.0374	.05105	10.247
#2	.41883	10.480	.41243	.53070	1.0429	.05161	10.216
#3	.42016	10.435	.41322	.53177	1.0399	.05148	10.214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05207**	**.20983**	**.52281**	**.52731**	**4.2315**	**51.615**	**1.0509**
Stddev	.00041	.00125	.00150	.00268	.0286	.098	.0018
%RSD	.77866	.59657	.28697	.50882	.67717	.18900	.16719
#1	.05198	.20969	.52120	.52557	4.1985	51.563	1.0527
#2	.05251	.21115	.52417	.53040	4.2454	51.727	1.0506
#3	.05171	.20866	.52306	.52596	4.2506	51.554	1.0493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.544**	**.53763**	**1.0389**	**52.124**	**.52645**	**10.434**	**.52979**
Stddev	.021	.00069	.0010	.082	.00176	.028	.00272
%RSD	.19998	.12801	.09814	.15798	.33404	.26544	.51346
#1	10.567	.53740	1.0380	52.155	.52700	10.413	.52706
#2	10.538	.53840	1.0400	52.186	.52787	10.425	.53250
#3	10.526	.53709	1.0388	52.031	.52449	10.466	.52982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013

Sample Name: CCV Acquired: 11/13/2013 2:33:32 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2545**	**.41152**	**5.3363**	**1.0468**	**1.0433**	**1.0375**	**.53262**
Stddev	.0066	.00267	.0720	.0133	.0027	.0018	.00752
%RSD	.52521	.64859	1.3500	1.2742	.25844	.17636	1.4111
#1	1.2527	.40950	5.2531	1.0404	1.0416	1.0395	.52408
#2	1.2617	.41455	5.3775	1.0621	1.0464	1.0371	.53824
#3	1.2489	.41052	5.3783	1.0377	1.0419	1.0359	.53553
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0320**	**1.0510**	F **.72341**
Stddev	.0067	.0022	.58058
%RSD	.65095	.20834	80.255
#1	1.0244	1.0488	.46281
#2	1.0345	1.0511	.31880
#3	1.0371	1.0532	1.3886
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25794.**	**32973.**
Stddev	132.	59.
%RSD	.51237	.17839
#1	25947.	32982.
#2	25717.	32911.
#3	25719.	33027.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 2:36:46 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.00613**	**.00036**	**.00597**	**.00000**	**-.00002**	**-.00950**
Stddev	.00064	.01695	.00180	.00042	.00013	.00004	.00200
%RSD	132.25	276.73	502.29	6.9615	9621.5	268.04	21.073
#1	-.00002	.02173	.00145	.00617	.00007	-.00007	-.01007
#2	-.00022	-.01191	.00135	.00626	-.00015	.00001	-.01116
#3	-.00122	.00855	-.00172	.00550	.00009	.00001	-.00728
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00007**	**.00031**	**-.00039**	**-.00217**	**-.14622**	**.00952**
Stddev	.00003	.00012	.00010	.00047	.00135	.01644	.00155
%RSD	95.455	172.38	31.322	119.85	62.382	11.245	16.242
#1	-.00002	-.00006	.00039	.00006	-.00338	-.16416	.00801
#2	-.00007	.00017	.00020	-.00087	-.00241	-.13186	.00946
#3	-.00002	.00010	.00034	-.00036	-.00071	-.14266	.01110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00078**	**-.00011**	**.00400**	**.09837**	**-.00021**	**.00391**	**.00036**
Stddev	.01010	.00001	.00044	.00809	.00017	.00307	.00165
%RSD	1286.8	11.511	11.014	8.2225	78.792	78.415	454.99
#1	.01163	-.00011	.00351	.10261	-.00002	.00687	.00041
#2	-.00092	-.00013	.00414	.10347	-.00032	.00075	-.00131
#3	-.00835	-.00010	.00436	.08905	-.00031	.00412	.00199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 2:36:46 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00124**	**.00165**	**.00258**	**.00013**	**-.00002**	**-.00110**	**-.00326**
Stddev	.00072	.00254	.00228	.00019	.00007	.00150	.00139
%RSD	58.083	154.17	88.146	139.64	399.51	135.45	42.750
#1	.00073	-.00109	.00493	-.00008	.00006	-.00100	-.00421
#2	.00093	.00211	.00038	.00026	-.00007	.00033	-.00166
#3	.00207	.00393	.00244	.00022	-.00005	-.00265	-.00390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00006**	**-.00069**	F **-.20405**
Stddev	.00033	.00008	.06417
%RSD	589.67	11.535	31.447
#1	.00024	-.00073	-.26359
#2	.00025	-.00075	-.21246
#3	-.00033	-.00060	-.13609
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26011.**	**33057.**
Stddev	10.	107.
%RSD	.03846	.32432
#1	26000.	33094.
#2	26014.	32936.
#3	26019.	33140.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048920 Acquired: 11/13/2013 2:40:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**.01274**	**.00050**	**.16506**	**.05013**	**.00003**	**54.065**
Stddev	.00071	.01426	.00055	.00177	.00012	.00002	.051
%RSD	233.58	111.99	109.53	1.0700	.24871	83.131	.09343
#1	-.00091	.02719	.00022	.16354	.04999	.00001	54.042
#2	-.00049	-.00133	.00114	.16700	.05019	.00005	54.029
#3	.00048	.01235	.00015	.16465	.05022	.00001	54.123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00025**	**.00078**	**.00152**	**.02737**	**5.1901**	**.02732**
Stddev	.00005	.00009	.00030	.00028	.00099	.0304	.00066
%RSD	22.396	35.040	38.160	18.405	3.6035	.58557	2.4036
#1	.00017	.00032	.00095	.00171	.02813	5.1663	.02658
#2	.00027	.00028	.00044	.00120	.02772	5.1795	.02783
#3	.00021	.00015	.00096	.00166	.02626	5.2243	.02755
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.5290**	**.06524**	**.01932**	**163.86**	**.00154**	**.00781**	**.00119**
Stddev	.0554	.00034	.00025	1.48	.00120	.00231	.00134
%RSD	.73571	.52699	1.2890	.90381	78.426	29.630	112.10
#1	7.4678	.06525	.01947	164.84	.00204	.00734	-.00004
#2	7.5438	.06489	.01946	162.15	.00241	.00577	.00100
#3	7.5756	.06557	.01903	164.58	.00016	.01033	.00261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048920 Acquired: 11/13/2013 2:40:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02206**	**-.00137**	**1.9055**	**-.01666**	**.82405**	**-.00226**	**-.00186**
Stddev	.00234	.00309	.0189	.00018	.00143	.00061	.00042
%RSD	10.588	225.22	.99049	1.0817	.17351	26.897	22.334
#1	.02474	.00156	1.9197	-.01682	.82422	-.00275	-.00208
#2	.02045	-.00108	1.8841	-.01646	.82254	-.00158	-.00213
#3	.02099	-.00460	1.9127	-.01669	.82538	-.00247	-.00138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00018**	**.02326**	F **-.26407**
Stddev	.00017	.00018	.37939
%RSD	94.421	.79376	143.67
#1	.00004	.02345	.14653
#2	.00037	.02308	-.33710
#3	.00013	.02327	-.60164
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25205.**	**32890.**
Stddev	38.	91.
%RSD	.15034	.27724
#1	25221.	32980.
#2	25161.	32893.
#3	25232.	32797.

Approved: November 13, 2013

Sample Name: L1311048925 Acquired: 11/13/2013 2:43:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.01673**	**-.00029**	**.07895**	**.04040**	**.00000**	**40.173**
Stddev	.00056	.01279	.00074	.00154	.00015	.00002	.140
%RSD	157.97	76.425	255.10	1.9476	.37689	7080.9	.34818
#1	-.00068	.01622	-.00048	.08038	.04045	.00000	40.011
#2	-.00067	.02977	-.00092	.07732	.04051	.00002	40.253
#3	.00029	.00421	.00053	.07915	.04022	-.00002	40.254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**-.00010**	**.00042**	**.00025**	**.02479**	**2.6318**	**.03165**
Stddev	.00007	.00025	.00019	.00016	.00814	.0211	.00134
%RSD	20.770	252.02	45.567	63.816	32.857	.80304	4.2210
#1	.00043	.00018	.00021	.00021	.02956	2.6324	.03012
#2	.00031	-.00018	.00046	.00042	.02942	2.6103	.03259
#3	.00030	-.00030	.00059	.00011	.01538	2.6526	.03223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.107**	**.05787**	**.00072**	**229.57**	**.00043**	**.00897**	**.00028**
Stddev	.037	.00058	.00015	.54	.00032	.00414	.00259
%RSD	.21587	1.0091	21.114	.23566	73.264	46.161	924.12
#1	17.066	.05728	.00087	229.38	.00080	.01040	-.00123
#2	17.138	.05787	.00057	229.14	.00024	.00430	-.00120
#3	17.118	.05845	.00070	230.18	.00026	.01220	.00327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048925 Acquired: 11/13/2013 2:43:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00064**	**.00067**	**1.6761**	**-.01624**	**.77177**	**-.00093**	**-.00188**
Stddev	.00122	.00199	.0166	.00044	.00083	.00104	.00105
%RSD	190.81	297.18	.98900	2.7138	.10718	111.25	55.716
#1	-.00137	.00048	1.6591	-.01639	.77236	-.00183	-.00067
#2	.00077	.00274	1.6770	-.01575	.77082	.00020	-.00253
#3	-.00132	-.00122	1.6922	-.01659	.77213	-.00118	-.00245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00002**	**.00152**	F **-.06503**
Stddev	.00017	.00003	.18931
%RSD	924.89	1.9452	291.09
#1	.00019	.00155	-.15711
#2	.00002	.00152	-.19069
#3	-.00015	.00149	.15270
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25017.**	**32874.**
Stddev	92.	295.
%RSD	.36850	.89742
#1	24917.	33215.
#2	25034.	32698.
#3	25099.	32710.

Approved: November 13, 2013

Sample Name: L1311048927 Acquired: 11/13/2013 2:47:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.00565**	**-.00099**	**.02731**	**.04181**	**.00000**	**34.592**
Stddev	.00018	.00470	.00127	.00158	.00016	.0000	.082
%RSD	47.753	83.257	128.35	5.7940	.38721	4873.0	.23825
#1	-.00053	.00563	-.00124	.02780	.04181	.00001	34.496
#2	-.00018	.01036	.00039	.02859	.04164	.00001	34.642
#3	-.00044	.00095	-.00211	.02554	.04197	-.00003	34.636
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.00003**	**.00043**	**.00022**	**.12819**	**1.4458**	**.01207**
Stddev	.00009	.00002	.00012	.00049	.00059	.0234	.00092
%RSD	47.070	78.414	26.871	223.18	.46006	1.6196	7.6175
#1	.00013	.00002	.00035	.00074	.12751	1.4720	.01268
#2	.00030	.00006	.00056	.00014	.12850	1.4271	.01101
#3	.00015	.00001	.00037	-.00022	.12856	1.4382	.01251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.6075**	**.16981**	**.00030**	**24.974**	**.00085**	**.00441**	**.00154**
Stddev	.0476	.00039	.00020	.019	.00060	.00374	.00045
%RSD	.62604	.23196	68.379	.07774	70.876	84.961	29.179
#1	7.6216	.16954	.00008	24.977	.00075	.00849	.00166
#2	7.5545	.16962	.00033	24.954	.00150	.00114	.00104
#3	7.6466	.17026	.00049	24.992	.00030	.00359	.00192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048927 Acquired: 11/13/2013 2:47:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**-.00147**	**2.9340**	**-.01652**	**.23045**	**-.00087**	**-.00079**
Stddev	.00151	.00239	.0353	.00029	.00014	.00120	.00106
%RSD	316.12	162.94	1.2034	1.7397	.06138	138.32	133.34
#1	.00074	-.00154	2.9057	-.01636	.23029	-.00145	-.00107
#2	-.00115	-.00382	2.9736	-.01635	.23051	-.00165	.00037
#3	.00184	.00096	2.9228	-.01685	.23055	.00051	-.00169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00005**	**.00114**	F **-.71725**
Stddev	.00027	.00006	.04723
%RSD	535.01	5.2610	6.5845
#1	-.00023	.00107	-.68004
#2	-.00018	.00117	-.70133
#3	.00026	.00119	-.77038
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25610.**	**32952.**
Stddev	27.	111.
%RSD	.10363	.33835
#1	25634.	33079.
#2	25582.	32906.
#3	25614.	32871.

Approved: November 13, 2013

Sample Name: L1311048929 Acquired: 11/13/2013 2:51:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**.00492**	**.00068**	**.17157**	**.02153**	**.00000**	**77.391**
Stddev	.00092	.01146	.00089	.00061	.00044	.00002	.060
%RSD	161.42	232.96	131.43	.35751	2.0573	347.78	.07704
#1	-.00150	.00126	.00052	.17197	.02186	.00002	77.335
#2	-.00056	-.00426	-.00013	.17189	.02170	.00001	77.454
#3	.00035	.01777	.00163	.17087	.02103	-.00001	77.384
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.00000**	**.00069**	**-.00020**	**.04502**	**5.4463**	**.07147**
Stddev	.00008	.00020	.00016	.00055	.00130	.0310	.00155
%RSD	14.458	39542.	22.895	280.16	2.8925	.56912	2.1628
#1	.00062	.00018	.00072	.00002	.04611	5.4161	.07028
#2	.00056	.00004	.00052	.00022	.04358	5.4781	.07091
#3	.00046	-.00021	.00083	-.00082	.04537	5.4448	.07322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**38.472**	**.09698**	**.00004**	**F 559.40**	**.00003**	**.01217**	**.00101**
Stddev	.114	.00050	.00002	6.03	.00096	.00485	.00144
%RSD	.29727	.51766	39.613	1.0776	3769.9	39.850	142.40
#1	38.570	.09651	.00002	561.23	.00106	.01776	.00219
#2	38.500	.09751	.00005	564.30	-.00083	.00959	.00142
#3	38.346	.09691	.00006	552.67	-.00016	.00915	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048929 Acquired: 11/13/2013 2:51:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00186**	**-.00340**	**1.6847**	**-.01657**	**1.8498**	**-.00226**	**-.00107**
Stddev	.00314	.00255	.0216	.00014	.0042	.00116	.00110
%RSD	168.79	74.934	1.2819	.81782	.22605	51.220	103.02
#1	-.00088	-.00470	1.7096	-.01671	1.8451	-.00115	-.00229
#2	-.00537	-.00503	1.6723	-.01656	1.8512	-.00346	-.00016
#3	.00068	-.00046	1.6721	-.01644	1.8531	-.00217	-.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00001**	**.00099**	F **-1.5130**
Stddev	.00026	.00011	.1494
%RSD	3470.0	11.536	9.8766
#1	-.00008	.00086	-1.6348
#2	.00030	.00107	-1.5580
#3	-.00020	.00105	-1.3462
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24283.**	**32442.**
Stddev	48.	145.
%RSD	.19784	.44817
#1	24231.	32536.
#2	24291.	32275.
#3	24326.	32515.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048931 Acquired: 11/13/2013 2:54:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.01226**	**.00101**	**.06285**	**.03876**	**.00002**	**92.636**
Stddev	.00018	.00595	.00150	.00103	.00012	.00001	.245
%RSD	27.863	48.513	147.92	1.6318	.30551	81.209	.26445
#1	-.00044	.00623	-.00072	.06301	.03863	.00002	92.395
#2	-.00079	.01813	.00192	.06379	.03886	.00000	92.629
#3	-.00071	.01242	.00184	.06176	.03878	.00003	92.885
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00051**	**.00028**	**.00070**	**.00083**	**.05210**	**4.3162**	**.01766**
Stddev	.00007	.00004	.00027	.00122	.00307	.0176	.00067
%RSD	12.958	13.619	39.263	147.09	5.8989	.40896	3.8025
#1	.00051	.00030	.00097	.00032	.05094	4.2978	.01697
#2	.00045	.00024	.00070	-.00005	.04977	4.3330	.01770
#3	.00058	.00031	.00042	.00222	.05558	4.3180	.01831
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.101**	**.18049**	**.00040**	**59.110**	**.00131**	**.01311**	**-.00023**
Stddev	.032	.00071	.00017	.428	.00069	.00180	.00092
%RSD	.11677	.39155	42.931	.72482	52.257	13.737	398.18
#1	27.065	.17968	.00020	58.704	.00075	.01513	-.00032
#2	27.123	.18095	.00050	59.069	.00111	.01255	.00073
#3	27.116	.18085	.00048	59.558	.00208	.01166	-.00110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048931 Acquired: 11/13/2013 2:54:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**-.00098**	**1.0361**	**-.01692**	**.85674**	**-.00249**	**-.00185**
Stddev	.00196	.00176	.0186	.00059	.00436	.00090	.00052
%RSD	606.44	179.57	1.7959	3.4978	.50888	35.979	27.928
#1	-.00096	.00094	1.0280	-.01657	.85318	-.00346	-.00143
#2	.00188	-.00252	1.0574	-.01659	.85544	-.00170	-.00243
#3	-.00189	-.00136	1.0229	-.01761	.86160	-.00231	-.00170
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00002**	**.00136**	F **-.98385**
Stddev	.00020	.00004	.83866
%RSD	828.89	2.9374	85.243
#1	-.00020	.00132	-.40801
#2	.00007	.00136	-.59748
#3	.00020	.00140	-1.9460
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25077.**	**32833.**
Stddev	40.	186.
%RSD	.16075	.56595
#1	25107.	33040.
#2	25093.	32776.
#3	25031.	32682.

Approved: November 13, 2013

Sample Name: L1311048933 Acquired: 11/13/2013 2:58:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00042**	**.01107**	**-.00020**	**.05833**	**.01528**	**.00003**	**166.19**
Stddev	.00049	.00478	.00166	.00136	.00012	.00001	.53
%RSD	118.17	43.214	832.76	2.3261	.77629	41.423	.31795
#1	-.00005	.01325	.00172	.05677	.01515	.00002	165.70
#2	-.00023	.00558	-.00114	.05922	.01529	.00004	166.11
#3	-.00098	.01436	-.00118	.05901	.01539	.00002	166.75
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**.00069**	**.00092**	**.00035**	**.03048**	**4.6325**	**.04380**
Stddev	.00015	.00013	.00030	.00039	.00272	.0237	.00094
%RSD	19.451	19.479	32.464	111.70	8.9229	.51165	2.1367
#1	.00069	.00065	.00126	-.00006	.02744	4.6390	.04317
#2	.00068	.00084	.00077	.00071	.03267	4.6063	.04487
#3	.00094	.00058	.00073	.00039	.03133	4.6523	.04335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**44.885**	**.28057**	**.00048**	**33.541**	**.00212**	**.01127**	**.00130**
Stddev	.119	.00118	.00018	.125	.00083	.00383	.00119
%RSD	.26475	.42224	37.896	.37362	39.079	34.002	91.245
#1	44.897	.27930	.00048	33.496	.00290	.00824	.00205
#2	44.997	.28075	.00029	33.445	.00221	.00999	.00192
#3	44.761	.28165	.00065	33.683	.00125	.01558	-.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048933 Acquired: 11/13/2013 2:58:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**-.00206**	**3.2460**	**-.01648**	**2.2287**	**-.00341**	**-.00062**
Stddev	.00241	.00127	.0303	.00048	.0033	.00038	.00219
%RSD	638.29	61.579	.93476	2.9091	.14970	11.072	351.08
#1	-.00075	-.00060	3.2110	-.01688	2.2281	-.00307	-.00122
#2	.00220	-.00271	3.2646	-.01595	2.2257	-.00335	-.00246
#3	-.00259	-.00288	3.2625	-.01662	2.2323	-.00382	.00181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00018**	**.00558**	F **-.22766**
Stddev	.00011	.00005	.40857
%RSD	62.332	.96847	179.46
#1	-.00008	.00556	-.41297
#2	-.00015	.00554	.24072
#3	-.00030	.00564	-.51074
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24810.**	**32941.**
Stddev	73.	107.
%RSD	.29450	.32554
#1	24892.	33064.
#2	24753.	32867.
#3	24784.	32890.

Approved: November 13, 2013

Sample Name: L1311048935 Acquired: 11/13/2013 3:01:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00048**	**.01090**	**-.00174**	**.08179**	**.03775**	**-.00001**	**58.509**
Stddev	.00022	.00800	.00044	.00078	.00019	.00001	.110
%RSD	45.696	73.373	25.383	.95707	.50940	141.39	.18717
#1	-.00062	.00296	-.00225	.08093	.03753	-.00002	58.508
#2	-.00023	.01895	-.00149	.08198	.03788	-.00001	58.400
#3	-.00059	.01078	-.00148	.08247	.03784	.00000	58.619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**-.00003**	**.00047**	**.00115**	**.01355**	**1.8750**	**.02112**
Stddev	.00007	.00014	.00032	.00053	.00495	.0176	.00067
%RSD	14.198	405.08	68.216	45.800	36.533	.93888	3.1519
#1	.00055	.00006	.00024	.00111	.00803	1.8724	.02074
#2	.00042	-.00020	.00083	.00064	.01503	1.8588	.02073
#3	.00045	.00003	.00033	.00169	.01760	1.8937	.02189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.029**	**.00594**	**.00044**	**129.93**	**.00021**	**.01422**	**.00000**
Stddev	.006	.00004	.00024	.40	.00035	.00627	.0018
%RSD	.02829	.61768	53.669	.30973	166.48	44.131	71806.
#1	20.027	.00597	.00060	130.18	-.00018	.01997	-.00174
#2	20.025	.00590	.00017	130.14	.00033	.00753	-.00010
#3	20.036	.00596	.00055	129.46	.00048	.01515	.00183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048935 Acquired: 11/13/2013 3:01:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00079**	**-.00325**	**2.2085**	**-.01667**	**1.0622**	**-.00097**	**-.00204**
Stddev	.00228	.00374	.0188	.00035	.0018	.00040	.00162
%RSD	287.58	115.28	.85369	2.0702	.16525	40.903	79.567
#1	.00142	-.00756	2.2301	-.01696	1.0639	-.00088	-.00128
#2	-.00313	-.00137	2.2000	-.01678	1.0622	-.00141	-.00094
#3	-.00067	-.00081	2.1954	-.01629	1.0604	-.00063	-.00390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00002**	**.00261**	F **-.90204**
Stddev	.00008	.00004	.45610
%RSD	517.23	1.3810	50.563
#1	.00004	.00265	-1.3830
#2	.00008	.00258	-.47579
#3	-.00007	.00259	-.84730
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25080.**	**32821.**
Stddev	33.	68.
%RSD	.13024	.20726
#1	25109.	32787.
#2	25044.	32778.
#3	25087.	32900.

Approved: November 13, 2013

Sample Name: L1311048937 Acquired: 11/13/2013 3:05:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00103**	**.01924**	**.00033**	**.07717**	**.04124**	**-.00002**	**42.320**
Stddev	.00054	.00899	.00095	.00104	.00019	.00004	.127
%RSD	53.106	46.734	288.38	1.3507	.45242	166.28	.29982
#1	-.00113	.02928	-.00037	.07837	.04138	-.00003	42.239
#2	-.00044	.01194	.00141	.07651	.04103	-.00006	42.254
#3	-.00151	.01650	-.00005	.07662	.04132	.00002	42.466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00044**	**-.00001**	**.00063**	**.00035**	**.02456**	**2.7119**	**.03245**
Stddev	.00009	.00017	.00008	.00021	.00187	.0358	.00151
%RSD	19.663	1847.4	12.767	59.480	7.6158	1.3205	4.6520
#1	.00034	-.00006	.00072	.00035	.02587	2.6888	.03191
#2	.00048	.00018	.00061	.00014	.02242	2.6937	.03416
#3	.00049	-.00015	.00056	.00055	.02540	2.7531	.03129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.222**	**.06181**	**.00000**	**236.04**	**.00031**	**.01062**	**-.00117**
Stddev	.015	.00001	.0001	2.24	.00047	.00249	.00079
%RSD	.08273	.01777	8285.9	.94873	151.16	23.412	67.286
#1	18.208	.06181	-.00015	236.37	-.00015	.01223	-.00053
#2	18.220	.06180	-.00002	233.65	.00029	.00775	-.00204
#3	18.238	.06183	.00016	238.09	.00079	.01187	-.00093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

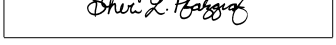
Sample Name: L1311048937 Acquired: 11/13/2013 3:05:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**-.00163**	**1.6878**	**-.01627**	**.79058**	**-.00157**	**-.00263**
Stddev	.00171	.00347	.0228	.00048	.00035	.00117	.00210
%RSD	300.22	212.65	1.3533	2.9694	.04425	74.579	79.842
#1	-.00095	-.00536	1.7137	-.01614	.79088	-.00180	-.00502
#2	.00130	-.00105	1.6705	-.01680	.79065	-.00260	-.00182
#3	-.00205	.00151	1.6792	-.01586	.79020	-.00030	-.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00002**	**.02868**	F **-1.1342**
Stddev	.00017	.00039	.3920
%RSD	754.91	1.3688	34.558
#1	.00000	.02913	-1.5547
#2	-.00020	.02842	-.77901
#3	.00013	.02850	-1.0688
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24951.**	**32981.**
Stddev	68.	129.
%RSD	.27159	.39026
#1	24908.	33091.
#2	25029.	33013.
#3	24916.	32840.

Approved: November 13, 2013



Sample Name: L1311048937S Acquired: 11/13/2013 3:08:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20435**	**5.0071**	**.20231**	**1.0997**	**.53374**	**.02505**	**47.164**	**.02557**
Stddev	.00058	.0104	.00298	.0050	.00138	.00002	.066	.00019
%RSD	.28416	.20847	1.4754	.45155	.25778	.08724	.13893	.75771
#1	.20427	4.9986	.20524	1.0962	.53365	.02506	47.089	.02578
#2	.20496	5.0039	.19927	1.0974	.53516	.02503	47.195	.02552
#3	.20381	5.0187	.20241	1.1054	.53242	.02507	47.209	.02540
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10035**	**.24838**	**.24847**	**2.0449**	**27.746**	**.54304**	**22.762**	**.30787**
Stddev	.00012	.00083	.00047	.0065	.018	.00071	.025	.00046
%RSD	.12438	.33228	.18787	.31583	.06414	.12988	.11069	.14989
#1	.10046	.24893	.24900	2.0487	27.752	.54269	22.761	.30841
#2	.10039	.24744	.24830	2.0486	27.759	.54385	22.788	.30761
#3	.10022	.24878	.24811	2.0375	27.725	.54258	22.737	.30760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50774**	**261.17**	**.24999**	**.01115**	**.25007**	**.60572**	**.20058**	**4.2372**
Stddev	.00139	2.72	.00108	.00231	.00180	.00122	.00051	.0152
%RSD	.27337	1.0413	.43147	20.690	.72087	.20088	.25297	.35880
#1	.50906	264.18	.25116	.01044	.24805	.60667	.20035	4.2428
#2	.50787	260.46	.24905	.00928	.25067	.60616	.20116	4.2488
#3	.50629	258.88	.24975	.01373	.25150	.60435	.20023	4.2200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048937S Acquired: 11/13/2013 3:08:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01675**	**1.2902**	**.50114**	**.24561**	**.49941**	**.50099**	**.24521**
Stddev	.00031	.0009	.00207	.00119	.00051	.00053	.55113
%RSD	1.8487	.06875	.41217	.48275	.10197	.10550	224.76
#1	-.01707	1.2909	.49951	.24473	.49995	.50142	.21013
#2	-.01645	1.2892	.50346	.24696	.49932	.50115	.81304
#3	-.01672	1.2904	.50044	.24515	.49895	.50040	-.28755
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24857.**	**32666.**
Stddev	48.	65.
%RSD	.19463	.19920
#1	24819.	32601.
#2	24840.	32666.
#3	24911.	32731.

Approved: November 13, 2013

Sample Name: L1311048940 Acquired: 11/13/2013 3:12:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00107**	**.01622**	**-.00058**	**.07437**	**.03258**	**.00000**	**56.006**
Stddev	.00049	.01922	.00111	.00117	.00020	.00001	.222
%RSD	45.348	118.48	190.29	1.5717	.61452	436.77	.39608
#1	-.00051	-.00464	.00019	.07417	.03251	-.00001	55.863
#2	-.00140	.02009	-.00008	.07563	.03281	.00000	55.893
#3	-.00130	.03321	-.00185	.07332	.03243	.00001	56.262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**.00002**	**.00057**	**.00052**	**.15328**	**2.6133**	**.02739**
Stddev	.00016	.00013	.00005	.00034	.00417	.0067	.00154
%RSD	41.441	630.88	9.4723	66.342	2.7226	.25559	5.6160
#1	.00057	-.00013	.00052	.00018	.15112	2.6140	.02613
#2	.00031	.00012	.00058	.00051	.15809	2.6195	.02910
#3	.00028	.00008	.00062	.00087	.15062	2.6062	.02695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.209**	**.20529**	**.00126**	**245.20**	**.00008**	F **-.02214**	**.00185**
Stddev	.048	.00030	.00019	2.06	.00019	.00249	.00060
%RSD	.23959	.14378	15.316	.84128	230.38	11.232	32.463
#1	20.167	.20496	.00112	245.21	-.00006	-.02453	.00207
#2	20.198	.20538	.00117	243.13	.00001	-.01957	.00117
#3	20.262	.20553	.00148	247.26	.00029	-.02231	.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048940 Acquired: 11/13/2013 3:12:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00056**	**-.00111**	**2.3738**	**-.01663**	**.80597**	**-.00047**	**-.00193**
Stddev	.00103	.00177	.0182	.00018	.00168	.00045	.00154
%RSD	182.08	159.25	.76593	1.0970	.20828	96.871	79.392
#1	-.00168	-.00305	2.3531	-.01642	.80441	-.00005	-.00360
#2	.00035	.00040	2.3870	-.01671	.80775	-.00095	-.00057
#3	-.00037	-.00068	2.3813	-.01675	.80575	-.00040	-.00163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00022**	**.00177**	**15.572**
Stddev	.00010	.00004	1.249
%RSD	44.222	2.4606	8.0227
#1	.00020	.00177	15.251
#2	.00032	.00173	14.514
#3	.00013	.00182	16.950
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24930.**	**33105.**
Stddev	43.	82.
%RSD	.17373	.24748
#1	24880.	33171.
#2	24954.	33131.
#3	24956.	33013.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/13/2013 3:15:48 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41627**	**10.523**	**.41707**	**.52253**	**1.0404**	**.05147**	**10.334**
Stddev	.00151	.011	.00045	.00101	.0034	.00010	.039
%RSD	.36278	.10620	.10746	.19347	.32672	.18573	.37514
#1	.41769	10.534	.41758	.52185	1.0367	.05137	10.371
#2	.41468	10.522	.41689	.52206	1.0434	.05155	10.337
#3	.41642	10.512	.41674	.52369	1.0411	.05149	10.294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05219**	**.21128**	**.52083**	**.53049**	**4.2410**	**51.649**	**1.0502**
Stddev	.00016	.00035	.00118	.00126	.0121	.113	.0019
%RSD	.30579	.16657	.22636	.23691	.28603	.21941	.17788
#1	.05237	.21147	.51959	.53158	4.2290	51.521	1.0489
#2	.05206	.21088	.52097	.52912	4.2532	51.738	1.0523
#3	.05213	.21150	.52193	.53077	4.2408	51.689	1.0494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.606**	**.53482**	**1.0427**	**51.890**	**.52926**	**10.440**	**.53179**
Stddev	.010	.00172	.0006	.102	.00154	.013	.00165
%RSD	.09380	.32175	.05553	.19708	.29011	.12437	.31069
#1	10.608	.53397	1.0433	51.784	.52956	10.443	.53043
#2	10.596	.53680	1.0426	51.898	.52760	10.451	.53131
#3	10.615	.53369	1.0422	51.988	.53062	10.425	.53363
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/13/2013 3:15:48 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2591**	**.41438**	**5.3596**	**1.0531**	**1.0427**	**1.0404**	**.53304**
Stddev	.0047	.00600	.0249	.0123	.0029	.0023	.00683
%RSD	.37353	1.4485	.46366	1.1663	.27672	.22392	1.2811
#1	1.2603	.41827	5.3777	1.0601	1.0397	1.0425	.53586
#2	1.2539	.40747	5.3312	1.0389	1.0430	1.0408	.52525
#3	1.2631	.41741	5.3698	1.0603	1.0454	1.0379	.53800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0320**	**1.0542**	F **.79331**
Stddev	.0011	.0016	.26532
%RSD	.10350	.15410	33.444
#1	1.0311	1.0523	.49868
#2	1.0332	1.0549	1.0133
#3	1.0317	1.0553	.86791
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25802.**	**33070.**
Stddev	37.	134.
%RSD	.14439	.40611
#1	25772.	33070.
#2	25791.	32936.
#3	25844.	33204.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 3:19:03 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**-.00375**	**-.00021**	**.00489**	**-.00020**	**-.00001**	**-.01608**
Stddev	.00090	.00310	.00215	.00114	.00021	.00002	.00163
%RSD	591.04	82.555	1033.7	23.213	104.66	133.69	10.115
#1	-.00074	-.00720	.00034	.00550	-.00043	-.00003	-.01792
#2	-.00060	-.00120	.00162	.00358	-.00018	.00000	-.01485
#3	.00089	-.00286	-.00258	.00560	.00000	-.00001	-.01545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**-.00013**	**.00021**	**-.00012**	**-.00508**	**-.19208**	**.00932**
Stddev	.00006	.00010	.00021	.00039	.00593	.05193	.00203
%RSD	696.37	78.801	100.78	318.27	116.59	27.036	21.787
#1	.00006	-.00008	-.00001	-.00018	-.00292	-.15310	.01125
#2	-.00004	-.00025	.00023	-.00048	-.00054	-.25103	.00720
#3	-.00005	-.00007	.00041	.00029	-.01179	-.17211	.00951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**-.00004**	**.00407**	**.09485**	**.00047**	**.00206**	**.00085**
Stddev	.00815	.00004	.00027	.00781	.00033	.00155	.00127
%RSD	4481.5	86.456	6.6804	8.2374	69.669	75.251	150.15
#1	-.00480	.00000	.00376	.09994	.00082	.00272	.00099
#2	.00923	-.00005	.00418	.09877	.00040	.00317	-.00049
#3	-.00498	-.00007	.00427	.08586	.00018	.00029	.00205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 3:19:03 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00086**	**-.00130**	**.00541**	**.00029**	**.00004**	**.00046**	**-.00091**
Stddev	.00147	.00183	.00214	.00033	.00011	.00013	.00045
%RSD	169.89	140.21	39.588	114.38	244.61	28.559	48.908
#1	.00078	-.00340	.00294	.00050	.00016	.00031	-.00127
#2	-.00205	-.00006	.00668	.00046	-.00005	.00050	-.00106
#3	-.00132	-.00045	.00660	-.00009	.00003	.00057	-.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**-.00072**	F **.14454**
Stddev	.00010	.00007	.45037
%RSD	175.22	10.314	311.59
#1	.00005	-.00073	-.33067
#2	-.00014	-.00078	.19919
#3	-.00007	-.00064	.56509
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25952.**	**33024.**
Stddev	18.	116.
%RSD	.07101	.35186
#1	25932.	33063.
#2	25969.	33117.
#3	25955.	32894.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048942 Acquired: 11/13/2013 3:22:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**.02242**	**-.00109**	**.07415**	**.02954**	**.00000**	**76.992**
Stddev	.00041	.01584	.00099	.00058	.00009	.00002	.138
%RSD	162.53	70.667	90.511	.78177	.30794	2562.6	.17982
#1	.00004	.03455	-.00100	.07400	.02944	.00000	76.850
#2	-.00007	.00450	-.00015	.07479	.02955	-.00002	76.999
#3	-.00071	.02820	-.00213	.07366	.02962	.00002	77.126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.00019**	**.00072**	**.00091**	**.05154**	**3.1668**	**.01390**
Stddev	.00008	.00011	.00054	.00028	.00493	.0227	.00145
%RSD	43.645	59.214	74.597	31.344	9.5565	.71767	10.422
#1	.00027	.00010	.00017	.00117	.05025	3.1924	.01303
#2	.00016	.00015	.00075	.00093	.04739	3.1588	.01309
#3	.00012	.00032	.00125	.00061	.05698	3.1491	.01557
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.392**	**.09306**	**.00293**	**172.36**	**.00140**	**.01270**	**.00170**
Stddev	.090	.00034	.00010	.84	.00092	.00461	.00140
%RSD	.58629	.36619	3.4599	.48629	65.572	36.312	82.530
#1	15.347	.09290	.00297	171.75	.00245	.01014	.00270
#2	15.333	.09282	.00301	173.32	.00107	.00993	.00231
#3	15.496	.09345	.00281	172.02	.00070	.01802	.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048942 Acquired: 11/13/2013 3:22:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00116**	**-.00088**	**2.0790**	**-.01684**	**.53994**	**-.00233**	**-.00235**
Stddev	.00152	.00289	.0454	.00022	.00138	.00043	.00028
%RSD	131.20	328.33	2.1830	1.3100	.25478	18.401	11.705
#1	.00007	.00168	2.0770	-.01662	.54108	-.00278	-.00258
#2	.00051	-.00030	2.0347	-.01684	.53841	-.00194	-.00205
#3	.00290	-.00402	2.1254	-.01706	.54033	-.00226	-.00244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00023**	**.00543**	F **-.79801**
Stddev	.00013	.00009	.50873
%RSD	55.113	1.5829	63.751
#1	.00011	.00552	-.61279
#2	.00036	.00535	-1.3734
#3	.00023	.00542	-.40784
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24901.**	**32696.**
Stddev	32.	98.
%RSD	.12990	.29845
#1	24938.	32791.
#2	24887.	32701.
#3	24878.	32596.

Approved: November 13, 2013

Sample Name: L1311048944 Acquired: 11/13/2013 3:26:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.01371**	**.00041**	**.04229**	**.04956**	**-.00001**	**50.555**
Stddev	.00001	.01005	.00146	.00022	.00034	.00002	.083
%RSD	5.4883	73.325	353.34	.52973	.68846	314.68	.16455
#1	-.00017	.01384	-.00066	.04254	.04995	-.00003	50.632
#2	-.00018	.00359	.00208	.04224	.04943	.00002	50.567
#3	-.00016	.02370	-.00018	.04210	.04930	-.00001	50.467
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**.00003**	**.00059**	**-.00018**	**.02164**	**1.3764**	**.01243**
Stddev	.00017	.00005	.00056	.00040	.00391	.0477	.00116
%RSD	51.284	156.25	94.994	216.18	18.071	3.4657	9.3148
#1	.00035	.00004	.00015	.00011	.01736	1.3221	.01361
#2	.00016	-.00002	.00121	-.00002	.02255	1.3958	.01240
#3	.00050	.00007	.00040	-.00064	.02502	1.4114	.01129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.371**	**.01395**	**.00087**	**28.134**	**.00050**	**.01849**	**-.00010**
Stddev	.032	.00006	.00028	.067	.00051	.00485	.00012
%RSD	.20672	.41176	32.165	.23833	102.50	26.248	118.64
#1	15.396	.01389	.00085	28.074	.00100	.01859	-.00023
#2	15.383	.01398	.00060	28.206	.00052	.02329	.00000
#3	15.336	.01399	.00115	28.122	-.00002	.01358	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311048944 Acquired: 11/13/2013 3:26:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00200**	**-.00285**	**2.1905**	**-.01651**	**.61990**	**-.00196**	**-.00302**
Stddev	.00107	.00087	.0319	.00028	.00017	.00088	.00247
%RSD	53.642	30.485	1.4569	1.6930	.02695	44.695	81.814
#1	-.00150	-.00308	2.1565	-.01673	.62008	-.00249	-.00446
#2	-.00128	-.00357	2.1954	-.01620	.61975	-.00095	-.00017
#3	-.00324	-.00189	2.2197	-.01659	.61988	-.00245	-.00443
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00013**	**.00105**	F **-.78565**
Stddev	.00013	.00006	.44162
%RSD	95.135	5.6053	56.211
#1	.00025	.00109	-1.2596
#2	.00016	.00108	-.71166
#3	-.00001	.00098	-.38570
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25304.**	**33049.**
Stddev	41.	93.
%RSD	.16206	.28003
#1	25338.	33106.
#2	25317.	32942.
#3	25259.	33098.

Approved: November 13, 2013

Sample Name: L1311052006 Acquired: 11/13/2013 3:29:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**.00746**	**.00117**	**.02140**	**.21547**	**-.00001**	**13.302**
Stddev	.00028	.00490	.00025	.00037	.00060	.00001	.057
%RSD	41.208	65.652	21.052	1.7147	.27689	201.35	.43024
#1	-.00049	.01310	.00144	.02181	.21558	.00000	13.360
#2	-.00101	.00433	.00107	.02111	.21482	.00001	13.302
#3	-.00055	.00494	.00098	.02129	.21600	-.00002	13.245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**-.00011**	**.00029**	**.00055**	**.00690**	**1.1591**	**.05180**
Stddev	.00007	.00006	.00037	.00030	.00486	.0326	.00173
%RSD	73.357	55.090	127.14	54.324	70.400	2.8127	3.3484
#1	.00015	-.00010	-.00011	.00041	.00890	1.1924	.05291
#2	.00002	-.00017	.00061	.00090	.01043	1.1273	.04980
#3	.00010	-.00005	.00036	.00035	.00136	1.1577	.05268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.3907**	**.00108**	**.00050**	**98.860**	**.00021**	**.01106**	**.00045**
Stddev	.0339	.00008	.00027	.233	.00100	.00283	.00092
%RSD	.77114	7.5706	53.515	.23549	483.67	25.560	205.36
#1	4.4167	.00099	.00027	98.625	.00012	.00791	.00146
#2	4.4029	.00109	.00079	98.863	-.00075	.01189	.00020
#3	4.3524	.00115	.00044	99.091	.00124	.01338	-.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311052006 Acquired: 11/13/2013 3:29:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**-.00092**	**3.8193**	**-.01647**	**.33621**	**-.00075**	**-.00243**
Stddev	.00064	.00032	.0396	.00036	.00147	.00051	.00056
%RSD	191.45	34.283	1.0371	2.1577	.43788	68.084	22.971
#1	.00032	-.00096	3.8033	-.01682	.33467	-.00029	-.00181
#2	-.00035	-.00059	3.8643	-.01649	.33635	-.00066	-.00289
#3	-.00097	-.00122	3.7901	-.01611	.33760	-.00129	-.00258
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00172**	F **-.75602**
Stddev	.00006	.00011	.89946
%RSD	124.43	6.5898	118.97
#1	.00008	.00180	.25529
#2	-.00002	.00176	-1.4665
#3	.00009	.00159	-1.0568
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25329.**	**32899.**
Stddev	52.	17.
%RSD	.20627	.05242
#1	25378.	32911.
#2	25335.	32879.
#3	25274.	32907.

Approved: November 13, 2013

Sample Name: L1311053302 Acquired: 11/13/2013 3:33:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.00788**	**-.00011**	**.01986**	**.03001**	**.00004**	**133.84**
Stddev	.00022	.00308	.00122	.00099	.00011	.00004	.31
%RSD	114.58	39.107	1117.2	4.9625	.35694	109.84	.23064
#1	-.00014	.01134	-.00102	.02069	.03010	.00005	133.72
#2	.00000	.00690	-.00059	.01877	.02989	-.00001	133.61
#3	-.00042	.00541	.00128	.02012	.03004	.00006	134.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**.00027**	**.00080**	**.00011**	**.02433**	**8.2906**	**.02761**
Stddev	.00010	.00005	.00028	.00042	.00334	.0401	.00131
%RSD	7.6143	20.085	34.714	368.74	13.744	.48429	4.7376
#1	.00142	.00023	.00093	.00049	.02466	8.2581	.02859
#2	.00131	.00033	.00099	.00019	.02749	8.2782	.02811
#3	.00122	.00025	.00048	-.00034	.02083	8.3355	.02613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**141.93**	**.07631**	**-.00021**	**14.412**	**.00425**	**.06304**	**.00096**
Stddev	.03	.00010	.00012	.052	.00019	.00261	.00052
%RSD	.02137	.13275	56.927	.35802	4.5022	4.1483	54.829
#1	141.90	.07633	-.00007	14.353	.00416	.06482	.00078
#2	141.96	.07620	-.00029	14.436	.00447	.06425	.00055
#3	141.94	.07640	-.00027	14.447	.00412	.06003	.00155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311053302 Acquired: 11/13/2013 3:33:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00163**	**-.00059**	**2.1444**	**-.01665**	**.71181**	**-.00293**	**-.00052**
Stddev	.00106	.00376	.0203	.00042	.00100	.00064	.00143
%RSD	65.282	638.71	.94727	2.4932	.14087	21.915	275.50
#1	-.00073	.00004	2.1432	-.01707	.71097	-.00223	-.00151
#2	-.00136	-.00463	2.1653	-.01664	.71292	-.00349	-.00116
#3	-.00280	.00282	2.1247	-.01624	.71153	-.00307	.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00016**	**.00189**	F **-1.1684**
Stddev	.00012	.00003	.4933
%RSD	74.897	1.4760	42.215
#1	-.00027	.00189	-.98883
#2	-.00003	.00192	-1.7263
#3	-.00017	.00187	-.79015
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24679.**	**32718.**
Stddev	28.	21.
%RSD	.11404	.06394
#1	24655.	32739.
#2	24710.	32717.
#3	24672.	32697.

Approved: November 13, 2013

Sample Name: L1311053502 Acquired: 11/13/2013 3:36:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**.04651**	**.00055**	**.02553**	**.05498**	**.00001**	**91.558**	**.00100**
Stddev	.00054	.02327	.00044	.00104	.00019	.00002	.173	.00007
%RSD	158.76	50.038	80.140	4.0620	.34107	209.50	.18893	7.4179
#1	-.00037	.07297	.00024	.02599	.05510	.00000	91.711	.00103
#2	.00021	.03740	.00106	.02435	.05477	.00003	91.370	.00092
#3	-.00087	.02918	.00037	.02626	.05508	-.00001	91.593	.00106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00186**	**.00036**	**-.00006**	**.01061**	**8.1243**	**.03769**	**77.159**	**.34382**
Stddev	.00003	.00050	.00061	.00363	.0172	.00079	.170	.00120
%RSD	1.5075	136.07	986.38	34.183	.21153	2.0936	.22065	.34769
#1	.00190	-.00016	.00024	.00644	8.1226	.03681	77.353	.34337
#2	.00185	.00083	-.00076	.01232	8.1423	.03793	77.088	.34292
#3	.00185	.00042	.00034	.01306	8.1080	.03834	77.035	.34518
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00261**	**82.176**	**.01030**	**.06488**	**.00145**	**-.00023**	**.00195**	**2.2922**
Stddev	.00013	.268	.00074	.00639	.00132	.00128	.00034	.0500
%RSD	4.8322	.32584	7.1634	9.8516	90.985	555.94	17.450	2.1789
#1	.00254	81.879	.01113	.06724	.00090	.00095	.00186	2.2854
#2	.00253	82.248	.00972	.06975	.00049	-.00160	.00166	2.3452
#3	.00276	82.400	.01006	.05764	.00295	-.00005	.00232	2.2460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: L1311053502 Acquired: 11/13/2013 3:36:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01650**	**1.1367**	**-.00154**	**-.00153**	**-.00018**	**.00391**	**.07475**
Stddev	.00029	.0026	.00065	.00270	.00010	.00011	.55702
%RSD	1.7635	.22435	42.171	176.30	53.787	2.6913	745.19
#1	-.01616	1.1337	-.00080	-.00121	-.00023	.00403	-.37100
#2	-.01670	1.1379	-.00203	.00099	-.00024	.00389	-.10393
#3	-.01663	1.1384	-.00180	-.00438	-.00007	.00382	.69918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**24991.**	**32907.**
Stddev	38.	121.
%RSD	.15238	.36865
#1	24966.	32869.
#2	24972.	33043.
#3	25035.	32809.

Approved: November 13, 2013

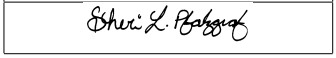
Sample Name: L1311053504 Acquired: 11/13/2013 3:40:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**.00065**	**-.00170**	**.01619**	**.03866**	**.00001**	**73.916**
Stddev	.00012	.01973	.00199	.00097	.00043	.00002	.329
%RSD	18.065	3048.1	117.16	5.9946	1.1063	193.31	.44500
#1	-.00080	-.00989	-.00006	.01725	.03853	.00002	74.295
#2	-.00071	.02341	-.00112	.01598	.03832	.00003	73.707
#3	-.00056	-.01157	-.00392	.01534	.03914	-.00001	73.745
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00093**	**.00021**	**.00059**	**.00082**	**.02381**	**4.2463**	**.01398**
Stddev	.00003	.00002	.00038	.00031	.00138	.0298	.00201
%RSD	3.5774	11.562	65.039	37.939	5.8059	.70186	14.400
#1	.00095	.00021	.00062	.00112	.02229	4.2124	.01197
#2	.00089	.00023	.00019	.00050	.02499	4.2583	.01398
#3	.00094	.00018	.00096	.00083	.02417	4.2682	.01600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**61.638**	**.04693**	**-.00046**	**9.5486**	**.00261**	**.08469**	**-.00043**
Stddev	.073	.00037	.00033	.0586	.00063	.00289	.00130
%RSD	.11766	.78672	70.447	.61334	24.265	3.4113	305.45
#1	61.707	.04716	-.00076	9.6038	.00291	.08161	-.00082
#2	61.563	.04712	-.00012	9.5548	.00188	.08511	-.00149
#3	61.643	.04650	-.00051	9.4872	.00304	.08734	.00103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013



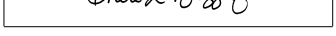
Sample Name: L1311053504 Acquired: 11/13/2013 3:40:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00051**	**-.00075**	**2.2858**	**-.01656**	**.50322**	**-.00205**	**-.00266**
Stddev	.00221	.00152	.0359	.00029	.00100	.00035	.00079
%RSD	437.14	202.30	1.5703	1.7268	.19860	17.180	29.794
#1	-.00059	-.00197	2.2449	-.01654	.50410	-.00240	-.00345
#2	.00174	-.00124	2.3002	-.01628	.50344	-.00169	-.00265
#3	-.00267	.00096	2.3122	-.01685	.50214	-.00206	-.00187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00031**	**.00395**	F **-1.2798**
Stddev	.00020	.00015	.9980
%RSD	66.266	3.7448	77.978
#1	-.00029	.00384	-2.3215
#2	-.00011	.00388	-.33226
#3	-.00052	.00412	-1.1856
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25124.**	**32960.**
Stddev	68.	134.
%RSD	.26896	.40517
#1	25192.	32858.
#2	25124.	32910.
#3	25057.	33111.

Approved: November 13, 2013



Sample Name: CCV Acquired: 11/13/2013 3:43:44 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41767**	**10.455**	**.41978**	**.52457**	**1.0486**	**.05229**	**10.360**
Stddev	.00256	.026	.00181	.00122	.0001	.00015	.044
%RSD	.61199	.24756	.43217	.23337	.01105	.28252	.42314
#1	.42045	10.459	.42085	.52598	1.0487	.05245	10.335
#2	.41541	10.478	.41769	.52383	1.0486	.05217	10.334
#3	.41715	10.427	.42081	.52390	1.0484	.05225	10.411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05287**	**.21200**	**.53027**	**.52989**	**4.2364**	**51.665**	**1.0566**
Stddev	.00009	.00035	.00439	.00032	.0050	.036	.0020
%RSD	.17197	.16559	.82872	.05971	.11763	.06896	.19219
#1	.05284	.21232	.53501	.53009	4.2419	51.706	1.0547
#2	.05298	.21205	.52633	.52953	4.2323	51.643	1.0564
#3	.05280	.21163	.52947	.53006	4.2350	51.645	1.0587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.592**	**.53598**	**1.0437**	**51.790**	**.53114**	**10.342**	**.52758**
Stddev	.022	.00070	.0009	.147	.00135	.014	.00132
%RSD	.20795	.12977	.08387	.28368	.25354	.13090	.24945
#1	10.580	.53651	1.0444	51.895	.53206	10.351	.52692
#2	10.578	.53519	1.0440	51.853	.52960	10.327	.52673
#3	10.617	.53624	1.0427	51.622	.53177	10.350	.52910
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCV Acquired: 11/13/2013 3:43:44 Type: QC
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2457**	**.41774**	**5.1284**	**1.0303**	**1.0335**	**1.0424**	**.53895**
Stddev	.0036	.00452	.0312	.0058	.0021	.0036	.00445
%RSD	.28777	1.0821	.60753	.56723	.20085	.34533	.82512
#1	1.2472	.42284	5.1547	1.0269	1.0351	1.0419	.54196
#2	1.2416	.41424	5.1366	1.0270	1.0343	1.0390	.54105
#3	1.2482	.41614	5.0940	1.0370	1.0312	1.0462	.53384
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0429**	**1.0440**	F **.13273**
Stddev	.0034	.0001	.11574
%RSD	.33059	.01318	87.198
#1	1.0469	1.0440	.00882
#2	1.0411	1.0441	.23805
#3	1.0408	1.0438	.15131
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25772.**	**33281.**
Stddev	30.	104.
%RSD	.11818	.31142
#1	25768.	33368.
#2	25805.	33310.
#3	25744.	33166.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 3:46:58 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.01026**	**.00120**	**.00280**	**-.00020**	**-.00002**	**-.01848**
Stddev	.00003	.01261	.00022	.00168	.00009	.00001	.00432
%RSD	8.6304	122.88	18.626	60.173	43.373	44.012	23.386
#1	-.00037	.00296	.00128	.00104	-.00010	-.00002	-.01478
#2	-.00036	.00301	.00138	.00296	-.00026	-.00001	-.01743
#3	-.00042	.02483	.00095	.00440	-.00024	-.00002	-.02323
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.00002**	**.00006**	**.00004**	**-.00325**	**-.13740**	**.00729**
Stddev	.00007	.00007	.00009	.00043	.00452	.02198	.00076
%RSD	89.712	299.55	148.12	1139.7	139.36	15.996	10.424
#1	.00012	.00010	.00017	-.00009	-.00276	-.11203	.00692
#2	.00010	-.00001	.00003	-.00031	.00101	-.15057	.00678
#3	.00000	-.00003	-.00001	.00052	-.00799	-.14960	.00816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00143**	**-.00007**	**.00391**	**.07871**	**-.00014**	**.00378**	**.00078**
Stddev	.01652	.00003	.00038	.00158	.00064	.00263	.00161
%RSD	1152.2	48.345	9.8310	2.0121	453.21	69.527	205.39
#1	-.01746	-.00004	.00347	.07749	-.00016	.00141	.00258
#2	.01315	-.00010	.00405	.07813	-.00078	.00333	.00028
#3	.00861	-.00006	.00420	.08050	.00051	.00661	-.00051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: CCB Acquired: 11/13/2013 3:46:58 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00095**	**.00202**	**-.00091**	**-.00008**	**.00008**	**.00001**	**-.00035**
Stddev	.00217	.00110	.00070	.00042	.00006	.00052	.00097
%RSD	227.41	54.109	76.466	509.53	75.299	4667.7	278.03
#1	.00077	.00133	-.00125	.00037	.00007	-.00047	-.00123
#2	.00321	.00145	-.00011	-.00044	.00003	-.00006	.00069
#3	-.00112	.00329	-.00138	-.00018	.00015	.00057	-.00051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00004**	**-.00062**	F **-.61452**
Stddev	.00014	.00016	.53793
%RSD	318.95	25.968	87.536
#1	.00002	-.00043	-.62969
#2	.00019	-.00072	-1.1447
#3	-.00008	-.00069	-.06917
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**25945.**	**33260.**
Stddev	27.	62.
%RSD	.10451	.18578
#1	25962.	33330.
#2	25960.	33237.
#3	25914.	33214.

Approved: November 13, 2013

Sample Name: ACID WATER Acquired: 11/13/2013 3:50:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.01466**	**-.00031**	**.00146**	**-.00034**	**.00000**	**-.02493**
Stddev	.00020	.01121	.00092	.00055	.00020	.00002	.00547
%RSD	83.758	76.454	297.66	37.796	57.400	1425.3	21.946
#1	-.00002	.01164	.00054	.00199	-.00012	-.00002	-.02772
#2	-.00041	.00527	-.00128	.00088	-.00042	.00001	-.01863
#3	-.00028	.02706	-.00019	.00152	-.00049	.00002	-.02845
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00011**	**.00019**	**-.00017**	**-.00358**	**-.17094**	**.00850**
Stddev	.00007	.00011	.00014	.00044	.00155	.03053	.00167
%RSD	86.784	93.278	71.060	260.28	43.350	17.862	19.710
#1	.00013	-.00015	.00016	-.00012	-.00312	-.19614	.00984
#2	.00000	-.00020	.00034	.00024	-.00231	-.17969	.00662
#3	.00011	.00001	.00007	-.00063	-.00532	-.13698	.00902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00631**	**-.00022**	**.00021**	**.05653**	**-.00002**	**-.00102**	**.00114**
Stddev	.01249	.00005	.00022	.01331	.00063	.00416	.00120
%RSD	198.03	22.750	104.99	23.546	3979.3	408.84	105.09
#1	-.00939	-.00019	-.00003	.07088	.00018	-.00229	.00083
#2	-.01697	-.00019	.00027	.05411	.00049	.00363	.00013
#3	.00744	-.00028	.00038	.04460	-.00072	-.00440	.00246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ACID WATER Acquired: 11/13/2013 3:50:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00245**	**-.00075**	**-.00738**	**-.01584**	**-.00013**	**-.00095**	**-.00200**
Stddev	.00011	.00225	.00217	.00031	.00003	.00066	.00072
%RSD	4.5396	298.09	29.462	1.9743	25.728	69.359	36.302
#1	-.00248	-.00329	-.00937	-.01579	-.00016	-.00064	-.00187
#2	-.00232	.00003	-.00506	-.01555	-.00010	-.00171	-.00134
#3	-.00254	.00100	-.00771	-.01617	-.00014	-.00050	-.00278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**-.00101**	F **-1.1453**
Stddev	.00010	.00016	.2979
%RSD	1367.4	15.805	26.014
#1	.00003	-.00112	-1.4560
#2	.00007	-.00110	-1.1181
#3	-.00012	-.00083	-.86193
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26136.**	**33275.**
Stddev	10.	54.
%RSD	.03892	.16293
#1	26125.	33338.
#2	26145.	33239.
#3	26138.	33249.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ACID WATER Acquired: 11/13/2013 3:54:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**-.00749**	**-.00092**	**.00182**	**-.00043**	**-.00002**	**-.02702**
Stddev	.00013	.00364	.00045	.00102	.00005	.00002	.01099
%RSD	56.493	48.638	49.516	55.963	11.443	83.973	40.699
#1	-.00026	-.01126	-.00141	.00298	-.00037	-.00002	-.03601
#2	-.00036	-.00724	-.00082	.00147	-.00046	.00000	-.03028
#3	-.00009	-.00398	-.00052	.00103	-.00046	-.00003	-.01476
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**-.00014**	**-.00002**	**-.00015**	**-.00085**	**-.21805**	**.00745**
Stddev	.00009	.00008	.00023	.00029	.00223	.03569	.00081
%RSD	56.072	52.637	939.64	200.72	261.68	16.368	10.866
#1	.00006	-.00008	-.00015	.00012	.00158	-.25641	.00709
#2	.00018	-.00022	.00024	-.00046	-.00135	-.21193	.00689
#3	.00023	-.00013	-.00016	-.00009	-.00279	-.18582	.00838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00522**	**-.00025**	**-.00011**	**.05620**	**-.00005**	F **-.00348**	**.00143**
Stddev	.01515	.00003	.00010	.00969	.00071	.00511	.00056
%RSD	290.17	13.039	90.785	17.245	1346.7	146.72	39.328
#1	-.01152	-.00021	-.00014	.05079	.00002	.00241	.00078
#2	-.01621	-.00026	.00000	.05041	-.00079	-.00615	.00179
#3	.01206	-.00027	-.00019	.06738	.00062	-.00672	.00171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ACID WATER Acquired: 11/13/2013 3:54:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**.00045**	**-.00240**	**-.01585**	**-.00008**	**.00028**	**-.00217**
Stddev	.00250	.00132	.00312	.00030	.00015	.00077	.00024
%RSD	475.17	293.32	130.13	1.8629	187.29	272.24	10.998
#1	-.00278	.00111	.00042	-.01619	.00004	-.00058	-.00245
#2	.00217	.00130	-.00575	-.01570	-.00004	.00054	-.00206
#3	-.00097	-.00107	-.00186	-.01566	-.00025	.00090	-.00202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00017**	**-.00109**	F **-.93965**
Stddev	.00019	.00011	.63577
%RSD	110.61	9.6148	67.661
#1	.00000	-.00112	-1.1518
#2	-.00038	-.00098	-1.4422
#3	-.00014	-.00118	-.22492
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26265.**	**33292.**
Stddev	34.	89.
%RSD	.12866	.26606
#1	26242.	33315.
#2	26248.	33194.
#3	26304.	33367.

Approved: November 13, 2013

Sample Name: ACID WATER Acquired: 11/13/2013 3:57:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**-.00530**	**-.00060**	**.00217**	**-.00043**	**-.00002**	**-.03157**
Stddev	.00006	.02218	.00054	.00055	.00007	.00001	.00337
%RSD	32.108	418.81	89.033	25.481	15.458	72.971	10.678
#1	-.00017	-.03055	-.00119	.00253	-.00036	.00000	-.03157
#2	-.00023	.00368	-.00013	.00153	-.00048	-.00003	-.02820
#3	-.00012	.01099	-.00049	.00244	-.00045	-.00002	-.03495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00006**	**.00020**	**-.00028**	**-.00075**	**-.17554**	**.00589**
Stddev	.00001	.00008	.00064	.00005	.00138	.01511	.00174
%RSD	24.684	130.72	326.54	16.735	183.57	8.6072	29.514
#1	.00007	-.00011	.00094	-.00023	-.00055	-.17759	.00694
#2	.00006	.00003	-.00017	-.00028	.00052	-.18952	.00684
#3	.00004	-.00010	-.00018	-.00032	-.00223	-.15951	.00388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00757**	**-.00025**	**-.00009**	**.04745**	**.00027**	F **-.00474**	**.00085**
Stddev	.01885	.00003	.00006	.00850	.00019	.00549	.00094
%RSD	249.17	13.434	67.206	17.913	72.086	115.80	111.33
#1	.01408	-.00024	-.00015	.04035	.00044	-.00005	-.00005
#2	-.01641	-.00022	-.00004	.05687	.00030	-.00340	.00076
#3	-.02037	-.00028	-.00006	.04513	.00006	-.01078	.00183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ACID WATER Acquired: 11/13/2013 3:57:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00081**	**-.00047**	**-.00135**	**-.01625**	**-.00026**	**-.00065**	**-.00244**
Stddev	.00170	.00024	.00137	.00016	.00006	.00040	.00082
%RSD	210.93	51.015	101.45	.96992	21.484	61.669	33.598
#1	.00069	-.00039	-.00070	-.01640	-.00029	-.00057	-.00315
#2	-.00266	-.00028	-.00293	-.01626	-.00028	-.00108	-.00154
#3	-.00045	-.00074	-.00043	-.01609	-.00019	-.00030	-.00262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00014**	**-.00112**	F **-.36179**
Stddev	.00013	.00002	1.2216
%RSD	96.609	2.0362	337.66
#1	-.00019	-.00110	-.49235
#2	.00001	-.00114	.91988
#3	-.00023	-.00113	-1.5129
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26291.**	**33308.**
Stddev	52.	80.
%RSD	.19643	.24039
#1	26233.	33217.
#2	26311.	33342.
#3	26330.	33365.

Approved: November 13, 2013

Sample Name: ACID WATER Acquired: 11/13/2013 4:01:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00074**	**.00934**	**-.00095**	**.00193**	**-.00026**	**-.00002**	**-.02479**
Stddev	.00047	.00573	.00161	.00114	.00010	.00001	.00965
%RSD	63.735	61.415	169.95	58.789	38.378	84.322	38.939
#1	-.00045	.00779	-.00279	.00250	-.00035	.00000	-.01669
#2	-.00129	.01569	-.00026	.00062	-.00015	-.00003	-.03547
#3	-.00049	.00454	.00021	.00267	-.00029	-.00001	-.02220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00008**	**.00001**	**-.00034**	**-.00313**	**-.18116**	**.00738**
Stddev	.00001	.00009	.00049	.00027	.00186	.04912	.00071
%RSD	14.046	111.75	7013.1	80.157	59.328	27.113	9.5544
#1	.00009	-.00006	.00007	-.00062	-.00401	-.16073	.00818
#2	.00010	.00000	-.00052	-.00007	-.00100	-.23720	.00684
#3	.00012	-.00019	.00046	-.00033	-.00438	-.14555	.00713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01008**	**-.00025**	**-.00032**	**.04056**	**-.00026**	**-.00177**	**.00010**
Stddev	.00868	.00003	.00021	.01732	.00047	.00290	.00059
%RSD	86.116	10.295	65.611	42.700	185.69	163.88	579.92
#1	.00634	-.00022	-.00016	.05314	-.00013	-.00489	-.00026
#2	.00390	-.00025	-.00024	.04773	-.00078	-.00128	-.00021
#3	.02000	-.00027	-.00055	.02081	.00014	.00086	.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: ACID WATER Acquired: 11/13/2013 4:01:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.00087**	**-.00314**	**-.01624**	**-.00016**	**-.00100**	**-.00275**
Stddev	.00217	.00276	.00147	.00028	.00003	.00109	.00021
%RSD	894.55	317.41	46.919	1.7008	18.540	108.07	7.7972
#1	.00221	-.00001	-.00379	-.01656	-.00013	-.00164	-.00293
#2	-.00101	.00396	-.00145	-.01611	-.00017	-.00162	-.00280
#3	-.00193	-.00134	-.00417	-.01605	-.00019	.00025	-.00251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00028**	**-.00120**	F **-.30534**
Stddev	.00021	.00002	.37751
%RSD	77.926	1.9582	123.64
#1	-.00007	-.00121	-.73969
#2	-.00027	-.00122	-.05630
#3	-.00049	-.00118	-.12002
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26042.**	**33364.**
Stddev	52.	191.
%RSD	.19836	.57283
#1	26011.	33581.
#2	26014.	33291.
#3	26102.	33221.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: DI WATER Acquired: 11/13/2013 4:04:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.00856**	**-.00139**	**.00098**	**-.00028**	**-.00001**	**-.02474**
Stddev	.00058	.00754	.00201	.00065	.00022	.00000	.00853
%RSD	167.29	88.121	145.14	66.291	78.244	28.237	34.467
#1	-.00021	-.00007	-.00154	.00155	-.00042	-.00001	-.01628
#2	-.00098	.01186	.00070	.00028	-.00039	-.00001	-.03334
#3	.00016	.01389	-.00331	.00110	-.00003	-.00001	-.02460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00018**	**.00008**	**.00013**	**-.00487**	**-.14704**	**.00706**
Stddev	.00006	.00017	.00016	.00050	.00236	.02047	.00026
%RSD	155.91	95.239	200.32	390.25	48.449	13.922	3.6775
#1	-.00008	.00026	.00021	.00054	-.00504	-.12420	.00690
#2	-.00008	.00030	.00013	.00028	-.00243	-.15320	.00693
#3	.00003	-.00002	-.00010	-.00043	-.00714	-.16373	.00736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01123**	**-.00027**	**-.00052**	**.04601**	**.00028**	**.00689**	**.00009**
Stddev	.01051	.00003	.00005	.00219	.00062	.00435	.00218
%RSD	93.603	11.734	10.038	4.7589	221.51	63.063	2436.7
#1	-.01492	-.00027	-.00049	.04788	.00093	.00217	-.00211
#2	-.01940	-.00024	-.00058	.04360	-.00029	.00779	.00225
#3	.00063	-.00030	-.00050	.04654	.00019	.01072	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: DI WATER Acquired: 11/13/2013 4:04:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00141**	**-.00108**	**.00546**	**-.01671**	**-.00011**	**-.00057**	**-.00223**
Stddev	.00173	.00096	.00135	.00025	.00014	.00038	.00109
%RSD	122.90	88.487	24.800	1.4931	129.58	66.956	48.925
#1	-.00066	-.00080	.00603	-.01690	.00002	-.00079	-.00344
#2	-.00018	-.00030	.00391	-.01642	-.00026	-.00013	-.00130
#3	-.00339	-.00215	.00644	-.01680	-.00009	-.00079	-.00196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00002**	**-.00114**	F **-1.1071**
Stddev	.00009	.00011	.6079
%RSD	509.67	9.9772	54.908
#1	.00002	-.00127	-1.0301
#2	-.00007	-.00107	-1.7499
#3	.00010	-.00107	-.54140
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26298.**	**33479.**
Stddev	26.	172.
%RSD	.09851	.51360
#1	26327.	33677.
#2	26291.	33361.
#3	26277.	33400.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: DI WATER Acquired: 11/13/2013 4:08:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00052**	**.01105**	**.00035**	**.00113**	**-.00035**	**-.00001**	**-.03145**
Stddev	.00028	.01161	.00055	.00007	.00034	.00002	.01250
%RSD	54.845	105.07	157.75	6.1160	98.356	202.87	39.763
#1	-.00068	.02244	.00062	.00121	-.00073	-.00002	-.03626
#2	-.00068	.01148	-.00028	.00108	-.00008	-.00001	-.04083
#3	-.00019	-.00077	.00070	.00110	-.00023	.00001	-.01725
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**.00014**	**-.00005**	**.00013**	**-.00333**	**-.16875**	**.00768**
Stddev	.00010	.00019	.00031	.00021	.00147	.02517	.00193
%RSD	101.19	134.79	639.99	153.49	44.226	14.915	25.082
#1	-.00009	.00031	.00012	.00029	-.00503	-.15042	.00990
#2	.00000	.00017	-.00041	-.00010	-.00253	-.15839	.00643
#3	-.00020	-.00006	.00014	.00021	-.00243	-.19745	.00672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00162**	**-.00025**	**-.00032**	**.04911**	**-.00068**	**.00419**	**-.00019**
Stddev	.00790	.00005	.00003	.01224	.00041	.00124	.00132
%RSD	486.45	21.035	8.5300	24.920	61.198	29.586	685.63
#1	-.01034	-.00025	-.00034	.06325	-.00035	.00356	.00078
#2	.00507	-.00030	-.00033	.04184	-.00054	.00339	-.00169
#3	.00040	-.00020	-.00029	.04226	-.00114	.00561	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: DI WATER Acquired: 11/13/2013 4:08:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00290**	**-.00229**	**.00622**	**-.01667**	**-.00009**	**-.00066**	**-.00130**
Stddev	.00223	.00257	.00120	.00023	.00004	.00029	.00113
%RSD	76.881	112.09	19.247	1.3877	43.814	44.317	87.162
#1	-.00042	-.00068	.00663	-.01683	-.00008	-.00076	-.00059
#2	-.00474	-.00525	.00487	-.01678	-.00014	-.00033	-.00070
#3	-.00355	-.00094	.00716	-.01641	-.00006	-.00089	-.00260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00008**	**-.00108**	F **-.89893**
Stddev	.00007	.00007	.16282
%RSD	89.319	6.1210	18.113
#1	.00000	-.00100	-1.0480
#2	-.00011	-.00110	-.92362
#3	-.00013	-.00113	-.72517
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26157.**	**33348.**
Stddev	33.	125.
%RSD	.12528	.37437
#1	26149.	33437.
#2	26193.	33205.
#3	26129.	33401.

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: DI WATER Acquired: 11/13/2013 4:11:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.00518**	**-.00126**	**.00078**	**-.00042**	**-.00001**	**-.02654**
Stddev	.00032	.00794	.00055	.00058	.00021	.00002	.01712
%RSD	136.94	153.18	43.134	74.551	49.655	302.40	64.519
#1	-.00003	.00390	-.00090	.00032	-.00055	.00000	-.01638
#2	-.00060	-.00204	-.00100	.00143	-.00054	-.00003	-.04631
#3	-.00007	.01368	-.00189	.00059	-.00018	.00001	-.01693
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00020**	**-.00017**	**.00021**	**-.00186**	**-.19491**	**.00848**
Stddev	.00008	.00018	.00008	.00034	.00128	.01269	.00239
%RSD	216.25	87.305	44.272	164.15	68.709	6.5115	28.255
#1	.00002	.00001	-.00021	-.00017	-.00275	-.18481	.00845
#2	-.00003	.00036	-.00022	.00031	-.00040	-.19076	.01088
#3	.00013	.00023	-.00008	.00048	-.00243	-.20915	.00609
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00863**	**-.00024**	**-.00046**	**.04844**	**.00004**	**.00351**	**-.00016**
Stddev	.01497	.00003	.00015	.00744	.00038	.00154	.00097
%RSD	173.49	12.237	32.211	15.369	1026.4	43.697	595.01
#1	-.00865	-.00025	-.00029	.05413	-.00038	.00211	-.00090
#2	.01668	-.00021	-.00052	.04001	.00011	.00515	.00093
#3	.01786	-.00027	-.00058	.05117	.00038	.00329	-.00051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: DI WATER Acquired: 11/13/2013 4:11:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00111**	**-.00303**	**.00587**	**-.01655**	**-.00004**	**-.00102**	**-.00093**
Stddev	.00121	.00133	.00162	.00013	.00007	.00082	.00110
%RSD	109.77	43.779	27.650	.77610	197.96	79.754	117.84
#1	.00027	-.00434	.00567	-.01643	-.00003	-.00017	-.00218
#2	-.00155	-.00168	.00435	-.01668	-.00011	-.00111	-.00048
#3	-.00203	-.00308	.00758	-.01655	.00003	-.00179	-.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**-.00110**	F **-.65842**
Stddev	.00010	.00016	.68557
%RSD	157.36	14.126	104.12
#1	-.00016	-.00105	-.57562
#2	.00004	-.00098	-.01801
#3	-.00007	-.00128	-1.3816
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26158.**	**33577.**
Stddev	32.	77.
%RSD	.12206	.22977
#1	26191.	33519.
#2	26127.	33665.
#3	26156.	33547.

Approved: November 13, 2013

Sample Name: DI WATER Acquired: 11/13/2013 4:15:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00095**	**.01816**	**-.00043**	**.00130**	**-.00033**	**.00000**	**-.03410**
Stddev	.00015	.00151	.00080	.00071	.00019	.0000	.00854
%RSD	15.761	8.2886	186.46	54.560	55.873	494.29	25.037
#1	-.00079	.01902	-.00135	.00130	-.00026	-.00002	-.04260
#2	-.00099	.01903	.00012	.00059	-.00020	.00000	-.03417
#3	-.00108	.01642	-.00006	.00201	-.00055	.00001	-.02553
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00008**	**.00014**	**-.00006**	**-.00208**	**-.20455**	**.00843**
Stddev	.00007	.00012	.00027	.00024	.00403	.02430	.00047
%RSD	113.55	145.28	198.58	417.24	193.51	11.877	5.6135
#1	-.00001	.00008	.00009	.00013	-.00323	-.20497	.00854
#2	-.00014	-.00003	-.00011	-.00034	-.00541	-.18005	.00791
#3	-.00004	.00021	.00043	.00003	.00239	-.22864	.00884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00638**	**-.00026**	**-.00046**	**.04927**	**-.00067**	**.00471**	**.00167**
Stddev	.00772	.00004	.00001	.00535	.00041	.00251	.00157
%RSD	120.84	14.168	1.2344	10.854	61.314	53.303	93.923
#1	.00159	-.00031	-.00046	.05526	-.00099	.00631	.00089
#2	.01528	-.00023	-.00046	.04756	-.00082	.00600	.00064
#3	.00228	-.00025	-.00045	.04498	-.00021	.00182	.00348
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: DI WATER Acquired: 11/13/2013 4:15:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00171**	**.00028**	**.00715**	**-.01646**	**-.00015**	**-.00057**	**-.00025**
Stddev	.00129	.00172	.00599	.00027	.00016	.00036	.00044
%RSD	75.649	612.23	83.780	1.6310	105.88	63.198	175.94
#1	-.00056	.00093	.00207	-.01616	.00001	-.00068	-.00075
#2	-.00311	.00157	.00562	-.01668	-.00031	-.00085	-.00005
#3	-.00146	-.00167	.01375	-.01654	-.00016	-.00016	.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00000**	**-.00109**	F **-.36372**
Stddev	.0001	.00007	.49289
%RSD	3013.3	6.0547	135.51
#1	-.00001	-.00102	.13624
#2	.00012	-.00115	-.84922
#3	-.00012	-.00111	-.37817
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**26194.**	**33350.**
Stddev	70.	95.
%RSD	.26587	.28603
#1	26273.	33460.
#2	26167.	33305.
#3	26141.	33286.

Approved: November 13, 2013

Sample Name: AIR Acquired: 11/13/2013 4:18:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k **.00073**	s **.01468**	k **.00044**	k **-.00017**	s **.00038**	k **-.00002**
Stddev	.00008	.06641	.00038	.00046	.00328	.00002
%RSD	10.812	452.32	84.600	266.18	871.33	71.303
#1	k .00066	s .09133	k .00002	k -.00062	s .00416	k -.00004
#2	.00071	-.02152	.00074	-.00021	-.00125	-.00003
#3	.00081	-.02576	.00057	.00031	-.00178	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s **-.06176**	k **.00001**	k **.00015**	k **-.00064**	k **-.00045**	s **-.00586**
Stddev	.15634	.00001	.00010	.00038	.00038	.00513
%RSD	253.15	267.00	64.762	58.859	85.305	87.453
#1	s -.24225	k .00002	k .00004	k -.00095	k -.00011	s -.01166
#2	.02542	-.00001	.00022	-.00022	-.00086	-.00400
#3	.03156	.00001	.00019	-.00074	-.00038	-.00193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s **-.13756**	s **.00748**	s **.00141**	s **-.00022**	**.00007**	s **.00533**
Stddev	.05026	.00133	.01200	.00013	.00017	.12748
%RSD	36.534	17.799	853.71	62.148	257.34	2391.8
#1	s -.08209	s .00842	s .01481	s -.00007	.00014	s -.14164
#2	-.15053	.00595	-.00224	-.00024	.00018	.07152
#3	-.18005	.00806	-.00835	-.00034	-.00013	.08610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Approved: November 13, 2013
Sheri L. Pahlgren

Sample Name: AIR Acquired: 11/13/2013 4:18:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k **.00177**	kF **-.00789**	k **.00377**	k **-.00060**	k **-.00275**	**.07666**
Stddev	.00052	.00403	.00015	.00082	.00109	.03800
%RSD	29.420	51.092	4.0967	136.50	39.743	49.570
#1	k .00237	k -.00395	k .00360	k -.00094	k -.00157	.10103
#2	.00147	-.01200	.00379	.00034	-.00373	.09606
#3	.00147	-.00771	.00391	-.00120	-.00296	.03287
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		450.00				
Low Limit		-.00320				

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k **-.01643**	s **-.00002**	s **-.00086**	k **.00015**	k **-.00022**	k **-.00062**
Stddev	.00041	.00038	.00332	.00013	.00017	.00006
%RSD	2.4871	2142.7	384.86	87.014	74.051	9.8158
#1	k -.01620	s .00042	s -.00465	k .00012	k -.00031	k -.00056
#2	-.01620	-.00022	.00051	.00004	-.00003	-.00063
#3	-.01691	-.00026	.00155	.00030	-.00033	-.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Zr3391
Units	ppm
Avg	k **2.7717**
Stddev	.6481
%RSD	23.383
#1	k 2.9932
#2	3.2800
#3	2.0419
Check ?	Chk Pass
High Limit	
Low Limit	

Approved: November 13, 2013
Sheri L. Babcock

Sample Name: AIR Acquired: 11/13/2013 4:18:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2730) Mode: CONC Corr. Factor: 1.000000
User: SLP Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**49070.**	^ *****
Stddev	1674.	-----
%RSD	3.4110	-----
#1	50510.	^ -----
#2	49466.	60992.
#3	47233.	74624.

Approved: November 13, 2013

Sample Name: S0 Acquired: 11/13/2013 9:07:58 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00190**	**.00063**	**-.00003**	**.00062**	**.00305**	**.00028**	**-.00192**
Stddev	.00021	.00012	.00001	.00028	.00007	.00016	.00012
%RSD	10.943	19.326	28.514	44.818	2.2931	57.726	6.0961
#1	-.00208	.00071	-.00002	.00054	.00298	.00044	-.00182
#2	-.00196	.00070	-.00004	.00040	.00312	.00026	-.00205
#3	-.00167	.00049	-.00004	.00093	.00307	.00012	-.00191

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00005**	**-.00007**	**.00091**	**-.00001**	**.00004**	**.00155**	**-.00088**
Stddev	.00001	.00003	.00008	.00003	.00004	.00041	.00009
%RSD	22.878	45.120	9.1283	553.81	117.52	26.301	10.030
#1	-.00004	-.00008	.00097	.00003	.00002	.00202	-.00095
#2	-.00005	-.00010	.00082	-.00004	.00008	.00129	-.00091
#3	-.00007	-.00004	.00094	-.00001	.00001	.00134	-.00078

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00003**	**.00050**	**.00000**	**-.00298**	**-.00038**	**.00024**	**-.00050**
Stddev	.00001	.00008	.0000	.00047	.00007	.00003	.00009
%RSD	27.269	15.996	611.37	15.844	18.282	12.890	17.266
#1	.00003	.00059	-.00003	-.00283	-.00044	.00027	-.00041
#2	.00004	.00044	.00003	-.00351	-.00030	.00025	-.00053
#3	.00002	.00047	-.00001	-.00260	-.00039	.00021	-.00058

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00002**	**-.00001**	**.00051**	**.00049**	**.00080**	**-.00059**	**-.00010**
Stddev	.00001	.00002	.00001	.00001	.00013	.00006	.00001
%RSD	76.920	183.78	1.8510	2.9550	16.693	9.6613	12.438
#1	.00001	.00001	.00050	.00050	.00067	-.00065	-.00011
#2	.00001	-.00003	.00052	.00051	.00093	-.00057	-.00009
#3	.00003	-.00001	.00052	.00048	.00079	-.00054	-.00009

Approved: November 14, 2013

Sample Name: S0 Acquired: 11/13/2013 9:07:58 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.00012**	**-.00043**	**-.00244**
Stddev	.00035	.00002	.00026
%RSD	299.53	4.1198	10.576
#1	-.00011	-.00041	-.00216
#2	.00052	-.00044	-.00267
#3	-.00006	-.00044	-.00250

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23658.**	**31548.**
Stddev	57.	71.
%RSD	.24088	.22399
#1	23723.	31627.
#2	23617.	31493.
#3	23633.	31523.

Approved: November 14, 2013

Sample Name: S1 Acquired: 11/13/2013 9:11:54 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

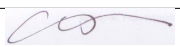
Elem	Ag3280	Al3082	Ba4554	Be3131	Ca4226	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00018**	**.00139**	**.01125**	**.00320**	**-.00037**	**.00024**	**.00063**
Stddev	.00016	.00007	.00011	.00012	.00008	.00003	.00003
%RSD	86.704	5.0236	.96231	3.7098	22.602	11.361	4.9854
#1	.00015	.00141	.01114	.00328	-.00039	.00023	.00062
#2	.00035	.00131	.01135	.00325	-.00044	.00027	.00060
#3	.00004	.00144	.01127	.00306	-.00027	.00023	.00066

Elem	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00275**	**.00039**	**.00067**	**.00595**	**.00107**	**.00051**	**.01060**
Stddev	.00011	.00003	.00004	.00049	.00051	.00001	.00021
%RSD	3.8643	6.8752	5.4050	8.1710	47.460	2.1011	1.9672
#1	.00264	.00042	.00063	.00650	.00076	.00052	.01057
#2	.00286	.00037	.00069	.00578	.00166	.00050	.01082
#3	.00276	.00037	.00070	.00557	.00079	.00051	.01040

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Si2124
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00107**	**.01257**	**-.00012**	**.00109**	**-.00031**	**.00030**	**.00151**
Stddev	.00004	.00022	.00004	.00004	.00005	.00003	.00003
%RSD	4.0055	1.7243	33.679	3.2998	17.527	9.2441	1.7287
#1	.00103	.01273	-.00007	.00106	-.00033	.00032	.00148
#2	.00111	.01232	-.00013	.00113	-.00036	.00027	.00151
#3	.00109	.01265	-.00015	.00108	-.00025	.00030	.00153

Elem	Sn1899	Sr4077	Ti3372	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00108**	**.01721**	**.00061**	**.00858**	**.00248**	**-.00242**
Stddev	.00003	.00005	.00006	.00024	.00003	.00018
%RSD	2.3235	.26541	9.2030	2.8325	1.2612	7.2871
#1	.00105	.01717	.00056	.00832	.00245	-.00224
#2	.00110	.01720	.00067	.00880	.00251	-.00259
#3	.00108	.01726	.00062	.00862	.00247	-.00244

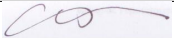
Approved: November 14, 2013



Sample Name: S1 Acquired: 11/13/2013 9:11:54 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23689.**	**31566.**
Stddev	8.	225.
%RSD	.03362	.71340
#1	23693.	31800.
#2	23680.	31547.
#3	23694.	31351.

Approved: November 14, 2013



Sample Name: S2 Acquired: 11/13/2013 9:15:27 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

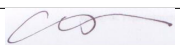
Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00265**	**.00201**	**.00009**	**.00207**	**.01998**	**.00611**	**.00124**
Stddev	.00012	.00005	.00001	.00009	.00013	.00023	.00011
%RSD	4.4662	2.6116	15.233	4.1041	.65691	3.7301	9.1416
#1	.00255	.00198	.00010	.00217	.01988	.00631	.00112
#2	.00263	.00197	.00010	.00201	.01994	.00586	.00134
#3	.00278	.00207	.00007	.00204	.02013	.00618	.00125

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00056**	**.00131**	**.00468**	**.00083**	**.00130**	**.01078**	**.00350**
Stddev	.00007	.00003	.00023	.00008	.00004	.00033	.00023
%RSD	12.035	2.0237	4.8737	9.0256	3.2655	3.0977	6.4801
#1	.00049	.00132	.00459	.00084	.00135	.01043	.00357
#2	.00062	.00133	.00494	.00075	.00127	.01109	.00325
#3	.00058	.00128	.00451	.00090	.00129	.01083	.00368

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00098**	**.02116**	**.00224**	**.02837**	**.00016**	**.00204**	**-.00005**
Stddev	.00009	.00018	.00007	.00021	.00002	.00002	.00009
%RSD	9.6637	.85232	2.9053	.73514	14.687	.82477	184.09
#1	.00092	.02102	.00230	.02814	.00015	.00205	-.00002
#2	.00093	.02109	.00217	.02855	.00015	.00202	.00002
#3	.00109	.02136	.00225	.02842	.00019	.00203	-.00015

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00054**	**.00010**	**.00255**	**.00162**	**.03468**	**.00189**	**.00005**
Stddev	.00000	.00000	.00007	.00003	.00034	.00006	.00003
%RSD	.91006	4.6276	2.5674	2.1069	.98316	3.1822	56.121
#1	.00055	.00011	.00262	.00166	.03449	.00189	.00004
#2	.00054	.00010	.00249	.00160	.03447	.00195	.00009
#3	.00054	.00010	.00255	.00161	.03507	.00183	.00003

Approved: November 14, 2013



Sample Name: S2 Acquired: 11/13/2013 9:15:27 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.01710**	**.00550**	**-.00246**
Stddev	.00015	.00014	.00025
%RSD	.86824	2.6050	9.9833
#1	.01703	.00562	-.00232
#2	.01727	.00534	-.00231
#3	.01701	.00554	-.00274

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23547.**	**31611.**
Stddev	25.	90.
%RSD	.10707	.28462
#1	23537.	31696.
#2	23529.	31621.
#3	23576.	31517.

Approved: November 14, 2013

Sample Name: S3 Acquired: 11/13/2013 9:18:56 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.24850**	**.09441**	**.01070**	**.09596**	**1.0495**	**.35570**	**.19304**
Stddev	.00063	.00017	.00005	.00022	.0015	.00148	.00069
%RSD	.25527	.17880	.43626	.23383	.14486	.41523	.35589
#1	.24818	.09428	.01065	.09581	1.0509	.35507	.19241
#2	.24809	.09460	.01073	.09585	1.0497	.35465	.19292
#3	.24923	.09435	.01072	.09621	1.0478	.35739	.19377

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03081**	**.07833**	**.22424**	**.04916**	**.07806**	**.60302**	**.30320**
Stddev	.00015	.00026	.00117	.00008	.00031	.00120	.00104
%RSD	.49948	.33754	.52183	.15603	.39467	.19944	.34139
#1	.03070	.07844	.22323	.04921	.07803	.60260	.30316
#2	.03074	.07803	.22398	.04907	.07838	.60437	.30218
#3	.03098	.07852	.22552	.04920	.07777	.60208	.30425

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.05515**	**1.1772**	**.13451**	**1.9470**	**.03404**	**.10384**	**.02389**
Stddev	.00010	.0056	.00024	.0052	.00007	.00020	.00013
%RSD	.18532	.47409	.17967	.26703	.21920	.18798	.56188
#1	.05526	1.1718	.13479	1.9456	.03405	.10404	.02393
#2	.05513	1.1769	.13436	1.9427	.03396	.10366	.02374
#3	.05506	1.1829	.13439	1.9528	.03411	.10381	.02400

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03078**	**.00583**	**.11876**	**.06600**	**2.0015**	**.14720**	**.00892**
Stddev	.00013	.00004	.00007	.00051	.0027	.00020	.00011
%RSD	.43793	.60051	.05803	.77725	.13712	.13492	1.2180
#1	.03086	.00584	.11880	.06578	1.9996	.14738	.00881
#2	.03063	.00579	.11880	.06564	2.0046	.14723	.00891
#3	.03086	.00586	.11868	.06659	2.0003	.14699	.00903

Approved: November 14, 2013

Sample Name: S3 Acquired: 11/13/2013 9:18:56 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.99047**	**.34508**	**-.00149**
Stddev	.00171	.00020	.00010
%RSD	.17266	.05724	6.4467
#1	.99139	.34487	-.00153
#2	.98850	.34512	-.00156
#3	.99153	.34526	-.00138

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23368.**	**31702.**
Stddev	5.	126.
%RSD	.02286	.39799
#1	23373.	31840.
#2	23362.	31675.
#3	23369.	31592.

Approved: November 14, 2013

Sample Name: S4 Acquired: 11/13/2013 9:22:12 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.49692**	**.18837**	**.02147**	**.19264**	**2.1201**	**.72165**	**.39071**
Stddev	.00467	.00027	.00003	.00143	.0005	.00549	.00038
%RSD	.93882	.14263	.15399	.74473	.02554	.76008	.09727
#1	.50050	.18829	.02143	.19398	2.1201	.72588	.39095
#2	.49164	.18814	.02149	.19113	2.1206	.71545	.39091
#3	.49862	.18866	.02149	.19280	2.1195	.72362	.39027

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.06106**	**.15387**	**.44568**	**.09645**	**.15671**	**1.2218**	**.62179**
Stddev	.00017	.00008	.00338	.00002	.00029	.0006	.00071
%RSD	.27488	.05319	.75806	.02566	.18798	.04743	.11436
#1	.06094	.15394	.44864	.09643	.15637	1.2213	.62233
#2	.06125	.15390	.44200	.09647	.15690	1.2224	.62206
#3	.06100	.15378	.44639	.09646	.15687	1.2217	.62099

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.11086**	**2.3599**	**.26956**	**3.9441**	**.06709**	**.20832**	**.04736**
Stddev	.00044	.0155	.00009	.0110	.00010	.00005	.00007
%RSD	.39369	.65514	.03261	.27984	.15620	.02488	.14949
#1	.11113	2.3745	.26950	3.9495	.06697	.20826	.04736
#2	.11109	2.3437	.26966	3.9513	.06711	.20835	.04729
#3	.11036	2.3615	.26952	3.9313	.06718	.20834	.04744

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.06135**	**.01161**	**.23591**	**.12905**	**4.0219**	**.29681**	**.01716**
Stddev	.00008	.00004	.00034	.00026	.0043	.00023	.00007
%RSD	.13536	.34765	.14497	.20294	.10817	.07823	.38241
#1	.06127	.01164	.23555	.12876	4.0169	.29672	.01723
#2	.06144	.01156	.23593	.12913	4.0244	.29707	.01711
#3	.06134	.01161	.23624	.12926	4.0245	.29663	.01714

Approved: November 14, 2013

Sample Name: S4 Acquired: 11/13/2013 9:22:12 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2732) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**1.9768**	**.68913**	**-.00039**
Stddev	.0159	.00121	.00020
%RSD	.80422	.17497	51.511
#1	1.9877	.68787	-.00056
#2	1.9586	.68924	-.00044
#3	1.9842	.69027	-.00017

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23197.**	**31189.**
Stddev	40.	59.
%RSD	.17287	.18900
#1	23217.	31229.
#2	23223.	31122.
#3	23151.	31217.

Approved: November 14, 2013

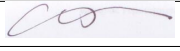
Sample Name: ICV Acquired: 11/13/2013 9:25:27 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.38735**	**10.267**	**.41874**	**.51413**	**1.0182**	**.05048**	**10.133**
Stddev	.00153	.036	.00093	.00102	.0033	.00022	.040
%RSD	.39500	.35287	.22321	.19907	.32424	.43905	.39210
#1	.38620	10.282	.41785	.51387	1.0183	.05025	10.178
#2	.38909	10.226	.41971	.51526	1.0215	.05069	10.102
#3	.38678	10.294	.41864	.51326	1.0149	.05050	10.119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05155**	F **.21019**	**.50866**	**.51680**	**4.1133**	**51.227**	**1.0125**
Stddev	.00006	.00006	.00144	.00106	.0114	.113	.0011
%RSD	.11236	.03027	.28271	.20517	.27809	.22147	.10453
#1	.05153	.21019	.50755	.51663	4.1081	51.137	1.0135
#2	.05152	.21025	.51029	.51583	4.1265	51.354	1.0127
#3	.05162	.21013	.50815	.51793	4.1054	51.189	1.0114
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.20000					
Range		5.0000%					

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.252**	**.51106**	**1.0234**	**50.956**	**.50994**	**10.314**	**.51422**
Stddev	.023	.00157	.0002	.241	.00180	.034	.00573
%RSD	.22348	.30623	.01922	.47249	.35307	.33124	1.1135
#1	10.276	.50937	1.0236	51.173	.51135	10.295	.51311
#2	10.250	.51136	1.0233	50.998	.50791	10.354	.50912
#3	10.230	.51246	1.0232	50.697	.51056	10.294	.52041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



Sample Name: ICV Acquired: 11/13/2013 9:25:27 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1.2761**	F **.42545**	**5.1189**	F **1.0660**	**1.0095**	**1.0370**	F **.52927**
Stddev	.0009	.00145	.0117	.0024	.0040	.0025	.00172
%RSD	.06780	.34124	.22773	.22951	.39284	.23825	.32417
#1	1.2752	.42402	5.1231	1.0654	1.0138	1.0398	.52774
#2	1.2769	.42542	5.1058	1.0639	1.0060	1.0350	.52895
#3	1.2764	.42692	5.1280	1.0687	1.0088	1.0364	.53112
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	1.2000	.40000		1.0000			.50000
Range	5.0000%	5.0000%		5.0000%			5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0015**	**1.0322**	F **1.0520**
Stddev	.0033	.0016	.2007
%RSD	.33141	.15104	19.075
#1	.99881	1.0323	.84407
#2	1.0052	1.0306	1.0673
#3	1.0005	1.0338	1.2445
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			5.0000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23497.**	**31579.**
Stddev	24.	64.
%RSD	.10341	.20215
#1	23474.	31573.
#2	23494.	31645.
#3	23522.	31518.

Approved: November 14, 2013

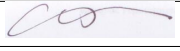
Sample Name: ICB Acquired: 11/13/2013 9:28:43 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**-.01368**	**.00028**	**.00314**	**.00005**	**.00000**	**.00168**
Stddev	.00022	.00991	.00062	.00074	.00014	.00001	.00750
%RSD	73.429	72.439	220.34	23.738	259.32	440.81	446.14
#1	.00027	-.00651	.00082	.00360	-.00007	.00000	-.00343
#2	.00052	-.00954	-.00040	.00228	.00002	.00002	-.00181
#3	.00009	-.02498	.00043	.00353	.00020	-.00001	.01029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00007**	**.00013**	**.00043**	**-.00171**	**.04033**	**-.00132**
Stddev	.00004	.00019	.00008	.00034	.00184	.06633	.00152
%RSD	37.156	267.16	56.454	79.295	107.91	164.48	114.82
#1	.00007	-.00015	.00015	.00004	-.00383	.09312	-.00237
#2	.00014	.00015	.00020	.00059	-.00065	.06200	.00042
#3	.00009	.00021	.00005	.00066	-.00063	-.03413	-.00202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00257**	**.00004**	**.00494**	**.01437**	**-.00023**	**.00087**	**-.00002**
Stddev	.01863	.00000	.00028	.00367	.00015	.00374	.00135
%RSD	723.80	4.9542	5.5735	25.548	62.437	428.32	6974.3
#1	.00821	.00004	.00464	.01191	-.00020	-.00239	-.00156
#2	.01774	.00003	.00500	.01260	-.00011	.00495	.00095
#3	-.01822	.00004	.00519	.01859	-.00039	.00006	.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013



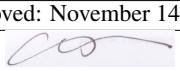
Sample Name: ICB Acquired: 11/13/2013 9:28:43 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00095**	**.00251**	**.00628**	**.00081**	**.00013**	**.00045**	**.00090**
Stddev	.00073	.00120	.00049	.00016	.00006	.00090	.00094
%RSD	76.703	47.871	7.8666	19.337	44.274	198.00	104.42
#1	.00025	.00388	.00684	.00099	.00020	-.00045	.00182
#2	.00090	.00200	.00612	.00073	.00008	.00135	-.00006
#3	.00170	.00164	.00589	.00072	.00012	.00047	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00030**	**.00220**	F **-.26429**
Stddev	.00012	.00028	.31712
%RSD	39.622	12.946	119.99
#1	.00040	.00250	-.59880
#2	.00033	.00216	-.22603
#3	.00017	.00194	.03198
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23728.**	**32013.**
Stddev	53.	47.
%RSD	.22322	.14606
#1	23769.	32023.
#2	23747.	32053.
#3	23668.	31962.

Approved: November 14, 2013



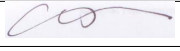
Sample Name: ICV Acquired: 11/13/2013 9:35:38 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.39070**	**10.263**	**.41824**	**.51746**	**1.0210**	**.05083**	**10.088**
Stddev	.00093	.033	.00045	.00265	.0013	.00022	.030
%RSD	.23778	.31930	.10657	.51244	.13045	.44069	.29382
#1	.39089	10.281	.41842	.51550	1.0208	.05084	10.119
#2	.39152	10.283	.41856	.52048	1.0198	.05105	10.084
#3	.38969	10.225	.41773	.51641	1.0224	.05060	10.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05172**	**.20983**	**.51453**	**.51923**	**4.1197**	**51.539**	**1.0091**
Stddev	.00013	.00027	.00259	.00057	.0078	.071	.0019
%RSD	.24222	.12872	.50322	.10927	.19011	.13681	.18913
#1	.05176	.20960	.51402	.51959	4.1258	51.541	1.0089
#2	.05182	.20977	.51734	.51857	4.1109	51.468	1.0110
#3	.05158	.21013	.51224	.51952	4.1225	51.609	1.0072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.263**	**.51024**	**1.0149**	**50.658**	**.51166**	**10.308**	**.51847**
Stddev	.053	.00182	.0003	.098	.00135	.006	.00212
%RSD	.51636	.35604	.02564	.19279	.26381	.05382	.40961
#1	10.282	.50829	1.0146	50.762	.51187	10.308	.51878
#2	10.304	.51189	1.0149	50.643	.51289	10.302	.51621
#3	10.203	.51054	1.0151	50.569	.51021	10.313	.52042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



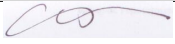
Sample Name: ICV Acquired: 11/13/2013 9:35:38 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1.2651**	**.41955**	**5.1246**	F **1.0647**	**1.0099**	**1.0352**	F **.52696**
Stddev	.0008	.00243	.0048	.0036	.0008	.0030	.00487
%RSD	.06423	.57916	.09436	.33758	.07647	.28581	.92373
#1	1.2645	.41684	5.1243	1.0606	1.0107	1.0384	.52186
#2	1.2661	.42155	5.1296	1.0673	1.0098	1.0345	.52747
#3	1.2649	.42025	5.1200	1.0663	1.0092	1.0326	.53156
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	1.2000			1.0000			.50000
Range	5.0000%			5.0000%			5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0097**	**1.0335**	F **1.1734**
Stddev	.0034	.0010	.2769
%RSD	.33413	.09941	23.602
#1	1.0080	1.0346	.85766
#2	1.0136	1.0333	1.3752
#3	1.0075	1.0325	1.2873
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			5.0000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23498.**	**31848.**
Stddev	35.	73.
%RSD	.14926	.22975
#1	23524.	31908.
#2	23458.	31869.
#3	23512.	31766.

Approved: November 14, 2013



Sample Name: ICB Acquired: 11/13/2013 9:43:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**-.00634**	**-.00013**	**.00079**	**-.00017**	**.00000**	**.00260**
Stddev	.00019	.00842	.00123	.00021	.00024	.0000	.01104
%RSD	50.161	132.79	961.44	26.660	143.00	172.34	424.70
#1	.00016	.00325	.00112	.00103	-.00015	.00000	-.00910
#2	.00047	-.00977	-.00135	.00064	-.00041	.00000	.01283
#3	.00052	-.01251	-.00015	.00070	.00006	-.00001	.00407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.00006**	**.00020**	**.00008**	**-.00380**	**.00629**	**-.00119**
Stddev	.00002	.00010	.00022	.00034	.00159	.04218	.00055
%RSD	23.520	165.20	107.66	404.66	41.896	670.93	46.761
#1	.00010	.00002	.00029	.00041	-.00560	.04394	-.00061
#2	.00007	-.00001	-.00005	-.00026	-.00323	.01421	-.00124
#3	.00011	.00018	.00036	.00010	-.00257	-.03929	-.00171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00124**	**.00004**	**.00293**	**.00257**	**.00004**	**-.00085**	**.00122**
Stddev	.00688	.00004	.00108	.00530	.00062	.00416	.00043
%RSD	554.07	107.09	36.670	206.18	1480.7	488.88	35.390
#1	.00583	.00000	.00178	-.00229	-.00016	.00368	.00077
#2	-.00164	.00008	.00311	.00822	-.00045	-.00175	.00126
#3	-.00792	.00003	.00391	.00178	.00074	-.00449	.00163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: ICB Acquired: 11/13/2013 9:43:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.00307**	**.00274**	**.00070**	**.00006**	**-.00038**	**.00073**
Stddev	.00124	.00388	.00098	.00012	.00008	.00018	.00123
%RSD	351.58	126.52	35.972	17.437	121.16	48.557	169.40
#1	-.00083	-.00099	.00364	.00077	.00005	-.00028	-.00034
#2	.00026	.00345	.00289	.00056	.00014	-.00027	.00207
#3	.00163	.00674	.00169	.00077	-.00001	-.00059	.00045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00013**	**.00103**	F **.10311**
Stddev	.00015	.00008	.15863
%RSD	114.80	7.7460	153.84
#1	.00008	.00094	-.06910
#2	.00030	.00107	.24326
#3	.00001	.00108	.13518
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23703.**	**31942.**
Stddev	2.	137.
%RSD	.00711	.42829
#1	23703.	32045.
#2	23705.	31995.
#3	23701.	31787.

Approved: November 14, 2013

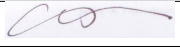
Sample Name: ICSA Acquired: 11/13/2013 9:47:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**256.29**	**.00007**	**.00667**	**.00023**	**.00002**	**248.70**
Stddev	.00042	.89	.00044	.00097	.00016	.00001	.57
%RSD	234.83	.34875	681.44	14.483	67.583	67.931	.22942
#1	-.00054	255.26	.00023	.00559	.00032	.00001	248.10
#2	.00028	256.74	.00040	.00745	.00033	.00003	248.76
#3	-.00027	256.86	-.00044	.00699	.00005	.00001	249.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**-.00002**	**-.00008**	**.00000**	**98.408**	**-.01114**	**.01185**
Stddev	.00001	.00014	.00029	.00045	.214	.01275	.00103
%RSD	3.4686	682.39	347.50	10818.	.21715	114.39	8.6547
#1	.00029	-.00017	.00000	-.00051	98.642	-.00339	.01297
#2	.00029	.00008	-.00040	.00033	98.223	-.02585	.01096
#3	.00027	.00004	.00016	.00019	98.358	-.00418	.01161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**256.24**	**.00011**	**-.00067**	**.03512**	**-.00063**	**-.05698**	**.00003**	
Stddev	.20	.00005	.00017	.00634	.00064	.00843	.00113
%RSD	.07957	41.515	24.973	18.049	102.60	14.797	3572.8
#1	256.43	.00006	-.00086	.03226	-.00082	-.05587	-.00126
#2	256.03	.00013	-.00055	.04239	-.00115	-.04915	.00088
#3	256.27	.00015	-.00059	.03072	.00009	-.06591	.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013



Sample Name: ICSA Acquired: 11/13/2013 9:47:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00042**	**.00360**	**.26474**	**-.00586**	**.00020**	**-.00424**	**-.00060**
Stddev	.00295	.00217	.00199	.00016	.00002	.00087	.00204
%RSD	695.86	60.285	.75246	2.7093	10.090	20.474	341.71
#1	-.00296	.00601	.26587	-.00589	.00021	-.00361	-.00228
#2	-.00113	.00180	.26590	-.00569	.00017	-.00523	.00167
#3	.00282	.00299	.26244	-.00600	.00021	-.00387	-.00117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00129**	**-.00024**	F **-6.2570**
Stddev	.00037	.00009	.1989
%RSD	28.602	37.604	3.1782
#1	.00094	-.00025	-6.0275
#2	.00124	-.00014	-6.3633
#3	.00167	-.00031	-6.3800
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.08000
Low Limit			-.08000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22336.**	**31668.**
Stddev	55.	69.
%RSD	.24543	.21644
#1	22380.	31665.
#2	22354.	31738.
#3	22274.	31601.

Approved: November 14, 2013

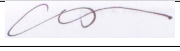
Sample Name: ICSAB Acquired: 11/13/2013 9:50:33 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50828**	**256.43**	**.26098**	**-.02457**	**.24726**	**.24217**	**246.95**
Stddev	.00132	.62	.00064	.00036	.00080	.00054	.74
%RSD	.25981	.24370	.24513	1.4769	.32289	.22346	.29874
#1	.50822	255.85	.26159	-.02485	.24670	.24279	246.85
#2	.50699	257.09	.26103	-.02470	.24691	.24177	247.74
#3	.50963	256.36	.26032	-.02416	.24817	.24195	246.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51205**	**.24632**	**.24972**	**.24505**	**98.939**	**5.1581**	**.01126**
Stddev	.00003	.00096	.00029	.00107	.138	.0316	.00105
%RSD	.00597	.39035	.11642	.43562	.13919	.61164	9.3328
#1	.51202	.24715	.24980	.24626	98.919	5.1744	.01026
#2	.51205	.24527	.24996	.24425	98.812	5.1781	.01236
#3	.51208	.24656	.24940	.24463	99.086	5.1217	.01116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**256.08**	**.23626**	**-.00081**	**5.1458**	**.48160**	**-.05105**	**.48031**
Stddev	.45	.00053	.00007	.0159	.00383	.00604	.00344
%RSD	.17460	.22537	9.2093	.30868	.79452	11.840	.71595
#1	256.03	.23565	-.00081	5.1623	.48475	-.05085	.48396
#2	256.55	.23663	-.00088	5.1306	.48271	-.05719	.47984
#3	255.65	.23651	-.00073	5.1445	.47734	-.04511	.47713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013



Sample Name: ICSAB Acquired: 11/13/2013 9:50:33 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51963**	**.25209**	**.00012**	**-.00669**	**.00023**	**-.00426**	**.47201**
Stddev	.00469	.00423	.00047	.00050	.00008	.00062	.00672
%RSD	.90166	1.6776	388.88	7.5333	35.464	14.490	1.4245
#1	.52041	.25487	.00000	-.00727	.00023	-.00414	.47390
#2	.52388	.25417	.00063	-.00631	.00015	-.00493	.47759
#3	.51461	.24722	-.00027	-.00650	.00031	-.00372	.46455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.25140**	**.47586**	F **-6.7308**
Stddev	.00047	.00033	.2002
%RSD	.18766	.06870	2.9741
#1	.25160	.47614	-6.5914
#2	.25086	.47550	-6.6408
#3	.25174	.47595	-6.9602
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22393.**	**31447.**
Stddev	11.	100.
%RSD	.04877	.31811
#1	22381.	31562.
#2	22396.	31383.
#3	22402.	31395.

Approved: November 14, 2013

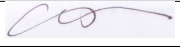
Sample Name: CCV Acquired: 11/13/2013 9:53:55 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41070**	**10.257**	**.40806**	**.51490**	**1.0188**	**.05044**	**10.170**
Stddev	.00110	.006	.00127	.00117	.0028	.00025	.061
%RSD	.26662	.05623	.31003	.22672	.27897	.49011	.59751
#1	.41002	10.256	.40667	.51356	1.0172	.05065	10.232
#2	.41196	10.263	.40913	.51572	1.0171	.05051	10.168
#3	.41010	10.251	.40838	.51542	1.0221	.05017	10.111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05142**	**.20693**	**.51473**	**.51854**	**4.1039**	**50.786**	**1.0125**
Stddev	.00007	.00018	.00297	.00044	.0192	.087	.0010
%RSD	.13860	.08695	.57781	.08438	.46846	.17191	.10126
#1	.05146	.20681	.51475	.51804	4.0830	50.713	1.0116
#2	.05133	.20714	.51769	.51883	4.1081	50.762	1.0136
#3	.05145	.20684	.51174	.51876	4.1207	50.883	1.0122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.230**	**.51311**	**1.0338**	**50.760**	**.51812**	**10.123**	**.52239**
Stddev	.035	.00076	.0003	.179	.00038	.014	.00164
%RSD	.34355	.14904	.02933	.35311	.07278	.14094	.31446
#1	10.266	.51315	1.0339	50.967	.51779	10.139	.52103
#2	10.196	.51386	1.0341	50.660	.51803	10.117	.52422
#3	10.226	.51233	1.0335	50.654	.51853	10.113	.52192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



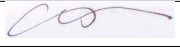
Sample Name: CCV Acquired: 11/13/2013 9:53:55 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2430**	**.41415**	**5.2393**	**1.0508**	**1.0176**	**1.0284**	**.52933**
Stddev	.0025	.00184	.0162	.0018	.0025	.0019	.00365
%RSD	.20058	.44441	.30908	.16803	.24688	.18516	.68865
#1	1.2446	.41603	5.2244	1.0526	1.0200	1.0303	.53246
#2	1.2442	.41407	5.2565	1.0490	1.0179	1.0285	.52533
#3	1.2401	.41235	5.2370	1.0507	1.0150	1.0265	.53020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0234**	**1.0241**	F **1.3230**
Stddev	.0022	.0010	.1251
%RSD	.21607	.10181	9.4579
#1	1.0239	1.0244	1.2268
#2	1.0253	1.0229	1.4644
#3	1.0210	1.0250	1.2777
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23445.**	**31684.**
Stddev	12.	18.
%RSD	.05267	.05809
#1	23436.	31703.
#2	23439.	31684.
#3	23459.	31666.

Approved: November 14, 2013



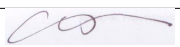
Sample Name: CCB Acquired: 11/13/2013 9:57:11 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00060**	**-.00855**	**.00063**	**.00212**	**.00015**	**.00000**	**.00511**	**.00019**
Stddev	.00013	.01162	.00093	.00094	.00001	.00000	.01025	.00007
%RSD	21.478	135.97	147.43	44.342	5.3536	278.19	200.46	38.689
#1	.00069	-.00079	.00011	.00107	.00015	.00000	-.00589	.00012
#2	.00066	-.02191	.00008	.00239	.00015	.00000	.01440	.00026
#3	.00045	-.00294	.00170	.00289	.00016	.00000	.00683	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00007**	**.00007**	**.00095**	**.01253**	**-.00177**	**-.00061**	**.00001**
Stddev	.00015	.00008	.00035	.00278	.02312	.00093	.01046	.00005
%RSD	754.43	116.02	505.08	291.60	184.50	52.691	1721.4	622.51
#1	-.00015	.00015	.00038	-.00165	.03282	-.00075	.00009	-.00004
#2	-.00006	.00006	.00012	.00388	.01743	-.00259	.00949	.00000
#3	.00015	-.00001	-.00030	.00063	-.01265	-.00198	-.01140	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00427**	**-.00266**	**-.00018**	**.00248**	**.00035**	**.00677**	**.00200**	**.00120**
Stddev	.00023	.01157	.00076	.00375	.00111	.00234	.00077	.00071
%RSD	5.4027	435.25	423.32	150.72	320.49	34.561	38.501	59.086
#1	.00405	-.01319	-.00016	-.00014	.00161	.00418	.00224	.00038
#2	.00451	-.00451	.00057	.00082	-.00015	.00872	.00114	.00164
#3	.00425	.00973	-.00095	.00677	-.00043	.00743	.00262	.00159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

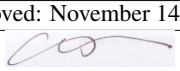


Sample Name: CCB Acquired: 11/13/2013 9:57:11 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00128**	**.00008**	**.00015**	**.00120**	**.00027**	**.00007**	**-.03638**
Stddev	.00035	.00003	.00071	.00125	.00012	.00011	.03546
%RSD	27.062	37.322	487.57	103.70	45.926	153.16	97.475
#1	.00088	.00008	-.00002	.00098	.00030	.00011	-.06734
#2	.00146	.00010	-.00047	.00008	.00038	-.00005	-.04409
#3	.00151	.00005	.00093	.00254	.00014	.00015	.00230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23647.**	**31822.**
Stddev	18.	138.
%RSD	.07753	.43234
#1	23664.	31679.
#2	23628.	31835.
#3	23649.	31953.

Approved: November 14, 2013



Sample Name: LLICV Acquired: 11/13/2013 10:19:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00727**	**.17320**	**.00500**	**.00787**	**.01609**	**.00086**	**.19203**
Stddev	.00047	.00952	.00084	.00100	.00026	.00001	.00531
%RSD	6.4318	5.4986	16.771	12.745	1.6258	1.5525	2.7640
#1	.00677	.18296	.00450	.00862	.01579	.00087	.19661
#2	.00734	.16394	.00453	.00673	.01622	.00086	.18621
#3	.00770	.17270	.00597	.00826	.01625	.00084	.19325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00095**	**.00346**	**.00907**	**.00882**	**.06855**	**.80877**	**.01527**
Stddev	.00003	.00015	.00063	.00050	.00231	.04971	.00233
%RSD	2.9698	4.1969	6.9826	5.6375	3.3685	6.1466	15.235
#1	.00097	.00331	.00895	.00939	.06994	.75149	.01518
#2	.00091	.00360	.00976	.00844	.06983	.83426	.01764
#3	.00096	.00346	.00851	.00864	.06588	.84058	.01299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.18853**	**.00886**	**.01705**	**.81138**	**.00853**	**.17136**	**.00882**
Stddev	.01464	.00009	.00006	.00714	.00015	.00127	.00070
%RSD	7.7659	1.0553	.36298	.87974	1.8101	.73976	7.9059
#1	.19867	.00876	.01707	.80371	.00861	.17159	.00881
#2	.19517	.00890	.01698	.81260	.00863	.17250	.00812
#3	.17175	.00893	.01711	.81783	.00835	.17000	.00952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: LLICV Acquired: 11/13/2013 10:19:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02380**	**.00844**	**.08580**	**.01785**	**.01695**	**.01723**	**.00952**
Stddev	.00038	.00291	.00236	.00071	.00021	.00093	.00154
%RSD	1.6113	34.423	2.7554	4.0017	1.2630	5.4111	16.198
#1	.02336	.00784	.08489	.01857	.01672	.01620	.00794
#2	.02394	.01160	.08403	.01784	.01698	.01748	.01102
#3	.02409	.00588	.08849	.01714	.01714	.01802	.00959
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.01746**	**.01774**	F **-.00885**
Stddev	.00044	.00023	.36136
%RSD	2.5230	1.2826	4083.7
#1	.01704	.01782	-.39487
#2	.01742	.01748	.04696
#3	.01792	.01791	.32136
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23702.**	**31931.**
Stddev	18.	42.
%RSD	.07583	.13163
#1	23682.	31979.
#2	23706.	31900.
#3	23717.	31915.

Approved: November 14, 2013

Sample Name: LLICV Acquired: 11/13/2013 10:22:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.15648**	**-.00119**	**.00082**	**-.00022**	**.00155**	**.44191**
Stddev	.00025	.01294	.00118	.00097	.00030	.00004	.00881
%RSD	257.77	8.2690	99.351	118.68	138.08	2.6965	1.9929
#1	.00000	.14944	-.00178	.00186	-.00056	.00154	.43467
#2	-.00009	.17141	.00017	-.00007	-.00002	.00159	.43935
#3	.00038	.14858	-.00197	.00066	-.00007	.00151	.45172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00009**	**-.00015**	**-.00021**	**.07640**	**.79047**	**-.00146**
Stddev	.00013	.00008	.00013	.00016	.00074	.00626	.00194
%RSD	55.713	87.427	88.117	73.659	.96830	.79226	133.13
#1	.00016	-.00013	-.00030	-.00017	.07722	.78604	-.00341
#2	.00015	.00000	-.00012	-.00039	.07577	.78773	.00047
#3	.00037	-.00015	-.00004	-.00008	.07622	.79763	-.00144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.46684**	**.00210**	**.00022**	**.41384**	**-.00004**	**.00255**	**.00082**
Stddev	.01282	.00005	.00015	.00585	.00091	.00172	.00038
%RSD	2.7453	2.4979	69.282	1.4136	2281.4	67.601	46.097
#1	.45337	.00209	.00004	.40764	-.00102	.00192	.00089
#2	.46826	.00205	.00031	.41460	.00012	.00123	.00041
#3	.47888	.00215	.00029	.41927	.00078	.00450	.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: LLICV Acquired: 11/13/2013 10:22:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00325**	**.00044**	**-.00102**	**.23389**	**.00016**	**.00106**	**-.00035**
Stddev	.00068	.00058	.00096	.02789	.00004	.00070	.00066
%RSD	20.908	132.77	94.218	11.925	24.114	66.404	190.48
#1	.00396	.00019	-.00059	.25964	.00012	.00026	-.00019
#2	.00261	.00002	-.00212	.23778	.00017	.00157	-.00107
#3	.00319	.00110	-.00035	.20426	.00019	.00135	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00014**	**.00270**	F **-.20371**
Stddev	.00005	.00006	.19924
%RSD	38.652	2.2635	97.803
#1	.00020	.00272	-.03073
#2	.00009	.00275	-.15885
#3	.00012	.00263	-.42156
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23437.**	**31697.**
Stddev	20.	160.
%RSD	.08342	.50612
#1	23416.	31846.
#2	23443.	31718.
#3	23454.	31527.

Approved: November 14, 2013

Sample Name: PBW 8A Acquired: 11/13/2013 10:27:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**-.00603**	**-.00045**	**.00079**	**.00014**	**.00000**	**.01450**
Stddev	.00022	.00787	.00096	.00051	.00013	.00003	.00724
%RSD	40.065	130.42	211.87	63.753	93.162	1107.1	49.930
#1	.00080	.00237	.00008	.00066	.00011	-.00003	.01084
#2	.00040	-.00723	-.00155	.00037	.00003	.00002	.02283
#3	.00044	-.01323	.00012	.00135	.00029	.00001	.00982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**-.00004**	**-.00009**	**-.00007**	**.00269**	**-.00363**	**.00010**
Stddev	.00009	.00009	.00031	.00028	.00202	.01358	.00058
%RSD	46.063	217.03	356.52	374.56	74.908	374.26	580.83
#1	.00011	.00002	-.00021	-.00028	.00274	-.01772	.00076
#2	.00017	-.00001	-.00033	-.00019	.00469	.00938	-.00025
#3	.00029	-.00014	.00027	.00025	.00065	-.00254	-.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00048**	**.00027**	**.00019**	**.00839**	**-.00010**	**.00022**	**.00045**
Stddev	.01317	.00003	.00017	.00747	.00048	.00191	.00148
%RSD	2771.1	11.480	88.809	89.046	470.45	866.87	328.83
#1	.01026	.00029	.00029	.01693	-.00031	-.00199	.00197
#2	.00349	.00023	.00000	.00314	-.00043	.00126	-.00099
#3	-.01517	.00029	.00030	.00508	.00044	.00139	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: PBW 8A Acquired: 11/13/2013 10:27:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**.00125**	**.00521**	**-.00558**	**.00009**	**-.00014**	**-.00088**
Stddev	.00091	.00160	.00374	.00041	.00002	.00070	.00061
%RSD	68.816	127.31	71.733	7.2927	22.714	489.36	68.656
#1	.00210	.00253	.00166	-.00598	.00009	-.00094	-.00153
#2	.00032	-.00054	.00486	-.00557	.00012	.00038	-.00080
#3	.00155	.00177	.00911	-.00517	.00007	.00013	-.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00018**	**.00149**	F **-.03486**
Stddev	.00012	.00007	.24533
%RSD	70.027	4.9815	703.82
#1	.00012	.00150	.21565
#2	.00032	.00156	-.04555
#3	.00009	.00141	-.27467
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23792.**	**31696.**
Stddev	47.	55.
%RSD	.19934	.17349
#1	23828.	31717.
#2	23810.	31738.
#3	23738.	31634.

Approved: November 14, 2013

Sample Name: LCSW 8A Acquired: 11/13/2013 10:31:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20395**	**4.9585**	**.19865**	**.99022**	**.48781**	**.02460**	**4.9618**	**.02498**
Stddev	.00081	.0263	.00101	.00662	.00072	.00024	.0219	.00001
%RSD	.39861	.53118	.50793	.66820	.14663	.95623	.44062	.03660
#1	.20404	4.9527	.19973	.99435	.48810	.02452	4.9554	.02498
#2	.20472	4.9873	.19849	.99372	.48699	.02486	4.9438	.02497
#3	.20310	4.9356	.19773	.98259	.48833	.02442	4.9862	.02499
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10266**	**.24808**	**.25194**	**1.9902**	**24.485**	**.48830**	**4.9597**	**.25019**
Stddev	.00013	.00187	.00019	.0086	.050	.00174	.0290	.00100
%RSD	.13147	.75407	.07586	.43468	.20505	.35624	.58501	.40046
#1	.10253	.24911	.25211	1.9996	24.503	.48630	4.9293	.24914
#2	.10267	.24921	.25197	1.9885	24.428	.48946	4.9628	.25114
#3	.10280	.24592	.25173	1.9825	24.523	.48914	4.9870	.25030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51098**	**24.735**	**.25251**	**.00238**	**.25718**	**.61826**	**.19930**	**2.5900**
Stddev	.00084	.076	.00028	.00134	.00069	.00177	.00157	.0122
%RSD	.16424	.30836	.11239	56.227	.27021	.28574	.78880	.47125
#1	.51193	24.761	.25225	.00176	.25640	.61638	.20080	2.5797
#2	.51062	24.649	.25281	.00146	.25774	.61852	.19943	2.6035
#3	.51037	24.795	.25247	.00392	.25740	.61988	.19766	2.5868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: LCSW 8A Acquired: 11/13/2013 10:31:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53465**	**.49264**	**.50109**	**.26231**	**.49662**	**.49733**	**.82090**
Stddev	.00215	.00084	.00077	.00197	.00288	.00073	.22778
%RSD	.40189	.16993	.15278	.75035	.57939	.14678	27.748
#1	.53222	.49250	.50127	.26024	.49600	.49805	.67718
#2	.53544	.49188	.50025	.26252	.49976	.49735	1.0835
#3	.53629	.49354	.50175	.26416	.49411	.49659	.70199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23497.**	**31686.**
Stddev	44.	126.
%RSD	.18663	.39921
#1	23502.	31814.
#2	23451.	31684.
#3	23539.	31561.

Approved: November 14, 2013

Sample Name: FBLK 8A Acquired: 11/13/2013 10:34:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**-.00722**	**-.00037**	**.00354**	**.00011**	**.00004**	**.01944**
Stddev	.00024	.00705	.00149	.00042	.00029	.00003	.00768
%RSD	66.672	97.580	400.19	11.826	268.47	71.833	39.525
#1	.00055	-.00669	-.00108	.00322	-.00013	.00004	.02701
#2	.00009	-.01452	.00134	.00338	.00044	.00007	.01165
#3	.00046	-.00046	-.00139	.00401	.00002	.00001	.01965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**-.00006**	**-.00015**	**.00006**	**.00306**	**.03950**	**-.00059**
Stddev	.00006	.00009	.00049	.00016	.00241	.03454	.00049
%RSD	26.231	142.03	325.23	249.87	78.770	87.432	82.754
#1	.00017	-.00016	-.00010	-.00008	.00269	.05567	-.00009
#2	.00020	-.00003	.00032	.00003	.00564	-.00015	-.00107
#3	.00028	.00001	-.00067	.00024	.00086	.06299	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01115**	**.00068**	**.00124**	**.02266**	**-.00033**	**.00199**	**-.00063**
Stddev	.00722	.00007	.00017	.00442	.00049	.00510	.00042
%RSD	64.759	10.111	13.598	19.515	148.45	256.93	66.828
#1	.01090	.00063	.00107	.01986	-.00031	.00754	-.00043
#2	.01849	.00076	.00124	.02776	-.00083	.00091	-.00035
#3	.00405	.00065	.00141	.02036	.00015	-.00249	-.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: FBLK 8A Acquired: 11/13/2013 10:34:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00167**	**.00040**	**-.00003**	**-.00668**	**.00013**	**.00023**	**-.00045**
Stddev	.00003	.00319	.00068	.00045	.00005	.00030	.00061
%RSD	2.0686	793.08	2050.5	6.7480	38.958	133.29	137.71
#1	.00166	.00407	.00018	-.00678	.00017	-.00012	-.00060
#2	.00171	-.00166	-.00079	-.00707	.00007	.00039	-.00097
#3	.00164	-.00121	.00052	-.00619	.00016	.00041	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00004**	**.00227**	F **-.05778**
Stddev	.00027	.00011	.27851
%RSD	770.18	4.7610	481.99
#1	-.00027	.00239	.04660
#2	.00014	.00224	.15345
#3	.00024	.00219	-.37340
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23707.**	**31504.**
Stddev	11.	101.
%RSD	.04731	.32138
#1	23702.	31621.
#2	23698.	31443.
#3	23719.	31447.

Approved: November 14, 2013

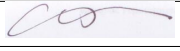
Sample Name: L1311036302 Acquired: 11/13/2013 10:38:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.08706**	**.00040**	**.48972**	**.03729**	**.00005**	**59.681**
Stddev	.00044	.00668	.00010	.00177	.00010	.00001	.058
%RSD	200.09	7.6733	25.228	.36095	.25810	22.303	.09704
#1	-.00019	.08769	.00031	.49042	.03740	.00005	59.735
#2	.00068	.09340	.00051	.49103	.03725	.00006	59.620
#3	.00017	.08008	.00038	.48771	.03722	.00004	59.688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00142**	**-.00001**	**.00205**	**.00218**	**.05168**	**67.508**	**.02259**
Stddev	.00007	.00019	.00023	.00074	.00312	.100	.00173
%RSD	4.8221	2212.5	11.200	34.023	6.0444	.14810	7.6490
#1	.00141	-.00017	.00179	.00303	.05514	67.620	.02096
#2	.00136	.00020	.00224	.00172	.05083	67.476	.02440
#3	.00150	-.00005	.00212	.00179	.04906	67.428	.02242
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**138.21**	**.14344**	**.04004**	F **567.40**	**.00174**	**.05879**	**.00010**
Stddev	.17	.00098	.00051	10.46	.00040	.00405	.00106
%RSD	.12587	.68259	1.2665	1.8435	23.173	6.8842	1058.0
#1	138.40	.14456	.03947	576.26	.00170	.05426	-.00027
#2	138.18	.14275	.04044	570.08	.00216	.06009	-.00072
#3	138.06	.14301	.04021	555.86	.00135	.06204	.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013



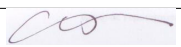
Sample Name: L1311036302 Acquired: 11/13/2013 10:38:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00278**	**.00183**	**3.7985**	**-.00660**	**.25714**	**-.00086**	**-.00184**
Stddev	.00149	.00126	.0241	.00041	.00024	.00045	.00218
%RSD	53.668	68.928	.63513	6.2642	.09382	51.947	118.60
#1	.00426	.00328	3.8258	-.00687	.25742	-.00041	-.00201
#2	.00279	.00123	3.7899	-.00612	.25705	-.00085	.00042
#3	.00128	.00098	3.7799	-.00680	.25696	-.00131	-.00392
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00199**	**.01753**	**.10427**
Stddev	.00032	.00016	.14523
%RSD	15.916	.89522	139.29
#1	.00236	.01735	-.02974
#2	.00177	.01759	.25859
#3	.00185	.01765	.08395
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21634.**	**30778.**
Stddev	31.	90.
%RSD	.14302	.29302
#1	21623.	30678.
#2	21669.	30806.
#3	21611.	30852.

Approved: November 14, 2013



Sample Name: L1311036304 Acquired: 11/13/2013 10:41:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00476**	**.00020**	**.50176**	**.04062**	**.00003**	**69.984**
Stddev	.00056	.01194	.00298	.00093	.00034	.00004	.139
%RSD	3058.9	250.96	1476.9	.18571	.84043	127.36	.19820
#1	.00013	.00867	-.00321	.50217	.04060	.00006	70.116
#2	.00052	-.00865	.00232	.50242	.04097	-.00001	69.840
#3	-.00059	.01425	.00149	.50070	.04029	.00004	69.997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00154**	**-.00006**	**.00219**	**.00080**	**.01441**	**67.561**	**.02422**
Stddev	.00012	.00013	.00007	.00042	.00054	.172	.00050
%RSD	7.9851	214.47	3.3135	52.444	3.7691	.25459	2.0760
#1	.00165	-.00021	.00218	.00042	.01485	67.630	.02471
#2	.00141	.00000	.00228	.00125	.01458	67.688	.02370
#3	.00155	.00003	.00213	.00072	.01380	67.365	.02425
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**185.78**	**-.00039**	**.02544**	F **871.57**	**.00203**	**.03249**	**.00056**
Stddev	.55	.00002	.00030	28.21	.00044	.00197	.00119
%RSD	.29594	4.6111	1.1989	3.2365	21.833	6.0561	212.43
#1	186.38	-.00039	.02550	902.56	.00255	.03326	-.00043
#2	185.31	-.00040	.02571	864.75	.00179	.03396	.00022
#3	185.63	-.00037	.02511	847.39	.00177	.03026	.00188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311036304 Acquired: 11/13/2013 10:41:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00199**	**-.00006**	**4.0903**	**-.00686**	**.28206**	**-.00106**	**-.00270**
Stddev	.00263	.00261	.0130	.00029	.00030	.00029	.00097
%RSD	131.99	4568.0	.31874	4.2094	.10720	27.188	35.876
#1	.00205	-.00247	4.0836	-.00702	.28241	-.00074	-.00327
#2	.00458	-.00041	4.0819	-.00652	.28185	-.00115	-.00325
#3	-.00067	.00271	4.1053	-.00703	.28193	-.00129	-.00158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00203**	**.02695**	F **-.18012**
Stddev	.00010	.00045	.05583
%RSD	4.7459	1.6700	30.998
#1	.00209	.02705	-.14629
#2	.00192	.02734	-.24457
#3	.00207	.02646	-.14951
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20926.**	**30387.**
Stddev	12.	15.
%RSD	.05840	.04786
#1	20918.	30393.
#2	20921.	30397.
#3	20940.	30370.

Approved: November 14, 2013

Sample Name: L1311036306 Acquired: 11/13/2013 10:45:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00752**	**-.00109**	**.50647**	**.04114**	**.00001**	**68.596**
Stddev	.00023	.00606	.00086	.00278	.00018	.00003	.146
%RSD	76.786	80.570	79.419	.54871	.44840	256.54	.21255
#1	.00036	.01430	-.00014	.50755	.04099	-.00002	68.755
#2	.00005	.00266	-.00129	.50855	.04135	.00003	68.562
#3	.00051	.00559	-.00183	.50331	.04108	.00003	68.470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00152**	**-.00001**	**.00162**	**.00077**	**.01576**	**65.837**	**.02217**
Stddev	.00012	.00007	.00013	.00015	.00217	.019	.00195
%RSD	8.0727	472.06	7.7598	19.432	13.786	.02872	8.7952
#1	.00138	-.00003	.00148	.00091	.01814	65.841	.02373
#2	.00155	-.00007	.00167	.00061	.01388	65.854	.02280
#3	.00162	.00006	.00172	.00079	.01526	65.817	.01998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**182.35**	**-.00012**	**.02350**	F **818.51**	**.00205**	**.03162**	**.00054**
Stddev	.29	.00001	.00010	10.45	.00125	.00350	.00152
%RSD	.15871	9.4522	.42102	1.2771	60.845	11.076	280.07
#1	182.63	-.00011	.02340	826.90	.00086	.03451	.00226
#2	182.37	-.00013	.02360	821.84	.00335	.02772	-.00062
#3	182.06	-.00013	.02350	806.80	.00193	.03262	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311036306 Acquired: 11/13/2013 10:45:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00313**	**.00104**	**4.0027**	**-.00704**	**.27199**	**-.00082**	**-.00286**
Stddev	.00238	.00137	.0174	.00042	.00017	.00028	.00183
%RSD	76.148	131.67	.43565	5.9346	.06389	33.927	64.077
#1	.00051	-.00006	4.0225	-.00684	.27179	-.00069	-.00496
#2	.00516	.00061	3.9959	-.00676	.27212	-.00113	-.00155
#3	.00372	.00257	3.9897	-.00752	.27204	-.00062	-.00208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00250**	**.03751**	F **-.37964**
Stddev	.00019	.00024	.26502
%RSD	7.5440	.63457	69.810
#1	.00245	.03724	-.50936
#2	.00234	.03762	-.07474
#3	.00271	.03768	-.55481
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20866.**	**30528.**
Stddev	3.	121.
%RSD	.01465	.39591
#1	20869.	30659.
#2	20863.	30421.
#3	20867.	30504.

Approved: November 14, 2013

Sample Name: L1311036308 Acquired: 11/13/2013 10:48:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.05431**	**.00029**	**.46267**	**.03970**	**.00000**	**58.840**
Stddev	.00035	.00299	.00119	.00115	.00033	.0000	.062
%RSD	172.94	5.5003	409.32	.24873	.83858	580.24	.10574
#1	-.00005	.05776	.00139	.46235	.03983	.00001	58.813
#2	.00005	.05276	.00046	.46394	.03995	-.00003	58.796
#3	.00060	.05242	-.00098	.46171	.03932	.00000	58.911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00148**	**.00010**	**.00208**	**.00989**	**.11837**	**86.271**	**.02254**
Stddev	.00012	.00002	.00025	.00014	.00061	.196	.00064
%RSD	8.3271	22.859	11.968	1.4451	.51918	.22742	2.8537
#1	.00137	.00010	.00220	.00974	.11775	86.325	.02265
#2	.00162	.00013	.00224	.01002	.11840	86.435	.02312
#3	.00146	.00008	.00179	.00991	.11898	86.054	.02185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**173.46**	**.21700**	**.02255**	F **829.59**	**.00415**	**.08268**	**.00637**
Stddev	.03	.00063	.00035	18.79	.00061	.00173	.00163
%RSD	.01591	.29224	1.5713	2.2645	14.781	2.0964	25.605
#1	173.44	.21629	.02252	844.72	.00480	.08442	.00654
#2	173.45	.21751	.02292	808.56	.00406	.08095	.00466
#3	173.49	.21719	.02221	835.48	.00358	.08268	.00791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

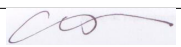
Sample Name: L1311036308 Acquired: 11/13/2013 10:48:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00660**	**-.00152**	**2.9757**	**-.00635**	**.23912**	**-.00105**	**-.00186**
Stddev	.00029	.00467	.0204	.00058	.00035	.00104	.00176
%RSD	4.3973	306.96	.68561	9.1833	.14592	98.854	94.675
#1	.00627	-.00680	2.9754	-.00588	.23881	-.00087	-.00026
#2	.00672	.00016	2.9554	-.00618	.23950	-.00011	-.00158
#3	.00682	.00208	2.9962	-.00701	.23904	-.00216	-.00374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00298**	**.05540**	**.36397**
Stddev	.00028	.00035	.02323
%RSD	9.3165	.63665	6.3823
#1	.00269	.05528	.34899
#2	.00324	.05511	.39073
#3	.00301	.05579	.35220
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21004.**	**30516.**
Stddev	17.	43.
%RSD	.08016	.14069
#1	20994.	30565.
#2	20995.	30486.
#3	21024.	30496.

Approved: November 14, 2013



Sample Name: L1311036308PS Acquired: 11/13/2013 10:52:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452495-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21489**	**5.1377**	**.21433**	**1.4312**	**.52933**	**.02531**	**58.648**
Stddev	.00133	.0290	.00154	.0047	.00057	.00006	.206
%RSD	.61850	.56368	.71666	.32890	.10691	.22369	.35096
#1	.21441	5.1400	.21578	1.4258	.52991	.02537	58.882
#2	.21387	5.1077	.21449	1.4347	.52929	.02530	58.564
#3	.21639	5.1655	.21272	1.4330	.52878	.02526	58.496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02726**	**.09980**	**.24765**	**.25367**	**2.0847**	**103.06**	**.54017**
Stddev	.00014	.00004	.00069	.00093	.0059	.12	.00179
%RSD	.52458	.03787	.27776	.36737	.28101	.11402	.33162
#1	.02710	.09980	.24839	.25474	2.0913	103.07	.54217
#2	.02737	.09977	.24754	.25319	2.0826	103.18	.53963
#3	.02731	.09984	.24703	.25307	2.0801	102.94	.53871
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**160.81**	**.42815**	**.53703**	F **779.45**	**.24771**	**.07842**	**.24604**
Stddev	.25	.00087	.00148	20.70	.00058	.00207	.00095
%RSD	.15753	.20234	.27595	2.6562	.23288	2.6457	.38601
#1	161.06	.42715	.53783	800.77	.24829	.07905	.24505
#2	160.82	.42858	.53795	778.15	.24770	.07610	.24695
#3	160.55	.42871	.53533	759.43	.24713	.08011	.24611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

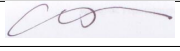
Sample Name: L1311036308PS Acquired: 11/13/2013 10:52:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452495-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.64595**	**.20753**	**5.2535**	**.36013**	**.72329**	**.51217**	**.22990**
Stddev	.00517	.00573	.0063	.00411	.00103	.00170	.00346
%RSD	.79967	2.7606	.11905	1.1417	.14251	.33138	1.5056
#1	.64814	.21154	5.2470	.36306	.72387	.51315	.23347
#2	.64965	.21008	5.2540	.36190	.72210	.51314	.22965
#3	.64005	.20097	5.2594	.35543	.72391	.51021	.22656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50857**	**.54378**	**.74160**
Stddev	.00149	.00109	.15454
%RSD	.29395	.19995	20.838
#1	.50783	.54471	.85455
#2	.51029	.54259	.80477
#3	.50759	.54405	.56549
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21119.**	**30320.**
Stddev	41.	43.
%RSD	.19377	.14185
#1	21105.	30366.
#2	21087.	30314.
#3	21165.	30281.

Approved: November 14, 2013



Sample Name: L1311036308SDL Acquired: 11/13/2013 10:55:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00042**	**.00136**	**.00023**	**.10101**	**.00808**	**.00003**	**12.061**	**.00058**
Stddev	.00023	.01134	.00100	.00042	.00008	.00002	.026	.00009
%RSD	54.242	834.41	429.21	.41529	.93120	65.745	.21600	15.747
#1	.00018	-.01168	-.00048	.10082	.00800	.00002	12.091	.00064
#2	.00046	.00683	.00138	.10149	.00814	.00002	12.040	.00062
#3	.00063	.00893	-.00020	.10071	.00811	.00005	12.054	.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00025**	**.00155**	**.02215**	**17.578**	**.00436**	**35.258**	**.06411**
Stddev	.00015	.00039	.00025	.00367	.032	.00082	.101	.00031
%RSD	71.239	152.91	16.359	16.561	.18434	18.888	.28509	.48302
#1	.00016	.00007	.00167	.01811	17.543	.00489	35.374	.06382
#2	.00037	-.00001	.00172	.02307	17.584	.00341	35.190	.06406
#3	.00009	.00070	.00126	.02527	17.607	.00479	35.211	.06444
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00573**	**203.85**	**.00037**	**.01977**	**-.00037**	**-.00057**	**-.00238**	**.60786**
Stddev	.00010	1.81	.00040	.00150	.00209	.00137	.00179	.00595
%RSD	1.8260	.88982	107.86	7.5631	566.12	242.42	75.235	.97837
#1	.00568	201.76	.00072	.01828	.00203	-.00138	-.00135	.60202
#2	.00567	204.72	.00047	.02127	-.00136	.00102	-.00444	.60765
#3	.00585	205.06	-.00007	.01977	-.00178	-.00134	-.00134	.61390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311036308SDL Acquired: 11/13/2013 10:55:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00724**	**.05046**	**-.00089**	**.00038**	**.00106**	**.01268**	**.12507**
Stddev	.00029	.00038	.00099	.00187	.00002	.00008	.25889
%RSD	3.9643	.74795	110.95	498.01	1.8435	.64535	206.99
#1	-.00726	.05005	-.00084	.00228	.00107	.01258	-.14984
#2	-.00695	.05056	-.00191	.00031	.00108	.01274	.36421
#3	-.00752	.05078	.00007	-.00146	.00104	.01270	.16085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22839.**	**31079.**
Stddev	38.	42.
%RSD	.16809	.13521
#1	22805.	31034.
#2	22881.	31117.
#3	22833.	31084.

Approved: November 14, 2013

Sample Name: L1311036308SDL Acquired: 11/13/2013 10:59:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 25 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**-.01732**	**-.00050**	**.02311**	**.00175**	**.00002**	**2.4594**	**.00019**
Stddev	.00032	.00426	.00081	.00086	.00024	.00003	.0039	.00012
%RSD	70.633	24.619	162.07	3.7291	13.990	128.85	.15962	59.503
#1	.00023	-.01615	-.00052	.02229	.00167	-.00001	2.4634	.00015
#2	.00030	-.02204	-.00129	.02401	.00203	.00004	2.4556	.00033
#3	.00082	-.01376	.00032	.02302	.00156	.00003	2.4592	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**-.00013**	**.00035**	**.00385**	**3.5543**	**.00308**	**7.3081**	**.01013**
Stddev	.00008	.00018	.00024	.00368	.0257	.00063	.0149	.00010
%RSD	32.419	139.49	68.506	95.366	.72250	20.528	.20392	.95460
#1	.00031	-.00021	.00014	.00802	3.5248	.00278	7.2934	.01016
#2	.00031	.00008	.00062	.00249	3.5657	.00266	7.3077	.01002
#3	.00016	-.00024	.00031	.00106	3.5722	.00381	7.3232	.01020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**44.302**	**-.00043**	**.00622**	**.00075**	**-.00029**	**-.00142**	**.12466**
Stddev	.00014	.062	.00041	.00173	.00230	.00087	.00146	.00357
%RSD	18.534	.13978	95.374	27.734	307.59	298.78	102.87	2.8626
#1	.00065	44.304	-.00064	.00434	.00202	-.00106	-.00311	.12571
#2	.00092	44.239	-.00070	.00658	.00213	-.00048	-.00052	.12069
#3	.00071	44.363	.00004	.00774	-.00190	.00066	-.00064	.12759
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311036308SDL Acquired: 11/13/2013 10:59:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 25 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00740**	**.01025**	**-.00018**	**-.00014**	**.00034**	**.00291**	**.03368**
Stddev	.00013	.00014	.00062	.00028	.00011	.00009	.25251
%RSD	1.7721	1.4073	345.28	202.85	31.814	3.2176	749.70
#1	-.00749	.01009	-.00066	.00005	.00046	.00289	-.15543
#2	-.00747	.01037	.00052	.00000	.00033	.00283	-.06395
#3	-.00725	.01029	-.00039	-.00046	.00024	.00301	.32043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23381.**	**31414.**
Stddev	95.	98.
%RSD	.40706	.31059
#1	23473.	31525.
#2	23387.	31343.
#3	23283.	31374.

Approved: November 14, 2013

Sample Name: CCV Acquired: 11/13/2013 11:03:03 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41009**	**10.302**	**.40845**	**.51536**	**1.0110**	**.04991**	**10.062**	**.05095**
Stddev	.00186	.057	.00053	.00202	.0044	.00017	.054	.00038
%RSD	.45444	.55361	.13076	.39132	.43581	.34188	.54112	.74501
#1	.41200	10.331	.40859	.51669	1.0081	.05003	10.070	.05051
#2	.40827	10.339	.40786	.51304	1.0088	.04972	10.112	.05118
#3	.41000	10.237	.40890	.51635	1.0161	.05000	10.004	.05116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20615**	**.50851**	**.51697**	**4.0657**	**50.586**	**1.0025**	**10.096**	**.51452**
Stddev	.00100	.00300	.00305	.0195	.079	.0036	.035	.00413
%RSD	.48751	.59022	.59081	.47969	.15695	.35743	.34321	.80319
#1	.20504	.51117	.51353	4.0600	50.604	.99849	10.125	.51853
#2	.20641	.50525	.51936	4.0497	50.499	1.0053	10.104	.51476
#3	.20700	.50910	.51802	4.0874	50.655	1.0038	10.058	.51027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0293**	**48.565**	**.51766**	**10.145**	**.52024**	**1.2365**	**.41209**	**5.2430**
Stddev	.0008	.182	.00233	.015	.00271	.0068	.00366	.0082
%RSD	.07578	.37378	.44972	.14503	.52006	.54761	.88929	.15720
#1	1.0284	48.383	.51502	10.128	.51724	1.2288	.40800	5.2414
#2	1.0298	48.567	.51941	10.150	.52102	1.2415	.41318	5.2519
#3	1.0297	48.746	.51855	10.157	.52248	1.2391	.41508	5.2356
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: November 14, 2013

Sample Name: CCV Acquired: 11/13/2013 11:03:03 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0405**	**1.0203**	**1.0205**	**.52546**	**1.0171**	**1.0246**	**.92229**
Stddev	.0148	.0050	.0044	.00839	.0019	.0022	.13118
%RSD	1.4252	.49036	.42969	1.5973	.18723	.21922	14.223
#1	1.0347	1.0217	1.0157	.51578	1.0183	1.0227	.92720
#2	1.0574	1.0244	1.0243	.52999	1.0149	1.0271	1.0509
#3	1.0295	1.0147	1.0215	.53062	1.0180	1.0239	.78871
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23528.**	**31554.**
Stddev	55.	190.
%RSD	.23548	.60253
#1	23582.	31467.
#2	23530.	31423.
#3	23471.	31772.

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 11:06:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**-.01767**	**-.00021**	**.00223**	**.00026**	**.00000**	**.00437**	**.00019**
Stddev	.00024	.02439	.00106	.00084	.00020	.00003	.00283	.00013
%RSD	151.52	138.06	504.70	37.483	76.602	2527.5	64.697	65.433
#1	.00003	-.00223	-.00031	.00210	.00039	.00000	.00388	.00018
#2	.00001	-.00499	.00089	.00312	.00036	.00003	.00182	.00008
#3	.00044	-.04579	-.00121	.00147	.00003	-.00003	.00741	.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00010**	**.00007**	**-.00368**	**.07195**	**-.00279**	**.00675**	**.00002**
Stddev	.00012	.00029	.00030	.00165	.00897	.00150	.01055	.00006
%RSD	1005.6	299.53	440.88	44.896	12.462	53.635	156.39	344.51
#1	-.00002	.00040	.00033	-.00504	.07428	-.00123	-.00176	-.00002
#2	.00011	.00006	-.00026	-.00184	.06205	-.00293	.01855	.00009
#3	-.00013	-.00017	.00014	-.00415	.07953	-.00421	.00345	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00528**	**.14345**	**-.00057**	**.00271**	**-.00002**	**.00705**	**.00327**	**.00199**
Stddev	.00038	.00371	.00021	.00461	.00164	.00084	.00174	.00084
%RSD	7.2659	2.5831	37.192	170.32	7724.6	11.909	53.057	42.164
#1	.00485	.14560	-.00065	.00109	.00055	.00758	.00144	.00295
#2	.00540	.14559	-.00074	-.00088	-.00187	.00748	.00348	.00160
#3	.00558	.13917	-.00033	.00791	.00126	.00608	.00490	.00142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 11:06:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00120**	**.00019**	**.00027**	**-.00010**	**.00024**	**.00008**	**-.01269**
Stddev	.00036	.00002	.00027	.00215	.00008	.00005	.09197
%RSD	29.483	8.1898	99.000	2055.0	33.620	63.332	725.00
#1	.00151	.00021	.00016	-.00211	.00015	.00003	-.04495
#2	.00081	.00020	.00008	.00217	.00029	.00009	-.08418
#3	.00129	.00018	.00058	-.00037	.00029	.00013	.09107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23549.**	**31722.**
Stddev	31.	57.
%RSD	.12955	.17986
#1	23574.	31762.
#2	23557.	31746.
#3	23515.	31657.

Approved: November 14, 2013

Sample Name: L1311047601 Acquired: 11/13/2013 11:10:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**2.5605**	**.01528**	**.03820**	**.01370**	**.00024**	**8.6118**	**.00028**
Stddev	.00051	.0046	.00058	.00025	.00010	.00001	.0109	.00003
%RSD	63.896	.17779	3.8040	.66044	.70063	3.6187	.12704	10.182
#1	.00126	2.5558	.01504	.03797	.01375	.00023	8.5992	.00026
#2	.00025	2.5608	.01486	.03816	.01359	.00025	8.6169	.00028
#3	.00087	2.5649	.01594	.03847	.01376	.00024	8.6192	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01092**	**.00572**	**.03767**	**5.2224**	**1.3425**	**.00189**	**1.9969**	**.12758**
Stddev	.00005	.00048	.00045	.0070	.0646	.00098	.0095	.00098
%RSD	.47993	8.3620	1.1863	.13447	4.8154	51.811	.47711	.76775
#1	.01098	.00600	.03791	5.2228	1.4098	.00076	1.9861	.12645
#2	.01091	.00600	.03795	5.2292	1.3369	.00246	2.0004	.12813
#3	.01088	.00517	.03716	5.2151	1.2808	.00244	2.0041	.12817
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00899**	**160.11**	**.03667**	**1.0474**	**.04852**	**.00140**	**.00166**	**5.1405**
Stddev	.00011	1.75	.00061	.0093	.00082	.00152	.00133	.0071
%RSD	1.2420	1.0945	1.6730	.88835	1.6812	108.98	80.361	.13817
#1	.00897	158.10	.03717	1.0463	.04845	.00186	.00315	5.1324
#2	.00889	161.32	.03598	1.0572	.04937	-.00030	.00126	5.1438
#3	.00911	160.90	.03686	1.0387	.04775	.00264	.00057	5.1454
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311047601 Acquired: 11/13/2013 11:10:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00711**	**.01358**	**.04245**	**-.00098**	**.02959**	**.04546**	**4.5613**
Stddev	.00028	.00014	.00066	.00185	.00012	.00062	.1026
%RSD	3.9861	1.0372	1.5473	189.05	.39616	1.3594	2.2484
#1	-.00744	.01353	.04312	-.00065	.02970	.04533	4.4676
#2	-.00694	.01374	.04180	-.00297	.02946	.04614	4.5454
#3	-.00696	.01347	.04244	.00069	.02961	.04492	4.6709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23406.**	**32157.**
Stddev	88.	193.
%RSD	.37474	.60157
#1	23455.	32373.
#2	23459.	32099.
#3	23305.	31999.

Approved: November 14, 2013

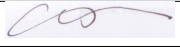
Sample Name: L1311050501 Acquired: 11/13/2013 11:13:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.00462**	**-.00026**	**.43584**	**.01013**	**.00004**	F **313.88**
Stddev	.00031	.00682	.00066	.00216	.00001	.00003	.20
%RSD	134.53	147.46	250.08	.49566	.13578	89.090	.06424
#1	.00058	.01246	-.00087	.43349	.01012	.00002	313.83
#2	.00017	.00138	-.00035	.43775	.01013	.00002	314.10
#3	-.00004	.00003	.00043	.43627	.01014	.00008	313.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00160**	**-.00020**	**.00209**	**.00133**	**.04831**	**7.7295**	**.54876**
Stddev	.00006	.00026	.00038	.00031	.00233	.0561	.00124
%RSD	3.8216	130.93	18.430	23.188	4.8141	.72599	.22664
#1	.00155	-.00032	.00236	.00147	.04577	7.6664	.54825
#2	.00167	.00010	.00226	.00098	.05034	7.7739	.54785
#3	.00158	-.00038	.00165	.00155	.04881	7.7482	.55018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**231.25**	**.05037**	**.00317**	F **762.64**	**.00341**	**.02795**	**.00010**
Stddev	.61	.00028	.00025	21.83	.00025	.00530	.00050
%RSD	.26204	.56304	8.0442	2.8628	7.2903	18.955	522.55
#1	230.98	.05004	.00292	784.23	.00358	.03056	.00060
#2	231.94	.05055	.00316	763.13	.00312	.02185	.00009
#3	230.82	.05052	.00343	740.58	.00352	.03143	-.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013



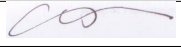
Sample Name: L1311050501 Acquired: 11/13/2013 11:13:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00273**	**.00181**	**8.3856**	**-.00694**	F **5.6508**	**-.00540**	**-.00194**
Stddev	.00230	.00187	.0144	.00069	.0963	.00066	.00082
%RSD	84.423	103.63	.17194	9.9685	1.7032	12.136	42.029
#1	.00036	.00269	8.3867	-.00725	5.5488	-.00586	-.00101
#2	.00496	-.00034	8.3995	-.00742	5.7400	-.00465	-.00254
#3	.00286	.00308	8.3707	-.00615	5.6638	-.00569	-.00228
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00011**	**.02390**	**1.6084**
Stddev	.00027	.00030	.3770
%RSD	247.72	1.2455	23.438
#1	-.00018	.02381	1.9722
#2	.00015	.02365	1.6333
#3	.00035	.02422	1.2196
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20780.**	**30807.**
Stddev	71.	196.
%RSD	.34095	.63496
#1	20836.	31002.
#2	20803.	30610.
#3	20700.	30810.

Approved: November 14, 2013



Sample Name: L1311050502 Acquired: 11/13/2013 11:17:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**.00364**	**.00007**	**1.5094**	**.02260**	**.00008**	F **391.28**
Stddev	.00014	.00857	.00104	.0085	.00018	.00004	2.24
%RSD	87.017	235.52	1487.7	.56604	.78304	48.310	.57322
#1	-.00033	-.00371	.00124	1.5192	.02277	.00004	388.81
#2	-.00006	.00157	-.00030	1.5040	.02241	.00011	393.18
#3	-.00010	.01306	-.00073	1.5049	.02260	.00008	391.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00161**	**.00031**	**.00159**	**.00475**	**.06884**	**15.620**	**.82536**
Stddev	.00015	.00022	.00014	.00129	.00273	.052	.00046
%RSD	9.3192	71.003	8.6179	27.150	3.9651	.33489	.05561
#1	.00155	.00055	.00144	.00565	.06712	15.584	.82576
#2	.00150	.00011	.00169	.00533	.07199	15.596	.82547
#3	.00178	.00029	.00165	.00327	.06742	15.680	.82486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**257.30**	**.29651**	**.00172**	F **800.92**	**.02119**	**.02500**	**.00076**
Stddev	.51	.00106	.00026	21.08	.00111	.00224	.00024
%RSD	.19639	.35827	15.201	2.6320	5.2593	8.9688	31.902
#1	257.80	.29773	.00195	824.30	.02106	.02355	.00081
#2	257.31	.29579	.00179	795.13	.02015	.02388	.00098
#3	256.79	.29600	.00143	783.35	.02237	.02759	.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311050502 Acquired: 11/13/2013 11:17:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00089**	**1.0910**	**6.6998**	**-.00722**	F **5.9722**	**-.00696**	**-.00293**
Stddev	.00108	.0080	.0289	.00029	.0119	.00053	.00172
%RSD	121.53	.73155	.43085	4.0203	.19965	7.6727	58.793
#1	.00201	1.0841	6.7016	-.00709	5.9654	-.00735	-.00138
#2	-.00015	1.0997	6.7277	-.00703	5.9860	-.00635	-.00479
#3	.00081	1.0891	6.6700	-.00756	5.9653	-.00717	-.00262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00026**	**.00837**	**1.7284**
Stddev	.00013	.00005	.2725
%RSD	48.549	.63463	15.764
#1	.00038	.00842	1.5268
#2	.00029	.00837	2.0384
#3	.00012	.00831	1.6200
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20636.**	**30834.**
Stddev	70.	18.
%RSD	.33839	.05976
#1	20562.	30846.
#2	20644.	30843.
#3	20701.	30813.

Approved: November 14, 2013

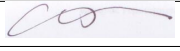
Sample Name: L1311050503 Acquired: 11/13/2013 11:21:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**-.00178**	**-.00123**	**.79149**	**.02285**	**.00011**	F **311.82**
Stddev	.00044	.01535	.00092	.00076	.00042	.00001	.35
%RSD	301.47	864.78	74.507	.09656	1.8178	9.6195	.11077
#1	-.00036	.01206	-.00108	.79107	.02242	.00010	312.11
#2	.00036	-.01829	-.00221	.79237	.02324	.00011	311.91
#3	-.00044	.00091	-.00040	.79102	.02290	.00012	311.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00138**	**.00006**	**.00270**	**.00444**	**.04295**	**11.702**	**.42347**
Stddev	.00004	.00020	.00046	.00069	.00447	.028	.00207
%RSD	3.2606	356.75	16.963	15.489	10.409	.23610	.48959
#1	.00143	-.00002	.00234	.00494	.04135	11.682	.42194
#2	.00136	.00029	.00321	.00474	.03950	11.733	.42583
#3	.00134	-.00010	.00254	.00366	.04800	11.690	.42264
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**112.57**	**.12111**	**.00123**	F **630.48**	**.01104**	**.02644**	**-.00147**
Stddev	.17	.00041	.00020	13.71	.00033	.00135	.00193
%RSD	.14761	.33919	16.383	2.1742	3.0118	5.0957	130.93
#1	112.63	.12141	.00100	646.05	.01133	.02506	.00028
#2	112.70	.12127	.00136	625.15	.01112	.02775	-.00116
#3	112.39	.12064	.00134	620.24	.01068	.02650	-.00354
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013



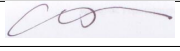
Sample Name: L1311050503 Acquired: 11/13/2013 11:21:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00202**	**.98531**	**8.9304**	**-.00720**	**3.4490**	**-.00557**	**-.00377**
Stddev	.00267	.00684	.0402	.00006	.0046	.00093	.00245
%RSD	131.70	.69470	.45016	.90121	.13453	16.622	65.011
#1	.00067	.97765	8.8855	-.00723	3.4451	-.00620	-.00413
#2	.00030	.98745	8.9631	-.00713	3.4476	-.00600	-.00603
#3	.00510	.99083	8.9425	-.00725	3.4541	-.00450	-.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00131**	**.01262**	F **-.16284**
Stddev	.00027	.00014	.25528
%RSD	20.558	1.1350	156.77
#1	.00105	.01250	-.00475
#2	.00130	.01278	-.02642
#3	.00159	.01257	-.45734
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21004.**	**31117.**
Stddev	73.	97.
%RSD	.34813	.31150
#1	21088.	31037.
#2	20954.	31089.
#3	20970.	31225.

Approved: November 14, 2013



Sample Name: L1311050504 Acquired: 11/13/2013 11:24:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00341**	**.00029**	**.86403**	**.01302**	**.00005**	F **378.35**
Stddev	.00084	.00384	.00055	.00418	.00018	.00002	4.90
%RSD	548.48	112.35	185.89	.48406	1.3722	44.967	1.2942
#1	.00035	.00008	-.00025	.85951	.01281	.00007	374.07
#2	.00088	-.00280	.00084	.86776	.01313	.00005	383.69
#3	-.00077	-.00752	.00029	.86483	.01311	.00003	377.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00201**	**.00090**	**.00188**	**.00761**	**.05745**	**19.619**	**1.4769**
Stddev	.00019	.00022	.00028	.00080	.00380	.054	.0027
%RSD	9.5737	24.048	14.808	10.576	6.6224	.27577	.18031
#1	.00222	.00110	.00179	.00762	.05602	19.579	1.4777
#2	.00196	.00093	.00219	.00841	.05457	19.681	1.4739
#3	.00184	.00067	.00165	.00680	.06176	19.597	1.4791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**481.31**	**.98139**	**.00195**	F **1303.0**	**.03858**	**.03600**	**-.00009**
Stddev	.52	.00272	.00012	44.5	.00071	.00147	.00060
%RSD	.10748	.27690	6.0824	3.4130	1.8480	4.0851	643.45
#1	481.89	.98062	.00209	1352.6	.03898	.03550	.00017
#2	481.12	.98441	.00189	1289.5	.03901	.03485	-.00078
#3	480.91	.97915	.00188	1266.8	.03776	.03766	.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311050504 Acquired: 11/13/2013 11:24:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.98267**	**7.9328**	**-.00786**	F **8.4878**	**-.00659**	**-.00102**
Stddev	.00063	.01450	.0415	.00050	.2004	.00015	.00144
%RSD	190.11	1.4752	.52357	6.3840	2.3611	2.2760	140.63
#1	-.00085	.98915	7.9650	-.00844	8.4292	-.00669	.00039
#2	.00037	.99279	7.9474	-.00755	8.7110	-.00667	-.00097
#3	-.00052	.96606	7.8859	-.00760	8.3232	-.00642	-.00249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00056**	**.00524**	**1.4705**
Stddev	.00003	.00015	.3493
%RSD	6.1358	2.8858	23.750
#1	.00059	.00528	1.0676
#2	.00052	.00538	1.6864
#3	.00056	.00508	1.6576
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19694.**	**30605.**
Stddev	47.	51.
%RSD	.23994	.16631
#1	19746.	30599.
#2	19653.	30558.
#3	19683.	30659.

Approved: November 14, 2013

Sample Name: L1311050505 Acquired: 11/13/2013 11:28:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00792**	**-.00008**	**.32086**	**.02863**	**.00002**	**165.31**
Stddev	.00027	.00925	.00121	.00116	.00016	.00001	.38
%RSD	105.08	116.81	1549.4	.36141	.54231	41.447	.23090
#1	.00023	.01684	.00073	.32162	.02856	.00003	165.01
#2	.00053	-.00164	.00051	.31953	.02852	.00001	165.74
#3	.00000	.00856	-.00147	.32144	.02881	.00003	165.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00127**	**.00034**	**.00099**	**.00047**	**.68056**	**6.7654**	**.22584**
Stddev	.00009	.00010	.00021	.00011	.00477	.0073	.00070
%RSD	6.7808	29.211	21.497	23.644	.70035	.10823	.31031
#1	.00132	.00032	.00078	.00056	.67970	6.7736	.22661
#2	.00133	.00025	.00120	.00051	.68570	6.7594	.22567
#3	.00117	.00045	.00098	.00034	.67628	6.7632	.22524
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**105.27**	**.39998**	**.00383**	F **478.68**	**.00183**	**.01844**	**.00054**
Stddev	.02	.00095	.00026	.53	.00016	.00166	.00186
%RSD	.02135	.23700	6.8225	.11050	8.5539	8.9962	344.71
#1	105.26	.39943	.00384	479.06	.00200	.01860	-.00023
#2	105.30	.40107	.00357	478.07	.00169	.02001	.00266
#3	105.25	.39943	.00409	478.89	.00181	.01671	-.00081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311050505 Acquired: 11/13/2013 11:28:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**.00767**	**7.7289**	**-.00679**	**2.1021**	**-.00271**	**-.00159**
Stddev	.00171	.00465	.0223	.00072	.0049	.00132	.00164
%RSD	612.98	60.562	.28822	10.561	.23226	48.732	103.09
#1	-.00059	.01225	7.7545	-.00759	2.0996	-.00119	-.00283
#2	.00156	.00781	7.7183	-.00653	2.1077	-.00337	.00027
#3	-.00180	.00296	7.7140	-.00623	2.0989	-.00356	-.00221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00031**	**.00575**	**.95311**
Stddev	.00014	.00002	.04520
%RSD	45.577	.32449	4.7425
#1	.00025	.00574	.95401
#2	.00021	.00577	.99785
#3	.00047	.00575	.90746
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21426.**	**31351.**
Stddev	27.	129.
%RSD	.12752	.41101
#1	21420.	31321.
#2	21456.	31241.
#3	21403.	31493.

Approved: November 14, 2013

Sample Name: L1311050506 Acquired: 11/13/2013 11:32:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00260**	**-.00225**	**.26412**	**.02006**	**.00003**	F **284.79**
Stddev	.00037	.01024	.00095	.00013	.00023	.00003	.12
%RSD	121.25	394.15	42.136	.04856	1.1669	107.77	.04127
#1	.00063	-.00845	-.00309	.26407	.02028	.00001	284.91
#2	.00039	.01177	-.00243	.26402	.02009	.00006	284.80
#3	-.00010	.00447	-.00122	.26427	.01982	.00001	284.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00179**	**-.00014**	**.00339**	**.00030**	**.03761**	**11.261**	**.62274**
Stddev	.00009	.00005	.00030	.00047	.00611	.051	.00093
%RSD	4.9174	33.449	8.9146	155.36	16.246	.45486	.14965
#1	.00189	-.00019	.00373	-.00020	.03964	11.281	.62376
#2	.00172	-.00009	.00331	.00073	.03074	11.299	.62254
#3	.00178	-.00013	.00314	.00038	.04244	11.203	.62193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**330.73**	**.13067**	**.00487**	F **954.60**	**.00465**	**.02392**	**-.00061**
Stddev	.58	.00019	.00007	9.46	.00075	.00626	.00257
%RSD	.17619	.14569	1.5319	.99075	16.166	26.179	421.49
#1	330.31	.13053	.00478	964.17	.00529	.02328	.00197
#2	331.40	.13089	.00491	945.25	.00382	.01801	-.00317
#3	330.49	.13060	.00491	954.38	.00484	.03049	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311050506 Acquired: 11/13/2013 11:32:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.17332**	**7.1412**	**-.00705**	F **4.5472**	**-.00515**	**-.00199**
Stddev	.00088	.00307	.0148	.00019	.0149	.00112	.00145
%RSD	2585.4	1.7740	.20693	2.7396	.32745	21.754	72.929
#1	.00099	.17638	7.1322	-.00683	4.5302	-.00399	-.00108
#2	-.00016	.17334	7.1582	-.00717	4.5580	-.00522	-.00122
#3	-.00073	.17023	7.1331	-.00716	4.5533	-.00623	-.00366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00024**	**.00408**	F **-.52301**
Stddev	.00005	.00005	.20753
%RSD	22.134	1.2145	39.679
#1	.00029	.00408	-.52458
#2	.00024	.00402	-.72975
#3	.00019	.00412	-.31471
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20404.**	**30473.**
Stddev	39.	100.
%RSD	.19130	.32655
#1	20421.	30567.
#2	20432.	30369.
#3	20360.	30482.

Approved: November 14, 2013

Sample Name: L1311036308PS Acquired: 11/13/2013 11:36:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452495-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21463**	**5.0574**	**.20972**	**1.4350**	**.52012**	**.02491**	**58.943**
Stddev	.00274	.0251	.00162	.0121	.00015	.00019	.164
%RSD	1.2745	.49705	.77039	.84576	.02824	.76372	.27748
#1	.21312	5.0407	.21071	1.4312	.52024	.02491	59.048
#2	.21298	5.0452	.21060	1.4252	.51995	.02471	59.028
#3	.21779	5.0863	.20786	1.4485	.52016	.02509	58.755
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02684**	**.09761**	**.24631**	**.24783**	**2.0449**	**103.32**	**.53289**
Stddev	.00003	.00021	.00303	.00044	.0029	.26	.00202
%RSD	.11403	.21295	1.2303	.17840	.14430	.24832	.37986
#1	.02680	.09785	.24479	.24824	2.0483	103.18	.53345
#2	.02685	.09751	.24433	.24736	2.0430	103.16	.53457
#3	.02685	.09747	.24979	.24790	2.0434	103.62	.53064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**160.85**	**.42399**	**.52603**	F **760.42**	**.24294**	**.08120**	**.24346**
Stddev	.30	.00546	.00145	17.62	.00087	.00123	.00143
%RSD	.18418	1.2885	.27487	2.3173	.35773	1.5159	.58725
#1	160.93	.42033	.52748	778.48	.24368	.08259	.24510
#2	161.10	.42136	.52601	759.51	.24199	.08026	.24271
#3	160.53	.43027	.52459	743.28	.24316	.08074	.24256
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

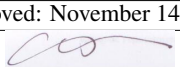
Sample Name: L1311036308PS Acquired: 11/13/2013 11:36:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452495-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.63975**	**.20479**	**5.2177**	**.51554**	**.71705**	**.50470**	**.22303**
Stddev	.00228	.00251	.0092	.00346	.00061	.00135	.00188
%RSD	.35673	1.2245	.17537	.67032	.08467	.26667	.84092
#1	.63713	.20762	5.2283	.51269	.71745	.50529	.22290
#2	.64130	.20284	5.2116	.51938	.71735	.50566	.22497
#3	.64083	.20392	5.2134	.51456	.71635	.50316	.22122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50372**	**.53076**	**.55825**
Stddev	.00380	.00114	.18611
%RSD	.75415	.21505	33.339
#1	.50302	.53102	.40793
#2	.50032	.52951	.76642
#3	.50782	.53175	.50040
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21090.**	**30538.**
Stddev	46.	95.
%RSD	.21880	.31009
#1	21039.	30646.
#2	21100.	30500.
#3	21130.	30469.

Approved: November 14, 2013



Sample Name: L1311051401 Acquired: 11/13/2013 11:40:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.03514**	**-.00141**	**.71479**	**.01466**	**.00007**	F **327.48**
Stddev	.00033	.01442	.00109	.00328	.00007	.00000	.70
%RSD	153.42	41.031	77.729	.45827	.46594	6.6963	.21279
#1	.00001	.02360	-.00216	.71240	.01459	.00008	328.18
#2	-.00006	.03052	-.00191	.71852	.01473	.00007	327.48
#3	-.00060	.05131	-.00015	.71343	.01467	.00007	326.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00179**	**.00082**	**.00425**	**.00116**	**.17074**	**10.301**	**.84424**
Stddev	.00002	.00014	.00050	.00062	.00464	.018	.00112
%RSD	1.0599	17.601	11.829	53.893	2.7178	.17176	.13315
#1	.00181	.00098	.00370	.00182	.16646	10.290	.84508
#2	.00178	.00076	.00467	.00058	.17009	10.293	.84297
#3	.00177	.00071	.00439	.00107	.17568	10.322	.84468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**328.40**	**.46411**	**.00394**	F **1190.4**	**.00556**	**.05930**	**.00018**
Stddev	.23	.00077	.00030	62.4	.00060	.00235	.00058
%RSD	.06858	.16531	7.5355	5.2420	10.748	3.9647	324.49
#1	328.58	.46323	.00389	1262.4	.00499	.05662	-.00039
#2	328.15	.46459	.00367	1157.7	.00618	.06026	.00078
#3	328.46	.46452	.00426	1151.1	.00551	.06102	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

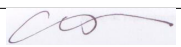
Sample Name: L1311051401 Acquired: 11/13/2013 11:40:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.24040**	**5.4639**	**-.00729**	F **5.6952**	**-.00520**	**-.00151**
Stddev	.00272	.00208	.0055	.00045	.0134	.00101	.00314
%RSD	12044.	.86593	.10126	6.2369	.23537	19.424	207.72
#1	.00265	.23947	5.4586	-.00680	5.7069	-.00417	-.00264
#2	-.00278	.24279	5.4697	-.00769	5.6982	-.00526	.00204
#3	.00019	.23895	5.4634	-.00738	5.6806	-.00619	-.00394
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00057**	**.01077**	**.04410**
Stddev	.00020	.00004	.10836
%RSD	35.432	.38737	245.72
#1	.00054	.01076	.03248
#2	.00078	.01082	-.05798
#3	.00038	.01074	.15781
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20180.**	**29939.**
Stddev	16.	70.
%RSD	.07875	.23406
#1	20194.	29979.
#2	20184.	29981.
#3	20163.	29858.

Approved: November 14, 2013



Sample Name: L1311050501 Acquired: 11/13/2013 11:48:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00073**	**-.00583**	**-.00041**	**.00721**	**.00032**	**-.00001**	**2.9998**	**.00005**
Stddev	.00020	.00881	.00120	.00046	.00016	.00001	.0064	.00005
%RSD	27.240	151.15	295.11	6.4349	51.020	127.16	.21307	100.67
#1	.00096	-.01424	-.00085	.00708	.00050	-.00002	2.9925	.00003
#2	.00063	.00333	.00095	.00772	.00027	.00000	3.0025	.00011
#3	.00060	-.00657	-.00132	.00682	.00018	-.00001	3.0045	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**-.00016**	**-.00050**	**-.00214**	**.18023**	**-.00046**	**2.1934**	**.00062**
Stddev	.00007	.00038	.00031	.00422	.01492	.00106	.0143	.00004
%RSD	41.646	240.36	62.005	196.72	8.2784	230.86	.65297	6.4193
#1	.00015	-.00030	-.00034	-.00628	.17830	.00041	2.1993	.00066
#2	.00011	.00027	-.00085	.00215	.19602	-.00014	2.2038	.00060
#3	.00025	-.00045	-.00029	-.00229	.16637	-.00165	2.1770	.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**7.6660**	**-.00109**	**.00402**	**.00027**	**-.00024**	**-.00171**	**.07894**
Stddev	.00012	.0350	.00029	.00178	.00144	.00228	.00080	.00063
%RSD	52.184	.45683	26.592	44.316	536.34	930.68	46.712	.79755
#1	.00026	7.6261	-.00118	.00474	.00023	.00023	-.00257	.07884
#2	.00010	7.6916	-.00133	.00199	.00173	-.00273	-.00101	.07962
#3	.00033	7.6803	-.00077	.00532	-.00116	.00176	-.00153	.07837
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311050501 Acquired: 11/13/2013 11:48:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00729**	**.05193**	**-.00048**	**.00176**	**.00018**	**.00098**	**.19076**
Stddev	.00022	.00010	.00122	.00038	.00020	.00007	.18203
%RSD	3.0788	.18605	254.41	21.581	110.74	6.9899	95.423
#1	-.00744	.05185	-.00158	.00148	.00021	.00090	-.01401
#2	-.00740	.05189	-.00070	.00160	-.00003	.00103	.33421
#3	-.00703	.05204	.00084	.00219	.00036	.00101	.25206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23875.**	**31763.**
Stddev	105.	231.
%RSD	.44094	.72593
#1	23981.	31585.
#2	23873.	31680.
#3	23771.	32023.

Approved: November 14, 2013

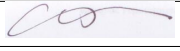
Sample Name: CCV Acquired: 11/13/2013 11:52:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41349**	**10.257**	**.40929**	**.51583**	**1.0167**	**.05047**	**10.191**
Stddev	.00045	.022	.00211	.00086	.0011	.00003	.018
%RSD	.10811	.21186	.51552	.16694	.10482	.06640	.17766
#1	.41299	10.232	.41056	.51682	1.0179	.05048	10.179
#2	.41385	10.269	.41045	.51546	1.0160	.05043	10.183
#3	.41362	10.271	.40685	.51522	1.0162	.05050	10.212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05181**	**.20813**	**.51597**	**.51788**	**4.0846**	**50.844**	**1.0078**
Stddev	.00004	.00033	.00105	.00128	.0117	.138	.0008
%RSD	.07901	.16078	.20347	.24644	.28681	.27072	.08201
#1	.05178	.20791	.51712	.51849	4.0899	50.999	1.0074
#2	.05179	.20795	.51505	.51642	4.0712	50.735	1.0088
#3	.05185	.20851	.51575	.51874	4.0927	50.799	1.0073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.181**	**.51352**	**1.0325**	**48.999**	**.52140**	**10.243**	**.52022**
Stddev	.008	.00075	.0012	.031	.00053	.035	.00149
%RSD	.07902	.14680	.11881	.06381	.10256	.34563	.28607
#1	10.172	.51360	1.0335	49.035	.52199	10.218	.52170
#2	10.184	.51273	1.0311	48.983	.52124	10.229	.52024
#3	10.187	.51424	1.0327	48.979	.52095	10.284	.51872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



Sample Name: CCV Acquired: 11/13/2013 11:52:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2561**	**.41328**	**5.2198**	**1.0443**	**1.0224**	**1.0296**	**.53445**
Stddev	.0025	.00320	.0158	.0011	.0021	.0008	.00431
%RSD	.20011	.77408	.30295	.10320	.20223	.07437	.80582
#1	1.2535	.41165	5.2343	1.0442	1.0223	1.0303	.52998
#2	1.2565	.41122	5.2222	1.0454	1.0204	1.0288	.53480
#3	1.2584	.41696	5.2029	1.0433	1.0245	1.0298	.53857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0288**	**1.0184**	F **1.2045**
Stddev	.0002	.0016	.1127
%RSD	.02091	.15998	9.3601
#1	1.0289	1.0202	1.0946
#2	1.0285	1.0178	1.1991
#3	1.0289	1.0171	1.3199
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23208.**	**31378.**
Stddev	6.	67.
%RSD	.02584	.21431
#1	23211.	31379.
#2	23212.	31446.
#3	23202.	31311.

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 11:55:25 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**-.02127**	**.00036**	**.00355**	**.00009**	**.00001**	**-.00446**	**.00016**
Stddev	.00026	.01012	.00047	.00075	.00004	.00002	.00725	.00008
%RSD	34.060	47.594	128.55	21.159	41.485	156.22	162.57	51.426
#1	.00053	-.01093	.00040	.00421	.00007	.00004	-.00022	.00022
#2	.00070	-.02172	.00081	.00372	.00013	-.00001	-.00033	.00007
#3	.00103	-.03116	-.00012	.00273	.00007	.00001	-.01284	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00008**	**.00030**	**.00164**	**.09603**	**-.00234**	**-.00144**	**.00005**
Stddev	.00013	.00042	.00015	.00460	.00985	.00126	.01503	.00004
%RSD	363.78	539.70	49.125	280.30	10.252	53.895	1040.2	66.680
#1	.00018	-.00039	.00018	.00371	.09152	-.00224	.01539	.00006
#2	-.00007	.00041	.00026	.00485	.10733	-.00113	-.00623	.00008
#3	-.00001	.00021	.00047	-.00363	.08926	-.00364	-.01350	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00547**	**.09618**	**-.00048**	**.00212**	**.00062**	**.00782**	**.00395**	**.00284**
Stddev	.00011	.00776	.00054	.00068	.00049	.00063	.00152	.00178
%RSD	1.9734	8.0678	114.31	32.050	77.726	8.0105	38.520	62.631
#1	.00539	.09760	-.00015	.00290	.00007	.00711	.00268	.00179
#2	.00543	.10313	-.00018	.00168	.00094	.00830	.00564	.00489
#3	.00559	.08781	-.00111	.00178	.00086	.00804	.00355	.00183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

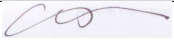
Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 11:55:25 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00104**	**.00013**	**.00012**	**-.00057**	**.00022**	**.00004**	**.00224**
Stddev	.00040	.00006	.00074	.00078	.00022	.00012	.41968
%RSD	38.702	41.924	627.97	138.71	103.09	278.78	18716.
#1	.00143	.00014	.00097	-.00123	.00003	.00002	.44891
#2	.00063	.00007	-.00028	-.00076	.00047	-.00007	-.05831
#3	.00106	.00019	-.00034	.00030	.00015	.00017	-.38388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23571.**	**31270.**
Stddev	74.	125.
%RSD	.31341	.39879
#1	23613.	31229.
#2	23614.	31171.
#3	23486.	31410.

Approved: November 14, 2013



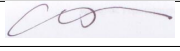
Sample Name: L1311051803 Acquired: 11/13/2013 11:59:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.10990**	**-.00096**	**.00355**	**.00268**	**.00001**	**.85252**	**.00013**
Stddev	.00074	.01006	.00023	.00027	.00018	.00000	.00970	.00002
%RSD	260.75	9.1578	24.068	7.7220	6.8732	55.410	1.1382	18.617
#1	.00108	.09920	-.00070	.00377	.00268	.00000	.85426	.00011
#2	.00016	.11917	-.00111	.00324	.00249	.00001	.84206	.00016
#3	-.00039	.11132	-.00108	.00362	.00286	.00000	.86123	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00147**	**.00105**	**.08820**	**.14069**	**-.00275**	**.08614**	**.00121**
Stddev	.00015	.00033	.00053	.00020	.01435	.00139	.01722	.00004
%RSD	584.81	22.190	50.700	.22320	10.202	50.514	19.991	3.5644
#1	-.00001	.00116	.00059	.08797	.14400	-.00379	.07558	.00116
#2	.00019	.00181	.00093	.08830	.15310	-.00328	.07682	.00122
#3	-.00010	.00144	.00163	.08833	.12497	-.00117	.10601	.00125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00083**	**1.4749**	**-.00038**	**-.00051**	**.00262**	**.00220**	**-.00129**	**3.6635**
Stddev	.00012	.0157	.00029	.00174	.00086	.00128	.00065	.0034
%RSD	14.691	1.0651	75.736	337.95	32.717	57.934	50.426	.09376
#1	.00071	1.4907	-.00057	.00082	.00282	.00366	-.00055	3.6614
#2	.00083	1.4593	-.00052	.00012	.00337	.00170	-.00178	3.6674
#3	.00095	1.4746	-.00005	-.00248	.00168	.00125	-.00152	3.6616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311051803 Acquired: 11/13/2013 11:59:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00608**	**.00159**	**.00304**	**-.00116**	**.00018**	**.00222**	**1.7272**
Stddev	.00018	.00006	.00080	.00058	.00023	.00005	.0972
%RSD	3.0046	3.6735	26.244	50.044	128.45	2.4321	5.6285
#1	-.00628	.00152	.00337	-.00117	.00002	.00218	1.8395
#2	-.00592	.00163	.00213	-.00174	.00007	.00229	1.6721
#3	-.00604	.00161	.00361	-.00058	.00045	.00221	1.6701
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23680.**	**31745.**
Stddev	71.	65.
%RSD	.29844	.20457
#1	23747.	31692.
#2	23606.	31727.
#3	23687.	31817.

Approved: November 14, 2013

Sample Name: L1311055701 Acquired: 11/13/2013 12:02:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**.01894**	**.00042**	**.12683**	**.07870**	**.00004**	**41.982**	**.00060**
Stddev	.00033	.01496	.00123	.00019	.00036	.00001	.095	.00009
%RSD	82.699	78.977	291.32	.14966	.45606	28.355	.22695	15.460
#1	.00077	.00172	-.00099	.12703	.07860	.00004	41.872	.00067
#2	.00020	.02868	.00126	.12680	.07910	.00003	42.043	.00050
#3	.00021	.02642	.00099	.12666	.07840	.00005	42.030	.00064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00074**	**.00058**	**.05634**	**1.0693**	**.00559**	**20.063**	**.06537**
Stddev	.00012	.00030	.00013	.00377	.0093	.00093	.096	.00023
%RSD	1045.2	39.740	22.431	6.6848	.87026	16.589	.48025	.35127
#1	.00000	.00046	.00071	.05646	1.0607	.00521	20.025	.06515
#2	-.00014	.00072	.00046	.05251	1.0679	.00491	19.991	.06535
#3	.00010	.00105	.00055	.06004	1.0792	.00664	20.172	.06561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00375**	**78.896**	**-.00058**	**.03603**	**.00230**	**.00124**	**.00026**	**5.5780**
Stddev	.00020	.172	.00067	.00144	.00168	.00167	.00153	.0072
%RSD	5.4162	.21825	116.17	3.9984	73.223	134.86	584.22	.12980
#1	.00393	79.076	-.00031	.03718	.00294	.00052	-.00142	5.5835
#2	.00353	78.880	-.00008	.03442	.00356	.00005	.00064	5.5807
#3	.00378	78.732	-.00135	.03650	.00039	.00315	.00157	5.5698
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311055701 Acquired: 11/13/2013 12:02:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00701**	**.24608**	**-.00106**	**-.00098**	**.00367**	**.00612**	**.32281**
Stddev	.00054	.00074	.00057	.00185	.00008	.00013	.34220
%RSD	7.7221	.30008	53.665	188.96	2.0822	2.2017	106.01
#1	-.00682	.24533	-.00156	-.00187	.00375	.00627	-.05777
#2	-.00761	.24612	-.00119	.00115	.00361	.00602	.60512
#3	-.00658	.24680	-.00044	-.00222	.00363	.00606	.42110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22937.**	**31511.**
Stddev	50.	234.
%RSD	.21855	.74307
#1	22944.	31781.
#2	22983.	31386.
#3	22883.	31367.

Approved: November 14, 2013

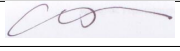
Sample Name: L1311055702 Acquired: 11/13/2013 12:06:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00185**	**.00067**	**.12502**	**.07842**	**.00007**	**41.100**	**.00053**
Stddev	.00015	.02060	.00136	.00086	.00014	.00003	.105	.00022
%RSD	94.938	1114.3	202.28	.68829	.18301	48.111	.25428	40.591
#1	-.00001	-.01228	.00185	.12417	.07856	.00004	41.055	.00035
#2	.00026	.02188	-.00081	.12589	.07827	.00006	41.026	.00077
#3	.00022	-.01515	.00098	.12499	.07842	.00010	41.220	.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00050**	**.00013**	**.05560**	**1.0935**	**.00571**	**19.858**	**.06481**
Stddev	.00006	.00053	.00030	.00369	.0521	.00115	.097	.00010
%RSD	1037.4	105.78	222.65	6.6366	4.7654	20.152	.48681	.15372
#1	.00005	.00004	.00025	.05159	1.1355	.00440	19.867	.06481
#2	-.00006	.00038	.00036	.05636	1.1099	.00656	19.950	.06470
#3	.00003	.00108	-.00020	.05885	1.0352	.00618	19.757	.06490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00334**	**77.882**	**-.00040**	**.03599**	**.00071**	**.00131**	**-.00110**	**5.5542**
Stddev	.00012	.147	.00026	.00183	.00040	.00260	.00198	.0036
%RSD	3.6826	.18864	64.996	5.0797	56.451	198.68	178.93	.06409
#1	.00329	78.000	-.00044	.03406	.00096	.00041	-.00219	5.5501
#2	.00348	77.928	-.00012	.03769	.00025	.00424	-.00230	5.5563
#3	.00325	77.717	-.00064	.03623	.00093	-.00072	.00118	5.5563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

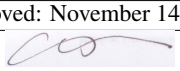


Sample Name: L1311055702 Acquired: 11/13/2013 12:06:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00720**	**.24207**	**-.00001**	**-.00203**	**.00353**	**.00678**	**.15489**
Stddev	.00005	.00075	.00082	.00077	.00027	.00003	.39636
%RSD	.69432	.31163	7206.9	37.643	7.5871	.44531	255.90
#1	-.00714	.24162	-.00072	-.00202	.00356	.00680	-.23857
#2	-.00723	.24165	.00089	-.00280	.00378	.00679	.14915
#3	-.00722	.24294	-.00021	-.00127	.00325	.00674	.55409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23008.**	**31599.**
Stddev	43.	85.
%RSD	.18892	.26945
#1	23048.	31582.
#2	22962.	31692.
#3	23015.	31525.

Approved: November 14, 2013



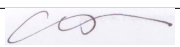
Sample Name: L1311055703 Acquired: 11/13/2013 12:09:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.46697**	**-.00016**	**.11169**	**.08492**	**.00009**	**38.436**	**.00070**
Stddev	.00023	.01742	.00126	.00150	.00010	.00002	.070	.00011
%RSD	41.559	3.7315	802.43	1.3388	.11776	18.675	.18233	15.163
#1	.00030	.48187	-.00033	.11058	.08501	.00010	38.482	.00081
#2	.00074	.44781	.00119	.11339	.08495	.00010	38.469	.00060
#3	.00066	.47122	-.00133	.11109	.08481	.00007	38.355	.00068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00093**	**.00202**	**.48572**	**1.2139**	**.00425**	**19.023**	**.07469**
Stddev	.00007	.00047	.00026	.00164	.0423	.00096	.028	.00021
%RSD	33.279	50.788	12.671	.33719	3.4826	22.574	.14658	.28523
#1	.00020	.00147	.00228	.48417	1.1886	.00476	18.993	.07446
#2	.00014	.00073	.00177	.48743	1.2627	.00314	19.028	.07487
#3	.00027	.00060	.00202	.48557	1.1903	.00485	19.048	.07475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00269**	**76.794**	**.00082**	**.09420**	**.00332**	**.00239**	**-.00017**	**6.0280**
Stddev	.00012	.051	.00062	.00316	.00089	.00146	.00265	.0044
%RSD	4.3139	.06641	75.691	3.3504	26.647	61.041	1526.7	.07289
#1	.00266	76.847	.00095	.09612	.00405	.00165	.00273	6.0306
#2	.00259	76.745	.00014	.09056	.00358	.00145	-.00247	6.0229
#3	.00282	76.792	.00137	.09592	.00234	.00407	-.00078	6.0304
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311055703 Acquired: 11/13/2013 12:09:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00628**	**.23138**	**.01016**	**.00031**	**.00357**	**.03012**	**1.0575**
Stddev	.00020	.00036	.00037	.00128	.00015	.00033	.3545
%RSD	3.1474	.15418	3.6302	411.26	4.3179	1.1094	33.522
#1	-.00612	.23156	.01055	-.00095	.00365	.03041	.64906
#2	-.00623	.23162	.00982	.00028	.00367	.02975	1.2387
#3	-.00650	.23097	.01012	.00161	.00339	.03019	1.2848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22969.**	**31772.**
Stddev	20.	139.
%RSD	.08773	.43824
#1	22991.	31931.
#2	22960.	31713.
#3	22954.	31673.

Approved: November 14, 2013

Sample Name: L1311055704MS Acquired: 11/13/2013 12:12:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20222**	**5.2278**	**.19722**	**1.1034**	**.56583**	**.02451**	**43.220**	**.02516**
Stddev	.00061	.0404	.00036	.0008	.00111	.00015	.093	.00009
%RSD	.29963	.77200	.18019	.06880	.19664	.60498	.21566	.36764
#1	.20274	5.2369	.19740	1.1029	.56455	.02445	43.265	.02514
#2	.20236	5.1837	.19746	1.1043	.56659	.02441	43.113	.02526
#3	.20155	5.2629	.19681	1.1031	.56635	.02468	43.283	.02508
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09928**	**.24811**	**.24640**	**2.3075**	**25.699**	**.48458**	**23.574**	**.31046**
Stddev	.00022	.00102	.00130	.0062	.104	.00120	.028	.00175
%RSD	.21857	.41292	.52808	.27033	.40300	.24862	.11808	.56253
#1	.09903	.24754	.24787	2.3021	25.591	.48329	23.606	.31037
#2	.09939	.24749	.24539	2.3062	25.708	.48477	23.556	.30876
#3	.09943	.24929	.24594	2.3143	25.798	.48567	23.560	.31225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50543**	**102.44**	**.24578**	**.08658**	**.25163**	**.60910**	**.19641**	**8.3603**
Stddev	.00051	.12	.00012	.00281	.00137	.00215	.00166	.0270
%RSD	.10139	.11354	.04950	3.2461	.54412	.35376	.84490	.32270
#1	.50516	102.58	.24570	.08537	.25279	.60877	.19466	8.3826
#2	.50602	102.38	.24592	.08979	.25012	.61140	.19795	8.3679
#3	.50511	102.37	.24572	.08458	.25197	.60712	.19663	8.3303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

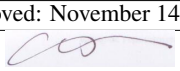
Approved: November 14, 2013

Sample Name: L1311055704MS Acquired: 11/13/2013 12:12:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53230**	**.70600**	**.49641**	**.24715**	**.49413**	**.50442**	**2.1349**
Stddev	.00293	.00112	.00124	.00228	.00065	.00090	.0248
%RSD	.55068	.15902	.25068	.92251	.13119	.17805	1.1602
#1	.53486	.70538	.49499	.24955	.49399	.50522	2.1622
#2	.52910	.70532	.49733	.24502	.49356	.50459	2.1139
#3	.53293	.70729	.49691	.24689	.49484	.50345	2.1285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22850.**	**31433.**
Stddev	10.	114.
%RSD	.04593	.36418
#1	22844.	31407.
#2	22862.	31558.
#3	22844.	31334.

Approved: November 14, 2013



Sample Name: L1311055705MSD Acquired: 11/13/2013 12:16:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20562**	**5.2692**	**.20150**	**1.1174**	**.56799**	**.02497**	**44.052**	**.02557**
Stddev	.00050	.0177	.00169	.0017	.00263	.00005	.222	.00007
%RSD	.24535	.33564	.83909	.14801	.46227	.18649	.50339	.28194
#1	.20546	5.2845	.20305	1.1178	.56821	.02495	43.945	.02553
#2	.20521	5.2732	.20175	1.1156	.56527	.02502	44.306	.02566
#3	.20618	5.2498	.19970	1.1189	.57050	.02494	43.903	.02553
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10057**	**.25060**	**.24875**	**2.2749**	**25.959**	**.49511**	**23.814**	**.31000**
Stddev	.00015	.00005	.00083	.0085	.062	.00092	.031	.00117
%RSD	.14845	.02078	.33324	.37205	.23699	.18493	.13016	.37723
#1	.10047	.25066	.24971	2.2712	26.025	.49555	23.804	.31126
#2	.10074	.25056	.24827	2.2689	25.903	.49573	23.848	.30977
#3	.10050	.25058	.24827	2.2846	25.948	.49406	23.788	.30896
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51498**	**101.86**	**.24825**	**.08491**	**.25304**	**.61725**	**.20187**	**8.2504**
Stddev	.00082	1.07	.00073	.00388	.00308	.00131	.00396	.0247
%RSD	.15884	1.0493	.29342	4.5702	1.2181	.21254	1.9603	.29943
#1	.51434	103.09	.24742	.08925	.25475	.61576	.20452	8.2655
#2	.51590	101.28	.24852	.08177	.25488	.61823	.20376	8.2638
#3	.51468	101.20	.24879	.08370	.24948	.61775	.19732	8.2219
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311055705MSD Acquired: 11/13/2013 12:16:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452362-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53804**	**.72031**	**.50477**	**.25280**	**.50414**	**.50328**	**1.0150**
Stddev	.00371	.00308	.00185	.00286	.00170	.00033	.3054
%RSD	.68938	.42747	.36581	1.1305	.33795	.06642	30.085
#1	.53969	.71946	.50439	.25285	.50603	.50313	1.0940
#2	.54065	.72373	.50678	.25563	.50367	.50366	.67787
#3	.53380	.71775	.50314	.24992	.50272	.50304	1.2731
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22730.**	**31158.**
Stddev	29.	63.
%RSD	.12838	.20220
#1	22763.	31120.
#2	22706.	31123.
#3	22722.	31230.

Approved: November 14, 2013

Sample Name: L1311050502 Acquired: 11/13/2013 12:19:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**-.01026**	**.00071**	**.02053**	**.00040**	**.00001**	**4.3137**	**.00007**
Stddev	.00023	.00505	.00043	.00118	.00016	.00001	.0208	.00011
%RSD	275.59	49.197	60.705	5.7307	40.834	84.483	.48276	144.55
#1	-.00007	-.01463	.00083	.02184	.00046	.00000	4.3225	.00007
#2	-.00002	-.00473	.00023	.02016	.00052	.00002	4.2899	-.00003
#3	.00035	-.01142	.00107	.01958	.00021	.00002	4.3286	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**-.00020**	**-.00004**	**-.00226**	**.21690**	**.00480**	**2.7051**	**.00362**
Stddev	.00009	.00023	.00019	.00746	.06148	.00164	.0343	.00008
%RSD	54.653	111.99	444.14	330.20	28.346	34.234	1.2662	2.1904
#1	.00023	-.00039	.00006	-.00769	.27291	.00291	2.7437	.00354
#2	.00006	-.00026	-.00027	-.00532	.15111	.00593	2.6936	.00361
#3	.00020	.00005	.00007	.00624	.22667	.00554	2.6781	.00370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**9.7577**	**-.00046**	**.00184**	**.00017**	**-.00147**	**.01162**	**.06540**
Stddev	.00027	.0691	.00044	.00415	.00061	.00028	.00064	.00231
%RSD	35.212	.70808	95.721	226.16	349.68	19.294	5.5059	3.5321
#1	.00045	9.8373	-.00092	.00379	.00033	-.00129	.01227	.06311
#2	.00089	9.7221	-.00043	.00465	.00069	-.00179	.01160	.06536
#3	.00093	9.7137	-.00004	-.00293	-.00050	-.00132	.01099	.06773
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311050502 Acquired: 11/13/2013 12:19:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00724**	**.05977**	**.00046**	**.00091**	**.00028**	**.00110**	**.09586**
Stddev	.00024	.00101	.00101	.00088	.00021	.00005	.33736
%RSD	3.2688	1.6912	220.16	97.256	76.241	4.4835	351.92
#1	-.00734	.06086	.00052	.00034	.00043	.00105	.32111
#2	-.00741	.05886	-.00058	.00046	.00037	.00115	-.29200
#3	-.00697	.05958	.00143	.00193	.00004	.00110	.25849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23584.**	**31452.**
Stddev	46.	202.
%RSD	.19684	.64082
#1	23585.	31650.
#2	23630.	31459.
#3	23537.	31247.

Approved: November 14, 2013

Sample Name: L1311050503 Acquired: 11/13/2013 12:23:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00926**	**.00048**	**.01153**	**.00018**	**.00004**	**3.5400**	**.00004**
Stddev	.00009	.00453	.00069	.00062	.00024	.00001	.0063	.00009
%RSD	163.77	48.885	142.84	5.4056	137.80	38.506	.17655	205.88
#1	-.00008	-.00924	.00078	.01134	.00045	.00005	3.5328	.00005
#2	.00004	-.01380	-.00031	.01102	.00010	.00004	3.5435	-.00005
#3	-.00014	-.00474	.00096	.01222	-.00002	.00002	3.5437	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.00032**	**.00013**	**-.00173**	**.14127**	**.00350**	**1.2404**	**.00153**
Stddev	.00012	.00021	.00052	.00469	.02629	.00149	.0138	.00003
%RSD	50.678	65.374	397.30	270.53	18.609	42.463	1.1153	2.1642
#1	.00034	.00008	-.00047	.00312	.16882	.00463	1.2250	.00157
#2	.00011	.00044	.00045	-.00624	.11645	.00182	1.2518	.00153
#3	.00023	.00042	.00041	-.00207	.13855	.00405	1.2445	.00150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**7.9724**	**-.00044**	**.00450**	**-.00018**	**-.00144**	**.00942**	**.09263**
Stddev	.00024	.0191	.00058	.00414	.00145	.00162	.00369	.00051
%RSD	9757.5	.23898	129.85	92.139	809.40	112.33	39.164	.54531
#1	-.00009	7.9742	.00016	.00919	.00105	-.00329	.01023	.09286
#2	-.00017	7.9905	-.00099	.00136	-.00178	-.00024	.00539	.09205
#3	.00027	7.9525	-.00049	.00293	.00019	-.00080	.01263	.09297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311050503 Acquired: 11/13/2013 12:23:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00745**	**.03647**	**-.00007**	**.00102**	**.00014**	**.00109**	**.01300**
Stddev	.00010	.00027	.00067	.00103	.00001	.00007	.35686
%RSD	1.3034	.73441	1008.9	100.87	3.9699	6.4758	2744.9
#1	-.00756	.03622	.00026	.00006	.00014	.00117	-.09768
#2	-.00740	.03675	-.00083	.00211	.00013	.00104	.41209
#3	-.00739	.03643	.00037	.00089	.00014	.00106	-.27541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23534.**	**31587.**
Stddev	20.	109.
%RSD	.08680	.34604
#1	23551.	31699.
#2	23539.	31582.
#3	23511.	31481.

Approved: November 14, 2013

Sample Name: L1311050504 Acquired: 11/13/2013 12:26:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**-.01144**	**.00194**	**.01160**	**.00008**	**.00003**	**4.1503**
Stddev	.00016	.00217	.00224	.00064	.00028	.00001	.0118
%RSD	25.834	18.968	115.40	5.5424	361.72	31.407	.28503
#1	.00045	-.01365	.00339	.01107	-.00012	.00003	4.1523
#2	.00075	-.01135	-.00064	.01142	.00040	.00002	4.1376
#3	.00071	-.00931	.00307	.01231	-.00004	.00003	4.1610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00023**	**.00013**	**.00029**	**-.00180**	**.21626**	**.01284**
Stddev	.00004	.00013	.00049	.00031	.00401	.01683	.00096
%RSD	29.784	54.732	369.43	106.87	222.44	7.7823	7.4610
#1	.00016	.00036	.00055	.00059	-.00484	.19690	.01174
#2	.00010	.00022	.00026	-.00003	.00274	.22443	.01347
#3	.00018	.00011	-.00041	.00031	-.00330	.22744	.01331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.7796**	**.01166**	**.00003**	**21.564**	**-.00006**	**.00634**	**.00087**
Stddev	.0461	.00004	.00024	.100	.00027	.00363	.00039
%RSD	.96496	.34085	827.54	.46346	463.44	57.195	44.492
#1	4.8326	.01165	-.00024	21.647	.00025	.00839	.00126
#2	4.7570	.01162	.00022	21.453	-.00018	.00215	.00049
#3	4.7491	.01170	.00011	21.593	-.00025	.00849	.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311050504 Acquired: 11/13/2013 12:26:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00210**	**.00804**	**.07769**	**-.00751**	**.08396**	**.00013**	**.00046**
Stddev	.00066	.00069	.00084	.00006	.00011	.00014	.00054
%RSD	31.654	8.5739	1.0876	.76093	.12937	113.15	117.56
#1	-.00224	.00870	.07755	-.00758	.08402	-.00002	.00103
#2	-.00268	.00810	.07692	-.00749	.08384	.00013	.00037
#3	-.00138	.00733	.07860	-.00747	.08403	.00027	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00026**	**.00085**	F **-.10104**
Stddev	.00008	.00012	.16402
%RSD	30.224	14.611	162.33
#1	.00024	.00086	.06783
#2	.00035	.00097	-.25974
#3	.00019	.00072	-.11121
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23335.**	**31620.**
Stddev	61.	127.
%RSD	.25958	.40102
#1	23402.	31741.
#2	23318.	31632.
#3	23285.	31488.

Approved: November 14, 2013

Sample Name: L1311050505 Acquired: 11/13/2013 12:30:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**-.00817**	**-.00096**	**.00567**	**.00033**	**.00002**	**1.8548**
Stddev	.00051	.01388	.00170	.00081	.00015	.00002	.0134
%RSD	215.00	169.93	177.38	14.368	45.314	85.952	.72429
#1	.00078	.00632	.00071	.00661	.00048	.00001	1.8703
#2	.00014	-.02135	-.00269	.00521	.00018	.00004	1.8468
#3	-.00022	-.00949	-.00090	.00518	.00034	.00002	1.8472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00021**	**.00009**	**.00028**	**.00435**	**.07992**	**.00165**
Stddev	.00013	.00015	.00027	.00020	.00233	.04080	.00043
%RSD	859.70	72.510	298.25	70.875	53.447	51.054	25.830
#1	-.00009	.00024	.00040	.00006	.00414	.12657	.00117
#2	.00013	.00034	-.00007	.00043	.00678	.05086	.00180
#3	-.00008	.00004	-.00006	.00035	.00214	.06234	.00199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2003**	**.00498**	**-.00004**	**5.9621**	**-.00036**	**.00624**	**.00100**
Stddev	.0180	.00007	.00015	.0162	.00059	.00155	.00035
%RSD	1.5024	1.3848	370.63	.27181	163.79	24.899	35.002
#1	1.2173	.00506	.00013	5.9793	-.00088	.00657	.00060
#2	1.1814	.00498	-.00017	5.9600	.00029	.00761	.00124
#3	1.2022	.00492	-.00008	5.9471	-.00050	.00455	.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

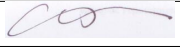
Sample Name: L1311050505 Acquired: 11/13/2013 12:30:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00155**	**-.00050**	**.08543**	**-.00725**	**.02381**	**-.00065**	**.00021**
Stddev	.00141	.00141	.00150	.00027	.00011	.00095	.00128
%RSD	91.092	278.58	1.7594	3.6817	.45074	144.66	611.00
#1	-.00308	.00089	.08685	-.00706	.02385	.00011	-.00097
#2	-.00032	-.00049	.08556	-.00714	.02369	-.00036	.00002
#3	-.00124	-.00192	.08386	-.00756	.02389	-.00171	.00157
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00019**	**.00112**	F **-.13593**
Stddev	.00010	.00004	.31668
%RSD	53.254	3.2314	232.98
#1	.00014	.00108	-.34410
#2	.00031	.00112	.22851
#3	.00012	.00115	-.29219
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23463.**	**31601.**
Stddev	48.	148.
%RSD	.20367	.46856
#1	23518.	31772.
#2	23435.	31513.
#3	23436.	31518.

Approved: November 14, 2013



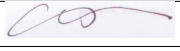
Sample Name: CCV Acquired: 11/13/2013 12:33:52 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41079**	**10.224**	**.40728**	**.51608**	**1.0172**	**.04944**	**9.8553**
Stddev	.00120	.016	.00149	.00143	.0007	.00024	.0184
%RSD	.29197	.15259	.36661	.27782	.06942	.48952	.18639
#1	.41217	10.236	.40723	.51464	1.0168	.04925	9.8764
#2	.41002	10.206	.40880	.51751	1.0180	.04971	9.8461
#3	.41017	10.229	.40581	.51608	1.0169	.04936	9.8433
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05073**	**.20623**	**.51015**	**.51883**	**4.0962**	**50.911**	**.99696**
Stddev	.00019	.00019	.00135	.00028	.0126	.147	.00150
%RSD	.37267	.09370	.26558	.05348	.30756	.28881	.15085
#1	.05057	.20642	.50891	.51915	4.0827	50.859	.99677
#2	.05068	.20604	.51159	.51864	4.1076	51.077	.99557
#3	.05094	.20623	.50994	.51871	4.0982	50.797	.99856
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9830**	**.50732**	**1.0281**	**48.871**	**.51532**	**10.032**	**.52314**
Stddev	.0142	.00196	.0012	.027	.00099	.019	.00185
%RSD	.14252	.38698	.11152	.05602	.19173	.19369	.35358
#1	9.9963	.50698	1.0291	48.899	.51572	10.037	.52123
#2	9.9680	.50944	1.0268	48.845	.51419	10.011	.52493
#3	9.9848	.50556	1.0284	48.870	.51604	10.049	.52325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



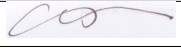
Sample Name: CCV Acquired: 11/13/2013 12:33:52 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2308**	**.41137**	**5.2719**	**1.0590**	**1.0043**	**1.0121**	**.52490**
Stddev	.0008	.00118	.0110	.0035	.0021	.0029	.00103
%RSD	.06611	.28685	.20837	.32916	.20756	.28269	.19652
#1	1.2316	.41268	5.2687	1.0559	1.0056	1.0142	.52374
#2	1.2300	.41105	5.2841	1.0628	1.0019	1.0089	.52525
#3	1.2308	.41038	5.2628	1.0582	1.0054	1.0133	.52571
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0059**	**1.0277**	F **1.1107**
Stddev	.0027	.0012	.1884
%RSD	.27067	.11627	16.965
#1	1.0044	1.0264	1.1564
#2	1.0090	1.0288	1.2722
#3	1.0042	1.0279	.90367
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23236.**	**31364.**
Stddev	21.	95.
%RSD	.08948	.30397
#1	23218.	31318.
#2	23233.	31301.
#3	23259.	31474.

Approved: November 14, 2013



Sample Name: CCB Acquired: 11/13/2013 12:37:07 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**-.01167**	**-.00024**	**.00396**	**.00015**	**.00001**	**-.00279**
Stddev	.00042	.00833	.00136	.00085	.00022	.00001	.00797
%RSD	140.32	71.356	574.86	21.405	140.70	179.72	285.24
#1	-.00017	-.00750	-.00097	.00380	.00035	-.00001	-.01062
#2	.00064	-.00625	.00134	.00487	-.00008	.00002	.00531
#3	.00044	-.02126	-.00108	.00320	.00018	.00001	-.00308
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00005**	**.00005**	**.00019**	**-.00255**	**-.00689**	**-.00192**
Stddev	.00005	.00002	.00033	.00030	.00324	.04508	.00106
%RSD	40.809	44.385	602.72	159.18	126.85	654.56	55.249
#1	.00007	.00002	-.00029	.00014	-.00148	-.05040	-.00152
#2	.00016	.00006	.00036	.00052	.00001	.03962	-.00112
#3	.00014	.00005	.00010	-.00008	-.00619	-.00989	-.00313
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00470**	**.00006**	**.00548**	**.04367**	**-.00030**	**.00382**	**-.00013**
Stddev	.01938	.00002	.00029	.00954	.00044	.00261	.00291
%RSD	412.66	37.244	5.2664	21.853	146.61	68.264	2205.3
#1	.00420	.00004	.00516	.05088	-.00075	.00101	-.00190
#2	.02432	.00008	.00570	.03285	-.00027	.00616	.00322
#3	-.01443	.00006	.00559	.04728	.00013	.00428	-.00172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 12:37:07 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00927**	**.00428**	**.00178**	**.00119**	**.00009**	**-.00001**	**.00027**
Stddev	.00088	.00307	.00145	.00017	.00002	.00019	.00102
%RSD	9.5067	71.666	81.684	14.520	20.998	1656.6	371.21
#1	.00891	.00654	.00341	.00103	.00011	-.00004	-.00086
#2	.01027	.00079	.00133	.00137	.00007	-.00019	.00113
#3	.00862	.00551	.00060	.00117	.00010	.00019	.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00018**	**.00010**	F **-.10168**
Stddev	.00017	.00013	.21892
%RSD	94.949	124.13	215.31
#1	.00025	.00013	-.07648
#2	-.00001	-.00004	-.33211
#3	.00031	.00021	.10356
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23375.**	**31318.**
Stddev	62.	25.
%RSD	.26339	.08120
#1	23385.	31334.
#2	23430.	31332.
#3	23308.	31289.

Approved: November 14, 2013

Sample Name: L1311060001 Acquired: 11/13/2013 12:40:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00051**	**.64992**	**.00092**	**.02071**	**.03590**	**.00006**	**35.894**	**.00013**
Stddev	.00042	.01421	.00165	.00067	.00015	.00001	.093	.00004
%RSD	81.310	2.1864	179.54	3.2570	.40533	19.045	.26018	32.364
#1	.00088	.64609	.00265	.02026	.03582	.00006	35.945	.00008
#2	.00006	.66565	-.00064	.02148	.03607	.00007	35.951	.00014
#3	.00060	.63802	.00075	.02038	.03581	.00005	35.787	.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.01997**	**.00428**	**.21148**	**5.8800**	**.00509**	**.89344**	**.00368**
Stddev	.00006	.00008	.00023	.00533	.0193	.00028	.01047	.00007
%RSD	19.222	.39654	5.4034	2.5187	.32884	5.5570	1.1714	1.9688
#1	.00025	.01988	.00448	.20914	5.8969	.00494	.90520	.00362
#2	.00036	.02000	.00402	.21758	5.8589	.00542	.88516	.00376
#3	.00028	.02002	.00433	.20773	5.8841	.00492	.88995	.00367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00330**	**7.2669**	**.00058**	**.11292**	**.00005**	**.00265**	**-.00032**	**4.0198**
Stddev	.00017	.0193	.00027	.00107	.00089	.00065	.00184	.0160
%RSD	5.3010	.26562	46.151	.94493	1674.6	24.518	567.26	.39741
#1	.00314	7.2662	.00089	.11380	-.00026	.00230	.00177	4.0383
#2	.00349	7.2865	.00037	.11173	-.00064	.00340	-.00169	4.0103
#3	.00328	7.2479	.00050	.11324	.00106	.00224	-.00105	4.0109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311060001 Acquired: 11/13/2013 12:40:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00707**	**.30472**	**.00640**	**-.00144**	**.00845**	**.00506**	**.86934**
Stddev	.00024	.00051	.00043	.00093	.00007	.00001	.27946
%RSD	3.3360	.16756	6.6547	64.264	.77643	.13560	32.146
#1	-.00734	.30503	.00630	-.00052	.00839	.00506	1.0004
#2	-.00698	.30500	.00604	-.00238	.00845	.00507	1.0592
#3	-.00689	.30413	.00687	-.00143	.00852	.00506	.54844
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23234.**	**31476.**
Stddev	14.	85.
%RSD	.06049	.27106
#1	23250.	31558.
#2	23229.	31387.
#3	23223.	31484.

Approved: November 14, 2013

Sample Name: L1311060002 Acquired: 11/13/2013 12:44:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.32031**	**.00075**	**.03871**	**.06219**	**.00005**	**33.827**	**.00040**
Stddev	.00053	.01588	.00042	.00053	.00043	.00001	.084	.00003
%RSD	182.50	4.9566	56.808	1.3611	.68471	28.376	.24837	6.3922
#1	-.00004	.31709	.00057	.03931	.06170	.00003	33.866	.00040
#2	.00091	.33755	.00044	.03849	.06242	.00005	33.884	.00042
#3	.00001	.30629	.00123	.03833	.06244	.00006	33.730	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.01322**	**.00178**	**.14514**	**4.2405**	**.00565**	**12.241**	**.00286**
Stddev	.00004	.00026	.00047	.00114	.0211	.00283	.075	.00006
%RSD	14.544	1.9372	26.173	.78438	.49653	50.133	.61160	1.9869
#1	.00031	.01293	.00203	.14406	4.2452	.00892	12.157	.00287
#2	.00035	.01337	.00208	.14633	4.2174	.00427	12.301	.00291
#3	.00026	.01336	.00125	.14501	4.2587	.00377	12.265	.00280
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00209**	**32.092**	**.00122**	**.09033**	**.00180**	**.00142**	**-.00138**	**4.2893**
Stddev	.00008	.162	.00030	.00506	.00157	.00141	.00166	.0093
%RSD	3.8611	.50508	24.902	5.5964	87.295	99.129	120.21	.21768
#1	.00201	32.188	.00087	.08634	.00359	.00145	.00003	4.2953
#2	.00218	32.184	.00139	.09601	.00063	.00281	-.00320	4.2785
#3	.00209	31.905	.00140	.08864	.00119	.00000	-.00095	4.2940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311060002 Acquired: 11/13/2013 12:44:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00750**	**.24173**	**.00427**	**-.00013**	**.00730**	**.00469**	**.60825**
Stddev	.00011	.00020	.00032	.00069	.00010	.00012	.06712
%RSD	1.4411	.08412	7.4080	521.17	1.3409	2.6146	11.035
#1	-.00759	.24151	.00396	-.00020	.00733	.00465	.66027
#2	-.00738	.24192	.00459	-.00079	.00718	.00483	.53249
#3	-.00754	.24174	.00426	.00059	.00737	.00459	.63198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23054.**	**31310.**
Stddev	29.	127.
%RSD	.12661	.40437
#1	23044.	31239.
#2	23031.	31235.
#3	23087.	31456.

Approved: November 14, 2013

Sample Name: L1311060101 Acquired: 11/13/2013 12:47:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.04344**	**.02140**	**.15999**	**.21477**	**.00004**	**60.495**	**.00058**
Stddev	.00009	.02281	.00076	.00174	.00093	.00003	.311	.00002
%RSD	59.343	52.503	3.5320	1.0849	.43483	61.734	.51429	4.2637
#1	.00025	.03952	.02131	.15842	.21576	.00003	60.381	.00056
#2	.00011	.02284	.02070	.16185	.21390	.00008	60.257	.00057
#3	.00009	.06795	.02220	.15970	.21465	.00003	60.847	.00061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.00059**	**.00096**	**1.7844**	**.34176**	**.01329**	**30.506**	**.28277**
Stddev	.00018	.00034	.00037	.0046	.03653	.00022	.086	.00041
%RSD	113.83	56.739	38.708	.25997	10.688	1.6423	.28212	.14545
#1	-.00024	.00088	.00136	1.7805	.38060	.01346	30.491	.28250
#2	-.00027	.00069	.00089	1.7833	.33658	.01304	30.428	.28324
#3	.00005	.00022	.00063	1.7895	.30809	.01336	30.599	.28257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**178.82**	**-.00028**	**.01250**	**.11412**	**.00172**	**-.00077**	**8.6964**
Stddev	.00024	2.44	.00048	.00358	.00190	.00113	.00228	.0179
%RSD	41.103	1.3652	171.84	28.652	1.6684	65.656	297.47	.20630
#1	.00034	177.47	-.00015	.01277	.11194	.00239	-.00312	8.7155
#2	.00082	181.64	.00012	.00879	.11545	.00234	-.00062	8.6936
#3	.00058	177.36	-.00081	.01593	.11498	.00042	.00144	8.6800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311060101 Acquired: 11/13/2013 12:47:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00701**	**.38788**	**-.00036**	**-.00178**	**.00211**	**.00358**	**1.2574**
Stddev	.00052	.00126	.00045	.00066	.00011	.00004	.3878
%RSD	7.4853	.32422	127.07	37.186	5.0115	.99059	30.843
#1	-.00760	.38709	-.00085	-.00235	.00215	.00354	.84044
#2	-.00683	.38722	.00004	-.00195	.00199	.00358	1.6073
#3	-.00660	.38933	-.00027	-.00105	.00219	.00361	1.3245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22385.**	**31373.**
Stddev	21.	6.
%RSD	.09293	.01792
#1	22373.	31369.
#2	22373.	31371.
#3	22409.	31380.

Approved: November 14, 2013

Sample Name: L1311050506 Acquired: 11/13/2013 12:51:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00046**	**-.00728**	**.00191**	**.00543**	**.00264**	**.00283**	**3.2578**
Stddev	.00085	.00466	.00123	.00010	.00019	.00001	.0130
%RSD	186.41	64.052	64.444	1.9331	7.1120	.31542	.39983
#1	-.00047	-.00835	.00209	.00531	.00285	.00282	3.2606
#2	.00120	-.00218	.00060	.00546	.00252	.00284	3.2691
#3	.00064	-.01132	.00304	.00551	.00254	.00284	3.2436
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00500**	**.00311**	**-.00006**	**.00002**	**-.00244**	**.08524**	**.00619**
Stddev	.00005	.00010	.00014	.00059	.00322	.03520	.00039
%RSD	.94992	3.1437	242.95	3384.8	131.81	41.290	6.3053
#1	.00502	.00313	.00009	.00061	.00127	.12377	.00599
#2	.00504	.00300	-.00018	.00001	-.00408	.05478	.00664
#3	.00495	.00319	-.00008	-.00056	-.00451	.07717	.00594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.6390**	**.00707**	**.00054**	**13.390**	**-.00093**	**.00770**	**-.00025**
Stddev	.0064	.00012	.00005	.052	.00049	.00489	.00137
%RSD	.17685	1.6905	10.128	.38702	53.159	63.576	555.66
#1	3.6369	.00712	.00055	13.444	-.00090	.01256	-.00040
#2	3.6462	.00715	.00058	13.386	-.00045	.00277	-.00154
#3	3.6338	.00693	.00048	13.341	-.00143	.00777	.00119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311050506 Acquired: 11/13/2013 12:51:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00137**	**.00221**	**.08140**	**-.00747**	**.05182**	**-.00020**	**-.00041**
Stddev	.00039	.00096	.00201	.00007	.00033	.00067	.00094
%RSD	28.215	43.364	2.4733	.96346	.64255	335.16	229.97
#1	-.00173	.00202	.07945	-.00743	.05144	.00051	-.00125
#2	-.00143	.00137	.08347	-.00742	.05204	-.00030	.00060
#3	-.00096	.00326	.08126	-.00755	.05198	-.00082	-.00057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00033**	**.00264**	F **-.06295**
Stddev	.00021	.00006	.10245
%RSD	62.332	2.1989	162.75
#1	.00052	.00261	-.11760
#2	.00036	.00270	.05524
#3	.00011	.00260	-.12649
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23664.**	**31559.**
Stddev	63.	53.
%RSD	.26633	.16805
#1	23730.	31592.
#2	23657.	31498.
#3	23605.	31587.

Approved: November 14, 2013

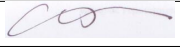
Sample Name: L1311051401 Acquired: 11/13/2013 12:54:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.00415**	**-.00055**	**.00879**	**.00024**	**.00004**	**3.5411**	**.00006**
Stddev	.00015	.00829	.00062	.00078	.00005	.00001	.0229	.00001
%RSD	35.979	199.96	113.26	8.9013	19.868	40.141	.64792	18.640
#1	.00057	-.00499	-.00047	.00970	.00028	.00004	3.5559	.00006
#2	.00028	.01118	-.00121	.00829	.00019	.00002	3.5527	.00005
#3	.00037	.00625	.00003	.00840	.00024	.00005	3.5146	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**-.00028**	**.00025**	**-.00062**	**.12275**	**.00659**	**3.3771**	**.00558**
Stddev	.00008	.00039	.00009	.00558	.01032	.00152	.0179	.00008
%RSD	43.121	137.33	37.400	902.22	8.4045	23.041	.52951	1.4394
#1	.00012	-.00029	.00022	-.00387	.13135	.00806	3.3600	.00561
#2	.00027	.00011	.00036	-.00380	.12558	.00668	3.3957	.00565
#3	.00017	-.00067	.00018	.00582	.11131	.00503	3.3756	.00549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**17.996**	**-.00083**	**.00510**	**-.00031**	**-.00169**	**.00135**	**.05498**
Stddev	.00006	.047	.00070	.00234	.00111	.00109	.00104	.00120
%RSD	6128.4	.26320	84.187	45.931	359.64	64.404	76.644	2.1888
#1	.00007	18.041	-.00076	.00326	-.00042	-.00092	.00187	.05460
#2	-.00004	17.947	-.00156	.00430	-.00136	-.00293	.00016	.05633
#3	-.00003	18.000	-.00017	.00774	.00085	-.00122	.00202	.05401
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311051401 Acquired: 11/13/2013 12:54:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00736**	**.05809**	**-.00037**	**-.00041**	**.00018**	**.00090**	**.00543**
Stddev	.00037	.00053	.00089	.00182	.00015	.00003	.17092
%RSD	4.9842	.91007	241.29	447.74	81.987	3.2255	3147.9
#1	-.00754	.05785	-.00068	-.00137	.00003	.00093	-.08237
#2	-.00759	.05869	-.00107	.00170	.00018	.00087	.20241
#3	-.00693	.05772	.00064	-.00155	.00033	.00090	-.10375
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23365.**	**31462.**
Stddev	20.	93.
%RSD	.08394	.29602
#1	23381.	31354.
#2	23370.	31515.
#3	23343.	31516.

Approved: November 14, 2013

Sample Name: L1311036302 Acquired: 11/13/2013 12:58:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.01217**	**-.00074**	**.00620**	**.00039**	**-.00002**	**.61652**
Stddev	.00012	.01545	.00119	.00020	.00003	.00001	.00510
%RSD	35.195	126.91	160.43	3.1805	8.3041	90.300	.82648
#1	.00048	.00352	-.00211	.00599	.00043	.00000	.61441
#2	.00030	-.01267	.00007	.00622	.00038	-.00003	.61283
#3	.00026	-.02737	-.00019	.00638	.00037	-.00002	.62234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00027**	**.00002**	**-.00036**	**.00062**	**.68472**	**-.00203**
Stddev	.00009	.00014	.00043	.00014	.00176	.03221	.00170
%RSD	207.87	52.915	1983.7	39.496	285.94	4.7041	83.940
#1	.00015	.00031	.00036	-.00045	.00241	.72183	-.00397
#2	-.00004	.00011	.00016	-.00020	-.00111	.66401	-.00127
#3	.00002	.00039	-.00046	-.00043	.00054	.66831	-.00083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.4745**	**.00169**	**.00018**	**6.2286**	**-.00047**	**.00437**	**-.00081**
Stddev	.0125	.00001	.00020	.0184	.00009	.00164	.00029
%RSD	.84805	.85251	109.95	.29483	18.839	37.596	35.121
#1	1.4887	.00170	.00038	6.2438	-.00053	.00606	-.00112
#2	1.4699	.00167	.00019	6.2082	-.00037	.00278	-.00077
#3	1.4650	.00169	-.00002	6.2339	-.00051	.00426	-.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311036302 Acquired: 11/13/2013 12:58:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00110**	**.00147**	**.03811**	**-.00735**	**.00271**	**-.00017**	**.00121**
Stddev	.00243	.00213	.00169	.00027	.00007	.00054	.00125
%RSD	220.49	144.66	4.4303	3.6794	2.5753	321.25	103.78
#1	.00138	.00367	.03999	-.00740	.00279	-.00060	-.00021
#2	-.00349	-.00058	.03762	-.00705	.00267	.00043	.00216
#3	-.00121	.00132	.03672	-.00759	.00267	-.00033	.00168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00017**	**.00168**	F **-.31195**
Stddev	.00015	.00004	.23676
%RSD	85.357	2.0844	75.896
#1	.00000	.00171	-.57229
#2	.00024	.00170	-.25404
#3	.00027	.00164	-.10952
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23411.**	**31622.**
Stddev	37.	37.
%RSD	.16014	.11850
#1	23454.	31660.
#2	23390.	31621.
#3	23388.	31585.

Approved: November 14, 2013

Sample Name: L1311036304 Acquired: 11/13/2013 13:01:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**-.01451**	**-.00035**	**.00644**	**.00035**	**.00000**	**.71495**	**.00016**
Stddev	.00044	.01502	.00148	.00021	.00013	.00002	.00402	.00003
%RSD	92.629	103.47	418.15	3.3122	38.405	792.51	.56166	16.489
#1	.00050	-.02456	.00112	.00646	.00040	.00001	.71031	.00014
#2	.00090	-.02172	-.00034	.00664	.00045	.00002	.71708	.00019
#3	.00002	.00275	-.00184	.00621	.00020	-.00002	.71745	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**-.00024**	**.00014**	**-.00214**	**.65101**	**.00027**	**1.9892**	**.00000**
Stddev	.00009	.00024	.00027	.00310	.02843	.00116	.0168	.0000
%RSD	43.817	99.504	187.11	145.15	4.3672	433.54	.84287	4512.0
#1	.00026	.00004	.00012	-.00115	.68258	.00097	1.9992	.00001
#2	.00023	-.00038	-.00012	.00035	.62743	-.00107	1.9698	.00002
#3	.00010	-.00038	.00042	-.00561	.64302	.00090	1.9984	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**11.628**	**-.00005**	**.00243**	**-.00007**	**-.00237**	**-.00108**	**.03905**
Stddev	.00012	.036	.00051	.00128	.00118	.00070	.00170	.00045
%RSD	475.98	.30845	993.36	52.816	1582.2	29.633	156.81	1.1575
#1	.00003	11.665	-.00052	.00211	.00125	-.00277	.00088	.03888
#2	.00006	11.594	-.00012	.00133	-.00043	-.00278	-.00205	.03871
#3	-.00017	11.623	.00049	.00384	-.00104	-.00156	-.00207	.03956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311036304 Acquired: 11/13/2013 13:01:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00752**	**.00296**	**-.00012**	**.00124**	**.00014**	**.00099**	**.04302**
Stddev	.00020	.00003	.00125	.00147	.00019	.00011	.11479
%RSD	2.6245	.85153	1025.0	118.49	139.74	10.837	266.85
#1	-.00749	.00298	-.00155	-.00041	-.00001	.00101	.14770
#2	-.00735	.00293	.00075	.00174	.00006	.00087	-.07974
#3	-.00774	.00297	.00044	.00239	.00035	.00108	.06109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23364.**	**31331.**
Stddev	22.	138.
%RSD	.09305	.43910
#1	23383.	31357.
#2	23340.	31454.
#3	23368.	31182.

Approved: November 14, 2013

Sample Name: L1311036306 Acquired: 11/13/2013 13:05:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**-.01370**	**.00053**	**.00620**	**.00030**	**.00001**	**.72313**
Stddev	.00024	.01405	.00069	.00051	.00015	.00002	.01142
%RSD	62.057	102.55	130.16	8.1671	48.895	294.88	1.5789
#1	-.00028	-.01892	-.00025	.00562	.00029	.00000	.73544
#2	-.00021	.00221	.00076	.00657	.00046	-.00001	.72107
#3	-.00066	-.02439	.00108	.00639	.00016	.00003	.71289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00012**	**.00007**	**.00010**	**-.00150**	**.65896**	**.00028**
Stddev	.00011	.00002	.00030	.00011	.00066	.01273	.00154
%RSD	284.29	14.273	436.32	117.68	43.728	1.9320	543.08
#1	.00008	.00013	-.00008	.00000	-.00210	.64958	.00204
#2	-.00010	.00010	.00042	.00006	-.00159	.67345	-.00039
#3	-.00010	.00013	-.00013	.00022	-.00080	.65384	-.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9340**	**.00003**	**-.00003**	**11.250**	**-.00064**	**.00280**	**-.00018**
Stddev	.0305	.00005	.00008	.058	.00045	.00461	.00038
%RSD	1.5788	137.26	298.58	.51274	70.807	164.79	215.89
#1	1.9415	.00000	-.00006	11.315	-.00020	-.00042	-.00059
#2	1.9601	.00009	.00007	11.229	-.00061	.00074	.00015
#3	1.9004	.00002	-.00009	11.205	-.00111	.00808	-.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311036306 Acquired: 11/13/2013 13:05:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00134**	**.00135**	**.03990**	**-.00742**	**.00298**	**-.00070**	**.00050**
Stddev	.00148	.00135	.00146	.00035	.00007	.00109	.00097
%RSD	110.66	99.342	3.6672	4.6709	2.5029	156.75	195.41
#1	.00037	-.00004	.03974	-.00777	.00298	-.00130	.00019
#2	-.00228	.00264	.03852	-.00708	.00306	.00056	-.00028
#3	-.00211	.00147	.04144	-.00740	.00291	-.00136	.00159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00016**	**.00176**	F **-.14722**
Stddev	.00025	.00008	.16482
%RSD	155.64	4.4569	111.95
#1	-.00009	.00178	.03768
#2	.00016	.00167	-.20062
#3	.00040	.00182	-.27872
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23376.**	**31478.**
Stddev	108.	170.
%RSD	.46155	.54014
#1	23495.	31562.
#2	23349.	31590.
#3	23285.	31283.

Approved: November 14, 2013

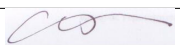
Sample Name: L1311036308 Acquired: 11/13/2013 13:08:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**-.00690**	**.00040**	**.00535**	**.00053**	**.00004**	**.59463**	**.00004**
Stddev	.00043	.01315	.00064	.00037	.00016	.00001	.00915	.00014
%RSD	1441.3	190.46	158.92	6.9886	31.071	37.838	1.5380	367.79
#1	-.00040	.00555	.00022	.00531	.00066	.00003	.60495	-.00011
#2	.00045	-.00561	-.00012	.00501	.00034	.00003	.59141	.00017
#3	-.00014	-.02065	.00111	.00575	.00059	.00006	.58754	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00007**	**.00037**	**.00087**	**.82760**	**.00167**	**1.8003**	**.00258**
Stddev	.00006	.00042	.00035	.00022	.01743	.00069	.0293	.00004
%RSD	25.173	566.23	95.298	25.583	2.1055	41.203	1.6296	1.4461
#1	.00021	-.00018	.00051	.00098	.84769	.00090	1.8338	.00254
#2	.00021	.00056	.00063	.00101	.81852	.00186	1.7793	.00261
#3	.00032	-.00015	-.00003	.00061	.81658	.00223	1.7878	.00260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**11.277**	**-.00027**	**.00244**	**.00033**	**-.00060**	**-.00045**	**.02910**
Stddev	.00012	.055	.00118	.00178	.00140	.00123	.00170	.00055
%RSD	709.31	.48378	431.78	72.778	418.87	203.66	377.34	1.8906
#1	-.00003	11.335	.00049	.00042	.00169	-.00033	-.00155	.02952
#2	-.00012	11.269	.00032	.00376	.00043	.00046	-.00131	.02931
#3	.00011	11.227	-.00164	.00315	-.00111	-.00194	.00151	.02848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

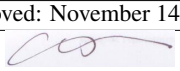


Sample Name: L1311036308 Acquired: 11/13/2013 13:08:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00745**	**.00257**	**-.00016**	**.00163**	**.00013**	**.00148**	**.13731**
Stddev	.00038	.00003	.00086	.00201	.00022	.00008	.06805
%RSD	5.1289	1.1383	527.29	123.83	173.68	5.3926	49.557
#1	-.00722	.00257	-.00010	-.00030	-.00009	.00145	.09502
#2	-.00724	.00260	-.00105	.00371	.00012	.00157	.10110
#3	-.00790	.00254	.00066	.00147	.00036	.00142	.21580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23401.**	**31424.**
Stddev	34.	93.
%RSD	.14651	.29707
#1	23432.	31480.
#2	23407.	31477.
#3	23364.	31317.

Approved: November 14, 2013



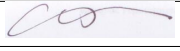
Sample Name: L1311037402 Acquired: 11/13/2013 13:12:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**-.00355**	**.00051**	**.00434**	**.00010**	**.00003**	**3.6999**	**.00003**
Stddev	.00028	.01156	.00107	.00053	.00016	.00001	.0032	.00004
%RSD	112.48	325.41	206.87	12.208	164.06	44.130	.08623	122.78
#1	-.00007	.00829	.00123	.00496	-.00002	.00004	3.6968	.00007
#2	.00039	-.00415	.00102	.00405	.00003	.00002	3.6999	.00001
#3	.00044	-.01480	-.00071	.00403	.00028	.00002	3.7032	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00006**	**-.00003**	**.02281**	**.01526**	**-.00129**	**.77701**	**.01043**
Stddev	.00003	.00006	.00057	.00376	.00665	.00050	.00663	.00006
%RSD	8.3681	93.072	1694.5	16.472	43.574	38.425	.85265	.61541
#1	.00029	.00008	.00060	.02274	.00903	-.00074	.77996	.01045
#2	.00029	.00011	-.00048	.02660	.01449	-.00145	.76942	.01048
#3	.00034	.00000	-.00022	.01909	.02226	-.00170	.78165	.01035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**5.0669**	**-.00065**	**.00274**	**.00120**	**-.00175**	**-.00145**	**.02724**
Stddev	.00024	.0178	.00035	.00118	.00108	.00025	.00078	.00075
%RSD	168.34	.35155	53.907	42.864	90.117	14.246	54.081	2.7578
#1	-.00043	5.0874	-.00066	.00237	.00199	-.00149	-.00233	.02692
#2	-.00001	5.0573	-.00030	.00406	-.00003	-.00199	-.00086	.02671
#3	.00000	5.0559	-.00100	.00180	.00163	-.00176	-.00115	.02810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311037402 Acquired: 11/13/2013 13:12:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00760**	**.04044**	**.00022**	**.00221**	**.00008**	**.00101**	**.04739**
Stddev	.00012	.00015	.00100	.00069	.00024	.00010	.28549
%RSD	1.6419	.37235	459.01	31.255	281.04	9.7040	602.39
#1	-.00762	.04032	.00082	.00255	.00035	.00097	.35645
#2	-.00771	.04039	-.00094	.00266	-.00011	.00093	-.00781
#3	-.00746	.04061	.00077	.00141	.00002	.00112	-.20646
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23520.**	**31525.**
Stddev	32.	101.
%RSD	.13578	.32164
#1	23485.	31639.
#2	23547.	31491.
#3	23529.	31445.

Approved: November 14, 2013

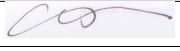
Sample Name: CCV Acquired: 11/13/2013 13:16:09 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41401**	**10.264**	**.40883**	**.51998**	**1.0234**	**.04935**	**9.8813**
Stddev	.00110	.051	.00089	.00211	.0041	.00016	.0441
%RSD	.26584	.50125	.21713	.40631	.39822	.32281	.44623
#1	.41408	10.295	.40900	.51869	1.0188	.04951	9.9283
#2	.41287	10.205	.40962	.51883	1.0246	.04937	9.8408
#3	.41507	10.293	.40787	.52242	1.0267	.04919	9.8747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05116**	**.20676**	**.50930**	**.52060**	**4.1084**	**51.181**	**.99941**
Stddev	.00010	.00022	.00163	.00016	.0120	.130	.00094
%RSD	.20483	.10734	.32059	.03099	.29136	.25449	.09391
#1	.05107	.20692	.51115	.52043	4.0962	51.057	.99986
#2	.05113	.20650	.50805	.52075	4.1202	51.171	.99833
#3	.05128	.20685	.50871	.52063	4.1088	51.316	1.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9454**	**.50291**	**1.0307**	**48.918**	**.51829**	**10.058**	**.52717**
Stddev	.0332	.00126	.0018	.018	.00081	.017	.00029
%RSD	.33355	.25116	.17787	.03762	.15537	.17061	.05454
#1	9.9820	.50296	1.0328	48.938	.51862	10.067	.52698
#2	9.9174	.50163	1.0297	48.915	.51889	10.038	.52703
#3	9.9367	.50416	1.0296	48.902	.51738	10.069	.52750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



Sample Name: CCV Acquired: 11/13/2013 13:16:09 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2336**	**.41411**	**5.3287**	**1.0580**	**1.0104**	**1.0162**	**.52637**
Stddev	.0037	.00218	.0043	.0166	.0032	.0006	.00132
%RSD	.30305	.52628	.08014	1.5730	.31332	.05567	.25105
#1	1.2378	.41650	5.3334	1.0671	1.0127	1.0166	.52586
#2	1.2307	.41224	5.3249	1.0681	1.0068	1.0165	.52787
#3	1.2323	.41359	5.3279	1.0388	1.0117	1.0155	.52537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0108**	**1.0308**	F **1.4368**
Stddev	.0016	.0011	.2556
%RSD	.15469	.10441	17.787
#1	1.0126	1.0296	1.6948
#2	1.0097	1.0316	1.1837
#3	1.0102	1.0313	1.4318
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23170.**	**31618.**
Stddev	22.	57.
%RSD	.09339	.17981
#1	23156.	31634.
#2	23160.	31666.
#3	23195.	31555.

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 13:19:26 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**-.00554**	**.00006**	**.00106**	**.00025**	**.00000**	**-.00173**	**.00010**
Stddev	.00025	.00691	.00025	.00098	.00006	.0000	.00519	.00014
%RSD	75.868	124.69	402.07	92.319	23.955	6384.0	300.53	131.36
#1	.00035	-.01159	.00016	.00215	.00030	-.00001	.00105	-.00005
#2	.00007	.00199	.00025	.00077	.00019	.00001	-.00771	.00019
#3	.00058	-.00703	-.00022	.00026	.00026	.00000	.00149	.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00005**	**-.00002**	**.00135**	**.04272**	**-.00153**	**-.00075**	**.00003**
Stddev	.00017	.00013	.00013	.00251	.02469	.00123	.00195	.00002
%RSD	129.92	242.69	689.84	186.28	57.801	80.472	260.26	56.795
#1	.00023	.00016	-.00017	-.00149	.05254	-.00126	-.00191	.00002
#2	-.00006	.00009	.00006	.00330	.01463	-.00045	.00151	.00005
#3	.00023	-.00009	.00005	.00224	.06100	-.00286	-.00185	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00576**	**.02044**	**-.00057**	**.00337**	**.00050**	**.00744**	**.00349**	**.00319**
Stddev	.00025	.00334	.00078	.00085	.00058	.00121	.00255	.00223
%RSD	4.3273	16.354	138.51	25.085	117.09	16.328	73.061	69.823
#1	.00547	.01676	-.00147	.00298	.00117	.00870	.00479	.00231
#2	.00591	.02130	-.00020	.00434	.00023	.00628	.00055	.00573
#3	.00589	.02328	-.00004	.00279	.00009	.00734	.00514	.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 13:19:26 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00130**	**.00009**	**-.00057**	**-.00080**	**.00014**	**.00012**	**-.08512**
Stddev	.00066	.00003	.00083	.00075	.00019	.00006	.28508
%RSD	50.372	30.081	146.00	93.841	133.52	53.739	334.89
#1	.00138	.00012	-.00015	-.00100	.00034	.00006	-.35310
#2	.00191	.00007	-.00003	-.00143	.00014	.00012	.21442
#3	.00061	.00008	-.00152	.00003	-.00005	.00019	-.11669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23300.**	**31692.**
Stddev	22.	111.
%RSD	.09573	.34910
#1	23309.	31768.
#2	23316.	31565.
#3	23274.	31743.

Approved: November 14, 2013

Sample Name: LLCCV Acquired: 11/13/2013 13:23:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00747**	**.16378**	**.00686**	**.01012**	**.01698**	**.00082**	**.16886**	**.00104**
Stddev	.00054	.00574	.00047	.00005	.00009	.00002	.00889	.00007
%RSD	7.2065	3.5050	6.7893	.52821	.50115	1.9891	5.2673	6.7602
#1	.00789	.15858	.00651	.01018	.01692	.00084	.17555	.00102
#2	.00686	.16283	.00739	.01010	.01708	.00082	.15876	.00099
#3	.00766	.16994	.00668	.01008	.01693	.00080	.17226	.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00348**	**.00872**	**.00880**	**.07110**	**.81121**	**.01396**	**.17298**	**.00885**
Stddev	.00006	.00035	.00033	.00280	.00702	.00192	.01024	.00012
%RSD	1.6585	3.9903	3.7621	3.9420	.86575	13.785	5.9195	1.4103
#1	.00352	.00880	.00918	.06867	.81083	.01203	.16124	.00873
#2	.00349	.00834	.00859	.07417	.81842	.01397	.18004	.00886
#3	.00341	.00903	.00863	.07047	.80439	.01588	.17766	.00898
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01780**	**.82158**	**.00810**	**.16834**	**.00805**	**.02195**	**.00560**	**.08878**
Stddev	.00030	.00479	.00049	.00397	.00069	.00062	.00050	.00069
%RSD	1.6898	.58309	6.0574	2.3606	8.5658	2.8131	8.8994	.77206
#1	.01755	.81750	.00836	.16553	.00761	.02252	.00502	.08816
#2	.01813	.82686	.00840	.17289	.00769	.02130	.00588	.08868
#3	.01772	.82039	.00753	.16660	.00884	.02202	.00589	.08952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: LLCCV Acquired: 11/13/2013 13:23:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01826**	**.01657**	**.01666**	**.00906**	**.01725**	**.01848**	**.07227**
Stddev	.00026	.00008	.00010	.00084	.00016	.00013	.35908
%RSD	1.4209	.46037	.57470	9.2155	.91912	.71555	496.84
#1	.01817	.01648	.01662	.00888	.01709	.01838	.28025
#2	.01855	.01658	.01659	.00997	.01726	.01863	.27892
#3	.01805	.01663	.01677	.00833	.01741	.01843	-.34235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23355.**	**31648.**
Stddev	30.	192.
%RSD	.12805	.60519
#1	23345.	31764.
#2	23388.	31753.
#3	23331.	31427.

Approved: November 14, 2013

Sample Name: LLCCV Acquired: 11/13/2013 13:26:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**.14738**	**-.00068**	**.00117**	**.00019**	**.00155**	**.40959**
Stddev	.00047	.01294	.00146	.00039	.00024	.00002	.00671
%RSD	70.421	8.7793	213.23	33.456	122.42	1.0118	1.6387
#1	.00014	.15908	.00073	.00072	.00015	.00154	.40830
#2	.00080	.14958	-.00060	.00139	.00045	.00155	.40362
#3	.00105	.13349	-.00218	.00141	-.00002	.00157	.41685
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00006**	**-.00005**	**.00008**	**.07512**	**.87034**	**-.00218**
Stddev	.00011	.00023	.00045	.00025	.00064	.03579	.00021
%RSD	110.59	415.06	889.54	320.21	.85198	4.1120	9.8195
#1	.00002	-.00018	-.00053	.00036	.07557	.84296	-.00195
#2	.00023	.00008	.00036	-.00006	.07439	.85723	-.00223
#3	.00006	.00027	.00001	-.00007	.07541	.91083	-.00237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.43029**	**.00008**	**.00047**	**.42512**	**.00017**	**.00124**	**.00043**
Stddev	.00523	.00006	.00021	.00784	.00041	.00165	.00059
%RSD	1.2148	78.170	44.268	1.8433	237.02	133.92	135.94
#1	.42667	.00012	.00063	.41689	.00022	.00244	.00087
#2	.43628	.00009	.00023	.43249	-.00026	.00191	.00067
#3	.42792	.00001	.00056	.42599	.00056	-.00065	-.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: LLCCV Acquired: 11/13/2013 13:26:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00316**	**-.00041**	**.00057**	**.28191**	**.00005**	**-.00016**	**-.00033**
Stddev	.00120	.00035	.00119	.02098	.00005	.00111	.00084
%RSD	37.904	85.460	208.35	7.4427	90.924	706.32	254.20
#1	.00357	-.00001	.00057	.29647	.00009	.00086	.00062
#2	.00181	-.00058	.00176	.29140	.00000	.00001	-.00097
#3	.00409	-.00064	-.00062	.25786	.00007	-.00134	-.00064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00025**	**.00164**	F **-.18999**
Stddev	.00006	.00001	.04864
%RSD	23.139	.55669	25.603
#1	.00031	.00164	-.21475
#2	.00024	.00164	-.13395
#3	.00019	.00165	-.22126
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23534.**	**31508.**
Stddev	26.	53.
%RSD	.11196	.16710
#1	23560.	31491.
#2	23537.	31567.
#3	23507.	31466.

Approved: November 14, 2013

Sample Name: L1311046501 Acquired: 11/13/2013 13:30:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.06545**	**.00001**	**.00619**	**.00402**	**.00005**	**6.4837**	**.00007**
Stddev	.00022	.02205	.00089	.00158	.00005	.00002	.0230	.00006
%RSD	63.233	33.691	15994.	25.613	1.2668	39.638	.35467	79.009
#1	.00042	.05103	.00006	.00797	.00407	.00007	6.4795	.00002
#2	.00010	.05448	-.00091	.00566	.00403	.00004	6.4631	.00006
#3	.00052	.09083	.00087	.00493	.00397	.00003	6.5085	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00028**	**.00045**	**.07662**	**.25470**	**.00004**	**1.2245**	**.00154**
Stddev	.00016	.00039	.00019	.00308	.02460	.00099	.0148	.00010
%RSD	74.059	138.98	40.854	4.0249	9.6600	2302.4	1.2107	6.3988
#1	.00003	.00000	.00035	.07749	.24364	.00056	1.2175	.00160
#2	.00033	.00012	.00034	.07918	.28289	.00067	1.2416	.00160
#3	.00029	.00072	.00067	.07320	.23756	-.00110	1.2145	.00143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**2.7737**	**-.00011**	**.00641**	**.00082**	**.00038**	**-.00031**	**1.9342**
Stddev	.00020	.0121	.00028	.00356	.00152	.00127	.00172	.0130
%RSD	122.01	.43577	260.83	55.569	185.89	332.75	562.84	.67167
#1	.00033	2.7793	-.00042	.00278	-.00005	-.00036	-.00170	1.9426
#2	-.00006	2.7819	.00009	.00656	-.00007	-.00034	-.00084	1.9407
#3	.00023	2.7598	.00002	.00990	.00257	.00184	.00162	1.9192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311046501 Acquired: 11/13/2013 13:30:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00714**	**.04337**	**.00148**	**.00124**	**.00054**	**.00187**	**.56606**
Stddev	.00037	.00033	.00020	.00147	.00004	.00009	.13407
%RSD	5.1642	.74990	13.677	118.40	7.0404	4.5562	23.685
#1	-.00740	.04303	.00144	-.00012	.00056	.00183	.69343
#2	-.00730	.04368	.00170	.00281	.00057	.00182	.57858
#3	-.00672	.04339	.00130	.00104	.00050	.00197	.42616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23595.**	**31828.**
Stddev	33.	77.
%RSD	.14138	.24102
#1	23577.	31859.
#2	23575.	31884.
#3	23634.	31740.

Approved: November 14, 2013

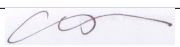
Sample Name: L1311046502 Acquired: 11/13/2013 13:33:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**.00184**	**-.00057**	**.00909**	**.00459**	**.00004**	**8.0447**	**.00006**
Stddev	.00047	.00931	.00127	.00083	.00003	.00000	.0111	.00008
%RSD	80.658	505.55	221.01	9.0859	.59348	6.6553	.13745	143.43
#1	.00004	.00082	-.00069	.00966	.00459	.00004	8.0346	.00004
#2	.00091	-.00691	.00075	.00947	.00457	.00004	8.0429	-.00002
#3	.00080	.01162	-.00178	.00814	.00462	.00004	8.0565	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.00039**	**-.00009**	**.01287**	**.28238**	**-.00064**	**1.5054**	**.00026**
Stddev	.00006	.00017	.00031	.00007	.01994	.00111	.0035	.00004
%RSD	40.289	42.260	335.47	.52932	7.0619	171.65	.22964	14.918
#1	.00021	.00056	.00020	.01291	.29443	-.00088	1.5024	.00023
#2	.00014	.00023	-.00007	.01279	.29334	-.00161	1.5092	.00030
#3	.00009	.00038	-.00042	.01291	.25936	.00056	1.5045	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**3.3767**	**-.00020**	**.00274**	**.00073**	**-.00122**	**.00010**	**1.6905**
Stddev	.00013	.0075	.00017	.00367	.00055	.00202	.00117	.0247
%RSD	225.35	.22317	85.361	133.87	75.945	166.28	1232.0	1.4601
#1	-.00009	3.3759	-.00009	-.00089	.00095	.00087	.00098	1.6882
#2	.00014	3.3695	-.00012	.00267	.00113	-.00317	-.00123	1.6671
#3	.00014	3.3845	-.00041	.00645	.00010	-.00135	.00054	1.7163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

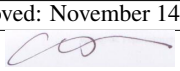


Sample Name: L1311046502 Acquired: 11/13/2013 13:33:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00728**	**.05770**	**.00040**	**.00012**	**.00029**	**.00074**	**.24860**
Stddev	.00014	.00038	.00048	.00023	.00019	.00006	.09800
%RSD	1.9888	.65873	120.19	191.21	65.204	7.9383	39.420
#1	-.00721	.05746	.00086	.00035	.00042	.00071	.13703
#2	-.00718	.05750	.00044	-.00011	.00038	.00081	.32075
#3	-.00745	.05814	-.00010	.00012	.00007	.00071	.28801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23652.**	**31876.**
Stddev	86.	88.
%RSD	.36253	.27650
#1	23569.	31945.
#2	23740.	31776.
#3	23648.	31906.

Approved: November 14, 2013



Sample Name: L1311046503 Acquired: 11/13/2013 13:37:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**-.00147**	**.00025**	**.00340**	**.00833**	**.00002**	**3.7022**	**.00006**
Stddev	.00006	.00697	.00158	.00047	.00020	.00003	.0115	.00011
%RSD	11.333	473.42	631.45	13.861	2.3507	133.66	.31123	188.73
#1	.00051	.00631	.00142	.00287	.00810	.00000	3.7020	-.00004
#2	.00056	-.00716	-.00154	.00374	.00846	.00006	3.6907	.00018
#3	.00064	-.00357	.00087	.00361	.00843	.00001	3.7138	.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00030**	**.00013**	**.00326**	**.29640**	**-.00198**	**.66159**	**.00017**
Stddev	.00012	.00044	.00056	.00256	.01157	.00059	.01378	.00005
%RSD	559.77	143.61	440.03	78.442	3.9049	29.987	2.0825	32.365
#1	-.00006	.00012	.00000	.00112	.29921	-.00155	.65335	.00019
#2	-.00003	.00080	.00074	.00609	.28368	-.00265	.65393	.00020
#3	.00015	-.00001	-.00035	.00257	.30631	-.00172	.67750	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**1.7718**	**-.00050**	**.00186**	**.00067**	**.00126**	**.00087**	**1.6429**
Stddev	.00007	.0080	.00016	.00391	.00117	.00118	.00099	.0091
%RSD	204.96	.45260	31.508	210.01	174.94	93.525	114.70	.55235
#1	.00000	1.7626	-.00059	.00052	-.00018	.00253	.00035	1.6401
#2	.00011	1.7771	-.00032	.00626	.00201	.00021	.00024	1.6355
#3	-.00001	1.7757	-.00059	-.00120	.00018	.00103	.00201	1.6530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311046503 Acquired: 11/13/2013 13:37:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00738**	**.03364**	**-.00058**	**-.00108**	**.00074**	**.00117**	**-.00286**
Stddev	.00023	.00032	.00017	.00169	.00022	.00004	.13764
%RSD	3.0566	.95937	30.180	156.67	29.826	3.1017	4807.0
#1	-.00713	.03329	-.00056	-.00071	.00050	.00113	-.03545
#2	-.00758	.03374	-.00041	-.00293	.00077	.00119	-.12128
#3	-.00742	.03391	-.00076	.00040	.00094	.00119	.14815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23544.**	**31897.**
Stddev	44.	15.
%RSD	.18481	.04689
#1	23503.	31881.
#2	23540.	31911.
#3	23589.	31899.

Approved: November 14, 2013

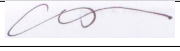
Sample Name: CCV Acquired: 11/13/2013 13:40:41 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41706**	**10.236**	**.40851**	**.52285**	**1.0339**	**.05033**	**9.9160**
Stddev	.00101	.031	.00227	.00161	.0020	.00015	.0228
%RSD	.24182	.30464	.55455	.30846	.19327	.29366	.22981
#1	.41731	10.238	.40966	.52247	1.0317	.05041	9.9244
#2	.41791	10.266	.40590	.52147	1.0346	.05016	9.9334
#3	.41594	10.204	.40996	.52462	1.0355	.05041	9.8902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05156**	**.20786**	**.51867**	**.52380**	**4.1439**	**51.401**	**1.0058**
Stddev	.00006	.00023	.00083	.00062	.0057	.045	.0011
%RSD	.12573	.10851	.15963	.11883	.13763	.08757	.10597
#1	.05162	.20808	.51873	.52408	4.1422	51.443	1.0067
#2	.05149	.20763	.51781	.52308	4.1393	51.406	1.0061
#3	.05156	.20789	.51947	.52423	4.1503	51.354	1.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.044**	**.50720**	**1.0380**	**49.910**	**.52124**	**10.153**	**.52668**
Stddev	.047	.00127	.0005	.053	.00093	.007	.00028
%RSD	.46406	.25006	.04659	.10661	.17815	.06947	.05377
#1	10.096	.50761	1.0374	49.890	.52129	10.155	.52653
#2	10.006	.50578	1.0383	49.870	.52214	10.158	.52651
#3	10.031	.50821	1.0382	49.970	.52028	10.145	.52701
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



Sample Name: CCV Acquired: 11/13/2013 13:40:41 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2441**	**.41456**	**5.3086**	**1.0653**	**1.0070**	**1.0228**	**.53005**
Stddev	.0018	.00159	.0026	.0001	.0034	.0018	.00135
%RSD	.14048	.38276	.04900	.01341	.33775	.17381	.25389
#1	1.2456	.41633	5.3095	1.0653	1.0099	1.0245	.53051
#2	1.2446	.41326	5.3106	1.0654	1.0077	1.0231	.53110
#3	1.2422	.41409	5.3057	1.0651	1.0033	1.0209	.52853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0244**	**1.0342**	F **1.2599**
Stddev	.0025	.0007	.1477
%RSD	.24195	.07160	11.719
#1	1.0253	1.0343	1.4217
#2	1.0215	1.0334	1.2258
#3	1.0262	1.0349	1.1323
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23058.**	**31610.**
Stddev	33.	82.
%RSD	.14142	.25800
#1	23073.	31646.
#2	23081.	31668.
#3	23021.	31517.

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 13:43:57 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00040**	**-.01226**	**-.00004**	**.00185**	**.00006**	**-.00002**	**.00187**
Stddev	.00021	.01455	.00102	.00059	.00022	.00002	.00294
%RSD	51.480	118.70	2530.1	31.774	343.68	115.09	157.59
#1	.00016	-.01037	-.00100	.00251	-.00015	-.00003	.00472
#2	.00054	-.02766	-.00016	.00164	.00030	-.00001	.00204
#3	.00050	.00125	.00103	.00140	.00004	.00000	-.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00009**	**-.00008**	**.00054**	**-.00310**	**.04763**	**-.00152**
Stddev	.00008	.00009	.00019	.00047	.00440	.04484	.00127
%RSD	66.425	94.745	258.44	87.960	142.07	94.139	83.736
#1	.00022	.00013	.00014	.00005	-.00579	.01505	-.00026
#2	.00006	.00015	-.00024	.00099	-.00547	.02907	-.00150
#3	.00010	-.00001	-.00012	.00058	.00198	.09876	-.00280
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00665**	**.00006**	**.00547**	**.02113**	**-.00026**	**.00281**	**.00026**
Stddev	.00365	.00000	.00038	.00380	.00049	.00047	.00172
%RSD	54.922	5.4282	6.9225	17.961	186.11	16.572	661.57
#1	-.01057	.00006	.00504	.01678	-.00081	.00227	-.00074
#2	-.00604	.00006	.00570	.02377	.00014	.00305	-.00073
#3	-.00334	.00006	.00569	.02284	-.00012	.00310	.00225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 13:43:57 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00754**	**.00539**	**.00163**	**.00133**	**.00017**	**-.00038**	**.00068**
Stddev	.00016	.00025	.00037	.00047	.00007	.00193	.00048
%RSD	2.0712	4.5914	22.619	35.345	37.656	501.55	69.892
#1	.00738	.00567	.00137	.00082	.00010	.00101	.00041
#2	.00769	.00521	.00205	.00142	.00020	-.00258	.00123
#3	.00755	.00529	.00147	.00174	.00022	.00042	.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00012**	**.00006**	F **-.14372**
Stddev	.00011	.00009	.08760
%RSD	87.539	153.41	60.952
#1	.00000	.00002	-.04284
#2	.00015	.00000	-.20057
#3	.00021	.00017	-.18774
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23269.**	**31364.**
Stddev	21.	107.
%RSD	.08994	.34172
#1	23252.	31274.
#2	23292.	31482.
#3	23263.	31335.

Approved: November 14, 2013

Sample Name: PBW A7 Acquired: 11/13/2013 13:47:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00023**	**-.00096**	**.00120**	**.00038**	**.00000**	**.12681**	**.00008**
Stddev	.00020	.01387	.00021	.00077	.00007	.00001	.01367	.00011
%RSD	86.253	6111.6	22.302	64.480	18.576	928.79	10.778	135.38
#1	.00034	.01212	-.00104	.00209	.00040	.00001	.13498	.00001
#2	.00000	-.01500	-.00112	.00067	.00030	.00001	.11103	.00021
#3	.00037	.00356	-.00071	.00084	.00043	-.00002	.13443	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**-.00010**	**.00018**	**.00179**	**.04268**	**-.00233**	**.01772**	**.00088**
Stddev	.00019	.00020	.00006	.00197	.05267	.00066	.00482	.00002
%RSD	558.77	203.09	33.806	110.43	123.42	28.090	27.182	1.7714
#1	-.00016	-.00020	.00017	.00194	-.01393	-.00158	.02083	.00087
#2	.00005	.00013	.00025	-.00026	.09024	-.00266	.01217	.00090
#3	.00022	-.00023	.00012	.00368	.05172	-.00276	.02016	.00087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00091**	**.04913**	**-.00019**	**.00492**	**-.00021**	**.00170**	**-.00006**	**.01035**
Stddev	.00005	.00628	.00082	.00225	.00030	.00198	.00267	.00065
%RSD	5.6106	12.780	434.89	45.779	141.52	116.33	4355.7	6.3289
#1	.00097	.04359	.00075	.00268	-.00033	-.00013	-.00311	.01096
#2	.00090	.05595	-.00079	.00490	-.00043	.00143	.00187	.00966
#3	.00087	.04784	-.00053	.00719	.00013	.00380	.00105	.01042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: PBW A7 Acquired: 11/13/2013 13:47:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00513**	**.00039**	**.00008**	**.00069**	**.00010**	**.00936**	**-.00104**
Stddev	.00013	.00006	.00086	.00033	.00025	.00009	.17183
%RSD	2.4992	16.483	1043.1	47.523	244.48	.91083	16461.
#1	-.00527	.00032	-.00038	.00063	.00001	.00934	.19730
#2	-.00503	.00040	.00107	.00104	.00039	.00946	-.09576
#3	-.00509	.00044	-.00045	.00040	-.00009	.00930	-.10468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23451.**	**31591.**
Stddev	98.	114.
%RSD	.41586	.35982
#1	23562.	31546.
#2	23406.	31721.
#3	23383.	31508.

Approved: November 14, 2013

Sample Name: F BLANK Acquired: 11/13/2013 13:51:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WWG452244-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**-.01035**	**-.00181**	**.00073**	**.00013**	**.00003**	**.01123**	**.00021**
Stddev	.00036	.01489	.00048	.00012	.00013	.00003	.00749	.00009
%RSD	195.42	143.84	26.530	16.585	99.780	83.563	66.669	42.000
#1	.00032	-.02562	-.00127	.00064	.00029	.00002	.01495	.00024
#2	.00046	-.00957	-.00196	.00087	.00007	.00006	.00261	.00028
#3	-.00022	.00413	-.00219	.00069	.00004	.00001	.01613	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00018**	**.00147**	**-.00077**	**.06627**	**-.00135**	**.00352**	**.00028**
Stddev	.00008	.00031	.00041	.00150	.02698	.00128	.01064	.00002
%RSD	1633.0	177.13	28.061	193.89	40.702	95.042	302.75	8.9479
#1	-.00002	.00043	.00184	-.00098	.07097	-.00178	-.00263	.00030
#2	-.00005	.00027	.00102	.00082	.09059	-.00236	.01580	.00027
#3	.00009	-.00017	.00154	-.00216	.03726	.00009	-.00262	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**.03106**	**.00020**	**.00160**	**-.00024**	**.00135**	**.00111**	**.00177**
Stddev	.00012	.00542	.00064	.00265	.00119	.00117	.00163	.00076
%RSD	29.223	17.466	320.09	165.24	504.67	86.316	147.03	42.938
#1	.00034	.02674	.00001	.00456	.00006	.00225	.00041	.00237
#2	.00037	.03715	-.00033	.00082	.00078	.00178	-.00005	.00092
#3	.00057	.02929	.00091	-.00056	-.00155	.00003	.00297	.00204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: F BLANK Acquired: 11/13/2013 13:51:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WWG452244-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00667**	**-.00006**	**.00000**	**-.00097**	**.00015**	**.00547**	**.15129**
Stddev	.00022	.00005	.0007	.00143	.00007	.00011	.07052
%RSD	3.2747	75.925	30507.	147.98	49.300	2.0480	46.614
#1	-.00644	-.00004	-.00051	-.00204	.00011	.00546	.12080
#2	-.00688	-.00003	-.00023	.00066	.00011	.00559	.10114
#3	-.00667	-.00012	.00074	-.00152	.00024	.00537	.23192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23557.**	**31750.**
Stddev	37.	24.
%RSD	.15752	.07435
#1	23529.	31735.
#2	23599.	31777.
#3	23544.	31737.

Approved: November 14, 2013

Sample Name: LCSW A7 Acquired: 11/13/2013 13:54:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20405**	**4.9194**	**.19626**	**.99544**	**.48293**	**.02387**	**4.8500**	**.02463**
Stddev	.00122	.0171	.00028	.00679	.00050	.00010	.0248	.00014
%RSD	.59843	.34742	.14466	.68252	.10272	.41630	.51036	.57720
#1	.20276	4.8999	.19593	.99146	.48275	.02377	4.8547	.02453
#2	.20518	4.9261	.19641	1.0033	.48255	.02396	4.8720	.02479
#3	.20420	4.9321	.19644	.99158	.48349	.02389	4.8232	.02457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10106**	**.24473**	**.25125**	**1.9726**	**24.467**	**.47715**	**4.7971**	**.24455**
Stddev	.00025	.00077	.00014	.0040	.028	.00095	.0088	.00114
%RSD	.24518	.31661	.05641	.20139	.11447	.19840	.18267	.46792
#1	.10108	.24405	.25109	1.9710	24.443	.47616	4.8001	.24354
#2	.10129	.24557	.25129	1.9771	24.461	.47804	4.8039	.24579
#3	.10080	.24458	.25137	1.9697	24.498	.47725	4.7872	.24431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50348**	**23.794**	**.25076**	**.01396**	**.25774**	**.60417**	**.19957**	**2.6345**
Stddev	.00018	.057	.00034	.00222	.00075	.00227	.00239	.0144
%RSD	.03654	.24036	.13611	15.930	.29287	.37590	1.1983	.54621
#1	.50327	23.813	.25085	.01615	.25713	.60665	.20104	2.6359
#2	.50355	23.839	.25105	.01401	.25858	.60365	.19681	2.6194
#3	.50362	23.729	.25038	.01171	.25751	.60220	.20085	2.6481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: LCSW A7 Acquired: 11/13/2013 13:54:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.54187**	**.48457**	**.49006**	**.25874**	**.48556**	**.49569**	**.41660**
Stddev	.00191	.00132	.00093	.00122	.00107	.00057	.13865
%RSD	.35329	.27210	.18971	.47310	.21991	.11409	33.281
#1	.54181	.48533	.49113	.26003	.48440	.49635	.53210
#2	.53999	.48534	.48967	.25859	.48651	.49535	.45486
#3	.54382	.48305	.48940	.25760	.48576	.49539	.26284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23397.**	**31628.**
Stddev	58.	122.
%RSD	.24862	.38454
#1	23430.	31715.
#2	23330.	31489.
#3	23431.	31680.

Approved: November 14, 2013

Sample Name: L1311058401 Acquired: 11/13/2013 13:57:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**-.00491**	**.00069**	**.03003**	**.04336**	**.00004**	**26.036**
Stddev	.00078	.00852	.00036	.00128	.00025	.00001	.074
%RSD	156.56	173.61	51.935	4.2645	.56905	16.653	.28539
#1	.00139	-.00016	.00065	.03144	.04335	.00004	26.001
#2	.00015	-.01474	.00106	.02894	.04311	.00005	26.121
#3	-.00004	.00018	.00035	.02970	.04361	.00004	25.985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**-.00005**	**.00334**	**.00021**	**.00578**	**1.8140**	**.00628**
Stddev	.00011	.00003	.00056	.00033	.00273	.0323	.00071
%RSD	30.469	67.006	16.835	154.64	47.163	1.7824	11.244
#1	.00047	-.00004	.00276	.00046	.00565	1.7883	.00682
#2	.00025	-.00002	.00388	.00032	.00857	1.8503	.00548
#3	.00036	-.00008	.00338	-.00016	.00312	1.8035	.00653
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.0073**	**.00142**	**.00501**	**15.741**	**-.00104**	**.00428**	**.00236**
Stddev	.0203	.00006	.00037	.015	.00040	.00156	.00048
%RSD	.50626	4.5587	7.2960	.09672	38.540	36.354	20.530
#1	3.9910	.00136	.00465	15.727	-.00066	.00596	.00289
#2	4.0008	.00149	.00501	15.757	-.00100	.00289	.00193
#3	4.0300	.00142	.00538	15.740	-.00146	.00400	.00226
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311058401 Acquired: 11/13/2013 13:57:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00102**	**.00156**	**11.112**	**-.00695**	**.27035**	**-.00083**	**-.00070**
Stddev	.00094	.00165	.010	.00020	.00037	.00065	.00204
%RSD	92.445	106.15	.09249	2.8839	.13785	78.839	289.88
#1	.00079	.00320	11.124	-.00672	.27045	-.00158	.00158
#2	.00022	-.00011	11.107	-.00700	.27066	-.00037	-.00134
#3	.00206	.00158	11.106	-.00711	.26994	-.00054	-.00235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00700**	**.00594**	F **-.10800**
Stddev	.00008	.00011	.19972
%RSD	1.1883	1.8170	184.92
#1	.00709	.00586	-.00507
#2	.00694	.00606	-.33818
#3	.00696	.00589	.01926
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23362.**	**31766.**
Stddev	15.	152.
%RSD	.06352	.47850
#1	23379.	31897.
#2	23352.	31600.
#3	23354.	31802.

Approved: November 14, 2013

Sample Name: L1311058402S Acquired: 11/13/2013 14:01:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20520**	**4.8714**	**.19690**	**1.0407**	**.53309**	**.02457**	**30.648**	**.02486**
Stddev	.00036	.0152	.00207	.0058	.00099	.00007	.096	.00008
%RSD	.17497	.31121	1.0512	.55489	.18658	.27223	.31453	.34184
#1	.20486	4.8775	.19890	1.0347	.53346	.02450	30.540	.02478
#2	.20516	4.8542	.19477	1.0413	.53196	.02463	30.682	.02485
#3	.20557	4.8826	.19702	1.0462	.53385	.02458	30.724	.02495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10016**	**.25290**	**.24868**	**1.9895**	**26.474**	**.48720**	**8.7324**	**.24463**
Stddev	.00033	.00047	.00026	.0045	.055	.00052	.0491	.00043
%RSD	.32680	.18389	.10596	.22511	.20734	.10642	.56185	.17443
#1	.09984	.25245	.24896	1.9947	26.534	.48682	8.6759	.24430
#2	.10014	.25338	.24844	1.9870	26.427	.48700	8.7563	.24511
#3	.10050	.25289	.24864	1.9869	26.459	.48779	8.7649	.24447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50913**	**40.145**	**.24795**	**.01413**	**.25381**	**.60175**	**.19675**	**13.529**
Stddev	.00027	.070	.00030	.00230	.00150	.00433	.00234	.012
%RSD	.05216	.17554	.12270	16.283	.59094	.72033	1.1887	.08497
#1	.50912	40.082	.24826	.01148	.25290	.59848	.19471	13.537
#2	.50886	40.221	.24765	.01526	.25299	.60010	.19930	13.534
#3	.50939	40.133	.24796	.01564	.25554	.60667	.19624	13.516
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

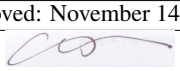
Approved: November 14, 2013

Sample Name: L1311058402S Acquired: 11/13/2013 14:01:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53575**	**.74325**	**.48947**	**.25002**	**.49785**	**.49630**	**.30007**
Stddev	.00344	.00169	.00076	.00137	.00134	.00069	.33591
%RSD	.64261	.22695	.15455	.54957	.26988	.13805	111.95
#1	.53390	.74184	.48860	.24918	.49633	.49608	.65659
#2	.53363	.74280	.49000	.24928	.49833	.49576	-.01050
#3	.53973	.74512	.48979	.25161	.49888	.49707	.25411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23145.**	**31564.**
Stddev	42.	20.
%RSD	.18025	.06178
#1	23155.	31542.
#2	23180.	31574.
#3	23099.	31577.

Approved: November 14, 2013



Sample Name: L1311058403SD Acquired: 11/13/2013 14:04:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20692**	**4.9734**	**.20159**	**1.0434**	**.53904**	**.02494**	**32.076**	**.02524**
Stddev	.00013	.0393	.00067	.0021	.00074	.00005	.207	.00009
%RSD	.06220	.79085	.33250	.19868	.13673	.20720	.64565	.33960
#1	.20680	4.9282	.20215	1.0419	.53949	.02489	31.839	.02518
#2	.20705	4.9997	.20084	1.0427	.53944	.02500	32.162	.02521
#3	.20690	4.9924	.20176	1.0458	.53819	.02493	32.225	.02534
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10185**	**.25558**	**.25279**	**2.0036**	**26.709**	**.50110**	**9.0289**	**.24901**
Stddev	.00016	.00054	.00051	.0174	.007	.00179	.0708	.00484
%RSD	.15598	.21124	.20220	.86977	.02520	.35642	.78415	1.9421
#1	.10167	.25497	.25303	2.0179	26.711	.49908	9.0199	.24543
#2	.10193	.25579	.25220	2.0087	26.714	.50173	9.1038	.24710
#3	.10195	.25598	.25314	1.9841	26.701	.50248	8.9631	.25451
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51880**	**41.692**	**.25151**	**.01115**	**.25735**	**.61561**	**.20300**	**13.820**
Stddev	.00096	.203	.00080	.00370	.00119	.00527	.00197	.026
%RSD	.18595	.48643	.31983	33.203	.46184	.85598	.97027	.18680
#1	.51773	41.546	.25059	.01499	.25701	.61649	.20169	13.801
#2	.51905	41.923	.25206	.01087	.25637	.60996	.20204	13.849
#3	.51961	41.605	.25188	.00760	.25867	.62039	.20526	13.809
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311058403SD Acquired: 11/13/2013 14:04:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452575-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.55165**	**.76551**	**.49861**	**.25506**	**.50470**	**.50289**	**.21365**
Stddev	.00361	.00446	.00130	.00417	.00143	.00068	.54146
%RSD	.65455	.58271	.26046	1.6334	.28424	.13605	253.43
#1	.55209	.76116	.49812	.25468	.50358	.50222	.19411
#2	.54783	.76530	.49763	.25110	.50420	.50359	-.31777
#3	.55501	.77007	.50008	.25940	.50632	.50287	.76462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22920.**	**31080.**
Stddev	30.	483.
%RSD	.13254	1.5529
#1	22899.	31447.
#2	22907.	31260.
#3	22955.	30533.

Approved: November 14, 2013

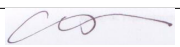
Sample Name: L1311041001 Acquired: 11/13/2013 14:07:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00054**	**2.0750**	**.00167**	**.03005**	**.02705**	**.00012**	**17.060**	**.00035**
Stddev	.00005	.0070	.00024	.00062	.00020	.00003	.012	.00005
%RSD	10.115	.33523	14.638	2.0598	.74167	21.750	.07049	15.218
#1	.00048	2.0758	.00156	.02936	.02682	.00015	17.066	.00039
#2	.00058	2.0815	.00150	.03024	.02720	.00013	17.068	.00037
#3	.00057	2.0677	.00195	.03055	.02713	.00009	17.047	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00101**	**.00312**	**.00574**	**2.9496**	**8.8281**	**.00174**	**8.3367**	**.02697**
Stddev	.00008	.00045	.00029	.0151	.0282	.00039	.0312	.00021
%RSD	7.4087	14.476	5.0207	.51063	.31907	22.391	.37423	.77665
#1	.00097	.00265	.00540	2.9670	8.8449	.00217	8.3597	.02692
#2	.00097	.00355	.00588	2.9411	8.7956	.00165	8.3012	.02720
#3	.00110	.00318	.00592	2.9407	8.8439	.00140	8.3491	.02679
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00483**	**3.3208**	**.00396**	**.59889**	**.00320**	**.00014**	**.00137**	**7.4042**
Stddev	.00008	.0067	.00046	.00376	.00118	.00197	.00216	.0123
%RSD	1.5814	.20286	11.713	.62862	36.805	1361.1	157.33	.16628
#1	.00476	3.3262	.00389	.59669	.00289	.00206	-.00085	7.4106
#2	.00483	3.3132	.00353	.60323	.00450	.00026	.00346	7.3900
#3	.00491	3.3229	.00445	.59674	.00221	-.00188	.00151	7.4120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

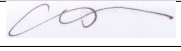


Sample Name: L1311041001 Acquired: 11/13/2013 14:07:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00673**	**.02801**	**.04190**	**.00039**	**.00450**	**.02951**	**1.6851**
Stddev	.00036	.00018	.00047	.00057	.00014	.00006	.1581
%RSD	5.3557	.62861	1.1108	145.82	3.1934	.20623	9.3825
#1	-.00634	.02817	.04140	.00028	.00466	.02954	1.6843
#2	-.00681	.02804	.04232	.00101	.00438	.02956	1.8436
#3	-.00705	.02783	.04200	-.00012	.00446	.02945	1.5274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23533.**	**31603.**
Stddev	50.	30.
%RSD	.21374	.09379
#1	23568.	31600.
#2	23555.	31575.
#3	23475.	31634.

Approved: November 14, 2013



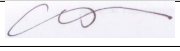
Sample Name: L1311051802 Acquired: 11/13/2013 14:11:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.31945**	**.00054**	**.01045**	**.11319**	**.00006**	F **579.85**
Stddev	.00044	.00684	.00072	.00026	.00059	.00000	5.95
%RSD	31179.	2.1423	133.95	2.5285	.51813	6.2501	1.0258
#1	.00042	.31253	.00133	.01057	.11252	.00006	586.30
#2	-.00046	.31960	.00035	.01063	.11353	.00006	574.59
#3	.00005	.32621	-.00007	.01015	.11353	.00006	578.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.00070**	**.00157**	**.00539**	**.06855**	**.39999**	**.02490**
Stddev	.00010	.00008	.00025	.00061	.00289	.02847	.00154
%RSD	48.003	11.895	15.723	11.295	4.2155	7.1182	6.1822
#1	.00024	.00072	.00139	.00592	.06802	.41272	.02462
#2	.00010	.00060	.00146	.00554	.07166	.41987	.02656
#3	.00030	.00076	.00185	.00473	.06596	.36737	.02352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05033**	**.00035**	**.00439**	**9.1689**	**.00148**	**.02917**	**.00022**
Stddev	.01151	.00005	.00007	.0283	.00050	.00205	.00078
%RSD	22.874	13.887	1.6856	.30887	33.749	7.0287	349.72
#1	.05786	.00030	.00431	9.1362	.00142	.02709	.00095
#2	.05605	.00039	.00443	9.1868	.00200	.02924	.00032
#3	.03708	.00036	.00445	9.1837	.00101	.03118	-.00060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013



Sample Name: L1311051802 Acquired: 11/13/2013 14:11:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00119**	**-.00009**	**.38454**	**-.00705**	**.47908**	**-.00873**	**-.00010**
Stddev	.00108	.00074	.00873	.00026	.00081	.00059	.00213
%RSD	90.686	860.86	2.2706	3.6490	.16811	6.7625	2220.7
#1	.00002	-.00086	.37565	-.00712	.48001	-.00939	.00168
#2	.00140	.00061	.39310	-.00726	.47867	-.00855	-.00246
#3	.00215	-.00001	.38488	-.00676	.47856	-.00825	.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00059**	**.00264**	F **-.44691**
Stddev	.00008	.00003	.21392
%RSD	12.828	1.0267	47.866
#1	.00055	.00267	-.36912
#2	.00055	.00265	-.28278
#3	.00068	.00262	-.68884
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21638.**	**30466.**
Stddev	6.	115.
%RSD	.02582	.37796
#1	21633.	30343.
#2	21644.	30571.
#3	21638.	30486.

Approved: November 14, 2013

Sample Name: L1311051802PS Acquired: 11/13/2013 14:14:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452633-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21776**	**5.4915**	**.20830**	**1.0635**	**.60680**	**.02468**	F **520.99**
Stddev	.00069	.0068	.00060	.0036	.00064	.00003	3.20
%RSD	.31762	.12405	.28942	.33951	.10595	.13623	.61480
#1	.21836	5.4938	.20897	1.0676	.60685	.02471	520.91
#2	.21700	5.4969	.20811	1.0613	.60613	.02467	524.23
#3	.21791	5.4838	.20781	1.0614	.60741	.02465	517.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02600**	**.10160**	**.25121**	**.25696**	**2.0585**	**26.772**	**.53612**
Stddev	.00007	.00012	.00049	.00143	.0041	.063	.00107
%RSD	.25961	.11576	.19537	.55822	.19898	.23474	.19934
#1	.02606	.10161	.25070	.25756	2.0538	26.831	.53500
#2	.02602	.10171	.25124	.25801	2.0612	26.781	.53625
#3	.02593	.10148	.25168	.25533	2.0606	26.706	.53713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.8457**	**.24016**	**.52431**	**33.509**	**.25087**	**.03375**	**.25729**
Stddev	.0260	.00046	.00184	.138	.00010	.00206	.00083
%RSD	.53599	.19104	.35003	.41261	.04158	6.1081	.32340
#1	4.8282	.24012	.52586	33.383	.25095	.03369	.25813
#2	4.8333	.23972	.52480	33.488	.25090	.03584	.25727
#3	4.8755	.24063	.52228	33.657	.25075	.03172	.25646
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

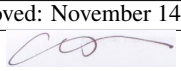
Sample Name: L1311051802PS Acquired: 11/13/2013 14:14:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452633-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.63452**	**.20717**	**3.1152**	**.58882**	**.93025**	**.49716**	**.24369**
Stddev	.00153	.00382	.0576	.00179	.00196	.00156	.00148
%RSD	.24169	1.8421	1.8481	.30337	.21082	.31287	.60920
#1	.63569	.21056	3.1807	.58948	.93051	.49607	.24286
#2	.63509	.20793	3.0923	.59019	.92817	.49646	.24540
#3	.63279	.20304	3.0725	.58680	.93207	.49894	.24279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50587**	**.49638**	F **-.50491**
Stddev	.00018	.00115	.39202
%RSD	.03551	.23235	77.642
#1	.50607	.49696	-.57815
#2	.50577	.49714	-.85513
#3	.50576	.49506	-.08143
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21717.**	**30519.**
Stddev	3.	55.
%RSD	.01520	.18133
#1	21718.	30522.
#2	21713.	30573.
#3	21719.	30462.

Approved: November 14, 2013



Sample Name: L1311051802SDL Acquired: 11/13/2013 14:18:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452633-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.05592**	**-.00024**	**.00678**	**.02325**	**.00004**	**120.61**
Stddev	.00024	.00598	.00075	.00099	.00006	.00005	.14
%RSD	83.380	10.699	309.60	14.623	.27305	137.18	.11938
#1	.00049	.05436	-.00109	.00779	.02318	.00009	120.70
#2	.00035	.05087	.00030	.00676	.02330	.00003	120.44
#3	.00002	.06252	.00007	.00580	.02326	-.00001	120.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.00017**	**.00066**	**.00160**	**.00980**	**.09932**	**.00245**
Stddev	.00006	.00014	.00020	.00047	.00022	.01217	.00067
%RSD	44.097	83.361	30.845	29.331	2.2235	12.258	27.420
#1	.00019	.00002	.00050	.00154	.01001	.10071	.00311
#2	.00007	.00030	.00089	.00116	.00981	.11074	.00177
#3	.00017	.00020	.00060	.00210	.00958	.08651	.00246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01683**	**.00013**	**.00226**	**1.7404**	**-.00030**	**.01253**	**.00097**
Stddev	.00438	.00007	.00007	.0118	.00040	.00254	.00235
%RSD	26.002	55.874	2.9068	.68104	130.51	20.313	241.21
#1	.01445	.00014	.00230	1.7541	-.00071	.00974	-.00012
#2	.01416	.00020	.00218	1.7335	-.00028	.01313	.00367
#3	.02188	.00005	.00229	1.7336	.00008	.01472	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311051802SDL Acquired: 11/13/2013 14:18:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452633-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.00125**	**.07971**	**-.00693**	**.09433**	**-.00253**	**.00014**
Stddev	.00135	.00152	.00523	.00010	.00012	.00070	.00243
%RSD	380.73	121.54	6.5622	1.4911	.12506	27.762	1772.4
#1	.00062	.00263	.07765	-.00684	.09420	-.00284	-.00158
#2	.00155	-.00039	.08565	-.00704	.09443	-.00302	-.00093
#3	-.00111	.00152	.07581	-.00690	.09435	-.00172	.00292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00046**	**.00114**	F **-.11412**
Stddev	.00007	.00006	.09930
%RSD	14.827	5.2104	87.012
#1	.00054	.00119	-.22724
#2	.00043	.00116	-.04131
#3	.00042	.00108	-.07381
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22966.**	**31491.**
Stddev	37.	218.
%RSD	.16326	.69220
#1	22986.	31665.
#2	22989.	31561.
#3	22923.	31246.

Approved: November 14, 2013

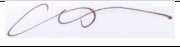
Sample Name: CCV Acquired: 11/13/2013 14:21:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41489**	**10.163**	**.40573**	**.52510**	**1.0338**	**.05034**	**9.8693**
Stddev	.00093	.008	.00221	.00119	.0005	.00010	.0374
%RSD	.22477	.08052	.54395	.22730	.04701	.19449	.37888
#1	.41490	10.166	.40591	.52380	1.0333	.05045	9.9122
#2	.41581	10.169	.40344	.52535	1.0338	.05026	9.8436
#3	.41395	10.153	.40784	.52615	1.0343	.05032	9.8521
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05143**	**.20696**	**.52302**	**.52207**	**4.1544**	**51.392**	**1.0041**
Stddev	.00008	.00057	.00189	.00087	.0118	.048	.0003
%RSD	.15226	.27537	.36210	.16624	.28520	.09434	.02988
#1	.05135	.20692	.52520	.52265	4.1500	51.346	1.0043
#2	.05151	.20641	.52191	.52248	4.1678	51.443	1.0038
#3	.05143	.20754	.52193	.52107	4.1453	51.387	1.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.042**	**.51179**	**1.0340**	**49.875**	**.51985**	**10.060**	**.52844**
Stddev	.035	.00127	.0008	.104	.00047	.013	.00177
%RSD	.35167	.24770	.07606	.20757	.09110	.13197	.33414
#1	10.078	.51305	1.0349	49.896	.51930	10.066	.53003
#2	10.041	.51052	1.0335	49.762	.52010	10.069	.52876
#3	10.007	.51180	1.0335	49.966	.52014	10.045	.52654
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



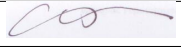
Sample Name: CCV Acquired: 11/13/2013 14:21:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2314**	**.41091**	**5.2706**	**1.0585**	**.99460**	**1.0151**	**.52819**
Stddev	.0031	.00374	.0062	.0142	.00030	.0012	.00277
%RSD	.25434	.91122	.11774	1.3386	.02984	.12054	.52514
#1	1.2343	.41518	5.2757	1.0670	.99491	1.0164	.53019
#2	1.2281	.40820	5.2637	1.0422	.99432	1.0150	.52502
#3	1.2317	.40934	5.2725	1.0664	.99458	1.0139	.52935
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0194**	**1.0376**	F **.30356**
Stddev	.0023	.0010	.19809
%RSD	.22676	.09726	65.257
#1	1.0219	1.0377	.11870
#2	1.0174	1.0385	.51266
#3	1.0188	1.0365	.27931
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23075.**	**31243.**
Stddev	24.	97.
%RSD	.10277	.31205
#1	23065.	31230.
#2	23102.	31347.
#3	23057.	31154.

Approved: November 14, 2013



Sample Name: CCB Acquired: 11/13/2013 14:25:14 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00292**	**.00078**	**.00367**	**.00035**	**-.00001**	**.03887**	**.00011**
Stddev	.00008	.01187	.00030	.00082	.00027	.00002	.00201	.00002
%RSD	97.109	406.23	38.972	22.480	75.281	279.52	5.1730	16.392
#1	.00002	.01076	.00107	.00427	.00005	.00001	.03987	.00010
#2	.00017	-.00900	.00082	.00400	.00052	-.00002	.03656	.00013
#3	.00005	-.01053	.00046	.00273	.00049	.00000	.04019	.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00021**	**.00008**	**-.00141**	**.04770**	**-.00055**	**.00155**	**.00013**
Stddev	.00010	.00027	.00037	.00487	.00850	.00127	.00586	.00008
%RSD	162.56	130.10	476.29	345.77	17.814	229.08	379.46	60.956
#1	-.00015	.00010	.00041	.00217	.05745	-.00202	.00753	.00018
#2	.00004	-.00040	-.00032	-.00696	.04375	.00013	-.00419	.00004
#3	-.00007	-.00034	.00014	.00056	.04189	.00023	.00130	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00500**	**.02351**	**-.00078**	**.00355**	**.00093**	**.00670**	**.00281**	**.00429**
Stddev	.00024	.01124	.00005	.00199	.00018	.00161	.00303	.00091
%RSD	4.8566	47.786	6.8250	56.011	19.041	23.961	107.98	21.278
#1	.00473	.01298	-.00072	.00564	.00104	.00741	-.00053	.00324
#2	.00506	.03535	-.00081	.00167	.00102	.00783	.00357	.00476
#3	.00520	.02222	-.00083	.00336	.00072	.00487	.00539	.00487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 14:25:14 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00142**	**.00021**	**.00011**	**.00058**	**.00023**	**.00008**	**-.03336**
Stddev	.00007	.00008	.00078	.00061	.00023	.00013	.30163
%RSD	4.8676	37.268	707.51	105.50	96.297	155.90	904.06
#1	.00140	.00023	.00052	-.00013	.00007	-.00001	-.25193
#2	.00150	.00027	-.00079	.00090	.00014	.00002	-.15893
#3	.00136	.00012	.00060	.00096	.00049	.00023	.31077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23423.**	**31000.**
Stddev	112.	273.
%RSD	.47977	.88148
#1	23362.	31307.
#2	23552.	30784.
#3	23354.	30908.

Approved: November 14, 2013

Sample Name: L1311041002 Acquired: 11/13/2013 14:28:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00098**	**2.0587**	**.00140**	**.02355**	**.02756**	**.00013**	**16.645**	**.00028**
Stddev	.00046	.0199	.00095	.00042	.00028	.00001	.039	.00008
%RSD	47.144	.96539	67.894	1.7770	1.0118	9.3715	.23627	29.019
#1	.00069	2.0357	.00063	.02403	.02724	.00015	16.600	.00019
#2	.00074	2.0703	.00246	.02325	.02771	.00013	16.662	.00030
#3	.00151	2.0700	.00111	.02338	.02773	.00013	16.673	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00090**	**.00315**	**.00609**	**2.9505**	**8.7618**	**.00233**	**8.0930**	**.02636**
Stddev	.00007	.00057	.00055	.0054	.0082	.00158	.0074	.00022
%RSD	7.9723	18.110	9.0465	.18312	.09333	67.712	.09098	.84661
#1	.00098	.00365	.00646	2.9443	8.7640	.00055	8.0991	.02619
#2	.00087	.00253	.00545	2.9540	8.7686	.00289	8.0950	.02661
#3	.00085	.00326	.00635	2.9533	8.7527	.00355	8.0848	.02628
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00397**	**3.2491**	**.00414**	**.58740**	**.00213**	**.00293**	**.00133**	**7.3543**
Stddev	.00023	.0110	.00040	.00631	.00168	.00175	.00108	.0144
%RSD	5.7863	.33964	9.5981	1.0745	78.899	59.785	81.525	.19575
#1	.00371	3.2536	.00456	.58021	.00072	.00381	.00049	7.3381
#2	.00408	3.2365	.00409	.59203	.00399	.00406	.00095	7.3657
#3	.00412	3.2571	.00377	.58997	.00167	.00091	.00255	7.3592
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

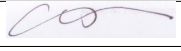
Approved: November 14, 2013

Sample Name: L1311041002 Acquired: 11/13/2013 14:28:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00693**	**.02744**	**.04115**	**-.00128**	**.00482**	**.04205**	**1.7660**
Stddev	.00060	.00003	.00028	.00086	.00025	.00050	.1782
%RSD	8.6314	.09775	.67356	67.554	5.2006	1.1794	10.091
#1	-.00641	.02742	.04085	-.00060	.00506	.04148	1.8656
#2	-.00759	.02747	.04122	-.00098	.00484	.04232	1.8721
#3	-.00680	.02743	.04139	-.00225	.00456	.04236	1.5602
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23518.**	**31875.**
Stddev	38.	165.
%RSD	.16316	.51726
#1	23494.	32062.
#2	23497.	31752.
#3	23562.	31811.

Approved: November 14, 2013



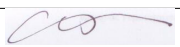
Sample Name: L1311051001 Acquired: 11/13/2013 14:32:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**.40321**	**.01476**	**.00966**	**.00868**	**.00010**	**5.4406**	**.00025**
Stddev	.00022	.01721	.00195	.00076	.00008	.00001	.0076	.00005
%RSD	38.336	4.2677	13.175	7.8699	.87788	7.0821	.13876	21.791
#1	.00059	.41339	.01381	.00974	.00867	.00011	5.4454	.00029
#2	.00034	.38334	.01348	.01038	.00876	.00010	5.4445	.00027
#3	.00078	.41290	.01700	.00886	.00861	.00011	5.4319	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00064**	**.00503**	**.00076**	**.01115**	**11.735**	**-.00010**	**.74133**	**.03127**
Stddev	.00003	.00007	.00032	.00155	.056	.00023	.00696	.00013
%RSD	4.4635	1.4458	41.824	13.911	.47983	228.94	.93853	.42460
#1	.00064	.00505	.00067	.01216	11.790	-.00037	.73340	.03111
#2	.00066	.00494	.00111	.00937	11.737	.00001	.74415	.03135
#3	.00061	.00508	.00050	.01194	11.678	.00006	.74643	.03134
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02991**	**1.1004**	**.00225**	**3.4257**	**.00141**	**.00327**	**.00955**	**1.4645**
Stddev	.00023	.0084	.00021	.0085	.00057	.00092	.00145	.0179
%RSD	.75717	.76594	9.4234	.24725	40.303	28.126	15.204	1.2198
#1	.03005	1.1090	.00210	3.4196	.00082	.00400	.01091	1.4481
#2	.02965	1.1000	.00215	3.4221	.00195	.00224	.00802	1.4618
#3	.03003	1.0922	.00249	3.4353	.00145	.00357	.00971	1.4836
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311051001 Acquired: 11/13/2013 14:32:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00506**	**.02991**	**.00887**	**-.00867**	**.01550**	**.00330**	**12.239**
Stddev	.00027	.00029	.00030	.00283	.00009	.00007	.087
%RSD	5.2948	.95596	3.4167	32.685	.60629	2.2128	.70691
#1	-.00495	.02986	.00877	-.00668	.01555	.00334	12.242
#2	-.00536	.02965	.00921	-.00742	.01555	.00334	12.324
#3	-.00486	.03021	.00862	-.01192	.01539	.00321	12.151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23327.**	**32833.**
Stddev	71.	43.
%RSD	.30536	.13084
#1	23375.	32843.
#2	23361.	32786.
#3	23245.	32871.

Approved: November 14, 2013

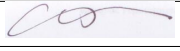
Sample Name: L1311051002 Acquired: 11/13/2013 14:35:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**.00859**	**.02899**	**.00655**	**.00006**	**.00004**	**.10622**
Stddev	.00020	.00772	.00070	.00142	.00013	.00003	.00555
%RSD	34.647	89.928	2.4272	21.658	239.59	87.664	5.2245
#1	.00044	.01736	.02946	.00492	-.00009	.00006	.10035
#2	.00046	.00285	.02818	.00755	.00010	.00004	.11138
#3	.00079	.00554	.02933	.00716	.00016	.00000	.10693
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00130**	**.03511**	**.00356**	**.00076**	**20.319**	**.00163**
Stddev	.00008	.00015	.00028	.00016	.00034	.035	.00108
%RSD	37.380	11.918	.80301	4.5140	45.290	.17259	66.648
#1	.00025	.00136	.03533	.00357	.00072	20.325	.00155
#2	.00024	.00112	.03520	.00340	.00044	20.350	.00058
#3	.00012	.00141	.03479	.00372	.00112	20.281	.00275
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01036**	**.00187**	**.06721**	**1.9596**	**.00415**	**6.7518**	**.00217**
Stddev	.01708	.00005	.00066	.0097	.00028	.0587	.00092
%RSD	164.81	2.4321	.98917	.49623	6.7127	.86963	42.335
#1	-.00880	.00190	.06676	1.9555	.00434	6.7161	.00280
#2	.01591	.00181	.06797	1.9526	.00383	6.8196	.00261
#3	.02399	.00188	.06689	1.9707	.00428	6.7198	.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013



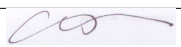
Sample Name: L1311051002 Acquired: 11/13/2013 14:35:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00581**	**.01709**	**2.0122**	**.00320**	**.00056**	**.00398**	**-.01093**
Stddev	.00118	.00132	.0888	.00035	.00005	.00046	.00115
%RSD	20.239	7.7303	4.4114	10.940	8.9504	11.509	10.497
#1	.00451	.01736	1.9178	.00316	.00054	.00451	-.01143
#2	.00611	.01566	2.0248	.00357	.00053	.00375	-.01175
#3	.00680	.01826	2.0940	.00287	.00062	.00369	-.00962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00799**	**.00827**	F **61.934**
Stddev	.00006	.00003	.569
%RSD	.78184	.38564	.91915
#1	.00796	.00828	62.044
#2	.00795	.00830	62.439
#3	.00806	.00824	61.317
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23199.**	**33007.**
Stddev	28.	101.
%RSD	.12006	.30597
#1	23202.	33074.
#2	23225.	33057.
#3	23170.	32891.

Approved: November 14, 2013



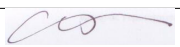
Sample Name: L1311051003 Acquired: 11/13/2013 14:39:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00061**	**.03572**	**.01282**	**.06722**	**.00147**	**.00006**	**3.9342**	**.00017**
Stddev	.00005	.00693	.00106	.00110	.00014	.00002	.0069	.00004
%RSD	8.9169	19.408	8.2425	1.6304	9.2394	36.214	.17472	25.649
#1	.00065	.02869	.01187	.06797	.00162	.00008	3.9345	.00020
#2	.00055	.03591	.01396	.06772	.00142	.00005	3.9408	.00018
#3	.00064	.04255	.01264	.06596	.00136	.00004	3.9271	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00006**	**.00030**	**.00155**	**10.403**	**.00235**	**1.0146**	**.02107**
Stddev	.00004	.00009	.00050	.00224	.023	.00105	.0211	.00020
%RSD	40.950	142.82	165.41	144.61	.21688	44.738	2.0776	.94893
#1	.00011	.00004	-.00012	.00111	10.400	.00163	1.0322	.02103
#2	.00013	-.00011	.00086	-.00044	10.426	.00355	1.0203	.02089
#3	.00005	-.00012	.00018	.00398	10.381	.00185	.99125	.02128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04201**	**2.1154**	**.00065**	**2.3266**	**.00183**	**.00498**	**.00752**	**2.1949**
Stddev	.00051	.0071	.00055	.0375	.00072	.00106	.00061	.0370
%RSD	1.2181	.33748	83.966	1.6099	39.229	21.383	8.1207	1.6875
#1	.04185	2.1072	.00014	2.2991	.00105	.00513	.00799	2.1767
#2	.04258	2.1190	.00059	2.3693	.00246	.00385	.00683	2.2375
#3	.04160	2.1200	.00123	2.3114	.00197	.00596	.00773	2.1705
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311051003 Acquired: 11/13/2013 14:39:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00565**	**.02923**	**.00175**	**-.00533**	**.02066**	**.00401**	**5.8889**
Stddev	.00016	.00042	.00051	.00092	.00037	.00014	.6484
%RSD	2.7488	1.4394	29.092	17.341	1.8126	3.4339	11.011
#1	-.00577	.02910	.00116	-.00430	.02058	.00388	5.2179
#2	-.00570	.02970	.00205	-.00610	.02034	.00415	5.9367
#3	-.00547	.02889	.00204	-.00558	.02107	.00400	6.5121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23356.**	**32490.**
Stddev	43.	203.
%RSD	.18358	.62401
#1	23342.	32580.
#2	23322.	32633.
#3	23405.	32258.

Approved: November 14, 2013

Sample Name: L1311051004 Acquired: 11/13/2013 14:42:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.66904**	**.01385**	**.04497**	**.01282**	**.00006**	**4.2008**	**.00020**
Stddev	.00041	.01569	.00079	.00019	.00012	.00001	.0337	.00004
%RSD	50.917	2.3453	5.7128	.41488	.97078	14.310	.80281	21.462
#1	.00043	.65431	.01299	.04512	.01284	.00006	4.1676	.00016
#2	.00123	.66728	.01455	.04504	.01269	.00005	4.2350	.00020
#3	.00074	.68554	.01400	.04476	.01294	.00006	4.1997	.00025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00034**	**.00074**	**.00949**	**10.711**	**.00056**	**.67118**	**.01941**
Stddev	.00020	.00040	.00048	.00162	.117	.00128	.01168	.00009
%RSD	84.916	117.22	64.630	17.042	1.0888	228.37	1.7402	.43864
#1	.00013	.00034	.00110	.01022	10.846	-.00062	.66257	.01937
#2	.00047	-.00006	.00020	.01062	10.645	.00191	.66649	.01950
#3	.00011	.00074	.00094	.00764	10.643	.00038	.68447	.01935
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.03202**	**1.5334**	**.00096**	**2.7235**	**.00172**	**.00416**	**.00676**	**2.1455**
Stddev	.00025	.0111	.00038	.0320	.00055	.00035	.00066	.0277
%RSD	.77960	.72285	39.116	1.1753	31.957	8.4304	9.8198	1.2914
#1	.03178	1.5427	.00136	2.6875	.00231	.00383	.00732	2.1146
#2	.03228	1.5363	.00062	2.7489	.00161	.00453	.00603	2.1682
#3	.03199	1.5211	.00090	2.7339	.00123	.00412	.00694	2.1536
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311051004 Acquired: 11/13/2013 14:42:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00595**	**.02689**	**.00779**	**-.00568**	**.01911**	**.00435**	**7.6774**
Stddev	.00006	.00016	.00039	.00109	.00038	.00003	.1756
%RSD	1.0808	.57727	5.0153	19.229	1.9627	.67238	2.2872
#1	-.00601	.02679	.00780	-.00468	.01878	.00437	7.4939
#2	-.00589	.02707	.00818	-.00684	.01952	.00432	7.8438
#3	-.00594	.02682	.00740	-.00551	.01904	.00436	7.6946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23414.**	**32427.**
Stddev	37.	112.
%RSD	.15935	.34598
#1	23425.	32298.
#2	23445.	32481.
#3	23372.	32503.

Approved: November 14, 2013

Sample Name: L1311059801 Acquired: 11/13/2013 14:46:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**1.4075**	**.00119**	**.03922**	**.07034**	**.00007**	**24.255**	**.00033**
Stddev	.00032	.0639	.00101	.00040	.00142	.00001	.536	.00009
%RSD	42.134	4.5368	85.306	1.0126	2.0201	12.784	2.2117	27.947
#1	.00100	1.4733	.00002	.03966	.07192	.00006	24.874	.00026
#2	.00090	1.4036	.00187	.03910	.06992	.00008	23.926	.00030
#3	.00040	1.3458	.00166	.03890	.06917	.00007	23.964	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00177**	**.00363**	**.79834**	**7.6639**	**.00327**	**4.9589**	**.01232**
Stddev	.00008	.00047	.00067	.01398	.1864	.00042	.1278	.00033
%RSD	48.748	26.506	18.386	1.7509	2.4319	12.707	2.5763	2.6915
#1	.00012	.00123	.00315	.81292	7.8681	.00359	5.1051	.01270
#2	.00024	.00208	.00440	.79703	7.6206	.00280	4.9027	.01213
#3	.00010	.00201	.00335	.78506	7.5030	.00342	4.8689	.01212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00182**	**13.941**	**.00104**	**.37495**	**.00143**	**.00082**	**.00196**	**6.7281**
Stddev	.00024	.318	.00066	.01012	.00040	.00122	.00246	.0109
%RSD	13.179	2.2828	63.035	2.6983	27.680	148.17	125.34	.16200
#1	.00169	14.304	.00143	.36515	.00125	.00201	.00030	6.7398
#2	.00210	13.815	.00028	.38536	.00189	-.00043	.00080	6.7260
#3	.00167	13.706	.00141	.37434	.00117	.00088	.00478	6.7183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

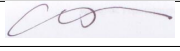
Approved: November 14, 2013

Sample Name: L1311059801 Acquired: 11/13/2013 14:46:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00715**	**.10920**	**.03798**	**-.00145**	**.00592**	**.01432**	**3.8500**
Stddev	.00005	.00246	.00124	.00029	.00018	.00029	.2423
%RSD	.69117	2.2557	3.2649	19.874	3.0976	2.0026	6.2945
#1	-.00718	.11203	.03844	-.00122	.00605	.01413	3.9555
#2	-.00709	.10805	.03892	-.00177	.00571	.01465	4.0216
#3	-.00718	.10753	.03657	-.00136	.00600	.01418	3.5727
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23648.**	**32408.**
Stddev	45.	697.
%RSD	.19060	2.1516
#1	23652.	31606.
#2	23601.	32750.
#3	23691.	32868.

Approved: November 14, 2013



Sample Name: L1311059802 Acquired: 11/13/2013 14:49:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00073**	**1.2151**	**.00006**	**.02218**	**.03780**	**.00009**	**12.880**	**.00022**
Stddev	.00019	.0375	.00068	.00062	.00099	.00001	.327	.00003
%RSD	26.490	3.0874	1174.8	2.8042	2.6254	11.041	2.5351	11.928
#1	.00052	1.2537	-.00024	.02154	.03895	.00011	13.251	.00019
#2	.00077	1.2128	-.00041	.02223	.03723	.00009	12.757	.00024
#3	.00089	1.1788	.00083	.02278	.03723	.00009	12.633	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00152**	**.00269**	**.62469**	**10.478**	**.00155**	**1.8334**	**.00769**
Stddev	.00008	.00030	.00025	.01224	.236	.00120	.0386	.00012
%RSD	34.400	19.527	9.2377	1.9591	2.2491	77.446	2.1045	1.6025
#1	.00029	.00119	.00292	.63853	10.741	.00219	1.8770	.00783
#2	.00015	.00163	.00272	.62021	10.407	.00229	1.8197	.00760
#3	.00030	.00176	.00242	.61532	10.286	.00016	1.8035	.00763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**3.2327**	**-.00020**	**.39485**	**.00034**	**.00162**	**-.00011**	**5.6668**
Stddev	.00018	.0848	.00005	.01277	.00083	.00150	.00099	.0213
%RSD	26.755	2.6227	24.352	3.2344	242.53	92.653	899.34	.37660
#1	.00062	3.3305	-.00025	.40327	.00084	.00138	.00103	5.6595
#2	.00087	3.1886	-.00018	.40112	-.00062	.00323	-.00069	5.6909
#3	.00052	3.1792	-.00016	.38015	.00080	.00025	-.00067	5.6501
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311059802 Acquired: 11/13/2013 14:49:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00712**	**.07357**	**.03563**	**-.00153**	**.00355**	**.01584**	**3.4040**
Stddev	.00025	.00175	.00094	.00036	.00010	.00025	.0845
%RSD	3.5325	2.3774	2.6250	23.554	2.7631	1.6018	2.4826
#1	-.00729	.07552	.03637	-.00116	.00363	.01600	3.3856
#2	-.00723	.07305	.03595	-.00155	.00344	.01598	3.3301
#3	-.00683	.07214	.03458	-.00188	.00359	.01555	3.4961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23585.**	**31411.**
Stddev	12.	622.
%RSD	.05133	1.9810
#1	23572.	30694.
#2	23586.	31726.
#3	23596.	31813.

Approved: November 14, 2013

Sample Name: L1311061701 Acquired: 11/13/2013 14:53:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00089**	**2.5785**	**.00184**	**.02032**	**.08211**	**.00019**	**19.644**	**.00033**
Stddev	.00012	.0434	.00063	.00016	.00229	.00002	.475	.00007
%RSD	13.867	1.6835	34.502	.77551	2.7919	8.2354	2.4184	22.673
#1	.00095	2.6284	.00222	.02045	.08469	.00020	20.183	.00039
#2	.00074	2.5579	.00218	.02014	.08135	.00019	19.460	.00024
#3	.00096	2.5492	.00111	.02037	.08030	.00017	19.287	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00046**	**.00314**	**.00457**	**1.6780**	**4.6436**	**.00331**	**3.0973**	**.01834**
Stddev	.00010	.00035	.00032	.0397	.0906	.00159	.0951	.00032
%RSD	20.999	11.127	6.9113	2.3679	1.9502	48.123	3.0721	1.7201
#1	.00039	.00350	.00438	1.7205	4.7475	.00148	3.1992	.01870
#2	.00041	.00280	.00439	1.6719	4.6015	.00405	3.0819	.01819
#3	.00057	.00311	.00493	1.6417	4.5818	.00440	3.0107	.01812
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00079**	**2.9015**	**.00184**	**.65364**	**.00346**	**.00186**	**.00094**	**11.116**
Stddev	.00030	.0880	.00022	.01477	.00016	.00120	.00130	.012
%RSD	38.541	3.0328	11.909	2.2592	4.5010	64.605	137.85	.11216
#1	.00103	2.9965	.00193	.67060	.00363	.00113	.00239	11.112
#2	.00089	2.8852	.00159	.64674	.00334	.00325	-.00011	11.130
#3	.00045	2.8228	.00199	.64359	.00341	.00120	.00055	11.106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311061701 Acquired: 11/13/2013 14:53:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00698**	**.06764**	**.04774**	**.00001**	**.01362**	**.02323**	**4.9114**
Stddev	.00025	.00150	.00109	.00024	.00025	.00037	.2157
%RSD	3.6243	2.2158	2.2766	3781.4	1.8275	1.6054	4.3912
#1	-.00689	.06937	.04879	.00002	.01347	.02366	4.8416
#2	-.00726	.06678	.04783	-.00024	.01391	.02301	5.1534
#3	-.00678	.06677	.04662	.00024	.01348	.02303	4.7394
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23743.**	**31351.**
Stddev	79.	650.
%RSD	.33283	2.0721
#1	23655.	30610.
#2	23808.	31620.
#3	23766.	31822.

Approved: November 14, 2013

Sample Name: L1311061702 Acquired: 11/13/2013 14:56:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.30622**	**.00141**	**.25179**	**.08029**	**.00009**	**87.362**	**.00066**
Stddev	.00046	.01619	.00046	.00188	.00229	.00001	2.459	.00007
%RSD	342.59	5.2880	32.582	.74653	2.8576	14.993	2.8143	11.384
#1	-.00056	.32485	.00184	.24971	.08289	.00007	89.971	.00057
#2	-.00021	.29544	.00148	.25232	.07942	.00009	87.026	.00072
#3	.00036	.29839	.00092	.25336	.07856	.00010	85.089	.00067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00082**	**.00091**	**.00149**	**.20360**	**.76493**	**.01385**	**21.994**	**.07067**
Stddev	.00014	.00071	.00019	.00526	.01981	.00162	.497	.00148
%RSD	16.570	77.752	12.568	2.5818	2.5894	11.675	2.2587	2.0891
#1	.00076	.00012	.00133	.20945	.75532	.01214	22.550	.07234
#2	.00072	.00112	.00144	.19930	.75176	.01536	21.838	.07014
#3	.00097	.00148	.00170	.20203	.78771	.01405	21.595	.06954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00669**	**124.66**	**.00188**	**.05237**	**.00124**	**.00003**	**.00355**	**9.0258**
Stddev	.00014	3.64	.00027	.00289	.00183	.00124	.00215	.0035
%RSD	2.1522	2.9197	14.080	5.5169	147.30	4022.3	60.639	.03916
#1	.00667	128.69	.00160	.04908	.00278	-.00121	.00203	9.0226
#2	.00684	123.69	.00194	.05449	-.00078	.00126	.00601	9.0252
#3	.00656	121.61	.00212	.05355	.00172	.00004	.00260	9.0296
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311061702 Acquired: 11/13/2013 14:56:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00728**	**.31514**	**.00644**	**-.00221**	**.00837**	**.01283**	**1.0277**
Stddev	.00050	.00801	.00091	.00130	.00012	.00022	.2131
%RSD	6.8644	2.5407	14.123	59.096	1.4351	1.7495	20.739
#1	-.00672	.32382	.00731	-.00310	.00840	.01261	.79856
#2	-.00745	.31354	.00650	-.00282	.00823	.01282	1.0645
#3	-.00767	.30805	.00550	-.00071	.00847	.01306	1.2200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22499.**	**30718.**
Stddev	22.	755.
%RSD	.09762	2.4573
#1	22520.	29895.
#2	22501.	30880.
#3	22476.	31378.

Approved: November 14, 2013

Sample Name: L1311061703 Acquired: 11/13/2013 15:00:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00078**	**4.4982**	**.00081**	**.08705**	**.06352**	**.00029**	**82.430**	**.00050**
Stddev	.00029	.0898	.00083	.00018	.00144	.00001	1.951	.00019
%RSD	37.480	1.9962	102.42	.21250	2.2684	3.2104	2.3666	39.153
#1	.00044	4.5949	.00154	.08723	.06514	.00028	84.621	.00027
#2	.00092	4.4821	.00097	.08707	.06303	.00030	81.787	.00063
#3	.00097	4.4175	-.00009	.08686	.06238	.00028	80.882	.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**.00485**	**.00160**	**2.6766**	**1.9692**	**.01972**	**19.881**	**.05167**
Stddev	.00022	.00052	.00055	.0479	.0673	.00242	.466	.00086
%RSD	29.210	10.810	34.670	1.7899	3.4182	12.252	2.3458	1.6660
#1	.00094	.00477	.00224	2.7298	2.0410	.02175	20.409	.05266
#2	.00051	.00541	.00125	2.6633	1.9589	.02036	19.709	.05127
#3	.00083	.00437	.00130	2.6367	1.9076	.01705	19.525	.05109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**136.41**	**.00087**	**.03883**	**.00419**	**.00228**	**.00369**	**18.695**
Stddev	.00026	2.99	.00058	.00184	.00122	.00137	.00178	.029
%RSD	29.191	2.1894	66.266	4.7460	29.255	59.859	48.196	.15601
#1	.00096	139.77	.00030	.03716	.00395	.00351	.00282	18.704
#2	.00060	135.41	.00145	.03852	.00309	.00253	.00574	18.719
#3	.00110	134.05	.00085	.04081	.00551	.00081	.00252	18.663
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311061703 Acquired: 11/13/2013 15:00:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00704**	**.36485**	**.09501**	**-.00166**	**.01330**	**.01296**	**9.1176**
Stddev	.00041	.00908	.00414	.00199	.00016	.00007	.2007
%RSD	5.8916	2.4899	4.3530	120.25	1.1762	.52281	2.2014
#1	-.00657	.37516	.09696	-.00176	.01328	.01294	8.8929
#2	-.00716	.36134	.09782	-.00360	.01315	.01291	9.1807
#3	-.00738	.35804	.09026	.00039	.01346	.01304	9.2791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22642.**	**30757.**
Stddev	17.	543.
%RSD	.07622	1.7666
#1	22624.	30132.
#2	22659.	31021.
#3	22642.	31118.

Approved: November 14, 2013

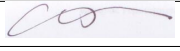
Sample Name: CCV Acquired: 11/13/2013 15:03:33 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41773**	**10.347**	**.40520**	**.52472**	**1.0487**	**.05023**	**9.9575**
Stddev	.00059	.220	.00114	.00095	.0221	.00023	.2297
%RSD	.14147	2.1307	.28046	.18013	2.1069	.45740	2.3071
#1	.41718	10.593	.40400	.52554	1.0739	.04996	10.219
#2	.41836	10.280	.40535	.52369	1.0394	.05032	9.8666
#3	.41765	10.168	.40626	.52494	1.0328	.05039	9.7872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05126**	**.20611**	**.52352**	**.52162**	**4.2263**	**52.158**	**1.0178**
Stddev	.00017	.00020	.00152	.00054	.0947	1.047	.0242
%RSD	.32746	.09833	.28941	.10274	2.2410	2.0073	2.3754
#1	.05107	.20589	.52268	.52144	4.3332	53.360	1.0454
#2	.05138	.20613	.52527	.52222	4.1929	51.671	1.0078
#3	.05133	.20630	.52262	.52120	4.1529	51.443	1.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.250**	**.52120**	**1.0325**	**50.633**	**.51824**	**10.009**	**.52654**
Stddev	.202	.01071	.0007	1.130	.00173	.019	.00248
%RSD	1.9665	2.0545	.06807	2.2313	.33401	.18529	.47176
#1	10.482	.53340	1.0326	51.934	.51666	9.9962	.52606
#2	10.151	.51337	1.0331	50.072	.52009	10.000	.52433
#3	10.117	.51683	1.0317	49.894	.51797	10.030	.52923
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



Sample Name: CCV Acquired: 11/13/2013 15:03:33 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2271**	**.40879**	**5.2869**	**1.0512**	**1.0067**	**1.0328**	**.52503**
Stddev	.0032	.00254	.0104	.0127	.0227	.0193	.00445
%RSD	.25666	.62177	.19664	1.2047	2.2585	1.8674	.84679
#1	1.2288	.40712	5.2882	1.0656	1.0327	1.0550	.52001
#2	1.2290	.40753	5.2966	1.0463	.99687	1.0230	.52845
#3	1.2235	.41171	5.2759	1.0417	.99058	1.0203	.52665
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0179**	**1.0372**	F **1.3782**
Stddev	.0018	.0012	.0936
%RSD	.17482	.11786	6.7918
#1	1.0161	1.0382	1.3186
#2	1.0179	1.0374	1.3300
#3	1.0196	1.0358	1.4861
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23173.**	**30837.**
Stddev	20.	610.
%RSD	.08806	1.9784
#1	23193.	30137.
#2	23152.	31256.
#3	23175.	31118.

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 15:06:48 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**-.01891**	**.00089**	**.00256**	**.00029**	**.00000**	**-.01349**	**.00017**
Stddev	.00011	.00831	.00149	.00051	.00054	.0000	.01176	.00008
%RSD	29.745	43.962	167.75	19.903	182.91	560.07	87.179	46.362
#1	.00035	-.01332	.00014	.00308	.00091	-.00002	-.00281	.00020
#2	.00028	-.02846	-.00008	.00207	-.00006	.00000	-.02609	.00008
#3	.00050	-.01494	.00260	.00251	.00003	.00002	-.01157	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**-.00022**	**.00031**	**.00096**	**.04783**	**-.00172**	**.00266**	**.00000**
Stddev	.00009	.00027	.00019	.00245	.02075	.00113	.00632	.00004
%RSD	105.79	122.91	59.934	255.38	43.381	65.884	237.69	4694.9
#1	.00009	-.00001	.00052	.00168	.06790	-.00220	-.00452	.00003
#2	.00017	-.00052	.00026	-.00177	.04910	-.00253	.00514	.00001
#3	-.00001	-.00012	.00016	.00297	.02647	-.00043	.00736	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00496**	**.01589**	**-.00051**	**.00401**	**-.00008**	**.00733**	**.00534**	**.00326**
Stddev	.00023	.02040	.00016	.00299	.00183	.00276	.00279	.00081
%RSD	4.6505	128.34	31.830	74.501	2157.1	37.633	52.216	24.817
#1	.00472	.03603	-.00036	.00508	-.00077	.00869	.00796	.00419
#2	.00518	.01641	-.00048	.00631	.00199	.00913	.00566	.00281
#3	.00497	-.00476	-.00069	.00063	-.00147	.00415	.00241	.00277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 15:06:48 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00107**	**.00019**	**-.00008**	**.00067**	**.00010**	**.00001**	**-.07065**
Stddev	.00041	.00014	.00055	.00216	.00014	.00007	.24725
%RSD	38.580	75.897	681.77	323.74	136.36	562.35	349.98
#1	.00076	.00035	-.00007	.00142	-.00006	.00002	.18437
#2	.00154	.00008	.00046	-.00177	.00019	-.00006	-.30932
#3	.00091	.00013	-.00064	.00235	.00017	.00008	-.08699
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23268.**	**30880.**
Stddev	40.	652.
%RSD	.17015	2.1129
#1	23312.	30127.
#2	23236.	31258.
#3	23254.	31256.

Approved: November 14, 2013

Sample Name: L1311061704 Acquired: 11/13/2013 15:10:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.71906**	**.00154**	**.06346**	**.05104**	**.00010**	**19.612**	**.00037**
Stddev	.00009	.02677	.00073	.00021	.00120	.00002	.472	.00016
%RSD	36.300	3.7228	47.597	.33284	2.3453	16.691	2.4068	44.104
#1	.00028	.74994	.00116	.06339	.05237	.00011	20.131	.00054
#2	.00015	.70476	.00238	.06369	.05068	.00009	19.497	.00022
#3	.00033	.70247	.00107	.06328	.05006	.00009	19.208	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00174**	**.00270**	**.44170**	**.78059**	**.00401**	**4.1317**	**.02056**
Stddev	.00012	.00037	.00019	.01166	.01739	.00215	.0776	.00056
%RSD	49.108	21.494	7.0476	2.6396	2.2280	53.499	1.8779	2.7302
#1	.00018	.00192	.00250	.45291	.79986	.00498	4.2143	.02115
#2	.00017	.00131	.00288	.44257	.76606	.00155	4.1205	.02047
#3	.00038	.00199	.00274	.42964	.77586	.00550	4.0603	.02004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00937**	**33.449**	**.00059**	**.23951**	**.00107**	**.00109**	**.00048**	**4.6715**
Stddev	.00006	.748	.00021	.00187	.00127	.00049	.00230	.0162
%RSD	.67009	2.2376	35.636	.78246	118.85	44.537	478.91	.34584
#1	.00944	34.288	.00038	.24086	.00253	.00074	.00100	4.6529
#2	.00931	33.207	.00080	.23737	.00035	.00088	.00247	4.6795
#3	.00936	32.850	.00058	.24030	.00032	.00164	-.00203	4.6821
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311061704 Acquired: 11/13/2013 15:10:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00694**	**.08896**	**.02029**	**-.00069**	**.01345**	**.00781**	**2.6500**
Stddev	.00026	.00220	.00156	.00069	.00027	.00017	.2067
%RSD	3.6970	2.4703	7.6706	100.09	2.0195	2.2108	7.8007
#1	-.00682	.09141	.02207	-.00111	.01335	.00801	2.6801
#2	-.00677	.08832	.01962	.00011	.01376	.00773	2.4298
#3	-.00724	.08715	.01918	-.00107	.01324	.00770	2.8400
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23301.**	**30599.**
Stddev	44.	682.
%RSD	.18914	2.2274
#1	23270.	29847.
#2	23351.	30773.
#3	23282.	31177.

Approved: November 14, 2013

Sample Name: L1311068201 Acquired: 11/13/2013 15:13:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**1.0145**	**.00024**	**.03583**	**.04843**	**.00011**	**21.581**	**.00024**
Stddev	.00023	.0356	.00135	.00015	.00114	.00002	.450	.00007
%RSD	814.78	3.5054	562.81	.40766	2.3643	15.757	2.0836	30.319
#1	.00029	1.0550	-.00129	.03567	.04972	.00012	22.093	.00029
#2	-.00016	1.0002	.00126	.03588	.04803	.00009	21.397	.00028
#3	-.00005	.98827	.00075	.03595	.04753	.00011	21.252	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.00109**	**.00171**	**.96530**	**2.8499**	**.00172**	**5.9524**	**.08361**
Stddev	.00018	.00022	.00028	.02634	.0968	.00055	.1346	.00206
%RSD	43.462	20.545	16.446	2.7283	3.3959	31.684	2.2604	2.4657
#1	.00023	.00086	.00195	.99538	2.9556	.00154	6.0974	.08595
#2	.00059	.00109	.00177	.94643	2.8285	.00234	5.9283	.08282
#3	.00042	.00131	.00140	.95408	2.7656	.00130	5.8316	.08207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**13.349**	**.00074**	**.04629**	**.00086**	**.00099**	**.00116**	**3.7938**
Stddev	.00012	.281	.00069	.00154	.00120	.00088	.00100	.0339
%RSD	18.451	2.1084	94.285	3.3372	139.12	88.730	86.060	.89474
#1	.00055	13.669	.00000	.04500	-.00008	.00193	.00003	3.8048
#2	.00064	13.243	.00083	.04800	.00046	.00018	.00191	3.8209
#3	.00079	13.137	.00138	.04586	.00222	.00086	.00155	3.7557
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

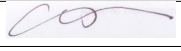
Approved: November 14, 2013

Sample Name: L1311068201 Acquired: 11/13/2013 15:13:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00690**	**.14017**	**.03351**	**-.00275**	**.00178**	**.00597**	**2.4394**
Stddev	.00055	.00323	.00130	.00107	.00018	.00017	.2351
%RSD	7.9075	2.3036	3.8896	38.866	9.9007	2.8299	9.6382
#1	-.00675	.14383	.03273	-.00377	.00164	.00599	2.6198
#2	-.00751	.13899	.03501	-.00285	.00173	.00614	2.1735
#3	-.00645	.13771	.03278	-.00164	.00198	.00580	2.5250
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23334.**	**30700.**
Stddev	61.	787.
%RSD	.26153	2.5621
#1	23293.	29821.
#2	23304.	30942.
#3	23404.	31338.

Approved: November 14, 2013



Sample Name: L1311068204 Acquired: 11/13/2013 15:17:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.63528**	**-.00006**	**.01930**	**.05483**	**.00007**	**17.892**	**.00023**
Stddev	.00071	.02497	.00104	.00022	.00154	.00001	.460	.00010
%RSD	148.00	3.9306	1612.5	1.1329	2.8008	20.664	2.5701	42.976
#1	.00017	.66314	.00046	.01942	.05644	.00008	18.415	.00033
#2	-.00002	.61493	-.00126	.01905	.05466	.00005	17.714	.00014
#3	.00129	.62775	.00061	.01944	.05339	.00007	17.548	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00054**	**.00124**	**.00163**	**.81274**	**2.3542**	**-.00016**	**4.5251**	**.13812**
Stddev	.00007	.00046	.00072	.02621	.0566	.00120	.1349	.00285
%RSD	12.608	37.148	44.104	3.2243	2.4066	753.16	2.9803	2.0633
#1	.00060	.00170	.00142	.84149	2.4121	-.00114	4.6726	.14140
#2	.00055	.00123	.00242	.80655	2.3514	-.00051	4.4945	.13625
#3	.00047	.00078	.00103	.79019	2.2989	.00117	4.4081	.13671
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**8.4374**	**.00006**	**.03881**	**.00222**	**.00182**	**-.00027**	**2.4302**
Stddev	.00011	.2250	.00044	.00393	.00181	.00057	.00339	.0504
%RSD	58.096	2.6670	799.02	10.136	81.538	31.499	1235.1	2.0730
#1	.00010	8.6930	.00055	.04083	.00411	.00154	-.00314	2.4784
#2	.00014	8.3499	-.00031	.03427	.00049	.00248	-.00115	2.3779
#3	.00030	8.2693	-.00007	.04131	.00206	.00145	.00347	2.4344
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

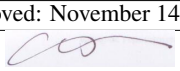
Approved: November 14, 2013

Sample Name: L1311068204 Acquired: 11/13/2013 15:17:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00627**	**.10370**	**.01983**	**-.00105**	**.00132**	**.00708**	**.78611**
Stddev	.00024	.00253	.00216	.00139	.00006	.00012	.06108
%RSD	3.7929	2.4444	10.892	132.92	4.7018	1.7144	7.7697
#1	-.00638	.10656	.02192	-.00041	.00136	.00711	.76466
#2	-.00643	.10279	.01761	-.00009	.00125	.00694	.73865
#3	-.00600	.10174	.01996	-.00265	.00136	.00718	.85502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23261.**	**30674.**
Stddev	34.	590.
%RSD	.14511	1.9247
#1	23268.	29996.
#2	23290.	30957.
#3	23224.	31070.

Approved: November 14, 2013



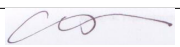
Sample Name: L1311068206 Acquired: 11/13/2013 15:20:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.06740**	**-.00003**	**.06108**	**.05007**	**.00001**	**40.251**	**.00033**
Stddev	.00019	.01022	.00111	.00083	.00127	.00000	.976	.00010
%RSD	65.578	15.159	3539.8	1.3597	2.5347	40.804	2.4246	29.929
#1	.00046	.07109	-.00074	.06020	.05150	.00001	41.349	.00039
#2	.00009	.07525	.00124	.06184	.04966	.00001	39.919	.00038
#3	.00032	.05585	-.00060	.06121	.04907	.00001	39.484	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00071**	**.00156**	**.54909**	**3.2197**	**.00216**	**10.045**	**.22404**
Stddev	.00005	.00055	.00043	.01163	.0940	.00134	.167	.00473
%RSD	31.058	77.219	27.683	2.1173	2.9190	61.927	1.6578	2.1122
#1	.00014	.00060	.00106	.56162	3.3281	.00074	10.212	.22938
#2	.00023	.00131	.00183	.54701	3.1618	.00234	10.045	.22240
#3	.00014	.00022	.00179	.53865	3.1692	.00340	9.8787	.22036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00071**	**40.091**	**-.00013**	**.05784**	**.00232**	**.00018**	**.00005**	**5.7559**
Stddev	.00032	.820	.00037	.00337	.00189	.00013	.00214	.0020
%RSD	45.318	2.0451	285.92	5.8306	81.246	72.906	3911.8	.03550
#1	.00077	41.008	-.00052	.05436	.00414	.00032	.00135	5.7583
#2	.00099	39.835	.00021	.06109	.00037	.00008	-.00241	5.7549
#3	.00036	39.429	-.00007	.05807	.00246	.00013	.00123	5.7546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

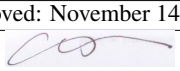


Sample Name: L1311068206 Acquired: 11/13/2013 15:20:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00730**	**.17208**	**.00332**	**-.00026**	**.00055**	**.00907**	**.16015**
Stddev	.00036	.00451	.00202	.00132	.00012	.00012	.44719
%RSD	4.9639	2.6228	60.979	509.36	21.478	1.3394	279.23
#1	-.00766	.17720	.00143	.00110	.00048	.00905	-.31970
#2	-.00732	.17038	.00545	-.00034	.00049	.00921	.56526
#3	-.00694	.16867	.00308	-.00153	.00069	.00897	.23490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22824.**	**30607.**
Stddev	26.	659.
%RSD	.11252	2.1518
#1	22839.	29876.
#2	22794.	30790.
#3	22839.	31155.

Approved: November 14, 2013



Sample Name: L1311068210 Acquired: 11/13/2013 15:24:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00093**	**.30998**	**-.00018**	**.03649**	**.10376**	**.00001**	**32.146**	**.00025**
Stddev	.00030	.01377	.00087	.00048	.00261	.00002	.711	.00003
%RSD	32.771	4.4409	495.38	1.3049	2.5149	160.16	2.2109	13.106
#1	.00094	.32474	-.00116	.03597	.10676	.00000	32.950	.00022
#2	.00122	.29749	.00012	.03691	.10249	.00000	31.886	.00024
#3	.00061	.30771	.00051	.03659	.10203	.00004	31.601	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**.00064**	**.00224**	**1.7361**	**2.6328**	**.00031**	**6.0757**	**2.5595**
Stddev	.00015	.00026	.00058	.0453	.0755	.00043	.1578	.0491
%RSD	22.023	40.156	25.874	2.6084	2.8684	140.68	2.5967	1.9176
#1	.00057	.00082	.00161	1.7883	2.7111	.00027	6.2579	2.6161
#2	.00086	.00075	.00275	1.7124	2.5604	.00076	5.9847	2.5321
#3	.00064	.00034	.00237	1.7075	2.6267	-.00011	5.9846	2.5302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00052**	**4.7230**	**.00040**	**.07613**	**.00125**	**.00285**	**.00243**	**3.8059**
Stddev	.00005	.1052	.00068	.00269	.00067	.00263	.00303	.0068
%RSD	10.579	2.2283	170.49	3.5329	53.633	92.212	124.52	.17831
#1	.00047	4.8412	.00117	.07303	.00202	.00010	.00238	3.8034
#2	.00058	4.6882	-.00007	.07755	.00091	.00534	-.00057	3.8136
#3	.00051	4.6395	.00009	.07781	.00081	.00312	.00548	3.8007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311068210 Acquired: 11/13/2013 15:24:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00719**	**.14240**	**.00862**	**.00117**	**.00040**	**.01044**	**1.1671**
Stddev	.00026	.00334	.00129	.00075	.00019	.00008	.0802
%RSD	3.6735	2.3434	14.936	63.524	47.643	.76722	6.8744
#1	-.00744	.14612	.00851	.00202	.00026	.01047	1.0787
#2	-.00721	.14143	.00995	.00063	.00062	.01051	1.1872
#3	-.00691	.13967	.00738	.00086	.00033	.01035	1.2354
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23329.**	**31022.**
Stddev	48.	642.
%RSD	.20729	2.0705
#1	23276.	30282.
#2	23342.	31342.
#3	23370.	31441.

Approved: November 14, 2013

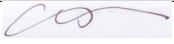
Sample Name: CCV Acquired: 11/13/2013 15:27:46 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41589**	**10.410**	**.40310**	**.52002**	**1.0450**	**.05015**	**10.093**
Stddev	.00108	.199	.00049	.00222	.0226	.00013	.221
%RSD	.25924	1.9121	.12166	.42726	2.1648	.25692	2.1922
#1	.41605	10.637	.40366	.51858	1.0702	.05001	10.345
#2	.41473	10.325	.40278	.51891	1.0382	.05018	10.003
#3	.41687	10.267	.40285	.52258	1.0265	.05026	9.9306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05115**	**.20656**	**.51713**	**.52008**	**4.2072**	**52.215**	**1.0220**
Stddev	.00012	.00032	.00140	.00115	.0878	1.112	.0229
%RSD	.23046	.15316	.26992	.22159	2.0880	2.1301	2.2394
#1	.05104	.20683	.51552	.51889	4.3040	53.492	1.0475
#2	.05127	.20621	.51794	.52015	4.1851	51.693	1.0150
#3	.05113	.20664	.51793	.52119	4.1326	51.459	1.0034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.275**	**.52080**	**1.0303**	**50.784**	**.51834**	**10.003**	**.52695**
Stddev	.224	.01112	.0005	1.192	.00079	.018	.00273
%RSD	2.1835	2.1343	.04861	2.3474	.15276	.18430	.51832
#1	10.531	.53351	1.0306	52.081	.51859	10.024	.52390
#2	10.183	.51599	1.0305	50.537	.51898	9.9987	.52778
#3	10.112	.51289	1.0297	49.735	.51746	9.9879	.52917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



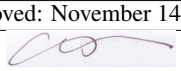
Sample Name: CCV Acquired: 11/13/2013 15:27:46 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2297**	**.41103**	**5.3023**	**1.0618**	**1.0214**	**1.0374**	**.52456**
Stddev	.0060	.00120	.0180	.0126	.0199	.0219	.00246
%RSD	.49018	.29136	.33991	1.1842	1.9453	2.1071	.46959
#1	1.2363	.41053	5.2829	1.0683	1.0442	1.0616	.52733
#2	1.2246	.41016	5.3056	1.0697	1.0124	1.0316	.52263
#3	1.2281	.41239	5.3185	1.0473	1.0076	1.0191	.52371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0199**	**1.0323**	F **.82235**
Stddev	.0027	.0008	.23075
%RSD	.26648	.08279	28.060
#1	1.0172	1.0316	.57387
#2	1.0200	1.0320	.86327
#3	1.0226	1.0333	1.0299
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23127.**	**30768.**
Stddev	36.	622.
%RSD	.15541	2.0204
#1	23162.	30056.
#2	23127.	31047.
#3	23090.	31202.

Approved: November 14, 2013



Sample Name: CCB Acquired: 11/13/2013 15:31:01 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**-.00608**	**.00024**	**.00273**	**.00058**	**.00001**	**-.00355**	**.00007**
Stddev	.00050	.00292	.00125	.00041	.00016	.00002	.00401	.00006
%RSD	90.936	48.057	523.52	14.828	28.005	154.48	113.13	89.708
#1	.00032	-.00284	-.00086	.00303	.00075	.00000	.00043	.00013
#2	.00021	-.00851	-.00002	.00290	.00055	.00004	-.00348	.00006
#3	.00112	-.00689	.00160	.00227	.00043	.00001	-.00759	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00014**	**-.00018**	**.00013**	**.08105**	**-.00195**	**.00292**	**.00005**
Stddev	.00013	.00043	.00046	.00195	.02562	.00090	.02289	.00004
%RSD	1615.3	300.52	252.49	1501.6	31.614	46.162	784.46	75.981
#1	-.00008	-.00006	.00017	.00214	.07307	-.00295	.00321	.00004
#2	.00016	.00063	-.00070	-.00176	.10971	-.00166	.02566	.00010
#3	-.00005	-.00014	-.00002	.00001	.06036	-.00122	-.02011	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00478**	**.01194**	**-.00107**	**.00364**	**-.00059**	**.00842**	**.00389**	**.00268**
Stddev	.00037	.00455	.00027	.00411	.00020	.00114	.00038	.00102
%RSD	7.7476	38.159	25.204	113.01	34.089	13.510	9.6843	38.131
#1	.00439	.01622	-.00083	-.00088	-.00082	.00957	.00432	.00206
#2	.00483	.00715	-.00101	.00464	-.00046	.00729	.00375	.00386
#3	.00512	.01244	-.00136	.00716	-.00050	.00839	.00361	.00212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 15:31:01 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00102**	**.00019**	**-.00036**	**.00060**	**.00040**	**.00005**	**.07046**
Stddev	.00038	.00011	.00110	.00079	.00014	.00010	.20964
%RSD	37.404	58.577	304.92	131.14	34.741	197.17	297.55
#1	.00061	.00031	-.00163	.00151	.00026	.00015	-.04399
#2	.00136	.00009	.00040	.00004	.00054	-.00005	.31241
#3	.00109	.00016	.00014	.00027	.00040	.00005	-.05706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23421.**	**30394.**
Stddev	48.	637.
%RSD	.20356	2.0945
#1	23397.	29660.
#2	23390.	30749.
#3	23476.	30775.

Approved: November 14, 2013

Sample Name: PBW 3B Acquired: 11/13/2013 15:34:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00040**	**-.00887**	**-.00026**	**.00174**	**.00031**	**.00002**	**-.00235**	**.00009**
Stddev	.00059	.00243	.00064	.00029	.00025	.00001	.00773	.00001
%RSD	144.63	27.425	245.20	16.618	81.344	55.484	328.53	5.6046
#1	.00075	-.00883	.00015	.00206	.00043	.00001	-.00678	.00010
#2	-.00027	-.00645	-.00099	.00149	.00047	.00001	-.00684	.00009
#3	.00074	-.01132	.00007	.00168	.00002	.00003	.00657	.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00016**	**-.00045**	**.00121**	**.04087**	**-.00316**	**.00676**	**.00025**
Stddev	.00011	.00035	.00040	.00207	.02844	.00040	.00910	.00002
%RSD	677.88	217.01	88.484	171.68	69.588	12.682	134.71	9.2530
#1	.00011	.00051	-.00015	.00013	.03933	-.00348	.01371	.00027
#2	-.00010	-.00019	-.00091	-.00010	.01323	-.00330	.01010	.00025
#3	-.00006	.00016	-.00030	.00360	.07005	-.00271	-.00354	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00092**	**.01411**	**-.00035**	**-.00046**	**.00056**	**.00101**	**-.00134**	**.00302**
Stddev	.00010	.00981	.00022	.00241	.00208	.00085	.00098	.00021
%RSD	10.954	69.562	62.723	520.92	370.57	84.395	72.971	7.0410
#1	.00080	.02338	-.00060	-.00055	.00199	.00064	-.00144	.00313
#2	.00097	.01511	-.00024	-.00283	.00152	.00040	-.00032	.00315
#3	.00098	.00383	-.00021	.00199	-.00182	.00198	-.00227	.00278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: PBW 3B Acquired: 11/13/2013 15:34:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00668**	**.00004**	**-.00029**	**-.00007**	**.00013**	**.00171**	**.19518**
Stddev	.00020	.00003	.00063	.00209	.00017	.00012	.07977
%RSD	2.9259	86.474	219.56	2926.9	136.55	6.9712	40.871
#1	-.00688	.00001	.00043	.00145	.00013	.00175	.28607
#2	-.00649	.00008	-.00073	.00079	.00030	.00180	.13678
#3	-.00668	.00004	-.00056	-.00246	-.00005	.00157	.16269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23579.**	**30786.**
Stddev	12.	564.
%RSD	.04917	1.8330
#1	23587.	30146.
#2	23566.	31000.
#3	23585.	31212.

Approved: November 14, 2013

Sample Name: LCSW 3B Acquired: 11/13/2013 15:38:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20921**	**5.0936**	**.19681**	**1.0218**	**.50483**	**.02405**	**4.7965**	**.02502**
Stddev	.00074	.1068	.00061	.0002	.01113	.00011	.1248	.00007
%RSD	.35366	2.0958	.30794	.01727	2.2055	.47284	2.6017	.28688
#1	.20888	5.1938	.19632	1.0216	.51685	.02410	4.9202	.02498
#2	.20868	5.1056	.19749	1.0219	.50278	.02413	4.7985	.02498
#3	.21005	4.9813	.19663	1.0219	.49486	.02392	4.6707	.02510
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10205**	**.25163**	**.25552**	**2.0523**	**25.766**	**.48557**	**4.8702**	**.25237**
Stddev	.00022	.00077	.00046	.0508	.661	.01217	.1170	.00662
%RSD	.21621	.30588	.18073	2.4735	2.5664	2.5066	2.4032	2.6212
#1	.10230	.25165	.25604	2.1087	26.454	.49857	4.9956	.25935
#2	.10186	.25240	.25515	2.0378	25.708	.48369	4.8512	.25158
#3	.10200	.25086	.25538	2.0103	25.135	.47445	4.7639	.24619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51036**	**24.123**	**.25391**	**.01314**	**.26444**	**.60110**	**.20412**	**2.7025**
Stddev	.00063	.579	.00065	.00343	.00139	.00189	.00187	.0025
%RSD	.12387	2.4011	.25791	26.107	.52724	.31399	.91397	.09184
#1	.51027	24.737	.25445	.01681	.26593	.60062	.20570	2.7018
#2	.50978	24.047	.25409	.01002	.26318	.59950	.20461	2.7005
#3	.51103	23.586	.25318	.01259	.26420	.60319	.20206	2.7053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: LCSW 3B Acquired: 11/13/2013 15:38:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00733**	**.49316**	**.50120**	**.25913**	**.48896**	**.50727**	**.34772**
Stddev	.00050	.01224	.01175	.00280	.00031	.00061	.40957
%RSD	6.7873	2.4824	2.3437	1.0806	.06264	.11942	117.79
#1	-.00705	.50578	.51360	.25739	.48931	.50674	-.10254
#2	-.00703	.49235	.49977	.25765	.48876	.50715	.69816
#3	-.00790	.48134	.49024	.26236	.48881	.50793	.44755
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23248.**	**30826.**
Stddev	20.	731.
%RSD	.08535	2.3702
#1	23228.	30047.
#2	23268.	30937.
#3	23247.	31496.

Approved: November 14, 2013

Sample Name: L1311048936 Acquired: 11/13/2013 15:41:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.02442**	**-.00040**	**.08599**	**.04557**	**-.00001**	**42.089**	**.00041**
Stddev	.00028	.00703	.00070	.00123	.00105	.00003	.843	.00010
%RSD	162.89	28.790	176.13	1.4286	2.3000	378.75	2.0017	23.560
#1	-.00037	.03104	.00038	.08739	.04675	-.00003	43.054	.00050
#2	-.00029	.01704	-.00060	.08513	.04519	-.00002	41.501	.00031
#3	.00015	.02518	-.00097	.08544	.04476	.00002	41.712	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.00050**	**-.00003**	**.27530**	**3.1223**	**.02142**	**18.383**	**.06732**
Stddev	.00021	.00017	.00016	.00670	.0647	.00174	.290	.00116
%RSD	192.08	33.753	643.18	2.4331	2.0710	8.1431	1.5773	1.7193
#1	-.00004	.00068	-.00020	.28299	3.1968	.02322	18.685	.06864
#2	-.00034	.00035	.00001	.27215	3.0810	.02131	18.107	.06648
#3	.00006	.00046	.00012	.27075	3.0889	.01973	18.356	.06683
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00212**	**251.50**	**-.00029**	**.01326**	**.00060**	**.00058**	**-.00029**	**2.0168**
Stddev	.00015	3.29	.00079	.00113	.00018	.00105	.00211	.0039
%RSD	7.0835	1.3082	266.69	8.5109	29.155	179.62	734.43	.19124
#1	.00198	254.83	-.00020	.01434	.00044	.00159	.00202	2.0213
#2	.00209	248.25	-.00112	.01335	.00058	-.00050	-.00076	2.0148
#3	.00228	251.43	.00044	.01209	.00079	.00066	-.00212	2.0144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311048936 Acquired: 11/13/2013 15:41:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00733**	**.81636**	**-.00001**	**-.00103**	**.00040**	**.01010**	**.07518**
Stddev	.00056	.01887	.00037	.00053	.00028	.00001	.12094
%RSD	7.6942	2.3109	5793.6	51.685	69.165	.14261	160.88
#1	-.00779	.83813	.00003	-.00077	.00046	.01010	.21262
#2	-.00670	.80478	.00035	-.00067	.00064	.01009	.02788
#3	-.00750	.80618	-.00040	-.00164	.00010	.01012	-.01497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22360.**	**30691.**
Stddev	41.	501.
%RSD	.18415	1.6308
#1	22378.	30123.
#2	22313.	31064.
#3	22390.	30887.

Approved: November 14, 2013

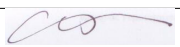
Sample Name: L1311048936DP Acquired: 11/13/2013 15:45:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**.04052**	**.00092**	**.07972**	**.04248**	**.00000**	**39.889**	**.00035**
Stddev	.00082	.01838	.00205	.00072	.00081	.00001	.733	.00003
%RSD	143.24	45.366	222.82	.90851	1.9117	299.99	1.8380	9.6402
#1	-.00017	.02966	.00281	.08047	.04341	.00000	40.735	.00032
#2	.00146	.03016	.00119	.07902	.04192	.00001	39.473	.00038
#3	.00043	.06175	-.00125	.07968	.04211	.00000	39.458	.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00039**	**-.00009**	**.25091**	**2.9062**	**.01936**	**17.315**	**.06312**
Stddev	.00006	.00006	.00046	.00470	.0695	.00140	.295	.00142
%RSD	207.92	14.384	496.92	1.8730	2.3929	7.2391	1.7063	2.2552
#1	.00002	.00043	-.00037	.25628	2.9831	.02023	17.643	.06476
#2	-.00003	.00042	-.00035	.24756	2.8875	.02011	17.069	.06238
#3	.00009	.00033	.00044	.24890	2.8479	.01775	17.233	.06221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00051**	**235.93**	**.04069**	**.01605**	**.00038**	**.00086**	**-.00238**	**2.4500**
Stddev	.00021	7.25	.07023	.00965	.00115	.00080	.00183	.9617
%RSD	40.026	3.0746	172.61	60.134	305.64	92.857	76.992	39.256
#1	.00034	244.20	.12179	.02715	-.00095	-.00001	-.00225	3.5597
#2	.00046	230.63	.00012	.01140	.00104	.00156	-.00427	1.9317
#3	.00074	232.96	.00016	.00960	.00104	.00105	-.00062	1.8585
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311048936DP Acquired: 11/13/2013 15:45:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00700**	**.76863**	**.00006**	**-.00131**	**.00031**	**.00937**	**.04698**
Stddev	.00038	.01445	.00054	.00173	.00041	.01155	.12249
%RSD	5.3899	1.8799	852.41	132.44	133.08	123.34	260.71
#1	-.00658	.78530	.00064	-.00327	.00078	.02271	-.09011
#2	-.00730	.76074	-.00002	.00000	.00013	.00263	.14567
#3	-.00712	.75984	-.00043	-.00066	.00002	.00276	.08540
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21880.**	**30457.**
Stddev	303.	580.
%RSD	1.3856	1.9056
#1	21537.	29787.
#2	21992.	30780.
#3	22112.	30804.

Approved: November 14, 2013

Sample Name: L1311048936S Acquired: 11/13/2013 15:48:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20551**	**5.0477**	**.19973**	**1.0987**	**.53978**	**.02444**	**46.302**	**.02515**
Stddev	.00137	.0982	.00126	.0053	.01166	.00010	.831	.00017
%RSD	.66677	1.9456	.63308	.48170	2.1607	.40438	1.7954	.67018
#1	.20631	5.1608	.20037	1.1001	.55299	.02452	47.261	.02511
#2	.20393	4.9985	.19827	1.0929	.53547	.02433	45.870	.02533
#3	.20629	4.9838	.20055	1.1032	.53089	.02447	45.776	.02500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09958**	**.24599**	**.24696**	**2.2748**	**28.722**	**.52043**	**22.409**	**.30597**
Stddev	.00011	.00057	.00067	.0532	.592	.00974	.404	.00335
%RSD	.11416	.23232	.27025	2.3406	2.0609	1.8708	1.8019	1.0959
#1	.09955	.24557	.24640	2.3340	29.401	.53115	22.872	.30974
#2	.09948	.24575	.24770	2.2599	28.445	.51798	22.224	.30486
#3	.09970	.24664	.24679	2.2306	28.318	.51215	22.132	.30331
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50786**	**261.43**	**.24679**	**.01994**	**.25123**	**.59795**	**.20146**	**4.4444**
Stddev	.00042	2.20	.00082	.00427	.00123	.00203	.00145	.0091
%RSD	.08247	.84113	.33406	21.399	.48977	.34033	.72166	.20555
#1	.50831	261.98	.24748	.01813	.24999	.59941	.20281	4.4549
#2	.50778	263.29	.24588	.02482	.25126	.59563	.19992	4.4406
#3	.50749	259.00	.24700	.01688	.25245	.59882	.20164	4.4378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

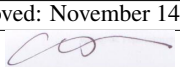
Approved: November 14, 2013

Sample Name: L1311048936S Acquired: 11/13/2013 15:48:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00686**	**1.2919**	**.50072**	**.23810**	**.49075**	**.50399**	**.19004**
Stddev	.00033	.0254	.01003	.00187	.00112	.00095	.10807
%RSD	4.8105	1.9648	2.0023	.78631	.22812	.18858	56.866
#1	-.00659	1.3212	.51228	.23611	.49200	.50408	.07365
#2	-.00675	1.2782	.49543	.23837	.48985	.50489	.28720
#3	-.00723	1.2763	.49445	.23983	.49041	.50300	.20927
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22271.**	**30112.**
Stddev	60.	285.
%RSD	.27093	.94552
#1	22248.	29790.
#2	22339.	30217.
#3	22225.	30330.

Approved: November 14, 2013



Sample Name: L1311048939 Acquired: 11/13/2013 15:52:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.05524**	**-.00071**	**.07645**	**.03613**	**.00004**	**57.007**
Stddev	.00034	.02292	.00143	.00078	.00105	.00001	1.473
%RSD	171.14	41.486	200.70	1.0253	2.9077	14.530	2.5838
#1	.00013	.08122	-.00230	.07728	.03734	.00004	58.705
#2	-.00054	.04656	-.00033	.07572	.03561	.00003	56.246
#3	-.00019	.03793	.00049	.07635	.03545	.00004	56.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00044**	**.00009**	**.00067**	**.00028**	**.34276**	**3.0159**	**.01671**
Stddev	.00005	.00017	.00033	.00037	.00933	.0869	.00114
%RSD	12.151	180.93	49.167	132.67	2.7231	2.8819	6.8504
#1	.00038	.00013	.00052	.00071	.35315	3.1159	.01744
#2	.00047	-.00009	.00044	.00007	.34003	2.9592	.01539
#3	.00048	.00024	.00104	.00006	.33510	2.9724	.01729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.503**	**.22228**	**.00170**	**249.75**	**.00003**	**.01325**	**-.00022**
Stddev	.407	.00534	.00027	5.64	.00017	.00238	.00135
%RSD	1.9873	2.4002	15.721	2.2563	659.79	17.986	610.58
#1	20.957	.22838	.00141	256.00	-.00014	.01588	-.00127
#2	20.387	.21998	.00193	248.18	.00002	.01123	.00131
#3	20.167	.21848	.00176	245.06	.00019	.01264	-.00070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311048939 Acquired: 11/13/2013 15:52:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.00277**	**2.6761**	**-.00743**	**.83325**	**.00051**	**-.00121**
Stddev	.00213	.00420	.0490	.00039	.01882	.00117	.00115
%RSD	433.74	151.72	1.8310	5.3116	2.2588	227.89	95.397
#1	.00197	.00519	2.6264	-.00780	.85494	-.00063	-.00215
#2	-.00171	.00519	2.6774	-.00701	.82359	.00046	-.00155
#3	-.00173	-.00208	2.7244	-.00749	.82123	.00171	.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00029**	**.00267**	F **-.00635**
Stddev	.00023	.00008	.41367
%RSD	79.580	2.8912	6511.0
#1	.00046	.00261	-.48331
#2	.00003	.00265	.20952
#3	.00037	.00276	.25473
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22352.**	**30050.**
Stddev	72.	622.
%RSD	.32371	2.0694
#1	22306.	29349.
#2	22314.	30265.
#3	22435.	30535.

Approved: November 14, 2013

Sample Name: L1311048941 Acquired: 11/13/2013 15:55:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**.20420**	**-.00032**	**.08204**	**.03531**	**.00007**	**82.224**	**.00044**
Stddev	.00050	.01023	.00216	.00026	.00078	.00001	2.173	.00009
%RSD	99.526	5.0117	682.71	.31094	2.2201	11.875	2.6423	19.733
#1	.00108	.21486	-.00215	.08232	.03622	.00006	84.731	.00036
#2	.00028	.19445	-.00086	.08195	.03489	.00007	80.908	.00053
#3	.00015	.20328	.00206	.08183	.03483	.00006	81.032	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00089**	**.00070**	**.23571**	**3.9157**	**.00421**	**16.614**	**.11115**
Stddev	.00004	.00013	.00053	.00671	.1009	.00165	.304	.00282
%RSD	18.937	14.590	76.106	2.8489	2.5761	39.126	1.8275	2.5358
#1	.00017	.00102	.00020	.24286	4.0322	.00407	16.963	.11432
#2	.00019	.00090	.00127	.22953	3.8561	.00592	16.460	.11019
#3	.00025	.00076	.00063	.23473	3.8589	.00264	16.418	.10894
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00318**	**181.08**	**.00053**	**.02384**	**.00109**	**-.00030**	**-.00154**	**2.8379**
Stddev	.00020	4.63	.00049	.00158	.00004	.00213	.00232	.0914
%RSD	6.4288	2.5587	93.822	6.6202	3.4255	714.74	150.84	3.2201
#1	.00295	186.43	.00014	.02565	.00113	-.00258	.00081	2.8694
#2	.00324	178.23	.00108	.02314	.00110	.00164	-.00160	2.9094
#3	.00335	178.59	.00036	.02273	.00105	.00005	-.00383	2.7350
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311048941 Acquired: 11/13/2013 15:55:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00721**	**.59105**	**.00420**	**-.00152**	**.00050**	**.00713**	**.32751**
Stddev	.00049	.01543	.00187	.00085	.00013	.00013	.14982
%RSD	6.7927	2.6114	44.554	55.767	26.063	1.7884	45.744
#1	-.00691	.60886	.00308	-.00153	.00064	.00699	.35436
#2	-.00694	.58186	.00636	-.00067	.00047	.00721	.16609
#3	-.00778	.58241	.00316	-.00236	.00039	.00720	.46210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22326.**	**30149.**
Stddev	11.	621.
%RSD	.04825	2.0600
#1	22338.	29442.
#2	22318.	30399.
#3	22323.	30605.

Approved: November 14, 2013

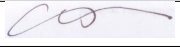
Sample Name: L1311048943 Acquired: 11/13/2013 15:59:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**.00723**	**.00010**	**.04200**	**.05332**	**.00002**	**50.270**
Stddev	.00053	.02031	.00111	.00049	.00126	.00001	1.268
%RSD	79.904	280.85	1099.5	1.1553	2.3611	68.172	2.5218
#1	.00070	.01474	-.00026	.04167	.05473	.00003	51.707
#2	.00117	-.01576	.00135	.04256	.05289	.00000	49.790
#3	.00011	.02271	-.00079	.04177	.05233	.00003	49.312
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**.00004**	**.00032**	**.00003**	**.03371**	**1.7131**	**.00374**
Stddev	.00004	.00019	.00042	.00029	.00190	.0815	.00192
%RSD	9.9868	424.69	131.61	849.22	5.6339	4.7587	51.313
#1	.00038	.00007	.00079	-.00026	.03438	1.8010	.00506
#2	.00036	-.00016	-.00004	.00032	.03518	1.6985	.00154
#3	.00044	.00022	.00021	.00004	.03156	1.6399	.00461
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.363**	**.01513**	**.00112**	**28.201**	**-.00043**	**.02151**	**.00238**
Stddev	.428	.00030	.00019	.703	.00056	.00218	.00059
%RSD	2.7879	1.9908	16.719	2.4918	130.07	10.148	24.604
#1	15.832	.01548	.00123	29.002	.00021	.02303	.00260
#2	15.264	.01493	.00090	27.912	-.00070	.02249	.00172
#3	14.993	.01499	.00122	27.688	-.00081	.01901	.00283
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013



Sample Name: L1311048943 Acquired: 11/13/2013 15:59:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**.00051**	**2.4835**	**-.00722**	**.64022**	**-.00200**	**-.00213**
Stddev	.00165	.00123	.0707	.00022	.01591	.00101	.00150
%RSD	283.09	240.77	2.8454	3.0157	2.4852	50.763	70.648
#1	.00162	.00112	2.4415	-.00746	.65806	-.00294	-.00267
#2	.00144	-.00091	2.5651	-.00705	.63510	-.00093	-.00328
#3	-.00132	.00132	2.4439	-.00713	.62750	-.00212	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00017**	**.00179**	F **-.11757**
Stddev	.00028	.00007	.36041
%RSD	163.95	3.9550	306.56
#1	.00008	.00179	-.30355
#2	.00049	.00172	-.34700
#3	-.00005	.00186	.29785
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22650.**	**30070.**
Stddev	19.	747.
%RSD	.08336	2.4850
#1	22661.	29208.
#2	22628.	30459.
#3	22661.	30541.

Approved: November 14, 2013

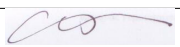
Sample Name: L1311048943PS Acquired: 11/13/2013 16:02:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452634-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21237**	**5.1543**	**.20350**	**1.0865**	**.56480**	**.02516**	**50.215**	**.02594**
Stddev	.00226	.1181	.00062	.0085	.01182	.00018	1.159	.00008
%RSD	1.0659	2.2903	.30371	.78050	2.0920	.72402	2.3075	.31794
#1	.21199	5.2829	.20407	1.0904	.57809	.02509	51.498	.02602
#2	.21480	5.1292	.20359	1.0922	.56081	.02536	49.902	.02585
#3	.21032	5.0509	.20284	1.0767	.55549	.02502	49.245	.02595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10319**	**.25952**	**.25956**	**2.1372**	**27.808**	**.50877**	**18.735**	**.27128**
Stddev	.00022	.00232	.00023	.0444	.684	.01234	.407	.00466
%RSD	.21505	.89298	.08920	2.0780	2.4607	2.4247	2.1723	1.7193
#1	.10293	.25863	.25930	2.1884	28.579	.52179	19.189	.27628
#2	.10327	.26216	.25976	2.1140	27.573	.50726	18.614	.27051
#3	.10335	.25779	.25961	2.1092	27.272	.49726	18.403	.26705
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.52511**	**51.062**	**.25684**	**.02386**	**.26674**	**.61807**	**.20495**	**4.7682**
Stddev	.00069	.998	.00066	.00097	.00219	.00129	.00176	.0043
%RSD	.13053	1.9553	.25887	4.0651	.81963	.20933	.85867	.09072
#1	.52578	52.144	.25717	.02296	.26926	.61690	.20377	4.7716
#2	.52513	50.867	.25608	.02489	.26564	.61946	.20411	4.7633
#3	.52441	50.175	.25728	.02374	.26532	.61785	.20697	4.7696
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311048943PS Acquired: 11/13/2013 16:02:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452634-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00673**	**1.0670**	**.51214**	**.26150**	**.50432**	**.51673**	**.34596**
Stddev	.00032	.0267	.01231	.00368	.00339	.00049	.35237
%RSD	4.7210	2.5019	2.4031	1.4056	.67137	.09390	101.85
#1	-.00669	1.0972	.52600	.26498	.50281	.51728	.36889
#2	-.00707	1.0569	.50792	.26186	.50820	.51636	-.01732
#3	-.00644	1.0468	.50250	.25766	.50196	.51656	.68631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22727.**	**30133.**
Stddev	58.	570.
%RSD	.25575	1.8918
#1	22679.	29487.
#2	22710.	30347.
#3	22792.	30565.

Approved: November 14, 2013

Sample Name: L1311048943SDL Acquired: 11/13/2013 16:06:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452634-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00054**	**-.00516**	**-.00040**	**.01195**	**.01103**	**-.00001**	**10.383**
Stddev	.00003	.00581	.00147	.00089	.00065	.00002	.191
%RSD	5.1264	112.59	363.79	7.4596	5.8576	141.22	1.8399
#1	.00051	-.00422	.00126	.01288	.01176	-.00001	10.601
#2	.00055	-.01138	-.00151	.01110	.01053	.00000	10.302
#3	.00056	.00012	-.00097	.01188	.01079	-.00003	10.246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00015**	**.00023**	**.00045**	**.00717**	**.38410**	**-.00101**
Stddev	.00002	.00014	.00061	.00036	.00238	.01255	.00031
%RSD	14.244	87.521	260.57	80.913	33.127	3.2672	30.850
#1	.00011	.00014	-.00022	.00007	.00967	.39120	-.00135
#2	.00013	.00030	.00000	.00079	.00494	.39148	-.00073
#3	.00010	.00003	.00093	.00048	.00691	.36961	-.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1916**	**.00329**	**.00167**	**5.7095**	**-.00083**	**.00803**	**.00086**
Stddev	.0825	.00006	.00007	.1451	.00014	.00278	.00145
%RSD	2.5858	1.8178	4.2143	2.5421	16.473	34.593	167.82
#1	3.2776	.00336	.00161	5.8748	-.00075	.01121	.00219
#2	3.1843	.00325	.00175	5.6505	-.00076	.00606	.00108
#3	3.1130	.00327	.00164	5.6031	-.00099	.00683	-.00068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311048943SDL Acquired: 11/13/2013 16:06:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG452634-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00071**	**.00230**	**.51375**	**-.00702**	**.12998**	**-.00043**	**-.00102**
Stddev	.00097	.00235	.00317	.00037	.00250	.00100	.00076
%RSD	136.40	102.46	.61670	5.2679	1.9214	232.88	74.680
#1	-.00082	.00074	.51583	-.00743	.13287	.00068	-.00097
#2	.00031	.00114	.51532	-.00670	.12850	-.00072	-.00181
#3	-.00162	.00501	.51010	-.00694	.12858	-.00125	-.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00019**	**.00095**	F **-.09746**
Stddev	.00017	.00005	.22749
%RSD	88.699	5.2055	233.43
#1	.00000	.00090	-.29183
#2	.00025	.00100	.15276
#3	.00033	.00095	-.15330
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23354.**	**30541.**
Stddev	15.	574.
%RSD	.06348	1.8785
#1	23371.	29881.
#2	23347.	30825.
#3	23343.	30917.

Approved: November 14, 2013

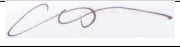
Sample Name: CCV Acquired: 11/13/2013 16:09:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41353**	**10.453**	**.40564**	**.52243**	**1.0466**	**.04926**	**9.9664**
Stddev	.00031	.264	.00105	.00262	.0229	.00019	.2524
%RSD	.07419	2.5296	.25789	.50175	2.1855	.38684	2.5326
#1	.41365	10.752	.40469	.52157	1.0729	.04939	10.237
#2	.41376	10.358	.40676	.52538	1.0360	.04934	9.9240
#3	.41318	10.249	.40546	.52035	1.0310	.04904	9.7378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05088**	**.20674**	**.51281**	**.51999**	**4.2224**	**52.493**	**1.0187**
Stddev	.00012	.00015	.00229	.00105	.0945	1.204	.0235
%RSD	.23353	.07388	.44594	.20115	2.2394	2.2926	2.3066
#1	.05087	.20657	.51528	.52084	4.3315	53.875	1.0450
#2	.05101	.20681	.51241	.52030	4.1690	51.934	1.0112
#3	.05077	.20685	.51076	.51882	4.1665	51.672	.99981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.214**	**.52439**	**1.0310**	**50.003**	**.51801**	**9.9297**	**.53304**
Stddev	.247	.01196	.0011	1.206	.00072	.0076	.00274
%RSD	2.4215	2.2812	.10858	2.4112	.13891	.07689	.51332
#1	10.493	.53819	1.0310	51.344	.51883	9.9356	.53410
#2	10.127	.51815	1.0322	49.657	.51747	9.9325	.53508
#3	10.021	.51684	1.0299	49.008	.51773	9.9211	.52993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



Sample Name: CCV Acquired: 11/13/2013 16:09:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2205**	**.41015**	**5.3373**	**1.0604**	**1.0156**	**1.0320**	**.51865**
Stddev	.0030	.00192	.0072	.0091	.0248	.0267	.00203
%RSD	.24907	.46785	.13462	.85878	2.4404	2.5845	.39229
#1	1.2181	.41094	5.3301	1.0709	1.0429	1.0622	.51688
#2	1.2239	.41155	5.3444	1.0562	1.0095	1.0224	.52088
#3	1.2196	.40796	5.3372	1.0542	.99452	1.0115	.51820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0064**	**1.0439**	F **.50651**
Stddev	.0030	.0001	.28128
%RSD	.29714	.01475	55.532
#1	1.0080	1.0439	.20057
#2	1.0082	1.0440	.75390
#3	1.0029	1.0437	.56507
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23052.**	**30180.**
Stddev	26.	689.
%RSD	.11374	2.2845
#1	23045.	29385.
#2	23030.	30541.
#3	23081.	30614.

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 16:12:55 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00051**	**-.00294**	**.00019**	**.00421**	**.00061**	**.00002**	**.00360**	**.00013**
Stddev	.00020	.00322	.00240	.00104	.00024	.00000	.00277	.00010
%RSD	38.696	109.58	1240.1	24.705	39.671	7.1238	77.065	76.557
#1	.00061	-.00273	-.00124	.00452	.00088	.00002	.00507	.00019
#2	.00063	.00017	-.00115	.00505	.00040	.00002	.00040	.00017
#3	.00028	-.00626	.00297	.00305	.00056	.00002	.00533	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00010**	**.00002**	**.00066**	**.05756**	**-.00085**	**.01881**	**.00005**
Stddev	.00009	.00027	.00042	.00416	.02775	.00095	.01375	.00002
%RSD	40.600	281.72	2495.0	634.40	48.207	112.49	73.118	45.608
#1	.00032	.00039	.00010	.00429	.08867	-.00190	.03462	.00006
#2	.00015	-.00012	-.00043	.00156	.04865	-.00061	.00969	.00007
#3	.00019	.00002	.00039	-.00389	.03536	-.00004	.01211	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00516**	**.03040**	**-.00093**	**.00384**	**.00012**	**.00730**	**-.00025**	**.00616**
Stddev	.00051	.00100	.00056	.00142	.00059	.00125	.00280	.00094
%RSD	9.8918	3.2791	60.790	36.888	474.27	17.118	1102.6	15.184
#1	.00457	.03124	-.00114	.00478	.00080	.00658	-.00330	.00560
#2	.00545	.03066	-.00029	.00453	-.00019	.00658	.00223	.00565
#3	.00547	.02930	-.00135	.00221	-.00024	.00875	.00030	.00725
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 16:12:55 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00130**	**.00032**	**-.00059**	**-.00074**	**.00010**	**-.00003**	**-.08830**
Stddev	.00031	.00019	.00044	.00047	.00022	.00002	.28339
%RSD	23.723	60.232	73.908	63.879	223.84	88.700	320.92
#1	.00149	.00051	-.00058	-.00066	.00009	-.00001	.00328
#2	.00146	.00031	-.00016	-.00125	-.00012	-.00002	.13797
#3	.00094	.00013	-.00103	-.00031	.00032	-.00005	-.40616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23250.**	**30181.**
Stddev	42.	600.
%RSD	.18139	1.9881
#1	23253.	29493.
#2	23291.	30459.
#3	23206.	30592.

Approved: November 14, 2013

Sample Name: L1311049445 Acquired: 11/13/2013 16:16:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.02095**	**.00038**	**.29476**	**.03322**	**.00004**	**99.938**
Stddev	.00041	.01884	.00220	.00240	.00096	.00002	2.542
%RSD	198.01	89.928	579.39	.81446	2.8990	35.841	2.5435
#1	-.00025	.04029	.00266	.29552	.03431	.00003	102.87
#2	.00033	.00265	.00019	.29207	.03284	.00006	98.573
#3	.00054	.01992	-.00172	.29669	.03250	.00005	98.370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**-.00008**	**.00114**	**.00134**	**.15733**	**2.9868**	**.01551**
Stddev	.00010	.00008	.00021	.00030	.00585	.1140	.00061
%RSD	17.365	100.77	18.284	22.422	3.7192	3.8152	3.9322
#1	.00048	-.00017	.00097	.00157	.16398	3.1099	.01617
#2	.00060	-.00005	.00138	.00145	.15295	2.9655	.01497
#3	.00068	-.00002	.00109	.00100	.15507	2.8850	.01538
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.548**	**.07632**	**.00135**	**252.01**	**.00409**	**.01899**	**.00233**
Stddev	.727	.00179	.00027	6.96	.00082	.00174	.00157
%RSD	2.4609	2.3389	20.273	2.7629	20.149	9.1750	67.522
#1	30.385	.07839	.00106	258.85	.00348	.01699	.00206
#2	29.194	.07527	.00139	252.24	.00503	.01982	.00401
#3	29.066	.07531	.00160	244.93	.00376	.02016	.00090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311049445 Acquired: 11/13/2013 16:16:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00298**	**.00073**	**2.5020**	**-.00724**	**1.0898**	**-.00269**	**-.00185**
Stddev	.00088	.00214	.0553	.00032	.0274	.00034	.00069
%RSD	29.463	294.55	2.2102	4.4073	2.5116	12.645	37.494
#1	.00395	.00302	2.5465	-.00699	1.1214	-.00236	-.00253
#2	.00274	-.00122	2.4401	-.00712	1.0748	-.00267	-.00114
#3	.00224	.00039	2.5194	-.00760	1.0733	-.00304	-.00187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00032**	**.00310**	F **-.34636**
Stddev	.00012	.00010	.36631
%RSD	36.152	3.0784	105.76
#1	.00022	.00305	.07431
#2	.00031	.00304	-.59497
#3	.00045	.00321	-.51842
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21946.**	**29965.**
Stddev	47.	569.
%RSD	.21438	1.8972
#1	21989.	29316.
#2	21954.	30201.
#3	21896.	30378.

Approved: November 14, 2013

Sample Name: L1311049701 Acquired: 11/13/2013 16:20:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**.04866**	**-.00083**	**.05048**	**.04754**	**.00002**	**50.520**
Stddev	.00057	.02412	.00232	.00023	.00084	.00002	1.289
%RSD	126.46	49.578	279.50	.46081	1.7663	92.868	2.5510
#1	.00009	.06165	-.00148	.05022	.04841	.00005	51.961
#2	.00110	.02082	.00175	.05067	.04745	.00002	50.120
#3	.00016	.06350	-.00276	.05054	.04674	.00000	49.479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.00014**	**.00076**	**.00059**	**.16633**	**5.6726**	**.03341**
Stddev	.00012	.00019	.00022	.00042	.00319	.1226	.00150
%RSD	41.706	134.83	29.207	71.626	1.9194	2.1609	4.5045
#1	.00016	.00023	.00063	.00058	.16991	5.8126	.03502
#2	.00029	-.00008	.00063	.00018	.16377	5.6209	.03317
#3	.00039	.00027	.00102	.00102	.16530	5.5843	.03204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.5468**	**.04455**	**.00073**	**49.176**	**.00036**	**.02687**	**-.00028**
Stddev	.2174	.00105	.00019	1.138	.00047	.00012	.00051
%RSD	2.5437	2.3643	25.651	2.3148	129.77	.46198	182.84
#1	8.7943	.04575	.00052	50.477	.00043	.02673	.00031
#2	8.4593	.04383	.00079	48.687	.00079	.02692	-.00061
#3	8.3868	.04405	.00088	48.364	-.00014	.02696	-.00053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311049701 Acquired: 11/13/2013 16:20:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00046**	**1.0643**	**-.00739**	**.37229**	**.00067**	**-.00089**
Stddev	.00127	.00253	.0135	.00037	.00932	.00109	.00089
%RSD	52768.	550.40	1.2725	4.9997	2.5022	164.31	99.854
#1	.00127	.00167	1.0758	-.00697	.38266	.00006	.00014
#2	.00001	-.00245	1.0494	-.00756	.36962	.00001	-.00143
#3	-.00128	.00216	1.0677	-.00765	.36461	.00193	-.00139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00039**	**.00418**	F **-.00869**
Stddev	.00005	.00006	.30008
%RSD	13.016	1.4189	3452.8
#1	.00034	.00423	-.32055
#2	.00039	.00411	.27803
#3	.00044	.00421	.01645
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22569.**	**30227.**
Stddev	29.	606.
%RSD	.12751	2.0042
#1	22590.	29536.
#2	22536.	30480.
#3	22580.	30666.

Approved: November 14, 2013

Sample Name: L1311049703 Acquired: 11/13/2013 16:23:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00054**	**.03639**	**-.00029**	**.04722**	**.04564**	**.00000**	**49.220**
Stddev	.00025	.02776	.00128	.00018	.00073	.0000	.943
%RSD	46.940	76.305	441.28	.39004	1.6004	939.93	1.9166
#1	.00026	.06706	-.00058	.04742	.04648	-.00001	50.308
#2	.00075	.01298	-.00140	.04720	.04531	.00001	48.735
#3	.00062	.02911	.00111	.04705	.04514	-.00001	48.619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.00010**	**.00081**	**.00065**	**.15994**	**5.3978**	**.03148**
Stddev	.00010	.00013	.00053	.00045	.00397	.1253	.00150
%RSD	34.649	124.15	65.783	69.695	2.4824	2.3217	4.7526
#1	.00018	.00019	.00021	.00013	.15894	5.5249	.03168
#2	.00031	.00017	.00123	.00099	.16432	5.3940	.03287
#3	.00039	-.00004	.00098	.00083	.15657	5.2744	.02990
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.2732**	**.04374**	**.00085**	**48.041**	**.00039**	**.02090**	**.00042**
Stddev	.1613	.00069	.00032	.949	.00096	.00182	.00063
%RSD	1.9498	1.5662	37.370	1.9750	242.65	8.6843	152.18
#1	8.4526	.04453	.00083	49.135	.00051	.01969	.00085
#2	8.2267	.04342	.00054	47.539	.00128	.02003	-.00031
#3	8.1402	.04328	.00118	47.448	-.00062	.02299	.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311049703 Acquired: 11/13/2013 16:23:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**-.00106**	**1.0137**	**-.00747**	**.35846**	**-.00045**	**-.00034**
Stddev	.00121	.00172	.0143	.00043	.00699	.00062	.00105
%RSD	777.36	162.51	1.4090	5.7944	1.9502	136.31	303.85
#1	.00110	-.00213	1.0010	-.00795	.36648	-.00055	-.00034
#2	.00056	.00093	1.0292	-.00736	.35517	.00021	-.00139
#3	-.00120	-.00198	1.0108	-.00711	.35372	-.00102	.00070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00014**	**.00243**	F **-.06990**
Stddev	.00005	.00004	.25738
%RSD	39.642	1.4761	368.21
#1	.00020	.00240	-.07241
#2	.00010	.00247	-.32602
#3	.00011	.00243	.18873
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22715.**	**30021.**
Stddev	72.	522.
%RSD	.31858	1.7374
#1	22672.	29436.
#2	22799.	30189.
#3	22675.	30438.

Approved: November 14, 2013

Sample Name: L1311049706 Acquired: 11/13/2013 16:27:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.02652**	**-.00017**	**.60436**	**.06412**	**.00002**	F **821.11**
Stddev	.00045	.01263	.00151	.00385	.00106	.00005	5.30
%RSD	69.570	47.629	910.13	.63625	1.6470	200.70	.64602
#1	-.00110	.02464	.00024	.60091	.06534	-.00001	825.56
#2	-.00020	.01494	.00110	.60851	.06347	.00007	822.54
#3	-.00066	.03999	-.00183	.60368	.06356	.00000	815.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00101**	**-.00001**	**.00143**	**-.00002**	**.14940**	**205.11**	**1.9780**
Stddev	.00007	.00002	.00047	.00037	.00365	3.12	.0279
%RSD	6.5050	192.53	32.938	1649.8	2.4442	1.5221	1.4132
#1	.00097	-.00003	.00192	-.00004	.15358	208.71	2.0102
#2	.00097	.00001	.00139	.00036	.14774	203.53	1.9597
#3	.00108	-.00001	.00098	-.00038	.14686	203.10	1.9643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**59.404**	**.04888**	**.00900**	F **437.67**	**-.00039**	**.03262**	**-.00052**
Stddev	.746	.00002	.00020	8.92	.00007	.00378	.00123
%RSD	1.2566	.03994	2.1917	2.0389	17.320	11.590	237.20
#1	60.260	.04886	.00879	445.85	-.00034	.03651	-.00169
#2	59.067	.04889	.00902	439.00	-.00047	.02896	-.00061
#3	58.886	.04889	.00919	428.15	-.00036	.03240	.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311049706 Acquired: 11/13/2013 16:27:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00153**	**-.00329**	**1.7354**	**-.00729**	F **9.6545**	**-.01115**	**-.00168**
Stddev	.00158	.00404	.0383	.00029	.1103	.00107	.00410
%RSD	103.35	122.54	2.2058	4.0270	1.1428	9.5689	244.82
#1	.00322	.00128	1.7624	-.00701	9.7468	-.01216	.00166
#2	.00010	-.00637	1.6916	-.00760	9.6843	-.01127	-.00626
#3	.00126	-.00479	1.7522	-.00726	9.5323	-.01003	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00017**	**.00172**	F **-1.0698**
Stddev	.00043	.00006	.3875
%RSD	261.20	3.5178	36.218
#1	.00054	.00172	-1.1711
#2	.00026	.00166	-1.3966
#3	-.00031	.00178	-.64177
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19941.**	**29007.**
Stddev	20.	97.
%RSD	.10237	.33450
#1	19956.	28914.
#2	19917.	29000.
#3	19949.	29108.

Approved: November 14, 2013

Sample Name: L1311049706S Acquired: 11/13/2013 16:30:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.22406**	**5.2297**	**.21198**	**1.6565**	**.56873**	**.02421**	F **800.88**
Stddev	.00198	.0859	.00310	.0090	.00593	.00017	6.58
%RSD	.88168	1.6428	1.4629	.54590	1.0425	.68693	.82165
#1	.22453	5.3193	.21491	1.6568	.57558	.02425	808.11
#2	.22576	5.2215	.21230	1.6654	.56543	.02436	795.24
#3	.22190	5.1481	.20873	1.6474	.56520	.02403	799.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							270.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02704**	**.09764**	**.24729**	**.24776**	**2.1357**	**225.81**	**2.4553**
Stddev	.00020	.00028	.00176	.00118	.0192	2.88	.0307
%RSD	.75208	.28356	.71228	.47562	.89707	1.2747	1.2498
#1	.02720	.09788	.24783	.24703	2.1575	229.09	2.4897
#2	.02681	.09734	.24871	.24912	2.1215	224.64	2.4458
#3	.02710	.09769	.24532	.24714	2.1282	223.70	2.4306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**62.123**	**.27493**	**.52195**	F **431.77**	**.24074**	**.03906**	**.24680**
Stddev	.825	.00322	.00248	11.74	.00137	.00546	.00103
%RSD	1.3274	1.1711	.47464	2.7200	.57048	13.970	.41568
#1	63.073	.27865	.52443	445.33	.24066	.04408	.24797
#2	61.711	.27316	.52195	425.24	.24215	.03984	.24608
#3	61.586	.27298	.51948	424.74	.23940	.03325	.24634
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

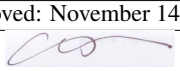
Sample Name: L1311049706S Acquired: 11/13/2013 16:30:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG452564-07

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.63255**	**.21042**	**4.4295**	**-.00706**	F **9.7932**	**.49083**	**.22265**
Stddev	.00555	.00247	.0086	.00030	.1200	.00751	.00487
%RSD	.87772	1.1720	.19491	4.2043	1.2252	1.5293	2.1875
#1	.63643	.21313	4.4305	-.00678	9.9300	.49910	.22321
#2	.63503	.20831	4.4204	-.00737	9.7436	.48893	.22721
#3	.62619	.20982	4.4375	-.00704	9.7060	.48445	.21752
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49815**	**.49133**	F **-.61602**
Stddev	.00224	.00042	.32997
%RSD	.45004	.08627	53.565
#1	.49973	.49097	-.99637
#2	.49914	.49180	-.40627
#3	.49558	.49124	-.44543
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19938.**	**28919.**
Stddev	43.	312.
%RSD	.21495	1.0778
#1	19902.	28567.
#2	19927.	29161.
#3	19986.	29029.

Approved: November 14, 2013



Sample Name: L1311050801 Acquired: 11/13/2013 16:34:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00327**	**.07330**	**-.00071**	**.21470**	**.05556**	**.00009**	**26.481**
Stddev	.00034	.00445	.00276	.00078	.00134	.00002	.841
%RSD	10.482	6.0657	387.16	.36115	2.4087	25.839	3.1777
#1	.00366	.07015	-.00306	.21453	.05711	.00012	27.452
#2	.00301	.07136	-.00142	.21403	.05472	.00007	26.030
#3	.00313	.07838	.00234	.21555	.05487	.00009	25.961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00219**	**-.00037**	**.00637**	**.44859**	**3.4157**	**10.889**	**.06849**
Stddev	.00008	.00007	.00096	.00207	.0809	.321	.00175
%RSD	3.6825	18.436	15.020	.46230	2.3679	2.9523	2.5509
#1	.00225	-.00033	.00665	.44641	3.5083	11.259	.07043
#2	.00210	-.00045	.00716	.45054	3.3588	10.721	.06800
#3	.00223	-.00033	.00531	.44882	3.3800	10.686	.06704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.9824**	**.11956**	**.15041**	F **512.68**	**.30221**	**1.1435**	**.01027**
Stddev	.0637	.00271	.00109	24.62	.00148	.0096	.00102
%RSD	3.2130	2.2686	.72725	4.8015	.49100	.83694	9.8847
#1	2.0559	.12269	.14918	540.94	.30061	1.1332	.01120
#2	1.9439	.11792	.15126	501.19	.30354	1.1450	.00919
#3	1.9474	.11806	.15079	495.92	.30247	1.1521	.01044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311050801 Acquired: 11/13/2013 16:34:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00068**	**.00112**	**3.3828**	**-.00650**	**.28176**	**.08288**	**-.00083**
Stddev	.00163	.00067	.0041	.00041	.00895	.00380	.00148
%RSD	239.91	59.563	.12236	6.3000	3.1774	4.5793	178.34
#1	.00234	.00068	3.3843	-.00672	.29207	.08577	-.00232
#2	-.00091	.00080	3.3860	-.00603	.27721	.08429	-.00081
#3	.00061	.00189	3.3781	-.00676	.27599	.07858	.00064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00095**	**.39429**	F **229.28**
Stddev	.00019	.00039	.29
%RSD	20.055	.09950	.12650
#1	.00101	.39457	229.42
#2	.00074	.39446	228.94
#3	.00111	.39384	229.47
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21990.**	**30663.**
Stddev	22.	652.
%RSD	.10166	2.1271
#1	22014.	29910.
#2	21988.	31016.
#3	21969.	31062.

Approved: November 14, 2013

Sample Name: L1311054501 Acquired: 11/13/2013 16:38:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00183**	**.55070**	**-.00047**	**.13050**	**.05285**	**.00009**	**12.986**	**.00043**
Stddev	.00010	.01309	.00070	.00097	.00139	.00002	.328	.00010
%RSD	5.2635	2.3774	148.78	.74241	2.6334	23.984	2.5228	23.825
#1	.00190	.56385	.00029	.12949	.05445	.00009	13.339	.00054
#2	.00186	.53766	-.00060	.13141	.05208	.00011	12.930	.00034
#3	.00172	.55059	-.00109	.13062	.05201	.00007	12.691	.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00086**	**.00290**	**.04168**	**1.8443**	**11.410**	**.00218**	**3.7431**	**.06044**
Stddev	.00010	.00011	.00026	.0289	.323	.00062	.0814	.00148
%RSD	12.146	3.6509	.62404	1.5656	2.8339	28.523	2.1734	2.4462
#1	.00096	.00279	.04159	1.8759	11.772	.00209	3.8268	.06208
#2	.00076	.00292	.04148	1.8376	11.306	.00160	3.7382	.06003
#3	.00085	.00300	.04198	1.8194	11.151	.00283	3.6644	.05921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00235**	**58.692**	**.00327**	**6.5998**	**.00699**	**.00352**	**.00125**	**7.2822**
Stddev	.00004	1.231	.00030	.1217	.00158	.00116	.00059	.0118
%RSD	1.7758	2.0974	9.0873	1.8442	22.645	32.997	47.092	.16215
#1	.00230	60.046	.00309	6.7381	.00818	.00456	.00170	7.2797
#2	.00237	58.391	.00361	6.5090	.00760	.00227	.00058	7.2950
#3	.00238	57.639	.00310	6.5523	.00519	.00374	.00147	7.2718
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311054501 Acquired: 11/13/2013 16:38:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00322**	**.07466**	**.00940**	**-.00132**	**.00171**	**.39496**	**13.346**
Stddev	.00019	.00201	.00009	.00093	.00003	.00096	.143
%RSD	6.0433	2.6931	.96303	70.559	1.5518	.24263	1.0726
#1	-.00308	.07683	.00942	-.00117	.00174	.39421	13.273
#2	-.00344	.07427	.00948	-.00232	.00169	.39462	13.254
#3	-.00314	.07287	.00930	-.00048	.00170	.39604	13.511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23100.**	**31292.**
Stddev	41.	741.
%RSD	.17931	2.3695
#1	23148.	30462.
#2	23075.	31527.
#3	23077.	31888.

Approved: November 14, 2013

Sample Name: L1311054601 Acquired: 11/13/2013 16:41:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**.31320**	**.00030**	**.07016**	**.06186**	**.00017**	**20.094**	**.00034**
Stddev	.00046	.00980	.00088	.00095	.00143	.00004	.413	.00015
%RSD	34.666	3.1281	290.30	1.3534	2.3043	23.060	2.0552	43.639
#1	.00148	.31490	.00066	.07017	.06344	.00013	20.551	.00024
#2	.00080	.30266	-.00070	.07110	.06148	.00019	19.984	.00027
#3	.00168	.32203	.00095	.06920	.06067	.00020	19.747	.00051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00136**	**.00118**	**.03456**	**2.6029**	**9.4597**	**.00140**	**3.3115**	**.06581**
Stddev	.00017	.00024	.00071	.0594	.2700	.00151	.0707	.00153
%RSD	12.548	19.903	2.0479	2.2833	2.8544	107.42	2.1356	2.3210
#1	.00139	.00127	.03428	2.6713	9.7712	.00304	3.3880	.06754
#2	.00117	.00136	.03405	2.5729	9.3147	.00107	3.2979	.06519
#3	.00151	.00092	.03537	2.5644	9.2931	.00009	3.2485	.06468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00492**	**41.206**	**.00203**	**3.9344**	**.00107**	**.00016**	**-.00041**	**8.3163**
Stddev	.00011	.867	.00024	.0687	.00080	.00097	.00110	.0130
%RSD	2.1999	2.1052	11.758	1.7462	74.690	625.07	266.57	.15653
#1	.00480	42.188	.00202	3.8885	.00144	.00125	.00008	8.3232
#2	.00502	40.889	.00228	3.9013	.00015	-.00020	-.00168	8.3013
#3	.00493	40.542	.00180	4.0134	.00162	-.00059	.00035	8.3245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311054601 Acquired: 11/13/2013 16:41:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00332**	**.09131**	**.00221**	**-.00052**	**.00136**	**.12294**	**5.3671**
Stddev	.00041	.00196	.00052	.00124	.00013	.00250	.1610
%RSD	12.247	2.1510	23.727	239.68	9.5570	2.0311	2.9991
#1	-.00331	.09349	.00266	.00035	.00151	.12104	5.1815
#2	-.00373	.09074	.00163	.00003	.00132	.12201	5.4518
#3	-.00292	.08969	.00234	-.00194	.00126	.12577	5.4681
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23026.**	**31329.**
Stddev	6.	552.
%RSD	.02508	1.7604
#1	23031.	30697.
#2	23020.	31579.
#3	23028.	31711.

Approved: November 14, 2013

Sample Name: L1311054701 Acquired: 11/13/2013 16:45:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00517**	**247.42**	**.01682**	**.03366**	**.24549**	**.00238**	**24.152**
Stddev	.00071	5.08	.00046	.00047	.00563	.00005	.499
%RSD	13.726	2.0519	2.7076	1.3838	2.2920	2.0753	2.0662
#1	.00599	253.27	.01703	.03419	.25185	.00243	24.728
#2	.00479	244.87	.01630	.03331	.24347	.00233	23.851
#3	.00473	244.13	.01713	.03349	.24115	.00237	23.876
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.01654**	**.23490**	**.04756**	**41.886**	**5.6322**	**.02038**
Stddev	.00008	.00013	.00229	.00007	.901	.1615	.00227
%RSD	57.606	.76341	.97690	.14894	2.1504	2.8680	11.127
#1	.00015	.01664	.23684	.04762	42.903	5.8146	.02190
#2	.00022	.01640	.23550	.04749	41.566	5.5746	.01777
#3	.00006	.01658	.23237	.04758	41.189	5.5073	.02147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.6448**	**3.3464**	**.00622**	**20.859**	**.01868**	**2.7179**	**.03129**
Stddev	.1392	.0963	.00023	.424	.00028	.0296	.00302
%RSD	2.0955	2.8783	3.7251	2.0332	1.5197	1.0875	9.6478
#1	6.8055	3.4541	.00630	21.347	.01900	2.7262	.02797
#2	6.5694	3.3166	.00640	20.652	.01848	2.7425	.03387
#3	6.5595	3.2685	.00596	20.579	.01855	2.6851	.03204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

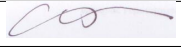
Sample Name: L1311054701 Acquired: 11/13/2013 16:45:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00105**	**.01121**	**21.182**	**-.00440**	**.12166**	**.63693**	**.00298**
Stddev	.00082	.00230	.041	.00050	.00258	.01209	.00119
%RSD	78.472	20.473	.19546	11.360	2.1234	1.8986	40.010
#1	-.00119	.01261	21.160	-.00395	.12464	.65069	.00221
#2	-.00017	.01246	21.157	-.00432	.12017	.63209	.00435
#3	-.00179	.00856	21.230	-.00494	.12017	.62800	.00237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.13472**	**.18779**	F **37.566**
Stddev	.00061	.00221	.292
%RSD	.45411	1.1743	.77736
#1	.13540	.19033	37.230
#2	.13457	.18631	37.755
#3	.13420	.18674	37.714
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23799.**	**31811.**
Stddev	41.	606.
%RSD	.17059	1.9037
#1	23846.	31114.
#2	23781.	32110.
#3	23771.	32209.

Approved: November 14, 2013



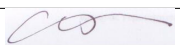
Sample Name: L1311054901 Acquired: 11/13/2013 16:48:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.29087**	**-.00033**	**.03081**	**.03610**	**.00003**	**17.254**	**.00045**
Stddev	.00008	.07700	.00128	.00091	.00132	.00002	.359	.00009
%RSD	23.709	26.472	390.12	2.9560	3.6508	79.908	2.0789	20.729
#1	.00024	.37961	-.00019	.03182	.03761	.00000	17.654	.00038
#2	.00040	.25122	.00088	.03006	.03521	.00004	17.145	.00041
#3	.00034	.24177	-.00167	.03054	.03547	.00004	16.962	.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00040**	**.00204**	**.02862**	**2.0846**	**27.297**	**.00164**	**5.9318**	**.05721**
Stddev	.00019	.00011	.00032	.0644	.708	.00073	.1339	.00119
%RSD	48.120	5.4232	1.1065	3.0895	2.5937	44.450	2.2575	2.0863
#1	.00050	.00198	.02837	2.1584	28.105	.00178	6.0859	.05852
#2	.00018	.00216	.02898	2.0553	27.003	.00228	5.8662	.05693
#3	.00053	.00197	.02851	2.0400	26.784	.00085	5.8434	.05618
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00110**	**52.010**	**.00308**	**8.0762**	**.00782**	**.00146**	**.00245**	**8.1905**
Stddev	.00010	1.297	.00023	.0740	.00188	.00137	.00160	.0306
%RSD	8.7851	2.4936	7.4250	.91577	24.009	93.922	65.571	.37364
#1	.00101	53.496	.00308	8.1602	.00568	-.00006	.00061	8.1560
#2	.00107	51.427	.00285	8.0211	.00860	.00182	.00356	8.2011
#3	.00120	51.107	.00331	8.0472	.00919	.00261	.00317	8.2143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013



Sample Name: L1311054901 Acquired: 11/13/2013 16:48:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00321**	**.08958**	**.00563**	**-.00080**	**.00153**	**.15490**	**1.6561**
Stddev	.00033	.00201	.00040	.00106	.00019	.00211	.1691
%RSD	10.222	2.2444	7.0868	132.16	12.762	1.3653	10.213
#1	-.00344	.09179	.00533	-.00202	.00135	.15247	1.4661
#2	-.00334	.08906	.00548	-.00013	.00173	.15633	1.7902
#3	-.00283	.08787	.00609	-.00025	.00150	.15589	1.7119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23107.**	**31248.**
Stddev	34.	624.
%RSD	.14766	1.9984
#1	23128.	30535.
#2	23068.	31513.
#3	23126.	31696.

Approved: November 14, 2013

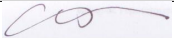
Sample Name: CCV Acquired: 11/13/2013 16:51:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41314**	**10.537**	**.40601**	**.51928**	**1.0512**	**.04907**	**9.9281**
Stddev	.00092	.249	.00215	.00222	.0247	.00012	.2446
%RSD	.22185	2.3668	.52837	.42829	2.3537	.23604	2.4635
#1	.41319	10.812	.40365	.52027	1.0787	.04913	10.189
#2	.41403	10.473	.40785	.51674	1.0439	.04915	9.8905
#3	.41220	10.325	.40653	.52084	1.0309	.04894	9.7044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05082**	**.20644**	**.51243**	**.52036**	**4.2589**	**52.893**	**1.0235**
Stddev	.00004	.00086	.00189	.00112	.0913	1.301	.0220
%RSD	.08538	.41558	.36813	.21554	2.1447	2.4589	2.1477
#1	.05083	.20545	.51450	.51934	4.3642	54.339	1.0478
#2	.05086	.20696	.51080	.52018	4.2128	52.521	1.0176
#3	.05078	.20692	.51198	.52157	4.1999	51.819	1.0050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.221**	**.52866**	**1.0313**	**49.756**	**.51786**	**9.9342**	**.53425**
Stddev	.229	.01325	.0001	1.226	.00156	.0257	.00045
%RSD	2.2410	2.5061	.00612	2.4648	.30220	.25892	.08379
#1	10.473	.54392	1.0314	51.103	.51607	9.9048	.53399
#2	10.164	.52204	1.0313	49.462	.51894	9.9454	.53399
#3	10.026	.52003	1.0313	48.704	.51858	9.9524	.53477
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: November 14, 2013



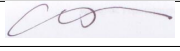
Sample Name: CCV Acquired: 11/13/2013 16:51:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2124**	**.41117**	**5.3620**	**1.0762**	**1.0171**	**1.0311**	**.51736**
Stddev	.0039	.00149	.0144	.0148	.0253	.0238	.00698
%RSD	.32185	.36164	.26923	1.3757	2.4855	2.3111	1.3498
#1	1.2092	.40986	5.3542	1.0591	1.0446	1.0573	.50932
#2	1.2167	.41279	5.3531	1.0850	1.0121	1.0252	.52083
#3	1.2112	.41085	5.3786	1.0845	.99475	1.0107	.52192
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0022**	**1.0493**	F **1.3676**
Stddev	.0025	.0007	.1924
%RSD	.24648	.06977	14.070
#1	1.0005	1.0500	1.2067
#2	1.0050	1.0485	1.3154
#3	1.0012	1.0493	1.5808
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23153.**	**29987.**
Stddev	50.	725.
%RSD	.21799	2.4190
#1	23160.	29154.
#2	23099.	30326.
#3	23199.	30481.

Approved: November 14, 2013



Sample Name: CCB Acquired: 11/13/2013 16:55:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00278**	**.00022**	**.00358**	**.00067**	**.00001**	**.00067**	**.00010**
Stddev	.00052	.00945	.00101	.00025	.00025	.00000	.00127	.00010
%RSD	165.86	339.67	465.27	6.8549	37.440	18.303	189.01	102.21
#1	.00027	.01113	.00134	.00383	.00094	.00001	-.00037	-.00002
#2	-.00018	.00469	-.00007	.00355	.00044	.00002	.00208	.00018
#3	.00085	-.00748	-.00062	.00334	.00065	.00001	.00030	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00005**	**-.00016**	**-.00098**	**.06278**	**-.00125**	**.01489**	**.00012**
Stddev	.00022	.00004	.00043	.00158	.02471	.00109	.01821	.00003
%RSD	225.65	78.387	273.82	161.38	39.356	86.775	122.33	22.669
#1	.00016	-.00008	-.00065	-.00127	.05898	-.00009	.03127	.00011
#2	.00027	-.00006	.00010	.00073	.08917	-.00141	.01811	.00015
#3	-.00014	-.00001	.00008	-.00240	.04019	-.00225	-.00472	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00508**	**.03148**	**-.00067**	**.00506**	**-.00051**	**.00671**	**.00180**	**.00371**
Stddev	.00029	.00838	.00063	.00144	.00179	.00126	.00146	.00175
%RSD	5.7433	26.625	93.900	28.447	348.17	18.757	81.275	47.098
#1	.00478	.03908	-.00043	.00558	.00060	.00578	.00013	.00330
#2	.00511	.02249	-.00020	.00616	.00044	.00814	.00284	.00220
#3	.00536	.03286	-.00139	.00343	-.00258	.00621	.00241	.00562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 16:55:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00132**	**.00024**	**.00000**	**-.00065**	**.00033**	**.00000**	**-.08802**
Stddev	.00020	.00022	.00084	.00153	.00026	.0000	.10967
%RSD	15.460	89.764	18447.	235.89	78.065	797.83	124.59
#1	.00127	.00048	.00040	.00102	.00022	.00002	-.11671
#2	.00155	.00019	.00058	-.00198	.00062	-.00004	-.18050
#3	.00115	.00005	-.00096	-.00099	.00014	.00001	.03314
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23263.**	**30195.**
Stddev	92.	666.
%RSD	.39465	2.2062
#1	23367.	29442.
#2	23231.	30431.
#3	23192.	30710.

Approved: November 14, 2013

Sample Name: L1311055501 Acquired: 11/13/2013 16:58:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00053**	**.01772**	**.00030**	**.04218**	**.13528**	**.00003**	**72.763**	**.00058**
Stddev	.00008	.00968	.00059	.00058	.00292	.00003	1.823	.00008
%RSD	15.040	54.610	196.39	1.3642	2.1612	85.508	2.5047	14.691
#1	.00047	.01331	.00032	.04281	.13832	.00000	74.797	.00067
#2	.00050	.02882	.00088	.04167	.13504	.00005	72.214	.00056
#3	.00063	.01104	-.00030	.04207	.13249	.00004	71.278	.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00102**	**.00102**	**.02966**	**.05891**	**6.9831**	**.01133**	**21.130**	**.08966**
Stddev	.00003	.00009	.00053	.00048	.1437	.00138	.497	.00201
%RSD	3.3456	8.4886	1.7806	.81015	2.0571	12.219	2.3509	2.2366
#1	-.00102	.00100	.02941	.05869	7.1482	.01076	21.689	.09198
#2	-.00099	.00095	.02930	.05945	6.9146	.01291	20.962	.08862
#3	-.00106	.00112	.03027	.05858	6.8866	.01032	20.739	.08839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.35606**	**29.461**	**-.00028**	**.72447**	**.00167**	**.00174**	**-.00130**	**3.0805**
Stddev	.00014	.743	.00027	.00457	.00239	.00163	.00281	.0543
%RSD	.03896	2.5223	93.885	.63109	142.93	93.652	215.48	1.7614
#1	.35591	30.287	-.00047	.72695	.00340	.00204	-.00139	3.1040
#2	.35618	29.247	-.00040	.72727	.00266	-.00002	-.00407	3.1189
#3	.35609	28.848	.00002	.71919	-.00105	.00319	.00154	3.0184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: November 14, 2013

Sample Name: L1311055501 Acquired: 11/13/2013 16:58:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00720**	**.40040**	**-.00149**	**-.00158**	**.00071**	**.20291**	**.22010**
Stddev	.00028	.00955	.00053	.00240	.00015	.00324	.21882
%RSD	3.9290	2.3848	35.921	151.98	20.583	1.5951	99.418
#1	-.00722	.41107	-.00137	-.00053	.00075	.20407	.28989
#2	-.00691	.39748	-.00102	.00012	.00055	.20542	-.02510
#3	-.00747	.39265	-.00207	-.00432	.00084	.19926	.39550
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**22478.**	**30110.**
Stddev	5.	629.
%RSD	.02139	2.0896
#1	22480.	29391.
#2	22481.	30379.
#3	22472.	30560.

Approved: November 14, 2013

Sample Name: L1311055701 Acquired: 11/13/2013 17:02:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**.07546**	**-.00026**	**.01987**	**.01526**	**.00000**	**7.0483**
Stddev	.00036	.00411	.00074	.00071	.00046	.00003	.1599
%RSD	83.053	5.4467	282.31	3.5490	3.0050	849.90	2.2684
#1	.00073	.07085	.00056	.01906	.01579	-.00001	7.2238
#2	.00054	.07678	-.00045	.02017	.01497	.00004	7.0099
#3	.00003	.07875	-.00089	.02038	.01502	-.00001	6.9111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.00002**	**.00014**	**.00053**	**.21778**	**3.0861**	**-.00072**
Stddev	.00014	.00010	.00042	.00020	.00930	.0832	.00205
%RSD	77.562	562.02	295.61	38.418	4.2692	2.6970	284.18
#1	.00025	.00007	.00043	.00054	.22535	3.1793	.00140
#2	.00026	-.00009	.00034	.00072	.22060	3.0598	-.00087
#3	.00002	.00008	-.00034	.00032	.20740	3.0192	-.00269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.0665**	**.03222**	**.00217**	**9.8713**	**-.00010**	**.03503**	**-.00006**
Stddev	.0383	.00056	.00015	.2290	.00087	.00203	.00004
%RSD	1.2504	1.7311	7.1080	2.3196	862.44	5.8003	72.622
#1	3.1100	.03286	.00201	10.128	-.00093	.03562	-.00007
#2	3.0376	.03185	.00218	9.7996	.00079	.03670	-.00009
#3	3.0518	.03194	.00232	9.6867	-.00016	.03277	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: L1311055701 Acquired: 11/13/2013 17:02:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00179**	**6.5040**	**-.00757**	**.05461**	**.00252**	**-.00176**
Stddev	.00010	.00041	.0308	.00034	.00100	.00085	.00051
%RSD	176.39	22.749	.47326	4.4740	1.8259	33.777	29.216
#1	-.00015	-.00183	6.5277	-.00721	.05575	.00159	-.00202
#2	-.00009	-.00218	6.5151	-.00761	.05423	.00271	-.00117
#3	.00006	-.00136	6.4692	-.00788	.05387	.00326	-.00209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00083**	**.00832**	F **-.12525**
Stddev	.00026	.00016	.25052
%RSD	31.240	1.9507	200.01
#1	.00092	.00829	.00551
#2	.00053	.00850	.03283
#3	.00102	.00818	-.41410
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23172.**	**30463.**
Stddev	57.	552.
%RSD	.24706	1.8130
#1	23161.	29829.
#2	23121.	30718.
#3	23234.	30841.

Approved: November 14, 2013

Sample Name: L1311055702 Acquired: 11/13/2013 17:05:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.06883**	**-.00011**	**.00912**	**.01525**	**-.00001**	**6.8733**
Stddev	.00023	.01338	.00010	.00031	.00026	.00001	.1344
%RSD	48.040	19.437	92.011	3.4435	1.7245	157.79	1.9551
#1	.00023	.08424	-.00018	.00907	.01555	-.00001	7.0282
#2	.00069	.06027	.00001	.00883	.01514	.00000	6.8035
#3	.00052	.06196	-.00016	.00945	.01506	-.00003	6.7882
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00011**	**-.00009**	**.00072**	**.22184**	**2.5364**	**.00040**
Stddev	.00010	.00012	.00010	.00039	.00479	.0374	.00095
%RSD	47.357	112.29	117.00	54.118	2.1589	1.4732	238.68
#1	.00030	-.00003	-.00001	.00116	.22735	2.5795	.00032
#2	.00019	.00014	-.00005	.00039	.21954	2.5172	-.00051
#3	.00011	.00022	-.00020	.00063	.21864	2.5126	.00139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.9590**	**.02814**	**.00052**	**5.5548**	**-.00041**	F **-.00574**	**.00029**
Stddev	.0537	.00081	.00016	.1159	.00013	.00496	.00123
%RSD	1.8150	2.8825	30.725	2.0869	30.592	86.341	419.10
#1	3.0196	.02903	.00069	5.6863	-.00033	-.00016	.00115
#2	2.9403	.02795	.00038	5.5106	-.00034	-.00743	-.00112
#3	2.9171	.02745	.00048	5.4675	-.00056	-.00963	.00085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: November 14, 2013

Sample Name: L1311055702 Acquired: 11/13/2013 17:05:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**.00015**	**6.2367**	**-.00737**	**.05416**	**.00252**	**-.00138**
Stddev	.00067	.00076	.0113	.00030	.00124	.00113	.00117
%RSD	105.20	513.37	.18128	4.1194	2.2966	45.023	85.194
#1	.00021	-.00072	6.2292	-.00733	.05549	.00268	-.00124
#2	.00140	.00066	6.2313	-.00708	.05395	.00131	-.00028
#3	.00029	.00051	6.2497	-.00769	.05303	.00356	-.00261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00060**	**.00249**	**12.036**
Stddev	.00012	.00010	.302
%RSD	20.336	4.1675	2.5115
#1	.00063	.00248	11.835
#2	.00047	.00240	11.889
#3	.00071	.00261	12.384
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23241.**	**30597.**
Stddev	61.	622.
%RSD	.26053	2.0322
#1	23290.	29884.
#2	23260.	30888.
#3	23173.	31021.

Approved: November 14, 2013

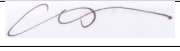
Sample Name: L1311055703 Acquired: 11/13/2013 17:09:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.09130**	**.00013**	**.04950**	**.01204**	**.00002**	**8.0760**
Stddev	.00032	.01977	.00123	.00155	.00043	.00001	.1628
%RSD	348.27	21.654	923.70	3.1250	3.5751	27.076	2.0155
#1	.00010	.11369	-.00070	.04908	.01254	.00002	8.2620
#2	.00042	.08392	-.00045	.04821	.01181	.00001	8.0060
#3	-.00023	.07627	.00155	.05121	.01177	.00002	7.9599
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.00006**	**.00012**	**.00212**	**.17857**	**4.3085**	**.00016**
Stddev	.00013	.00018	.00037	.00002	.00440	.1139	.00083
%RSD	57.221	302.27	298.27	.97578	2.4617	2.6442	512.04
#1	.00020	-.00001	-.00013	.00214	.18359	4.4134	-.00037
#2	.00038	.00026	.00055	.00209	.17669	4.3248	.00112
#3	.00012	-.00007	-.00004	.00212	.17543	4.1873	-.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1684**	**.02305**	**.00107**	**22.130**	**-.00026**	**.04684**	**.00130**
Stddev	.0705	.00050	.00009	.484	.00024	.00327	.00045
%RSD	2.2255	2.1750	8.2994	2.1857	92.069	6.9841	34.610
#1	3.2419	.02362	.00101	22.675	-.00033	.05010	.00090
#2	3.1619	.02270	.00102	21.965	-.00047	.04356	.00179
#3	3.1014	.02282	.00117	21.751	.00000	.04686	.00121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013



Sample Name: L1311055703 Acquired: 11/13/2013 17:09:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00164**	**-.00010**	**6.5682**	**-.00701**	**.05752**	**.00212**	**-.00030**
Stddev	.00081	.00106	.0203	.00026	.00118	.00119	.00187
%RSD	49.102	1045.5	.30932	3.7279	2.0451	56.191	614.94
#1	.00146	-.00064	6.5570	-.00723	.05887	.00090	-.00201
#2	.00094	.00112	6.5560	-.00672	.05700	.00219	.00170
#3	.00252	-.00078	6.5916	-.00708	.05669	.00329	-.00060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00119**	**.02533**	F **-.02862**
Stddev	.00030	.00022	.02238
%RSD	25.539	.86758	78.211
#1	.00108	.02515	-.05082
#2	.00154	.02526	-.00606
#3	.00096	.02557	-.02897
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23152.**	**30365.**
Stddev	17.	570.
%RSD	.07305	1.8777
#1	23168.	29707.
#2	23134.	30680.
#3	23154.	30708.

Approved: November 14, 2013

Sample Name: L1311062401 Acquired: 11/13/2013 17:12:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**.19761**	**.00113**	**.02217**	**.03503**	**.00002**	**25.098**
Stddev	.00067	.00232	.00170	.00088	.00096	.00001	.574
%RSD	419.07	1.1747	150.54	3.9857	2.7334	39.123	2.2879
#1	-.00061	.19806	.00100	.02162	.03609	.00002	25.761
#2	.00049	.19510	.00289	.02319	.03423	.00002	24.764
#3	.00059	.19968	-.00050	.02170	.03476	.00001	24.769
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**-.00010**	**.00237**	**.06854**	**.27158**	**4.7181**	**.00164**
Stddev	.00013	.00013	.00034	.00042	.00760	.1226	.00065
%RSD	58.532	133.65	14.434	.61962	2.7972	2.5990	39.356
#1	.00035	-.00022	.00219	.06865	.27985	4.8573	.00111
#2	.00021	.00004	.00276	.06890	.26491	4.6260	.00145
#3	.00009	-.00011	.00214	.06807	.26999	4.6710	.00236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.8161**	**.01728**	**.00076**	F **1130.0**	**-.00004**	**1.6140**	**.00082**
Stddev	.1158	.00030	.00026	81.4	.00044	.0083	.00345
%RSD	2.4040	1.7425	33.769	7.2075	1023.3	.51414	420.59
#1	4.9316	.01763	.00104	1218.0	-.00014	1.6198	.00305
#2	4.7000	.01709	.00055	1114.5	.00044	1.6178	.00257
#3	4.8169	.01712	.00068	1057.4	-.00043	1.6045	-.00315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311062401 Acquired: 11/13/2013 17:12:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00096**	**.00455**	**1.9357**	**-.00652**	**.15049**	**.00080**	**-.00336**
Stddev	.00230	.00356	.0153	.00019	.00328	.00021	.00113
%RSD	240.20	78.229	.79097	2.8473	2.1804	25.593	33.800
#1	-.00170	.00504	1.9456	-.00638	.15427	.00060	-.00381
#2	.00221	.00783	1.9434	-.00645	.14876	.00080	-.00206
#3	.00237	.00077	1.9181	-.00673	.14843	.00101	-.00419
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00061**	**.17650**	**.56560**
Stddev	.00017	.00102	.40211
%RSD	27.830	.57924	71.094
#1	.00049	.17748	.48899
#2	.00053	.17659	.20731
#3	.00080	.17544	1.0005
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21024.**	**29837.**
Stddev	17.	651.
%RSD	.08217	2.1807
#1	21008.	29091.
#2	21023.	30289.
#3	21042.	30130.

Approved: November 14, 2013

Sample Name: L1311069904 Acquired: 11/13/2013 17:16:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.16852**	**.00226**	**.34788**	**.00939**	**.00002**	**29.009**
Stddev	.00064	.00338	.00102	.00113	.00017	.00004	.711
%RSD	1343.3	2.0039	45.008	.32376	1.7901	224.64	2.4516
#1	.00019	.17196	.00217	.34911	.00920	-.00002	29.829
#2	-.00065	.16838	.00129	.34690	.00946	.00002	28.645
#3	.00060	.16521	.00332	.34761	.00951	.00006	28.553
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.01326**	**.00047**	**.00003**	**.00651**	**7.4392**	**6.5150**
Stddev	.00002	.00017	.00041	.00058	.00230	.1514	.1535
%RSD	9.7739	1.3197	86.905	1852.9	35.296	2.0354	2.3562
#1	.00019	.01330	.00094	-.00063	.00592	7.6129	6.6904
#2	.00018	.01306	.00015	.00027	.00905	7.3697	6.4491
#3	.00022	.01340	.00034	.00045	.00457	7.3350	6.4054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.2058**	**.00100**	**.02892**	F **835.23**	**.02042**	**3.8191**	**-.00184**
Stddev	.1737	.00006	.00043	28.06	.00095	.0515	.00107
%RSD	2.4108	5.7372	1.5018	3.3589	4.6296	1.3498	58.218
#1	7.4059	.00098	.02849	866.89	.01991	3.8569	-.00241
#2	7.1173	.00095	.02890	825.37	.01984	3.7604	-.00060
#3	7.0941	.00106	.02936	813.44	.02151	3.8399	-.00249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: November 14, 2013

Sample Name: L1311069904 Acquired: 11/13/2013 17:16:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00150**	**-.00040**	**1.2698**	**-.00744**	**.16823**	**-.00010**	**-.00164**
Stddev	.00042	.00089	.0170	.00035	.00396	.00058	.00151
%RSD	27.813	219.09	1.3351	4.7115	2.3521	577.79	92.406
#1	.00150	-.00139	1.2836	-.00757	.17278	-.00057	-.00254
#2	.00109	-.00015	1.2509	-.00770	.16629	-.00028	-.00248
#3	.00192	.00033	1.2749	-.00704	.16562	.00055	.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00042**	**.00252**	F **-.03026**
Stddev	.00007	.00006	.30924
%RSD	15.838	2.4253	1022.1
#1	.00049	.00252	-.17844
#2	.00035	.00258	.32519
#3	.00043	.00246	-.23752
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**21376.**	**29842.**
Stddev	17.	433.
%RSD	.07809	1.4517
#1	21369.	29342.
#2	21394.	30081.
#3	21363.	30103.

Approved: November 14, 2013

Sample Name: CCV Acquired: 11/13/2013 17:19:46 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41651**	**10.489**	**.40244**	**.52465**	**1.0538**	**.04949**	**9.8696**	**.05089**
Stddev	.00138	.210	.00089	.00330	.0250	.00015	.2145	.00014
%RSD	.33065	1.9984	.22188	.62927	2.3679	.30054	2.1731	.27301
#1	.41667	10.714	.40286	.52389	1.0821	.04945	10.105	.05082
#2	.41780	10.455	.40141	.52827	1.0441	.04965	9.8190	.05081
#3	.41506	10.299	.40305	.52179	1.0351	.04936	9.6850	.05105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20620**	**.51862**	**.52357**	**4.2525**	**52.826**	**1.0179**	**10.179**	**.52688**
Stddev	.00021	.00069	.00103	.1122	1.292	.0226	.257	.01403
%RSD	.10347	.13266	.19682	2.6374	2.4455	2.2191	2.5275	2.6627
#1	.20597	.51782	.52238	4.3813	54.273	1.0431	10.469	.54214
#2	.20622	.51903	.52423	4.2001	52.414	1.0111	10.093	.52399
#3	.20639	.51899	.52410	4.1762	51.789	.99954	9.9761	.51453
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0325**	**47.298**	**.51820**	**9.9005**	**.53480**	**1.2139**	**.40695**	**5.3689**
Stddev	.0008	1.012	.00123	.0253	.00230	.0005	.00296	.0180
%RSD	.07270	2.1404	.23693	.25522	.42954	.04045	.72728	.33489
#1	1.0331	48.459	.51741	9.8717	.53282	1.2136	.41021	5.3873
#2	1.0327	46.835	.51961	9.9111	.53425	1.2137	.40624	5.3679
#3	1.0317	46.599	.51756	9.9188	.53732	1.2145	.40442	5.3514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: November 14, 2013

Sample Name: CCV Acquired: 11/13/2013 17:19:46 Type: QC
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0761**	**1.0148**	**1.0283**	**.51973**	**1.0089**	**1.0506**	**.92290**
Stddev	.0122	.0219	.0214	.00040	.0039	.0004	.11253
%RSD	1.1370	2.1592	2.0832	.07644	.38798	.03495	12.193
#1	1.0852	1.0387	1.0517	.51962	1.0112	1.0508	1.0175
#2	1.0622	1.0100	1.0235	.52017	1.0111	1.0509	.95275
#3	1.0810	.99568	1.0097	.51940	1.0044	1.0502	.79846
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23001.**	**30112.**
Stddev	46.	742.
%RSD	.20103	2.4651
#1	23029.	29307.
#2	22948.	30258.
#3	23026.	30770.

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 17:23:01 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.01271**	**-.00034**	**.00257**	**.00062**	**-.00001**	**-.01032**
Stddev	.00031	.00871	.00063	.00037	.00042	.00003	.00116
%RSD	161.90	68.532	184.17	14.437	67.560	262.87	11.216
#1	-.00016	.02101	-.00089	.00297	.00090	-.00005	-.01043
#2	.00040	.00364	.00035	.00224	.00084	.00000	-.00910
#3	.00034	.01349	-.00049	.00249	.00014	.00002	-.01141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00003**	**.00002**	**-.00009**	**-.00149**	**.08260**	**-.00037**
Stddev	.00011	.00012	.00045	.00032	.00233	.03634	.00089
%RSD	74.292	407.67	2012.4	336.43	157.03	43.991	240.41
#1	.00028	-.00008	.00026	-.00045	.00119	.04239	.00025
#2	.00007	-.00012	-.00050	.00002	-.00309	.11308	.00003
#3	.00010	.00011	.00031	.00015	-.00255	.09235	-.00140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00552**	**.00003**	**.00515**	**.14641**	**-.00046**	**.00525**	**.00022**
Stddev	.01793	.00005	.00011	.02162	.00035	.00227	.00087
%RSD	324.70	157.17	2.1043	14.765	77.281	43.201	390.18
#1	-.01507	.00006	.00510	.16571	-.00070	.00783	.00122
#2	.01401	.00005	.00508	.15046	-.00063	.00355	-.00026
#3	.01762	-.00002	.00528	.12305	-.00005	.00438	-.00030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: November 14, 2013

Sample Name: CCB Acquired: 11/13/2013 17:23:01 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2732) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00710**	**.00437**	**.00425**	**.00130**	**.00025**	**.00016**	**-.00118**
Stddev	.00014	.00209	.00159	.00015	.00023	.00086	.00060
%RSD	1.9219	47.733	37.413	11.610	93.847	525.53	50.412
#1	.00714	.00441	.00590	.00112	.00051	.00101	-.00113
#2	.00695	.00227	.00273	.00137	.00018	.00019	-.00061
#3	.00721	.00644	.00412	.00140	.00006	-.00071	-.00180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00012**	**.00004**	F **-.28389**
Stddev	.00030	.00001	.18835
%RSD	244.55	29.580	66.348
#1	-.00011	.00004	-.09889
#2	.00046	.00003	-.47543
#3	.00001	.00006	-.27736
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**23227.**	**30355.**
Stddev	75.	704.
%RSD	.32197	2.3187
#1	23313.	29556.
#2	23186.	30626.
#3	23181.	30882.

Approved: November 14, 2013

2.1.2 Metals ICP-MS Data

2.1.2.1 Summary Data

Login Number: L13110465
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG452576 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: WG452576 - Due to time constraints, client samples 01, 02, and 03 were analyzed on a later calibration.

Narrative ID: 74735
Approved By: Sheri Pfalzgraf

Microbac

Lab Report #: L13110465
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	MPL 29-1113-1	**Prep Method:**	3015	**Prep Date:**	11/12/2013 14:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	11/18/2013 09:55
Workgroup #:	WG452576	**Analyst:**	JYH	**Run Date:**	11/18/2013 17:51
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	NI.111813.175154
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00428		0.00100	0.000500
Barium, Total	7440-39-3	0.0532		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00214		0.00200	0.00100
Cobalt, Total	7440-48-4	0.000608	J	0.00100	0.000500
Copper, Total	7440-50-8	0.00280		0.00200	0.00100
Lead, Total	7439-92-1	0.000791	J	0.00100	0.000500
Manganese, Total	7439-96-5	0.0184		0.00200	0.00100
Nickel, Total	7440-02-0	0.00567		0.00400	0.00200
Selenium, Total	7782-49-2	0.0162		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	MPL 7-1113-1	**Prep Method:**	3015	**Prep Date:**	11/12/2013 14:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	11/18/2013 09:55
Workgroup #:	WG452576	**Analyst:**	JYH	**Run Date:**	11/18/2013 17:54
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	NI.111813.175458
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00835		0.00100	0.000500
Barium, Total	7440-39-3	0.0530		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00163	J	0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8	0.00118	J	0.00200	0.00100
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00329		0.00200	0.00100
Nickel, Total	7440-02-0	0.00476		0.00400	0.00200
Selenium, Total	7782-49-2	0.0352		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	MPL 5-1113-1	**Prep Method:**	3015	**Prep Date:**	11/12/2013 14:16
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	11/18/2013 09:55
Workgroup #:	WG452576	**Analyst:**	JYH	**Run Date:**	11/18/2013 17:58
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	NI.111813.175803
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00172		0.00100	0.000500
Barium, Total	7440-39-3	0.0964		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00251		0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8		U	0.00200	0.00100
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00232		0.00200	0.00100
Nickel, Total	7440-02-0		U	0.00400	0.00200
Selenium, Total	7782-49-2	0.00513		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.1.2.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer NexION 300X

1.0 Initial Calibration (ICAL) Parameters
The system performs linear regression from data consisting of a blank and three standards.

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

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

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	100
Vi = Initial volume	40
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/L)	0.25

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

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

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	200
Vi = Initial volume	0.5
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/kg)	40

4.0 Adjusting the concentration to dry weight:

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

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	40
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (ug/kg)	50

50 ug/kg = 0.050 mg/kg

Perkin Elmer NexION ICP/MS

STANDARDS KEY

QC Std 1 - ICV
QC Std 2 - ICB
QC Std 3 - LLICV
QC Std 4 - ICSA
QC Std 5 - ICSAB
QC Std 6 - CCV
QC Std 7 - CCB
QC Std 8 - LLCCV

Calibration Solutions

Analyte	Stock Conc. (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)
Al	10	0	0.00005	0.05	0.1
Sb	10	0	0.00005	0.05	0.1
As	10	0	0.00005	0.05	0.1
Ba	10	0	0.00005	0.05	0.1
Be	10	0	0.00005	0.05	0.1
Ca	1000	0	0.005	5	10
Cd	10	0	0.0005	0.05	0.1
Cr	10	0	0.0005	0.05	0.1
Co	10	0	0.0005	0.05	0.1
Cu	10	0	0.0005	0.05	0.1
Fe	1000	0	0.005	5	10
Pb	10	0	0.00005	0.05	0.1
Mg	1000	0	0.005	5	10
Mn	10	0	0.00005	0.05	0.1
Ni	10	0	0.00005	0.05	0.1
K	1000	0	0.005	5	10
Se	10	0	0.00005	0.05	0.1
Ag	10	0	0.00005	0.05	0.1
Na	1000	0	0.005	5	10
Tl	10	0	0.00005	0.05	0.1
V	10	0	0.00005	0.05	0.1
U	1000	0	0.00005	0.05	0.1
Zn	10	0	0.00005	0.05	0.1

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG452456
Analyst: VC
Spike Analyst: VC
Run Date: 11/12/2013 14:16
Method: 3015
Balance: BAL016
Instrument: MW-3
Instrument Start: 11/12/2013 14:19

SOP: ME407 Revison 14
Spike Solution: STD60087
Spike Witness: ERP
HNO3 Lot #: COA16631
Digestion Tubes Lot #: COA16971
MS Filters- fisher-Lot#R RGT26840

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG452456-04	BLANK	1	40 mL	100 mL	204.293 g	204.288 g		
2	WG452244-01	FBLK	18	40 mL	100 mL	204.528 g	204.521 g		
3	WG452456-05	LCS	1	40 mL	100 mL	206.307 g	206.293 g	.25 mL	
4	L13110465-01	SAMP	1	40 mL	100 mL	207.587 g	207.576 g		11/19/13
5	L13110465-02	SAMP	1	40 mL	100 mL	204.63 g	204.615 g		11/19/13
6	L13110465-03	SAMP	1	40 mL	100 mL	204.212 g	204.206 g		11/19/13
7	L13110476-01	SAMP	1	40 mL	100 mL	204.05 g	204.023 g		11/19/13
8	L13110518-02	SAMP	18	40 mL	100 mL	204.28 g	204.264 g		11/15/13
9	L13110557-01	SAMP	1	40 mL	100 mL	208.069 g	208.05 g		11/19/13
10	L13110557-02	SAMP	1	40 mL	100 mL	205.2 g	205.187 g		11/19/13
11	WG452456-01	REF	1	40 mL	100 mL	204.188 g	204.168 g		
12	L13110557-03	RS01	1	40 mL	100 mL	204.188 g	204.168 g		11/19/13
13	WG452456-06	MS	1	40 mL	100 mL	206.639 g	206.627 g	.25 mL	
14	L13110557-04	MS01	1	40 mL	100 mL	206.639 g	206.627 g	.25 mL	11/19/13
15	WG452456-07	MSD	1	40 mL	100 mL	206.525 g	206.517 g	.25 mL	
16	L13110557-05	SD01	1	40 mL	100 mL	206.525 g	206.517 g	.25 mL	11/19/13
17	WG452456-02	REF	1	40 mL	100 mL	204.154 g	204.14 g		
18	L13110584-01	RS01	1	40 mL	100 mL	204.154 g	204.14 g		11/22/13
19	WG452456-08	MS	1	40 mL	100 mL	204.097 g	204.084 g	.25 mL	
20	L13110584-02	MS01	1	40 mL	100 mL	204.097 g	204.084 g	.25 mL	11/22/13
21	WG452456-09	MSD	1	40 mL	100 mL	204.769 g	204.76 g	.25 mL	
22	L13110584-03	SD01	1	40 mL	100 mL	204.769 g	204.76 g	.25 mL	11/22/13
23	L13110600-01	SAMP	1	40 mL	100 mL	205.091 g	205.075 g		11/19/13
24	L13110600-02	SAMP	1	40 mL	100 mL	204.039 g	204.025 g		11/19/13
25	L13110601-01	SAMP	1	40 mL	100 mL	203.188 g	203.172 g		11/22/13
26	WG452456-03	REF	2	40 mL	100 mL	205.035 g	205.03 g		
27	L13110625-01	SAMP	2	40 mL	100 mL	205.035 g	205.03 g		11/18/13
28	L13110625-02	SAMP	2	40 mL	100 mL	207.424 g	207.413 g		11/18/13
29	L13110626-01	SAMP	2	40 mL	100 mL	207.026 g	207.011 g		11/18/13
30	WG452456-10	DUP	1	40 mL	100 mL	205.875 g	205.856 g		

L13110465-01	filtered digestate
L13110476-01	filtered digestate
L13110625-02	filtered digestate

Analyst: Vicki Collins

Reviewer: Erin Potter

MW_DIG - Modified 09/30/2009
PDF ID: 3198297
Report generated: 11/12/2013 15:19

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111313C.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48169

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452570, 452573, 452576, 452664, 452574, 452649

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	NI.111313.161732	Blank	Blank		1		11/13/13 16:17
2	NI.111313.162040	WG452783-01	Calibration Point		1		11/13/13 16:20
3	NI.111313.162345	WG452783-02	Calibration Point		1		11/13/13 16:23
4	NI.111313.162650	WG452783-03	Calibration Point		1		11/13/13 16:26
5	NI.111313.162955	WG452783-04	Calibration Point		1		11/13/13 16:29
6	NI.111313.163302	WG452783-05	Initial Calibration Verification		1		11/13/13 16:33
7	NI.111313.163608	WG452783-06	Initial Calib Blank		1		11/13/13 16:36
8	NI.111313.163914	WG452783-07	Low Level Initial Calibration V		1		11/13/13 16:39
9	NI.111313.164348	WG452783-08	Low Level Initial Calibration V		1		11/13/13 16:43
10	NI.111313.164653	WG452783-09	Interference Check		1		11/13/13 16:46
11	NI.111313.164959	WG452783-10	Interference Check		1		11/13/13 16:49
12	NI.111313.165305	WG452783-11	CCV		1		11/13/13 16:53
13	NI.111313.165611	WG452783-12	CCB		1		11/13/13 16:56
14	NI.111313.170041	WG452368-02	Method/Prep Blank	5/50	50		11/13/13 17:00
15	NI.111313.170345	WG452232-01	Fluid Blank 1		50		11/13/13 17:03
16	NI.111313.170650	WG452232-02	Fluid Blank 2		50		11/13/13 17:06
17	NI.111313.170956	WG452368-03	Laboratory Control S	5/50	50		11/13/13 17:09
18	NI.111313.171301	WG452368-01	Reference Sample		50	L13110519-01	11/13/13 17:13
19	NI.111313.171606	WG452368-04	Matrix Spike	5/50	50	L13110519-01	11/13/13 17:16
20	NI.111313.171911	WG452368-05	Matrix Spike Duplica	5/50	50	L13110519-01	11/13/13 17:19
21	NI.111313.172216	L13110493-01	ALAN 16 BAGS BETWEEN T	5/50	50		11/13/13 17:22
22	NI.111313.172520	L13110495-01	CEP 11 BAGS	5/50	50		11/13/13 17:25
23	NI.111313.172826	WG452783-13	CCV		1		11/13/13 17:28
24	NI.111313.173131	WG452783-14	CCB		1		11/13/13 17:31
25	NI.111313.173436	L13110492-01	ALAN BESIDE POTS 6-BAG		50		11/13/13 17:34
26	NI.111313.173742	WG452570-01	Post Digestion Spike		50	L13110492-01	11/13/13 17:37
27	NI.111313.174047	WG452570-02	Serial Dilution		250	L13110492-01	11/13/13 17:40
28	NI.111313.174354	WG452783-15	CCV		1		11/13/13 17:43
29	NI.111313.174658	WG452783-16	CCB		1		11/13/13 17:46
30	NI.111313.175004	WG452538-03	Method/Prep Blank	40/100	1		11/13/13 17:50
31	NI.111313.175309	WG452538-04	Laboratory Control S	40/100	1		11/13/13 17:53
32	NI.111313.175613	WG452538-01	Reference Sample		1	L13110604-05	11/13/13 17:56
33	NI.111313.175918	WG452538-05	Matrix Spike	40/100	1	L13110604-05	11/13/13 17:59
34	NI.111313.180223	WG452538-06	Matrix Spike Duplica	40/100	1	L13110604-05	11/13/13 18:02

Page: 1 Approved: November 15, 2013

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111313C.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48169

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452570, 452573, 452576, 452664, 452574, 452649

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	NI.111313.180527	L13110452-10	CS22SB020-02-01EB	40/100	1		11/13/13 18:05
36	NI.111313.180833	WG452538-02	Reference Sample		2	L13110691-01	11/13/13 18:08
37	NI.111313.181137	WG452538-07	Duplicate	40/100	2	L13110691-01	11/13/13 18:11
38	NI.111313.181443	WG452573-01	Post Digestion Spike		2	L13110691-01	11/13/13 18:14
39	NI.111313.181747	WG452573-02	Serial Dilution		10	L13110691-01	11/13/13 18:17
40	NI.111313.182053	WG452783-17	CCV		1		11/13/13 18:20
41	NI.111313.182358	WG452783-18	CCB		1		11/13/13 18:23
42	NI.111313.182704	WG452456-04	Method/Prep Blank	40/100	1		11/13/13 18:27
43	NI.111313.183009	WG452244-01	Fluid Blank		1		11/13/13 18:30
44	NI.111313.183314	WG452456-05	Laboratory Control S	40/100	1		11/13/13 18:33
45	NI.111313.183619	WG452456-01	Reference Sample		1	L13110557-03	11/13/13 18:36
46	NI.111313.183924	WG452456-06	Matrix Spike	40/100	1	L13110557-03	11/13/13 18:39
47	NI.111313.184228	WG452456-07	Matrix Spike Duplica	40/100	1	L13110557-03	11/13/13 18:42
48	NI.111313.184534	L13110518-02	AV-OU7-STP-1-C1-110713	40/100	1		11/13/13 18:45
49	NI.111313.184838	WG452576-01	Post Digestion Spike		1	L13110518-02	11/13/13 18:48
50	NI.111313.185143	WG452576-02	Serial Dilution		5	L13110518-02	11/13/13 18:51
51	NI.111313.185451	WG452783-19	CCV		1		11/13/13 18:54
52	NI.111313.185755	WG452783-20	CCB		1		11/13/13 18:57
53	NI.111313.190103	L13110476-01	13029-FT2-03	40/100	5		11/13/13 19:01
54	NI.111313.190408	WG452456-03	Reference Sample		1	L13110625-01	11/13/13 19:04
55	NI.111313.190712	WG452456-10	Duplicate	40/100	1	L13110625-01	11/13/13 19:07
56	NI.111313.191017	L13110625-02	3110489-03	40/100	1		11/13/13 19:10
57	NI.111313.191323	L13110626-01	3110485-01	40/100	1		11/13/13 19:13
58	NI.111313.191628	L13110518-02	AV-OU7-STP-1-C1-110713	40/100	25		11/13/13 19:16
59	NI.111313.191934	WG452576-01	Post Digestion Spike		25	L13110518-02	11/13/13 19:19
60	NI.111313.192238	WG452576-02	Serial Dilution		125	L13110518-02	11/13/13 19:22
61	NI.111313.192545	WG452783-21	CCV		1		11/13/13 19:25
62	NI.111313.192850	WG452783-22	CCB		1		11/13/13 19:28
63	NI.111313.193157	WG452549-02	Method/Prep Blank	40/100	1		11/13/13 19:31
64	NI.111313.193502	WG452521-01	Fluid Blank		1		11/13/13 19:35
65	NI.111313.193807	WG452549-03	Laboratory Control S	40/100	1		11/13/13 19:38
66	NI.111313.194113	WG452549-01	Reference Sample	40/100	5	L13110629-01	11/13/13 19:41
67	NI.111313.194418	WG452549-04	Matrix Spike	40/100	5	L13110629-01	11/13/13 19:44
68	NI.111313.194723	WG452549-05	Matrix Spike Duplica	40/100	5	L13110629-01	11/13/13 19:47

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Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111313C.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48169

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452570, 452573, 452576, 452664, 452574, 452649

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	NI.111313.195028	L13110661-02	60500-SSP0259A-SSP0368	40/100	1		11/13/13 19:50
70	NI.111313.195332	L13110661-04	60500-SSP0259B-SSP0368	40/100	1		11/13/13 19:53
71	NI.111313.195637	WG452664-01	Post Digestion Spike		1	L13110629-05	11/13/13 19:56
72	NI.111313.195943	WG452664-02	Serial Dilution		5	L13110629-05	11/13/13 19:59
73	NI.111313.200250	WG452783-23	CCV		1		11/13/13 20:02
74	NI.111313.200555	WG452783-24	CCB		1		11/13/13 20:05
75	NI.111313.200903	L13110661-06	60500-SPLP0135-C0220	40/100	25		11/13/13 20:09
76	NI.111313.201207	L13110661-02	60500-SSP0259A-SSP0368	40/100	25		11/13/13 20:12
77	NI.111313.201511	L13110661-04	60500-SSP0259B-SSP0368	40/100	25		11/13/13 20:15
78	NI.111313.201815	WG452664-01	Post Digestion Spike		25	L13110629-05	11/13/13 20:18
79	NI.111313.202120	WG452664-02	Serial Dilution		125	L13110629-05	11/13/13 20:21
80	NI.111313.202424	L13110661-06	60500-SPLP0135-C0220	40/100	25		11/13/13 20:24
81	NI.111313.202732	WG452783-25	CCV		1		11/13/13 20:27
82	NI.111313.203038	WG452783-26	CCB		1		11/13/13 20:30
83	NI.111313.203344	WG452353-02	Method/Prep Blank	.5/200	1		11/13/13 20:33
84	NI.111313.203648	WG452353-03	Laboratory Control S	.5/200	1		11/13/13 20:36
85	NI.111313.203954	WG452353-01	Reference Sample		1	L13110452-06	11/13/13 20:39
86	NI.111313.204259	WG452353-04	Matrix Spike	.5/200	1	L13110452-06	11/13/13 20:42
87	NI.111313.204605	WG452353-05	Matrix Spike Duplica	.521/200	1	L13110452-06	11/13/13 20:46
88	NI.111313.204909	L13110622-01	SCF-WS01-110613	.516/200	1		11/13/13 20:49
89	NI.111313.205213	WG452574-01	Post Digestion Spike		1	L13110622-01	11/13/13 20:52
90	NI.111313.205519	WG452574-02	Serial Dilution		5	L13110622-01	11/13/13 20:55
91	NI.111313.205825	WG452783-27	CCV		1		11/13/13 20:58
92	NI.111313.210131	WG452783-28	CCB		1		11/13/13 21:01
93	NI.111313.210436	WG452603-02	Method/Prep Blank	5/50	50		11/13/13 21:04
94	NI.111313.210741	WG452517-02	Fluid Blank 2		50		11/13/13 21:07
95	NI.111313.211047	WG452603-03	Laboratory Control S	5/50	50		11/13/13 21:10
96	NI.111313.211352	WG452603-01	Reference Sample		50	L13110677-01	11/13/13 21:13
97	NI.111313.211656	WG452603-04	Matrix Spike	5/50	50	L13110677-01	11/13/13 21:16
98	NI.111313.212002	WG452603-05	Matrix Spike Duplica	5/50	50	L13110677-01	11/13/13 21:20
99	NI.111313.212306	L13110673-01	ALAN 9 BAGS	5/50	50		11/13/13 21:23
100	NI.111313.212612	L13110674-01	KAISER 17 BAGS	5/50	50		11/13/13 21:26
101	NI.111313.212916	WG452649-01	Post Digestion Spike		50	L13110674-01	11/13/13 21:29
102	NI.111313.213221	WG452649-02	Serial Dilution		250	L13110674-01	11/13/13 21:32

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Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111313C.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48169

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452570, 452573, 452576, 452664, 452574, 452649

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	NI.111313.213527	WG452783-29	CCV		1		11/13/13 21:35
104	NI.111313.213833	WG452783-30	CCB		1		11/13/13 21:38
105	NI.111313.214139	L13110675-01	MATALCO 6 BAGS	5/50	50		11/13/13 21:41
106	NI.111313.214443	L13110676-01	SAPA 6000 ORANGE 10 BA(	5/50	50		11/13/13 21:44
107	NI.111313.214750	WG452783-31	Interference Check		1		11/13/13 21:47
108	NI.111313.215055	WG452783-32	Interference Check		1		11/13/13 21:50
109	NI.111313.215403	WG452783-33	CCV		1		11/13/13 21:54
110	NI.111313.215707	WG452783-34	CCB		1		11/13/13 21:57
111	NI.111313.220013	WG452783-35	Low Level Continuing Calibra		1		11/13/13 22:00
112	NI.111313.220319	-	L		1		11/13/13 22:03
113	NI.111313.220623	-	L		1		11/13/13 22:06
114	NI.111313.220928	-	L		1		11/13/13 22:09
115	NI.111313.221232	-	L		1		11/13/13 22:12
116	NI.111313.221538	-	L		1		11/13/13 22:15
117	NI.111313.221842	-	L		1		11/13/13 22:18
118	NI.111313.222147	-	L		1		11/13/13 22:21

Comments

Seq.	Rerun	Dil.	Reason	Analytes
106			Due to typographical error, this sample was incorrectly labeled L13110677-01 for analysis. The correct label is L13110676-01. JYH	

 Approved: November 15, 2013

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111813A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48198

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452303,453185,453208,452576,452574

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	NI.111813.094319	Blank	Blank		1		11/18/13 09:43
2	NI.111813.094625	WG453213-01	Calibration Point		1		11/18/13 09:46
3	NI.111813.094929	WG453213-02	Calibration Point		1		11/18/13 09:49
4	NI.111813.095235	WG453213-03	Calibration Point		1		11/18/13 09:52
5	NI.111813.095540	WG453213-04	Calibration Point		1		11/18/13 09:55
6	NI.111813.095847	WG453213-05	Initial Calibration Verification		1		11/18/13 09:58
7	NI.111813.100154	WG453213-06	Initial Calib Blank		1		11/18/13 10:01
8	NI.111813.100500	WG453213-07	Low Level Initial Calibration V		1		11/18/13 10:05
9	NI.111813.100805	WG453213-08	Interference Check		1		11/18/13 10:08
10	NI.111813.101110	WG453213-09	Interference Check		1		11/18/13 10:11
11	NI.111813.101417	WG453213-10	CCV		1		11/18/13 10:14
12	NI.111813.101721	WG453213-11	CCB		1		11/18/13 10:17
13	NI.111813.102049	WG452233-03	Method/Prep Blank	40/100	1		11/18/13 10:20
14	NI.111813.102354	WG452233-04	Laboratory Control S	40/100	1		11/18/13 10:23
15	NI.111813.102659	WG452233-01	Reference Sample		1	L13110368-03	11/18/13 10:26
16	NI.111813.103004	WG452233-05	Matrix Spike	40/100	1	L13110368-03	11/18/13 10:30
17	NI.111813.103309	WG452233-06	Matrix Spike Duplica	40/100	1	L13110368-03	11/18/13 10:33
18	NI.111813.103613	L13110368-01	POWDP09-131105	40/100	1		11/18/13 10:36
19	NI.111813.103918	WG452303-01	Post Digestion Spike		1	L13110368-01	11/18/13 10:39
20	NI.111813.104413	WG452303-02	Serial Dilution		5	L13110368-01	11/18/13 10:44
21	NI.111813.104718	WG452303-02	Serial Dilution		25	L13110368-01	11/18/13 10:47
22	NI.111813.105025	WG453213-12	CCV		1		11/18/13 10:50
23	NI.111813.105330	WG453213-13	CCB		1		11/18/13 10:53
24	NI.111813.105637	L13110505-01	FCMW08-131106	40/100	1		11/18/13 10:56
25	NI.111813.105942	L13110505-02	VDGMW03-131106	40/100	1		11/18/13 10:59
26	NI.111813.110246	L13110505-03	8001MW56-131106	40/100	1		11/18/13 11:02
27	NI.111813.110551	L13110505-04	VDGMW05-131106	40/100	1		11/18/13 11:05
28	NI.111813.110856	L13110505-05	8001DP36-131105	40/100	1		11/18/13 11:08
29	NI.111813.111202	L13110505-06	8001DP59-131105	40/100	1		11/18/13 11:12
30	NI.111813.111506	L13110514-01	8001DP57-131107	40/100	1		11/18/13 11:15
31	NI.111813.111811	L13110518-03	AV-OU7-EB1-110713	40/100	1		11/18/13 11:18
32	NI.111813.112242	WG452233-01	Reference Sample		100	L13110368-03	11/18/13 11:22
33	NI.111813.112547	WG452233-05	Matrix Spike	40/100	100	L13110368-03	11/18/13 11:25
34	NI.111813.112853	WG453213-14	CCV		1		11/18/13 11:28

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Sheri L. Pfalzgraf

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111813A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48198

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452303,453185,453208,452576,452574

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	NI.111813.113158	WG453213-15	CCB		1		11/18/13 11:31
36	NI.111813.113504	L13110337-01	MPL 30-1113-1	40/100	1		11/18/13 11:35
37	NI.111813.113904	WG452233-06	Matrix Spike Duplica	40/100	100	L13110368-03	11/18/13 11:39
38	NI.111813.114434	L13110505-02	VDGMW03-131106	40/100	100		11/18/13 11:44
39	NI.111813.114739	L13110505-03	8001MW56-131106	40/100	100		11/18/13 11:47
40	NI.111813.115043	L13110505-04	VDGMW05-131106	40/100	100		11/18/13 11:50
41	NI.111813.115348	L13110505-05	8001DP36-131105	40/100	100		11/18/13 11:53
42	NI.111813.115653	L13110505-06	8001DP59-131105	40/100	50		11/18/13 11:56
43	NI.111813.115957	L13110368-01	POWDP09-131105	40/100	50		11/18/13 11:59
44	NI.111813.120302	WG452303-01	Post Digestion Spike		50	L13110368-01	11/18/13 12:03
45	NI.111813.120607	WG452303-02	Serial Dilution		250	L13110368-01	11/18/13 12:06
46	NI.111813.120914	WG453213-16	CCV		1		11/18/13 12:09
47	NI.111813.121218	WG453213-17	CCB		1		11/18/13 12:12
48	NI.111813.121525	L13110368-04	POWMW20-131105	40/100	1		11/18/13 12:15
49	NI.111813.121830	L13110368-05	DUP-01-131105	40/100	1		11/18/13 12:18
50	NI.111813.122142	L13110398-01	CS22SB017-01-01EB	40/100	1		11/18/13 12:21
51	NI.111813.122446	L13110514-01	8001DP57-131107	40/100	50		11/18/13 12:24
52	NI.111813.122752	WG453213-18	CCV		1		11/18/13 12:27
53	NI.111813.123057	WG453213-19	CCB		1		11/18/13 12:30
54	NI.111813.123403	WG453213-20	Low Level Continuing Calibra		1		11/18/13 12:34
55	NI.111813.123804	L13110337-02	MPL 16-1113-1	40/100	1		11/18/13 12:38
56	NI.111813.124109	L13110337-03	MPL 26-1113-1	40/100	1		11/18/13 12:41
57	NI.111813.124414	WG452233-02	Reference Sample		1	L13110472-01	11/18/13 12:44
58	NI.111813.124718	WG452233-07	Duplicate	40/100	1	L13110472-01	11/18/13 12:47
59	NI.111813.125025	WG453213-21	CCV		1		11/18/13 12:50
60	NI.111813.125330	WG453213-22	CCB		1		11/18/13 12:53
61	NI.111813.131018	WG452687-04	Method/Prep Blank	40/100	1		11/18/13 13:10
62	NI.111813.131349	WG452687-05	Laboratory Control S	40/100	1		11/18/13 13:13
63	NI.111813.131653	WG452687-01	Reference Sample		5	L13110630-01	11/18/13 13:16
64	NI.111813.131958	WG452687-06	Matrix Spike	40/100	5	L13110630-01	11/18/13 13:19
65	NI.111813.132303	WG452687-07	Matrix Spike Duplica	40/100	5	L13110630-01	11/18/13 13:23
66	NI.111813.132609	L13110793-01	OUTFALL 002 COMP	40/100	1		11/18/13 13:26
67	NI.111813.132914	L13110793-03	OUTFALL 003 COMP	40/100	1		11/18/13 13:29
68	NI.111813.133218	WG453185-01	Post Digestion Spike		1	L13110793-03	11/18/13 13:32

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Sheri L. Babgard

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111813A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48198

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452303,453185,453208,452576,452574

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	NI.111813.133523	WG453185-02	Serial Dilution		5	L13110793-03	11/18/13 13:35
70	NI.111813.133828	WG453185-02	Serial Dilution		25	L13110793-03	11/18/13 13:38
71	NI.111813.134135	WG453213-23	CCV		1		11/18/13 13:41
72	NI.111813.134440	WG453213-24	CCB		1		11/18/13 13:44
73	NI.111813.134746	L13110793-05	OUTFALL 004 COMP	40/100	1		11/18/13 13:47
74	NI.111813.135708	L13110793-08	OUTFALL 203 COMP	40/100	1		11/18/13 13:57
75	NI.111813.140014	L13110793-09	OUTFALL 103 COMP		1		11/18/13 14:00
76	NI.111813.140318	WG452687-03	Reference Sample		1	L13110793-13	11/18/13 14:03
77	NI.111813.140623	WG452687-10	Duplicate	40/100	1	L13110793-13	11/18/13 14:06
78	NI.111813.140929	L13110793-09	OUTFALL 103 COMP	40/100	1		11/18/13 14:09
79	NI.111813.141458	L13110793-01	OUTFALL 002 COMP	40/100	25		11/18/13 14:14
80	NI.111813.141803	L13110793-03	OUTFALL 003 COMP		25		11/18/13 14:18
81	NI.111813.142108	WG453185-01	Post Digestion Spike		25	L13110793-03	11/18/13 14:21
82	NI.111813.142413	WG453185-02	Serial Dilution		125	L13110793-03	11/18/13 14:24
83	NI.111813.142720	WG453213-25	CCV		1		11/18/13 14:27
84	NI.111813.143024	WG453213-26	QC Std 7		1		11/18/13 14:30
85	NI.111813.143856	WG453213-27	CCB		1		11/18/13 14:38
86	NI.111813.144201	L13110793-08	OUTFALL 203 COMP		1		11/18/13 14:42
87	NI.111813.144700	WG452687-02	Reference Sample		5	L13110630-02	11/18/13 14:47
88	NI.111813.145005	L13110630-03	GW2H13-MW-3-D	40/100	5		11/18/13 14:50
89	NI.111813.145421	L13110793-08	OUTFALL 203 COMP	40/100	5000		11/18/13 14:54
90	NI.111813.145726	WG452687-03	Reference Sample		1	L13110793-13	11/18/13 14:57
91	NI.111813.150030	WG452687-10	Duplicate	40/100	1	L13110793-13	11/18/13 15:00
92	NI.111813.150335	L13110793-03	OUTFALL 003 COMP		25		11/18/13 15:03
93	NI.111813.150640	WG453185-01	Post Digestion Spike		25	L13110793-03	11/18/13 15:06
94	NI.111813.151320	L13110793-03	OUTFALL 003 COMP	40/100	25		11/18/13 15:13
95	NI.111813.151633	WG453185-02	Serial Dilution		125	L13110793-03	11/18/13 15:16
96	NI.111813.151940	WG453213-28	CCV		1		11/18/13 15:19
97	NI.111813.152245	WG453213-29	CCB		1		11/18/13 15:22
98	NI.111813.152649	L13110630-04	GW2H13-MW-3-ZD	40/100	5		11/18/13 15:26
99	NI.111813.152954	WG452687-08	Matrix Spike	40/100	5	L13110630-02	11/18/13 15:29
100	NI.111813.153259	WG452687-09	Matrix Spike Duplica	40/100	5	L13110630-02	11/18/13 15:32
101	NI.111813.153604	L13110630-09	GW2H13-MW-3D	40/100	5		11/18/13 15:36
102	NI.111813.153908	L13110630-10	GW2H13-MW-3D-Z		5		11/18/13 15:39

 Approved: November 19, 2013

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111813A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48198

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452303,453185,453208,452576,452574

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	NI.111813.154213	L13110630-11	GW2H13-MW-4	40/100	5		11/18/13 15:42
104	NI.111813.154518	L13110763-12	DWVF2		1		11/18/13 15:45
105	NI.111813.154823	L13110763-16	UWVF1		1		11/18/13 15:48
106	NI.111813.155127	L13110772-01	LRD01	40/100	1		11/18/13 15:51
107	NI.111813.155433	L13110772-02	LRD01	40/100	1		11/18/13 15:54
108	NI.111813.155739	WG453213-30	CCV		1		11/18/13 15:57
109	NI.111813.160044	WG453213-31	CCB		1		11/18/13 16:00
110	NI.111813.161249	WG452939-03	Method/Prep Blank	40/100	1		11/18/13 16:12
111	NI.111813.161554	WG452939-04	Laboratory Control S	40/100	1		11/18/13 16:15
112	NI.111813.161859	WG452939-01	Reference Sample		5	L13110630-38	11/18/13 16:18
113	NI.111813.162204	WG452939-05	Matrix Spike	40/100	5	L13110630-38	11/18/13 16:22
114	NI.111813.162508	WG452939-06	Matrix Spike Duplica	40/100	5	L13110630-38	11/18/13 16:25
115	NI.111813.162813	L13110874-01	MW-37102113-01	40/100	1		11/18/13 16:28
116	NI.111813.163146	L13110874-02	MW-44102113	40/100	1		11/18/13 16:31
117	NI.111813.163451	L13110874-03	MW-21102113	40/100	1		11/18/13 16:34
118	NI.111813.163756	WG453208-01	Post Digestion Spike		1	L13110874-03	11/18/13 16:37
119	NI.111813.164100	WG453208-02	Serial Dilution		5	L13110874-03	11/18/13 16:41
120	NI.111813.164407	WG453213-32	CCV		1		11/18/13 16:44
121	NI.111813.164712	WG453213-33	CCB		1		11/18/13 16:47
122	NI.111813.165018	L13110630-32	GW2H13-MW-44D-Z	40/100	5		11/18/13 16:50
123	NI.111813.165929	L13110630-33	GW2H13-MW-46	40/100	5		11/18/13 16:59
124	NI.111813.170234	L13110630-34	GW2H13-MW-46-Z	40/100	5		11/18/13 17:02
125	NI.111813.170539	L13110630-35	GW2H13-MW-46D	40/100	5		11/18/13 17:05
126	NI.111813.170844	L13110630-36	GW2H13-MW-46D-Z	40/100	5		11/18/13 17:08
127	NI.111813.171148	L13110630-37	GW2H13-MW-47	40/100	5		11/18/13 17:11
128	NI.111813.171453	L13110630-39	GW2H13-MW-57	40/100	5		11/18/13 17:14
129	NI.111813.171758	L13110767-01	NBD01	40/100	1		11/18/13 17:17
130	NI.111813.172102	L13110767-02	NBD01	40/100	1		11/18/13 17:21
131	NI.111813.172407	WG452939-02	Reference Sample		1	L13110767-06	11/18/13 17:24
132	NI.111813.172714	WG453213-34	CCV		1		11/18/13 17:27
133	NI.111813.173018	WG453213-35	CCB		1		11/18/13 17:30
134	NI.111813.173324	WG452939-07	Duplicate	40/100	1	L13110767-06	11/18/13 17:33
135	NI.111813.173629	L13110767-07	ALD02	40/100	1		11/18/13 17:36
136	NI.111813.173934	L13110767-08	ALD01	40/100	1		11/18/13 17:39

Page: 4 Approved: November 19, 2013

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111813A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48198

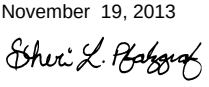
Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452303,453185,453208,452576,452574

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	NI.111813.174238	L13110767-09	ALD01	40/100	1		11/18/13 17:42
138	NI.111813.174544	L13110767-10	NBD05	40/100	1		11/18/13 17:45
139	NI.111813.174849	L13110767-11	NBD05	40/100	1		11/18/13 17:48
140	NI.111813.175154	L13110465-01	MPL 29-1113-1	40/100	1		11/18/13 17:51
141	NI.111813.175458	L13110465-02	MPL 7-1113-1	40/100	1		11/18/13 17:54
142	NI.111813.175803	L13110465-03	MPL 5-1113-1	40/100	1		11/18/13 17:58
143	NI.111813.180108	L13110557-01	LF003-SW0312-02	40/100	1		11/18/13 18:01
144	NI.111813.180415	WG453213-36	CCV		1		11/18/13 18:04
145	NI.111813.180720	WG453213-37	CCB		1		11/18/13 18:07
146	NI.111813.181027	L13110557-02	LF003-SW0312-02DUP	40/100	1		11/18/13 18:10
147	NI.111813.181332	WG452456-02	Reference Sample		1	L13110584-01	11/18/13 18:13
148	NI.111813.181637	WG452456-08	Matrix Spike	40/100	1	L13110584-01	11/18/13 18:16
149	NI.111813.181941	WG452456-09	Matrix Spike Duplica	40/100	1	L13110584-01	11/18/13 18:19
150	NI.111813.182246	L13110600-01	DP005-SW0513-02	40/100	1		11/18/13 18:22
151	NI.111813.182550	L13110600-02	DP005-SW0514-02	40/100	1		11/18/13 18:25
152	NI.111813.182855	L13110601-01	LF003-MW0309-02	40/100	1		11/18/13 18:28
153	NI.111813.183200	L13110763-12	DWVF2	40/100	1		11/18/13 18:32
154	NI.111813.183504	L13110763-16	UWVF1	40/100	1		11/18/13 18:35
155	NI.111813.183809	L13110630-10	GW2H13-MW-3D-Z	40/100	5		11/18/13 18:38
156	NI.111813.184116	WG453213-38	CCV		1		11/18/13 18:41
157	NI.111813.184421	WG453213-39	CCB		1		11/18/13 18:44
158	NI.111813.184727	WG452353-02	Method/Prep Blank	.5/200	1		11/18/13 18:47
159	NI.111813.185031	WG452353-03	Laboratory Control S	.5/200	1		11/18/13 18:50
160	NI.111813.185336	L13110398-02	CS22SB017-01-01NS		100		11/18/13 18:53
161	NI.111813.185641	L13110398-03	CS22SB017-02-01NS	.504/200	100		11/18/13 18:56
162	NI.111813.185946	L13110398-04	CS22SB017-03-01NS	.512/200	100		11/18/13 18:59
163	NI.111813.190250	L13110398-05	CS22SB017-04-01NS	.505/200	100		11/18/13 19:02
164	NI.111813.190555	L13110398-06	CS22SB018-01-01NS	.506/200	100		11/18/13 19:05
165	NI.111813.190900	L13110398-07	CS22SB018-02-01NS	.503/200	100		11/18/13 19:09
166	NI.111813.191205	WG452574-03	Post Digestion Spike		100	L13110398-07	11/18/13 19:12
167	NI.111813.191510	WG452574-04	Serial Dilution		500	L13110398-07	11/18/13 19:15
168	NI.111813.191817	WG453213-40	CCV		1		11/18/13 19:18
169	NI.111813.192121	WG453213-41	CCB		1		11/18/13 19:21
170	NI.111813.192428	L13110398-08	CS22SB018-03-01NS	.512/200	100		11/18/13 19:24

 Approved: November 19, 2013



Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 111813A.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 48198

Calibration Std: STD61268 ICV Std: STD61269 Post Spike: STD60309
ICSA: STD61270 ICSAB: STD61271 Int. Std: RGT28155
CCV: STD60963 LLCCV: STD61224 Tuning Sol : STD61267
Stannous : Hydroxylamine :

Workgroups: 452303,453185,453208,452576,452574

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	NI.111813.192733	L13110398-09	CS22SB018-04-01NS	.504/200	100		11/18/13 19:27
172	NI.111813.193038	L13110398-10	CS22SB018-05-01NS	.513/200	100		11/18/13 19:30
173	NI.111813.193343	L13110452-01	CS22SB019-01-01NS	.507/200	100		11/18/13 19:33
174	NI.111813.193647	L13110452-02	CS22SB019-02-01NS	.511/200	100		11/18/13 19:36
175	NI.111813.193952	L13110452-03	CS22SB019-03-01NS	.503/200	100		11/18/13 19:39
176	NI.111813.194257	L13110452-04	CS22SB019-04-01NS	.523/200	100		11/18/13 19:42
177	NI.111813.194602	L13110452-05	CS22SB019-02-01FD	.505/200	100		11/18/13 19:46
178	NI.111813.194906	L13110452-06	CS22SB020-01-01NS		100	WG452353-01	11/18/13 19:49
179	NI.111813.195211	L13110452-07	CS22SB020-01-01NS	.5/200	100	WG452353-04	11/18/13 19:52
180	NI.111813.195518	WG453213-42	CCV		1		11/18/13 19:55
181	NI.111813.195823	WG453213-43	CCB		1		11/18/13 19:58
182	NI.111813.200129	L13110452-08	CS22SB020-01-01NS	.521/200	100	WG452353-05	11/18/13 20:01
183	NI.111813.200434	L13110452-09	CS22SB020-02-01NS	.517/200	100		11/18/13 20:04
184	NI.111813.200739	L13110452-11	CS22SB020-03-01NS	.511/200	100		11/18/13 20:07
185	NI.111813.201044	L13110452-12	CS22SB021-01-01NS	.52/200	100		11/18/13 20:10
186	NI.111813.201349	WG453213-44	CCV		1		11/18/13 20:13
187	NI.111813.201654	WG453213-45	CCB		1		11/18/13 20:16
188	NI.111813.202000	WG453213-46	Low Level Continuing Calibra		1		11/18/13 20:20

Comments

Seq.	Rerun	Dil.	Reason	Analytes
102			Sample probe was not in position,rerun.JYH	
104			Sample probe was not in position,rerun.JYH	
105			Sample probe was not in position,rerun.JYH	
115			Sequence 115-119: wrong sample labels.JYH	

Page: 6 Approved: November 19, 2013

Microbac

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2013
Analyst: JYH
Analyst: NA
Method: 3020/6020A/200.8
Instrument: ICP-MS2
Curve Workgroup: 452783
Runlog ID: 57090
Analytical Workgroups: 452570, 452576, 452574, 452649

Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	X
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0492, 0476, 0518, 0557, 0625, 0622, 06
Client Forms	X
Level X	
Level 3	0622
Level 4	0476, 0518, 0557
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	SLP
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
15-NOV-2013

Secondary Reviewer:
15-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-15-2013 18:11:27

Microbac Laboratories Inc.

Data Checklist

Date: 18-NOV-2013
Analyst: JYH
Analyst: NA
Method: 6020/6020A/200.8
Instrument: ICP-MS2
Curve Workgroup: 453213
Runlog ID: 57150
Analytical Workgroups: 452303,453185,453208,452576,452574

Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	X
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	337,368,398,505,514,518,793,630
	874,465,557,584,600,601,452
Client Forms	X
Level X	
Level 3	398
Level 4	337,368,505,514,518,874,465,557,584
	600,601,452
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
19-NOV-2013

Secondary Reviewer:
19-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-19-2013 15:01:01

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6020 **AAB#:** WG452576

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/12/2013	5.1	180		11/18/13	11.3	180	
MPL 7-1113-1	02	11/07/13					11/12/2013	5	180		11/18/13	11.2	180	
MPL 5-1113-1	03	11/07/13					11/12/2013	5	180		11/18/13	11.1	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3211122
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG452576
Blank File ID:	NI.111313.182704	Blank Sample ID:	WG452456-04
Prep Date:	11/12/13 14:16	Instrument ID:	ICP-MS2
Analyzed Date:	11/13/13 18:27	Method:	6020
Analyst:	JYH		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452456-05	NI.111313.183314	11/13/13 18:33	01
DUP	WG452456-10	NI.111313.190712	11/13/13 19:07	01
MPL 29-1113-1	L13110465-01	NI.111813.175154	11/18/13 17:51	01
MPL 7-1113-1	L13110465-02	NI.111813.175458	11/18/13 17:54	01
MPL 5-1113-1	L13110465-03	NI.111813.175803	11/18/13 17:58	01

Report Name: BLANK_SUMMARY
PDF File ID: 3211123
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/12/13 14:16 Sample ID: WG452456-04
Instrument ID: ICP-MS2 Run Date: 11/13/13 18:27 Prep Method: 3015
File ID: NI.111313.182704 Analyst: JYH Method: 6020
Workgroup (AAB#): WG452576 Matrix: Water Units: mg/L
Contract #: Cal ID: ICP-MS-13-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Antimony, Total	0.000500	0.00100	0.000500	1	U
Arsenic, Total	0.000500	0.00100	0.000500	1	U
Barium, Total	0.00150	0.00300	0.00150	1	U
Cadmium, Total	0.000300	0.000600	0.000300	1	U
Chromium, Total	0.00100	0.00200	0.00100	1	U
Cobalt, Total	0.000500	0.00100	0.000500	1	U
Copper, Total	0.00100	0.00200	0.00100	1	U
Lead, Total	0.000500	0.00100	0.000500	1	U
Manganese, Total	0.00100	0.00200	0.00100	1	U
Nickel, Total	0.00200	0.00400	0.00200	1	U
Selenium, Total	0.000500	0.00100	0.000500	1	U
Silver, Total	0.000500	0.00100	0.000500	1	U
Thallium, Total	0.000100	0.000200	0.000100	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3211124
19-NOV-2013 09:15

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452456-05
Instrument ID: ICP-MS2 Run Time: 18:33 Prep Method: 3015
File ID: NI.111313.183314 Analyst: JYH Method: 6020
Workgroup (AAB#): WG452576 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD60087 Cal ID: ICP-MS-13-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Antimony, Total	0.0625	0.0602	96.2	80 - 120	
Arsenic, Total	0.0625	0.0605	96.8	80 - 120	
Barium, Total	0.0625	0.0616	98.6	80 - 120	
Cadmium, Total	0.0625	0.0607	97.0	80 - 120	
Chromium, Total	0.0625	0.0595	95.2	80 - 120	
Cobalt, Total	0.0625	0.0612	97.9	80 - 120	
Copper, Total	0.0625	0.0623	99.7	80 - 120	
Lead, Total	0.0625	0.0595	95.1	80 - 120	
Manganese, Total	0.0625	0.0620	99.2	80 - 120	
Nickel, Total	0.0625	0.0624	99.9	80 - 120	
Selenium, Total	0.0625	0.0590	94.4	80 - 120	
Silver, Total	0.0625	0.0632	101	80 - 120	
Thallium, Total	0.0625	0.0611	97.8	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 3211125
Report generated: 11/19/2013 09:15

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum:L13110465 Cal ID:ICP-MS2- Worknum:WG452576

Instrument ID:ICP-MS2 Contract #: Method:6020

Parent ID:WG452456-01 File ID:NI.111313.183619 Dil:1 Matrix:WATER

Sample ID:WG452456-06 MS File ID:NI.111313.183924 Dil:1 Units:mg/L

Sample ID:WG452456-07 MSD File ID:NI.111313.184228 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony	ND	0.0625	0.0618	98.9	0.0625	0.0615	98.3	0.595	80 - 120	20	
Arsenic	0.00232	0.0625	0.0655	101	0.0625	0.0656	101	0.186	80 - 120	20	
Barium	0.105	0.0625	0.165	97.1	0.0625	0.160	89.0	3.10	80 - 120	20	
Cadmium	ND	0.0625	0.0619	99.0	0.0625	0.0615	98.4	0.522	80 - 120	20	
Chromium	0.00178	0.0625	0.0609	94.7	0.0625	0.0609	94.5	0.155	80 - 120	20	
Cobalt	ND	0.0625	0.0603	96.4	0.0625	0.0602	96.3	0.0934	80 - 120	20	
Copper	0.00267	0.0625	0.0622	95.3	0.0625	0.0614	94.0	1.26	80 - 120	20	
Lead	0.00337	0.0625	0.0623	94.4	0.0625	0.0621	93.9	0.440	80 - 120	20	
Manganese	0.0898	0.0625	0.147	91.7	0.0625	0.137	75.4	7.14	80 - 120	20	*
Nickel	0.00302	0.0625	0.0631	96.1	0.0625	0.0627	95.5	0.579	80 - 120	20	
Selenium	0.00346	0.0625	0.0660	100	0.0625	0.0659	99.8	0.174	80 - 120	20	
Silver	ND	0.0625	0.0610	97.6	0.0625	0.0609	97.4	0.228	80 - 120	20	
Thallium	ND	0.0625	0.0617	98.7	0.0625	0.0620	99.3	0.591	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID: 3213171

Report generated 11/19/2013 15:47

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum:L13110465 Cal ID:ICP-MS2- Worknum:WG452576

Instrument ID:ICP-MS2 Contract #: Method:6020

Parent ID:WG452456-02 File ID:NI.111813.181332 Dil:1 Matrix:WATER

Sample ID:WG452456-08 MS File ID:NI.111813.181637 Dil:1 Units:mg/L

Sample ID:WG452456-09 MSD File ID:NI.111813.181941 Dil:1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony, Total	ND	0.0625	0.0615	98.5	0.0625	0.0632	101	2.61	80 - 120	20	
Arsenic, Total	0.00293	0.0625	0.0645	98.6	0.0625	0.0654	100	1.31	80 - 120	20	
Barium, Total	0.0524	0.0625	0.112	96.1	0.0625	0.115	100	2.19	80 - 120	20	
Cadmium, Total	ND	0.0625	0.0601	96.2	0.0625	0.0614	98.3	2.15	80 - 120	20	
Chromium, Total	0.00352	0.0625	0.0614	92.5	0.0625	0.0624	94.2	1.65	80 - 120	20	
Cobalt, Total	ND	0.0625	0.0586	93.8	0.0625	0.0595	95.2	1.52	80 - 120	20	
Copper, Total	ND	0.0625	0.0613	98.0	0.0625	0.0630	101	2.85	80 - 120	20	
Lead, Total	ND	0.0625	0.0590	94.4	0.0625	0.0612	97.9	3.56	80 - 120	20	
Manganese, Total	ND	0.0625	0.0610	97.6	0.0625	0.0621	99.3	1.78	80 - 120	20	
Nickel, Total	ND	0.0625	0.0606	96.9	0.0625	0.0616	98.6	1.77	80 - 120	20	
Selenium, Total	0.00169	0.0625	0.0616	95.9	0.0625	0.0639	99.6	3.66	80 - 120	20	
Silver, Total	ND	0.0625	0.0635	102	0.0625	0.0644	103	1.35	80 - 120	20	
Thallium, Total	ND	0.0625	0.0606	97.0	0.0625	0.0620	99.3	2.28	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID: 3213171

Report generated 11/19/2013 15:47

Microbac Laboratories Inc.
Serial Dilution Report

Login: L13110465 **Worknum:** WG452576
Instrument: ICP-MS2 **Method:** 6020
Serial Dil: WG452576-02 **File ID:** NI.111313.185143 **Dil:** 5 **Units:** ug/L
Sample: L13110518-02 **File ID:** NI.111313.184534 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	ND	U	ND	U		
Arsenic	0.261	F	ND	U		
Barium	50.9	X	14.5	X	71.60	
Cadmium	ND	U	ND	U		
Chromium	0.742	F	ND	U		
Cobalt	1.00	X	ND	U		
Copper	3.36	X	ND	U		
Lead	ND	U	ND	U		
Manganese	ND	U	ND	U		
Nickel	16.3	X	ND	U		
Selenium	0.533	X	ND	U		
Silver	ND	U	ND	U		
Thallium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 3211120
11/19/2013 09:15

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L13110465 **Worknum:** WG452576
Instrument ID: ICP-MS2 **Method:** 6020
Post Spike ID: WG452576-01 **File ID:** NI.111313.184838 **Dil:** 1 **Units:** ug/L
Sample ID: L13110518-02 **File ID:** NI.111313.184534 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	52.6		0	U	50	105.3	75 - 125	
ARSENIC	51.9		0.261	F	50	103.2	75 - 125	
BARIUM	102		50.9		50	102.9	75 - 125	
CADMIUM	50.4		0	U	50	100.9	75 - 125	
CHROMIUM	52.3		0.742	F	50	103.2	75 - 125	
COBALT	51.6		1.00		50	101.2	75 - 125	
COPPER	52.3		3.36		50	97.9	75 - 125	
LEAD	51.4		0	U	50	102.7	75 - 125	
MANGANESE	51.0		0	U	50	101.9	75 - 125	
NICKEL	68.5		16.3		50	104.4	75 - 125	
SELENIUM	48.9		0.533		50	96.6	75 - 125	
SILVER	49.0		0	U	50	98.0	75 - 125	
THALLIUM	52.3		0	U	50	104.6	75 - 125	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 3211121
Report generated: 11/19/2013 09:15

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L13110465**	Workgroup (AAB#):	**WG452576**
Analytical Method:	**6020**	Instrument ID:	**ICP-MS2**
ICAL Worknum:	**WG452783**	Initial Calibration Date:	**13-NOV-2013 16:29**

	WG452783-01		WG452783-02		WG452783-03		WG452783-04			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	37.8	.4	222	50	142000	100	286000	.999999	
ARSENIC	0	-321	.4	-223	50	67100	100	135000	1	
BARIUM	0	5.30	.4	95.7	50	88600	100	176000	.999971	
CADMIUM	0	2.30	.4	122	50	100000	100	199000	.999976	
CHROMIUM	0	4620	.4	4960	50	353000	100	698000	.99999	
COBALT	0	101	.4	645	50	400000	100	801000	1	
COPPER	0	124	.4	266	50	116000	100	230000	.999974	
LEAD	0	160	.4	520	50	276000	100	547000	.999999	
MANGANESE	0	1030	.4	1950	50	641000	100	1260000	.999962	
NICKEL	0	422	.4	622	50	118000	100	237000	1	
SELENIUM	0	-46.0	.4	-33.8	50	7200	100	14400	.999999	
SILVER	0	42.0	.4	415	50	316000	100	614000	.999852	
THALLIUM	0	1.30	.4	291	50	272000	100	539000	1	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 3211128
Report generated: 19-NOV-2013 09:15

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L13110465**	Workgroup (AAB#):	**WG452576**
Analytical Method:	**6020**	Instrument ID:	**ICP-MS2**
ICAL Worknum:	**WG453213**	Initial Calibration Date:	**18-NOV-2013 09:55**

	WG453213-01		WG453213-02		WG453213-03		WG453213-04			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	6.20	.4	140	50	137000	100	266000	.999985	
ARSENIC	0	-287	.4	-240	50	74700	100	146000	.999999	
BARIUM	0	8.30	.4	117	50	94700	100	184000	.999996	
CADMIUM	0	1.30	.4	119	50	113000	100	220000	.999991	
CHROMIUM	0	4880	.4	5150	50	358000	100	685000	.999982	
COBALT	0	92.0	.4	622	50	484000	100	931000	.99997	
COPPER	0	152	.4	294	50	136000	100	262000	.999969	
LEAD	0	197	.4	514	50	293000	100	569000	.999997	
MANGANESE	0	1170	.4	2590	50	703000	100	1330000	.999893	
NICKEL	0	534	.4	702	50	143000	100	273000	.999958	
SELENIUM	0	-26.9	.4	-38.1	50	7600	100	15000	.999995	
SILVER	0	46.3	.4	440	50	347000	100	652000	.9998	
THALLIUM	0	2.00	.4	321	50	311000	100	599000	.999979	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 3211128
Report generated: 19-NOV-2013 09:15

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-06
Instrument ID: ICP-MS2 Run Time: 16:36 Method: 6020
File ID: NI.111313.163608 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG452576 Cal ID: ICP-MS2 - 13-NOV-13
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.2	.4	.2	U
ARSENIC	.2	.4	.2	U
BARIUM	.6	1.2	.6	U
CADMIUM	.12	.24	.12	U
COBALT	.2	.4	.2	U
CHROMIUM	.4	.8	.4	U
COPPER	.4	.8	.4	U
MANGANESE	.4	.8	.4	U
NICKEL	.8	1.6	.8	U
LEAD	.2	.4	.2	U
ANTIMONY	.2	.4	.2	U
SELENIUM	.2	.4	.2	U
THALLIUM	.04	.08	.04	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3211130
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-06
Instrument ID: ICP-MS2 Run Time: 10:01 Method: 6020
File ID: NI.111813.100154 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG452576 Cal ID: ICP-MS2 - 18-NOV-13
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.2	.4	.2	U
ARSENIC	.2	.4	.2	U
BARIUM	.6	1.2	.6	U
CADMIUM	.12	.24	.12	U
COBALT	.2	.4	.2	U
CHROMIUM	.4	.8	.4	U
COPPER	.4	.8	.4	U
MANGANESE	.4	.8	.4	U
NICKEL	.8	1.6	.8	U
LEAD	.2	.4	.2	U
ANTIMONY	.2	.4	.2	U
SELENIUM	.2	.4	.2	U
THALLIUM	.04	.08	.04	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3211130
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-12

Instrument ID: ICP-MS2 Run Time: 16:56 Method: 6020

File ID: NI.111313.165611 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 13-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3211133
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-18

Instrument ID: ICP-MS2 Run Time: 18:23 Method: 6020

File ID: NI.111313.182358 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 13-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3211133
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-20

Instrument ID: ICP-MS2 Run Time: 18:57 Method: 6020

File ID: NI.111313.185755 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 13-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3211133
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-11

Instrument ID: ICP-MS2 Run Time: 10:17 Method: 6020

File ID: NI.111813.101721 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3211133
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-35

Instrument ID: ICP-MS2 Run Time: 17:30 Method: 6020

File ID: NI.111813.173018 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3211133
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-37

Instrument ID: ICP-MS2 Run Time: 18:07 Method: 6020

File ID: NI.111813.180720 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3211133
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-39

Instrument ID: ICP-MS2 Run Time: 18:44 Method: 6020

File ID: NI.111813.184421 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Antimony	0.200	0.400	0.200	U
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cadmium	0.120	0.240	0.120	U
Chromium	0.400	0.800	0.400	U
Cobalt	0.200	0.400	0.200	U
Copper	0.400	0.800	0.400	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Nickel	0.800	1.60	0.800	U
Selenium	0.200	0.400	0.200	U
Silver	0.200	0.400	0.200	U
Thallium	0.0400	0.0800	0.0400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3211133
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-05
Instrument ID: ICP-MS2 Run Time: 16:33 Method: 6020
File ID: NI.111313.163302 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 13-NOV-13
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		50	50.7	101	90 - 110	
Arsenic		50	49.9	99.8	90 - 110	
Barium		50	49.9	99.8	90 - 110	
Cadmium		50	50.6	101	90 - 110	
Chromium		50	50.1	100	90 - 110	
Cobalt		50	50.2	100	90 - 110	
Copper		50	50.1	100	90 - 110	
Lead		50	49.8	99.6	90 - 110	
Manganese		50	49.5	99.1	90 - 110	
Nickel		50	49.9	99.8	90 - 110	
Selenium		50	50.3	101	90 - 110	
Silver		50	50.7	101	90 - 110	
Thallium		50	50.0	100	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3211129
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-05
Instrument ID: ICP-MS2 Run Time: 09:58 Method: 6020
File ID: NI.111813.095847 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Antimony		50	50.7	101	90 - 110	
Arsenic		50	51.0	102	90 - 110	
Barium		50	50.7	101	90 - 110	
Cadmium		50	50.6	101	90 - 110	
Chromium		50	50.1	100	90 - 110	
Cobalt		50	50.4	101	90 - 110	
Copper		50	50.7	101	90 - 110	
Lead		50	50.7	101	90 - 110	
Manganese		50	50.9	102	90 - 110	
Nickel		50	50.7	101	90 - 110	
Selenium		50	51.5	103	90 - 110	
Silver		50	51.0	102	90 - 110	
Thallium		50	50.4	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3211129
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-11

Instrument ID: ICP-MS2 Run Time: 16:53 Method: 6020

File ID: NI.111313.165305 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 13-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0500	0.0497	mg/L	99.4	90 - 110		
Arsenic		0.0500	0.0501	mg/L	100	90 - 110		
Barium		0.0500	0.0497	mg/L	99.4	90 - 110		
Cadmium		0.0500	0.0501	mg/L	100	90 - 110		
Chromium		0.0500	0.0497	mg/L	99.3	90 - 110		
Cobalt		0.0500	0.0503	mg/L	101	90 - 110		
Copper		0.0500	0.0497	mg/L	99.4	90 - 110		
Lead		0.0500	0.0495	mg/L	99.1	90 - 110		
Manganese		0.0500	0.0496	mg/L	99.1	90 - 110		
Nickel		0.0500	0.0503	mg/L	101	90 - 110		
Selenium		0.0500	0.0499	mg/L	99.8	90 - 110		
Silver		0.0500	0.0503	mg/L	101	90 - 110		
Thallium		0.0500	0.0501	mg/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3211132

Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-17

Instrument ID: ICP-MS2 Run Time: 18:20 Method: 6020

File ID: NI.111313.182053 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 13-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0500	0.0485	mg/L	97.0	90 - 110		
Arsenic		0.0500	0.0493	mg/L	98.7	90 - 110		
Barium		0.0500	0.0494	mg/L	98.8	90 - 110		
Cadmium		0.0500	0.0500	mg/L	100	90 - 110		
Chromium		0.0500	0.0484	mg/L	96.9	90 - 110		
Cobalt		0.0500	0.0486	mg/L	97.2	90 - 110		
Copper		0.0500	0.0491	mg/L	98.2	90 - 110		
Lead		0.0500	0.0482	mg/L	96.4	90 - 110		
Manganese		0.0500	0.0487	mg/L	97.5	90 - 110		
Nickel		0.0500	0.0495	mg/L	99.0	90 - 110		
Selenium		0.0500	0.0488	mg/L	97.5	90 - 110		
Silver		0.0500	0.0501	mg/L	100	90 - 110		
Thallium		0.0500	0.0492	mg/L	98.4	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3211132

Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/13/2013 Sample ID: WG452783-19

Instrument ID: ICP-MS2 Run Time: 18:54 Method: 6020

File ID: NI.111313.185451 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 13-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0500	0.0491	mg/L	98.1	90 - 110		
Arsenic		0.0500	0.0488	mg/L	97.7	90 - 110		
Barium		0.0500	0.0487	mg/L	97.5	90 - 110		
Cadmium		0.0500	0.0492	mg/L	98.4	90 - 110		
Chromium		0.0500	0.0475	mg/L	95.0	90 - 110		
Cobalt		0.0500	0.0478	mg/L	95.5	90 - 110		
Copper		0.0500	0.0491	mg/L	98.2	90 - 110		
Lead		0.0500	0.0478	mg/L	95.6	90 - 110		
Manganese		0.0500	0.0477	mg/L	95.4	90 - 110		
Nickel		0.0500	0.0487	mg/L	97.4	90 - 110		
Selenium		0.0500	0.0486	mg/L	97.3	90 - 110		
Silver		0.0500	0.0491	mg/L	98.2	90 - 110		
Thallium		0.0500	0.0490	mg/L	97.9	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3211132

Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-10

Instrument ID: ICP-MS2 Run Time: 10:14 Method: 6020

File ID: NI.111813.101417 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0500	0.0499	mg/L	99.9	90 - 110		
Arsenic		0.0500	0.0501	mg/L	100	90 - 110		
Barium		0.0500	0.0502	mg/L	100	90 - 110		
Cadmium		0.0500	0.0503	mg/L	101	90 - 110		
Chromium		0.0500	0.0501	mg/L	100	90 - 110		
Cobalt		0.0500	0.0503	mg/L	101	90 - 110		
Copper		0.0500	0.0508	mg/L	102	90 - 110		
Lead		0.0500	0.0495	mg/L	99.1	90 - 110		
Manganese		0.0500	0.0509	mg/L	102	90 - 110		
Nickel		0.0500	0.0499	mg/L	99.8	90 - 110		
Selenium		0.0500	0.0509	mg/L	102	90 - 110		
Silver		0.0500	0.0512	mg/L	102	90 - 110		
Thallium		0.0500	0.0502	mg/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3211132

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-34

Instrument ID: ICP-MS2 Run Time: 17:27 Method: 6020

File ID: NI.111813.172714 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0500	0.0497	mg/L	99.4	90 - 110		
Arsenic		0.0500	0.0504	mg/L	101	90 - 110		
Barium		0.0500	0.0500	mg/L	100	90 - 110		
Cadmium		0.0500	0.0496	mg/L	99.2	90 - 110		
Chromium		0.0500	0.0468	mg/L	93.5	90 - 110		
Cobalt		0.0500	0.0475	mg/L	94.9	90 - 110		
Copper		0.0500	0.0501	mg/L	100	90 - 110		
Lead		0.0500	0.0477	mg/L	95.5	90 - 110		
Manganese		0.0500	0.0517	mg/L	103	90 - 110		
Nickel		0.0500	0.0489	mg/L	97.9	90 - 110		
Selenium		0.0500	0.0499	mg/L	99.8	90 - 110		
Silver		0.0500	0.0528	mg/L	106	90 - 110		
Thallium		0.0500	0.0495	mg/L	99.0	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

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Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-36

Instrument ID: ICP-MS2 Run Time: 18:04 Method: 6020

File ID: NI.111813.180415 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0500	0.0502	mg/L	100	90 - 110		
Arsenic		0.0500	0.0501	mg/L	100	90 - 110		
Barium		0.0500	0.0502	mg/L	100	90 - 110		
Cadmium		0.0500	0.0496	mg/L	99.2	90 - 110		
Chromium		0.0500	0.0482	mg/L	96.5	90 - 110		
Cobalt		0.0500	0.0475	mg/L	94.9	90 - 110		
Copper		0.0500	0.0502	mg/L	100	90 - 110		
Lead		0.0500	0.0486	mg/L	97.1	90 - 110		
Manganese		0.0500	0.0499	mg/L	99.8	90 - 110		
Nickel		0.0500	0.0491	mg/L	98.3	90 - 110		
Selenium		0.0500	0.0497	mg/L	99.4	90 - 110		
Silver		0.0500	0.0524	mg/L	105	90 - 110		
Thallium		0.0500	0.0493	mg/L	98.7	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/18/2013 Sample ID: WG453213-38
Instrument ID: ICP-MS2 Run Time: 18:41 Method: 6020
File ID: NI.111813.184116 Analyst: JYH QC Key: DOD4
Workgroup (AAB#): WG452576 Cal ID: ICP-MS - 18-NOV-13
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Antimony		0.0500	0.0499	mg/L	99.8	90 - 110		
Arsenic		0.0500	0.0500	mg/L	100	90 - 110		
Barium		0.0500	0.0504	mg/L	101	90 - 110		
Cadmium		0.0500	0.0499	mg/L	99.9	90 - 110		
Chromium		0.0500	0.0470	mg/L	94.0	90 - 110		
Cobalt		0.0500	0.0470	mg/L	94.0	90 - 110		
Copper		0.0500	0.0494	mg/L	98.8	90 - 110		
Lead		0.0500	0.0483	mg/L	96.5	90 - 110		
Manganese		0.0500	0.0491	mg/L	98.3	90 - 110		
Nickel		0.0500	0.0484	mg/L	96.9	90 - 110		
Selenium		0.0500	0.0495	mg/L	98.9	90 - 110		
Silver		0.0500	0.0522	mg/L	104	90 - 110		
Thallium		0.0500	0.0492	mg/L	98.4	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 3211132
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L13110465 **Workgroup (AAB#):** WG452576
Instrument ID: ICP-MS2 **Method:** 6020
Sol. A : WG452783-09 **File ID:** NI.111313.164653 **Units:** ug/L
Sol. AB : WG452783-10 **File ID:** NI.111313.164959 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	0.0220	NS	100	101	101	
Arsenic	NS	-0.00750	NS	100	101	101	
Barium	NS	0.0213	NS	100	101	101	
Cadmium	NS	-0.0326	NS	100	102	102	
Chromium	NS	0.0904	NS	100	97.2	97.2	
Cobalt	NS	0.00410	NS	100	98.0	98.0	
Copper	NS	0.215	NS	100	97.2	97.2	
Lead	NS	0.0241	NS	100	97.3	97.3	
Manganese	NS	0.0934	NS	100	97.0	97.0	
Nickel	NS	0.420	NS	100	98.2	98.2	
Selenium	NS	-0.0587	NS	100	99.6	99.6	
Silver	NS	-0.00580	NS	100	98.5	98.5	
Thallium	NS	0.0116	NS	100	98.3	98.3	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3211131
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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L13110465 **Workgroup (AAB#):** WG452576
Instrument ID: ICP-MS2 **Method:** 6020
Sol. A : WG453213-08 **File ID:** NI.111813.100805 **Units:** ug/L
Sol. AB : WG453213-09 **File ID:** NI.111813.101110 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Antimony	NS	0.0508	NS	100	96.4	96.4	
Arsenic	NS	-0.00750	NS	100	96.3	96.3	
Barium	NS	0.0510	NS	100	97.3	97.3	
Cadmium	NS	0.0330	NS	100	96.0	96.0	
Chromium	NS	0.0495	NS	100	93.3	93.3	
Cobalt	NS	0.0234	NS	100	94.3	94.3	
Copper	NS	0.268	NS	100	94.9	94.9	
Lead	NS	0.0270	NS	100	95.1	95.1	
Manganese	NS	0.0378	NS	100	94.8	94.8	
Nickel	NS	0.564	NS	100	94.7	94.7	
Selenium	NS	-0.0403	NS	100	95.1	95.1	
Silver	NS	-0.00120	NS	100	91.1	91.1	
Thallium	NS	0.0101	NS	100	95.6	95.6	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3211131
Report generated 11/19/2013 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L13110465 **Analytical Method:** 6020
Analytical Workgroup: WG452576 **Matrix:** 1
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 13-NOV-2013 16:20

			BISMUTH	GERMANIUM	INDIUM	LITHIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
WG452456-01	REF	13-NOV-2013 18:36	102.133	106.149	105.327	110.892
WG452456-03	REF	13-NOV-2013 19:04	104.692	107.524	107.427	111.991
WG452456-04	BLANK	13-NOV-2013 18:27	97.989	92.941	93.822	92.339
WG452456-05	LCS	13-NOV-2013 18:33	107.959	108.312	109.29	113.32
WG452456-06	MS	13-NOV-2013 18:39	102.756	106.051	105.366	108.863
WG452456-07	MSD	13-NOV-2013 18:42	102.373	105.979	105.529	111.954
WG452456-10	DUP	13-NOV-2013 19:07	**135.595**	115.065	**122.135**	**126.944**
WG452576-01	PSPK	13-NOV-2013 18:48	94.918	101.289	100.685	105.854
WG452576-01	PSPK	13-NOV-2013 19:19	110.148	110.618	110.768	119.152
WG452576-02	SERIAL	13-NOV-2013 18:51	**132.752**	112.439	118.407	117.549
WG452576-02	SERIAL	13-NOV-2013 19:22	100.158	96.659	96.915	103.074
WG452783-05	ICV	13-NOV-2013 16:33	101.511	103.307	103.274	102.006
WG452783-06	ICB	13-NOV-2013 16:36	100.531	100.776	101.23	99.311
WG452783-07	LLICV	13-NOV-2013 16:39	100.323	100.385	100.11	99.421
WG452783-08	LLICV	13-NOV-2013 16:43	101.01	101.209	101.169	99.334
WG452783-09	ICS	13-NOV-2013 16:46	98.05	98.324	97.119	98.532
WG452783-10	ICS	13-NOV-2013 16:49	102.922	104.674	103.36	105.771
WG452783-11	CCV	13-NOV-2013 16:53	102.43	103.877	105.191	102.306
WG452783-12	CCB	13-NOV-2013 16:56	102.319	101.346	101.962	102.118
WG452783-17	CCV	13-NOV-2013 18:20	106.614	108.385	108.876	109.371
WG452783-18	CCB	13-NOV-2013 18:23	107.359	106.129	107.323	109.656
WG452783-19	CCV	13-NOV-2013 18:54	105.398	107.109	108.927	108.446
WG452783-20	CCB	13-NOV-2013 18:57	105.607	105.464	107.842	108.422
WG452783-21	CCV	13-NOV-2013 19:25	107.626	109.507	109.422	114.325
WG452783-22	CCB	13-NOV-2013 19:28	107.846	107.109	107.799	113.031
WG452783-29	CCV	13-NOV-2013 21:35	106.226	107.649	107.652	113.697
WG452783-30	CCB	13-NOV-2013 21:38	106.8	106.975	106.131	112.724
WG452783-31	ICS	13-NOV-2013 21:47	101.257	100.782	99.718	108.367
WG452783-32	ICS	13-NOV-2013 21:50	106.462	108.689	107.021	113.81
WG452783-33	CCV	13-NOV-2013 21:54	107.519	107.853	108.276	113.454
WG452783-34	CCB	13-NOV-2013 21:57	107.296	106.934	107.291	112.594
WG452783-35	LLCCV	13-NOV-2013 22:00	107.941	107.972	107.424	115.609

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 3211127
Report generated: 11/19/2013 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L13110465 **Analytical Method:** 6020
Analytical Workgroup: WG452576 **Matrix:** 18
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 13-NOV-2013 16:20

			BISMUTH	GERMANIUM	INDIUM	LITHIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L13110518-02	SAMP	13-NOV-2013 18:45	94.391	98.371	98.149	102.899
L13110518-02	SAMP	13-NOV-2013 19:16	103.861	100.302	100.897	104.355

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 3211127
Report generated: 11/19/2013 09:15

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L13110465 **Analytical Method:** 6020
Analytical Workgroup: WG452576 **Matrix:** 1
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 18-NOV-2013 09:46

			BISMUTH	GERMANIUM	INDIUM	LITHIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec	% Rec
L13110465-01	SAMP	18-NOV-2013 17:51	89.023	92.768	90.925	93.222
L13110465-02	SAMP	18-NOV-2013 17:54	86.878	89.841	88.278	91.614
L13110465-03	SAMP	18-NOV-2013 17:58	88.795	90.76	89.507	91.026
WG452456-02	REF	18-NOV-2013 18:13	88.55	90.733	90.086	92
WG452456-08	MS	18-NOV-2013 18:16	89.598	91.733	90.321	90.528
WG452456-09	MSD	18-NOV-2013 18:19	88.664	91.537	89.337	91.631
WG453213-05	ICV	18-NOV-2013 09:58	103.026	103.006	103.056	99.178
WG453213-06	ICB	18-NOV-2013 10:01	103.321	102.817	102.736	101.222
WG453213-07	LLICV	18-NOV-2013 10:05	103.285	102.653	103.427	100.67
WG453213-08	ICS	18-NOV-2013 10:08	97.882	96.849	95.56	94.321
WG453213-09	ICS	18-NOV-2013 10:11	103.112	105.034	102.558	101.96
WG453213-10	CCV	18-NOV-2013 10:14	104.579	103.898	103.966	101.977
WG453213-11	CCB	18-NOV-2013 10:17	104.793	103.578	104.357	103.138
WG453213-20	LLCCV	18-NOV-2013 12:34	104.1	104.004	105.214	108.299
WG453213-34	CCV	18-NOV-2013 17:27	97.453	99.56	99.753	97.798
WG453213-35	CCB	18-NOV-2013 17:30	98.059	100.473	101.053	98.216
WG453213-36	CCV	18-NOV-2013 18:04	90.049	92.176	91.319	89.024
WG453213-37	CCB	18-NOV-2013 18:07	90.042	90.545	90.415	87.597
WG453213-38	CCV	18-NOV-2013 18:41	88.949	91.425	90.681	89.679
WG453213-39	CCB	18-NOV-2013 18:44	90.669	90.999	91.501	89.984
WG453213-46	LLCCV	18-NOV-2013 20:20	90.946	94.224	92.994	93.56

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 3211127
Report generated: 11/19/2013 09:15

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L13110465 **Date:** 07/25/2013
Insturment ID: ICP-MS2 **Method:** 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	100.0
Arsenic	1.00	100.0
Barium	1.00	100.0
Cadmium	1.00	100.0
Chromium	1.00	100.0
Cobalt	1.00	100.0
Copper	1.00	100.0
Lead	1.00	100.0
Manganese	1.00	100.0
Nickel	1.00	100.0
Selenium	1.00	100.0
Silver	1.00	100.0
Thallium	1.00	100.0
Uranium	1.00	100.0
Vanadium	1.00	100.0
Zinc	1.00	100.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 3211126
Report generated: 11/19/2013 09:15

2.1.2.3 Raw Data

MassCal File Name

Mass Calibration File Name default.tun
MassCal File Path C:\NexION Data\MassCal\default.tun
Peak Search Window: 1.00

Sample Information

Sample Date/Time: Wednesday, November 13, 2013 14:44:20

Mass Calibration and Resolution

Analyte	E Mass	Meas Mass	Mass C DAC Val	Res DAC Value	Meas Peak WCustom Res
Li	7.016	7.025	1336	2025	0.685
Mg	23.985	23.975	4510	2021	0.684
Co	58.933	58.925	11693	2020	0.706
In	114.904	114.925	22863	2026	0.704
U	238.050	238.075	47459	2040	0.715

Relative Std. Dev.

Mass	Meas. Intens. RSD
5.525	4.224
5.575	5.471
5.625	1.302
5.675	2.526
5.725	4.882
5.775	1.922
5.825	3.280
5.875	3.374
5.925	1.625
5.975	2.356
6.025	2.455
6.075	2.556
6.125	3.578
6.175	7.410
6.225	33.159
6.275	104.583
6.325	100.000
6.375	149.071
6.425	22.017
6.475	25.462
6.525	11.233
6.575	5.508
6.625	4.280
6.675	6.452
6.725	3.058
6.775	2.256
6.825	1.480

Report Date/Time: Wednesday, November 13, 2013 14:47:31
Page 1

Approved: November 15, 2013
Sheri L. Pabst

6.875	2.382
6.925	1.469
6.975	5.165
7.025	4.122
7.075	2.747
7.125	2.545
7.175	3.478
7.225	3.033
7.275	4.070
7.325	223.607
7.375	91.287
7.425	104.583
7.475	91.287
7.525	223.607
7.575	100.000
7.625	70.711
7.675	70.711
7.725	55.902
7.775	108.327
7.825	100.000
7.875	91.287
7.925	34.233
7.975	63.888
8.025	100.000
8.075	91.287
8.125	104.583
8.175	71.261
8.225	69.722
8.275	122.475
8.325	104.583
8.375	122.475
8.425	149.071
8.475	34.233
22.525	136.931
22.575	52.705
22.625	39.033
22.675	17.678
22.725	50.990
22.775	40.825
22.825	78.450
22.875	82.207
22.925	32.969
22.975	27.082
23.025	23.207
23.075	20.360
23.125	34.881
23.175	29.315

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23.225	68.266
23.275	58.736
23.325	40.825
23.375	30.609
23.425	26.178
23.475	4.615
23.525	3.966
23.575	2.027
23.625	2.100
23.675	1.728
23.725	1.429
23.775	1.809
23.825	1.654
23.875	1.813
23.925	1.429
23.975	1.717
24.025	1.650
24.075	1.420
24.125	1.576
24.175	1.437
24.225	2.875
24.275	13.339
24.325	44.605
24.375	47.140
24.425	17.430
24.475	12.816
24.525	4.012
24.575	2.259
24.625	0.802
24.675	3.056
24.725	3.424
24.775	2.102
24.825	2.149
24.875	3.458
24.925	2.575
24.975	2.187
25.025	1.705
25.075	1.901
25.125	1.966
25.175	2.580
25.225	18.403
25.275	66.667
25.325	108.653
25.375	74.689
25.425	54.810
25.475	9.247
57.525	11.183

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57.575	6.907
57.625	3.020
57.675	6.563
57.725	1.549
57.775	1.231
57.825	2.748
57.875	3.526
57.925	3.654
57.975	6.218
58.025	4.779
58.075	2.934
58.125	2.806
58.175	3.926
58.225	9.782
58.275	30.053
58.325	9.781
58.375	39.123
58.425	21.374
58.475	16.053
58.525	4.943
58.575	2.410
58.625	2.332
58.675	5.263
58.725	4.926
58.775	5.662
58.825	2.720
58.875	4.534
58.925	4.763
58.975	4.640
59.025	2.947
59.075	4.294
59.125	2.828
59.175	5.228
59.225	16.668
59.275	47.128
59.325	64.358
59.375	60.111
59.425	37.378
59.475	18.694
59.525	12.165
59.575	7.516
59.625	5.152
59.675	4.708
59.725	2.776
59.775	3.208
59.825	6.359
59.875	4.383

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59.925	3.036
59.975	6.890
60.025	4.467
60.075	4.387
60.125	3.454
60.175	10.315
60.225	20.949
60.275	69.869
60.325	38.030
60.375	71.261
60.425	55.902
60.475	87.434
113.525	13.636
113.575	7.724
113.625	5.818
113.675	6.687
113.725	6.458
113.775	4.979
113.825	3.502
113.875	5.253
113.925	4.961
113.975	3.194
114.025	5.984
114.075	5.417
114.125	8.110
114.175	5.479
114.225	7.726
114.275	22.026
114.325	25.573
114.375	45.166
114.425	18.445
114.475	10.106
114.525	5.622
114.575	7.837
114.625	2.939
114.675	1.360
114.725	2.607
114.775	2.568
114.825	2.573
114.875	2.392
114.925	3.314
114.975	3.128
115.025	1.683
115.075	2.588
115.125	3.537
115.175	4.427
115.225	4.380

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115.275	5.318
115.325	31.570
115.375	94.786
115.425	40.745
115.475	39.123
115.525	20.163
115.575	10.831
115.625	15.737
115.675	7.917
115.725	14.683
115.775	8.604
115.825	5.612
115.875	9.583
115.925	9.981
115.975	5.880
116.025	6.583
116.075	1.900
116.125	7.041
116.175	6.083
116.225	8.217
116.275	27.369
116.325	31.672
116.375	82.402
116.425	72.436
116.475	43.853
236.525	
236.575	37.268
236.625	27.524
236.675	43.651
236.725	26.716
236.775	34.881
236.825	18.109
236.875	20.494
236.925	28.328
236.975	33.072
237.025	21.030
237.075	14.044
237.125	13.495
237.175	25.913
237.225	40.000
237.275	58.310
237.325	53.351
237.375	14.286
237.425	44.628
237.475	40.966
237.525	38.887
237.575	16.383

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237.625	11.401
237.675	7.968
237.725	5.332
237.775	3.708
237.825	3.099
237.875	3.130
237.925	2.394
237.975	2.591
238.025	3.161
238.075	2.783
238.125	2.781
238.175	2.768
238.225	1.534
238.275	2.284
238.325	5.085
238.375	7.658
238.425	6.996
238.475	8.474
238.525	19.768
238.575	20.412
238.625	56.903
238.675	31.025
238.725	33.641
238.775	17.275
238.825	45.644
238.875	31.672
238.925	13.552
238.975	43.241
239.025	41.749
239.075	17.275
239.125	53.429
239.175	59.894
239.225	79.057
239.275	30.292
239.325	10.143
239.375	41.650
239.425	34.312
239.475	17.275

Approved: November 15, 2013

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, November 13, 2013 14:57:04
Sample Description:
Method File: C:\NexION Data\Method\ESI Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\110713\Daily Performance Check.303
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 33
Current Dead Time (ns): 33

Torch Z position (mm): 0.50

Summary

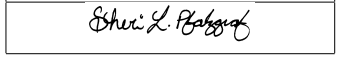
	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4723.0	4723.003	153.323	3.2	Standard
	Mg	24.0	376544.5	376544.459	8309.001	2.2	Standard
	In	114.9	55139.8	55139.764	1747.592	3.2	Standard
	U	238.1	32012.7	32012.674	962.747	3.0	Standard
⌈	CeO	155.9	1015.8	0.019	0.001	2.7	Standard
| >	Ce	139.9	54145.3	54145.252	1726.148	3.2	Standard
⌊	Ce++	70.0	564.0	0.010	0.000	2.0	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.40	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-8.25	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
5.00	Discriminator Threshold
-2.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.01	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.70	Cell Gas A
200.00	Axial Field Voltage
-17.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-23.00	KED Mode Cell Exit Voltage
3.00	KED Cell Gas A
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Sample ID: Daily Performance Check
Report Date/Time: Wednesday, November 13, 2013 14:59:09
Page 1

Approved: November 15, 2013



SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Start Time: 11/13/2013 2:57:04 PM
End Time: 11/13/2013 2:59:09 PM

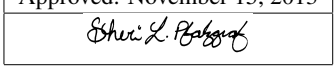
Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4723.00
Obtained Intensity (Mg 23.985): 376544.46
Obtained Intensity (In 114.904): 55139.76
Obtained Intensity (U 238.05): 32012.67
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=1015.83 / 54145.25)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=564.01 / 54145.25)

Approved: November 15, 2013

SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Optimization Status

Start Time: 11/13/2013 2:57:04 PM

Daily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\ESI Daily Performance.mth.
                Intensity Criterion: Be 9.0122 > 2000
                Intensity Criterion: Mg 23.985 > 15000
                Intensity Criterion: In 114.904 > 40000
                Intensity Criterion: U 238.05 > 30000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 4723.00
                Obtained Intensity (Mg 23.985): 376544.46
                Obtained Intensity (In 114.904): 55139.76
                Obtained Intensity (U 238.05): 32012.67
                Obtained Intensity (Bkgd 220): 0.00
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=1015.83 / 54145.25)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=564.01 / 54145.25)
[Passed]  Optimum value(s): N/A

End Time: 11/13/2013 2:59:09 PM
```


Approved: November 15, 2013



Method 6020 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, November 13, 2013 16:17:32
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	159626.9	2.9				ug/L		Standard
	Be	9	28.3	56.7				ug/L		Standard
	Al	27	1226.7	6.0				ug/L		Standard
	Sc	45	44343.1	0.4				ug/L		Standard
	Ti	47	21.0	25.2				ug/L		Standard
	V	51	1305.0	3.1				ug/L		Standard
	Cr	52	4726.7	1.0				ug/L		Standard
	Cr	53	288.3	11.3				ug/L		Standard
	Mn	55	1062.0	1.2				ug/L		Standard
	Co	59	99.0	7.6				ug/L		Standard
	Ni	60	475.0	3.2				ug/L		Standard
	Cu	65	129.7	11.4				ug/L		Standard
	Zn	66	130.3	9.2				ug/L		Standard
>	Ge	72	341919.0	0.6				ug/L		Standard
	As	75	-350.1	11.3				ug/L		Standard
	Se	82	-53.2	23.7				ug/L		Standard
	Se-1	77	84.0	14.9				ug/L		Standard
>	Ga	71	53.3	35.5				mg/L		Standard
	Rb	85	13.3	21.7				ug/L		Standard
	Y	89	364125.5	2.7				ug/L		Standard
>	Rh	103	11.7	24.7				ug/L		Standard
	Mo	98	24.4	10.5				ug/L		Standard
	Ag	107	45.3	5.6				ug/L		Standard
	Cd	111	1.6	93.4				mg/L		Standard
	Cd	114	10.5	72.5				ug/L		Standard
>	In	115	372170.0	0.9				ug/L		Standard
	Sn	118	45.0	11.8				ug/L		Standard
	Sb	123	116.0	6.5				ug/L		Standard
	Ba	135	6.7	45.8				ug/L		Standard
	Ce	140	5.0	0.0				ug/L		Standard
>	Tb	159	430345.4	1.7				ug/L		Standard
	Ho	165	6.7	114.6				ug/L		Standard
	Tl	203	3.3	34.6				ug/L		Standard
	Tl	205	1.7	173.2				ug/L		Standard
	Pb	206	68.7	3.0				ug/L		Standard
	Pb	207	57.3	2.0				ug/L		Standard
	Pb	208	162.0	10.5				ug/L		Standard
	U	238	0.3	173.2				ug/L		Standard
>	Bi	209	206180.4	0.7				ug/L		Standard

Sample ID: Blank
Report Date/Time: Wednesday, November 13, 2013 16:19:46
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	Na	23	1.7	173.2		mg/L	Standard
	Mg	24	28.3	10.2		mg/L	Standard
	K	39	6.7	86.6		mg/L	Standard
	Ca	43	25.0	52.9		mg/L	Standard
	Fe	54	279.1	15.4		mg/L	Standard
	Fe	57	73.3	20.8		mg/L	Standard
>	**Sc-1**	45	44343.1	0.4		mg/L	Standard
	Cl	35	5612.4	1.1		ug/L	Standard
	Kr	83	107.7	9.7		ug/L	Standard
	Br	81	3490.4	2.4		ug/L	Standard
	P	31	350479.5	1.5		ug/L	Standard
	S	34	17705.3	1.4		ug/L	Standard
	Sr	88	41.7	45.4		ug/L	Standard
	C	12	0.0			mg/L	Standard
	N	14	0.0			mg/L	Standard
	Hg	202	0.0			mg/L	Standard
	Dy	164	3.3	173.2		mg/L	Standard
	Ho-1	165	6.7	114.6		mg/L	Standard
	Er	166	0.0			mg/L	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: Blank
Report Date/Time: Wednesday, November 13, 2013 16:19:46
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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Blank
Report Date/Time: Wednesday, November 13, 2013 16:19:46
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Approved: November 15, 2013

Method 6020 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, November 13, 2013 16:20:40
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	160300.2	1.1				ug/L	159627	Standard
	Be	9	20.0	25.0				ug/L	28	Standard
	Al	27	1181.7	14.0				ug/L	1227	Standard
	Sc	45	42955.8	2.8				ug/L	44343	Standard
	Ti	47	26.3	14.4				ug/L	21	Standard
	V	51	1253.3	1.5				ug/L	1305	Standard
	Cr	52	4617.0	0.9				ug/L	4727	Standard
	Cr	53	311.7	7.4				ug/L	288	Standard
	Mn	55	1026.4	3.4				ug/L	1062	Standard
	Co	59	100.7	4.0				ug/L	99	Standard
	Ni	60	422.0	5.7				ug/L	475	Standard
	Cu	65	124.0	5.0				ug/L	130	Standard
	Zn	66	128.7	9.4				ug/L	130	Standard
>	Ge	72	341215.0	1.6				ug/L	341919	Standard
	As	75	-320.9	14.4				ug/L	-350	Standard
	Se	82	-46.0	31.2				ug/L	-53	Standard
	Se-1	77	87.7	5.4				ug/L	84	Standard
>	Ga	71	36.7	39.4				mg/L	53	Standard
	Rb	85	23.3	68.9				ug/L	13	Standard
	Y	89	359069.8	2.4				ug/L	364126	Standard
>	Rh	103	1.7	173.2				ug/L	12	Standard
	Mo	98	15.1	19.6				ug/L	24	Standard
	Ag	107	42.0	6.3				ug/L	45	Standard
	Cd	111	2.3	49.9				mg/L	2	Standard
	Cd	114	15.6	96.8				ug/L	10	Standard
>	In	115	377973.7	0.8				ug/L	372170	Standard
	Sn	118	41.3	20.1				ug/L	45	Standard
	Sb	123	37.8	16.7				ug/L	116	Standard
	Ba	135	5.3	28.6				ug/L	7	Standard
	Ce	140	15.0	88.2				ug/L	5	Standard
>	Tb	159	431805.5	1.2				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	1.3	43.3				ug/L	3	Standard
	Tl	205	0.0					ug/L	2	Standard
	Pb	206	59.3	14.1				ug/L	69	Standard
	Pb	207	52.0	11.5				ug/L	57	Standard
	Pb	208	160.3	4.4				ug/L	162	Standard
	U	238	0.7	86.6				ug/L	0	Standard
>	Bi	209	207585.9	1.4				ug/L	206180	Standard

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	Na	23	0.0		mg/L	2	Standard
	Mg	24	26.7	65.8	mg/L	28	Standard
	K	39	3.3	173.2	mg/L	7	Standard
	Ca	43	38.3	27.2	mg/L	25	Standard
	Fe	54	245.9	11.1	mg/L	279	Standard
	Fe	57	48.3	41.8	mg/L	73	Standard
>	**Sc-1**	45	42955.8	2.8	mg/L	44343	Standard
	Cl	35	5478.3	1.4	ug/L	5612	Standard
	Kr	83	102.3	6.0	ug/L	108	Standard
	Br	81	3457.1	5.4	ug/L	3490	Standard
	P	31	346223.9	2.1	ug/L	350479	Standard
	S	34	16987.9	0.3	ug/L	17705	Standard
	Sr	88	45.0	0.0	ug/L	42	Standard
	C	12	13.3	114.6	mg/L	0	Standard
	N	14	0.0		mg/L	0	Standard
	Hg	202	3.3	173.2	mg/L	0	Standard
	Dy	164	9.7	100.8	mg/L	3	Standard
	Ho-1	165	1.7	173.2	mg/L	7	Standard
	Er	166	6.7	86.6	mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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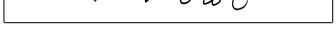

⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, November 13, 2013 16:23:45
Number of Replicates: 3
Autosampler Position: 2
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	159540.7	1.6				ug/L	159627	Standard
	Be	9	190.0	21.1				ug/L	28	Standard
	Al	27	13231.0	24.7				ug/L	1227	Standard
	Sc	45	43988.8	0.5				ug/L	44343	Standard
	Ti	47	80.7	14.1				ug/L	21	Standard
	V	51	1770.3	6.9				ug/L	1305	Standard
	Cr	52	4963.8	3.7				ug/L	4727	Standard
	Cr	53	410.0	6.8				ug/L	288	Standard
	Mn	55	1945.1	10.2				ug/L	1062	Standard
	Co	59	644.7	23.8				ug/L	99	Standard
	Ni	60	622.0	6.1				ug/L	475	Standard
	Cu	65	265.7	16.0				ug/L	130	Standard
	Zn	66	277.3	20.8				ug/L	130	Standard
>	Ge	72	342981.5	1.5				ug/L	341919	Standard
	As	75	-222.6	21.1				ug/L	-350	Standard
	Se	82	-33.8	27.9				ug/L	-53	Standard
	Se-1	77	91.3	15.7				ug/L	84	Standard
>	Ga	71	35.0	37.8				mg/L	53	Standard
	Rb	85	11.7	65.5				ug/L	13	Standard
	Y	89	363990.7	2.8				ug/L	364126	Standard
>	Rh	103	5.0	100.0				ug/L	12	Standard
	Mo	98	383.2	3.7				ug/L	24	Standard
	Ag	107	414.7	7.1				ug/L	45	Standard
	Cd	111	121.7	15.7				mg/L	2	Standard
	Cd	114	317.2	16.3				ug/L	10	Standard
>	In	115	376668.2	0.5				ug/L	372170	Standard
	Sn	118	102.7	16.8				ug/L	45	Standard
	Sb	123	221.6	33.7				ug/L	116	Standard
	Ba	135	95.7	1.6				ug/L	7	Standard
	Ce	140	16.7	34.6				ug/L	5	Standard
>	Tb	159	432764.6	1.7				ug/L	430345	Standard
	Ho	165	8.3	124.9				ug/L	7	Standard
	Tl	203	290.7	8.1				ug/L	3	Standard
	Tl	205	393.3	30.5				ug/L	2	Standard
	Pb	206	177.3	5.1				ug/L	69	Standard
	Pb	207	157.3	9.3				ug/L	57	Standard
	Pb	208	519.7	10.6				ug/L	162	Standard
	U	238	258.0	20.8				ug/L	0	Standard
>	Bi	209	208459.6	0.7				ug/L	206180	Standard

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Na	23	3.3	173.2	mg/L	2	Standard
Mg	24	43.3	43.7	mg/L	28	Standard
K	39	6.7	86.6	mg/L	7	Standard
Ca	43	25.0	20.0	mg/L	25	Standard
Fe	54	289.5	10.8	mg/L	279	Standard
Fe	57	65.0	40.7	mg/L	73	Standard
Sc-1	45	43988.8	0.5	mg/L	44343	Standard
Cl	35	5316.3	0.6	ug/L	5612	Standard
Kr	83	98.7	6.5	ug/L	108	Standard
Br	81	3327.0	3.9	ug/L	3490	Standard
P	31	339826.4	3.3	ug/L	350479	Standard
S	34	16926.1	0.6	ug/L	17705	Standard
Sr	88	26.7	28.6	ug/L	42	Standard
C	12	16.7	34.6	mg/L	0	Standard
N	14	0.0		mg/L	0	Standard
Hg	202	0.0		mg/L	0	Standard
Dy	164	-0.5	100.0	mg/L	3	Standard
Ho-1	165	8.3	124.9	mg/L	7	Standard
Er	166	10.0	100.0	mg/L	0	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
| >	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 2
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Method 6020 - Summary Report

Sample ID: Standard 3
Sample Date/Time: Wednesday, November 13, 2013 16:26:50
Number of Replicates: 3
Autosampler Position: 3
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	159211.0	3.1				ug/L	159627	Standard
	Be	9	122651.1	0.6	50.0000	1.703	3.4	ug/L	28	Standard
	Al	27	8847242.1	1.2	50.0000	1.164	2.3	ug/L	1227	Standard
	Sc	45	45367.9	2.7				ug/L	44343	Standard
	Ti	47	42522.9	1.7	100.0000	2.216	2.2	ug/L	21	Standard
	V	51	384495.3	1.6	50.0000	1.188	2.4	ug/L	1305	Standard
	Cr	52	352800.7	1.4	50.0000	0.998	2.0	ug/L	4727	Standard
	Cr	53	59705.7	0.8	50.0000	0.430	0.9	ug/L	288	Standard
	Mn	55	641055.1	2.8	50.0000	1.572	3.1	ug/L	1062	Standard
	Co	59	399615.5	1.7	50.0000	1.159	2.3	ug/L	99	Standard
	Ni	60	118170.4	0.6	50.0000	0.523	1.0	ug/L	475	Standard
	Cu	65	116399.8	0.9	50.0000	0.568	1.1	ug/L	130	Standard
	Zn	66	62477.2	1.0	50.0000	0.818	1.6	ug/L	130	Standard
>	Ge	72	354538.1	1.2				ug/L	341919	Standard
	As	75	67105.2	1.0	50.0000	0.304	0.6	ug/L	-350	Standard
	Se	82	7195.5	0.6	50.0000	0.760	1.5	ug/L	-53	Standard
	Se-1	77	4655.0	1.7	50.0000	0.944	1.9	ug/L	84	Standard
>	Ga	71	66.7	26.3				mg/L	53	Standard
	Rb	85	1163.4	4.7				ug/L	13	Standard
	Y	89	366995.1	1.1				ug/L	364126	Standard
>	Rh	103	23.3	68.9				ug/L	12	Standard
	Mo	98	343085.3	2.0	100.0000	1.459	1.5	ug/L	24	Standard
	Ag	107	315507.8	1.3	50.0000	0.299	0.6	ug/L	45	Standard
	Cd	111	100080.7	1.0	50.0000	0.159	0.3	mg/L	2	Standard
	Cd	114	265723.6	1.9	50.0000	0.695	1.4	ug/L	10	Standard
>	In	115	387897.4	0.7				ug/L	372170	Standard
	Sn	118	61020.0	1.6	50.0000	0.770	1.5	ug/L	45	Standard
	Sb	123	142211.8	1.3	50.0000	0.416	0.8	ug/L	116	Standard
	Ba	135	88627.1	0.8	50.0000	0.318	0.6	ug/L	7	Standard
	Ce	140	41.7	25.0				ug/L	5	Standard
>	Tb	159	442270.9	1.1				ug/L	430345	Standard
	Ho	165	6.7	86.6				ug/L	7	Standard
	Tl	203	272205.6	1.1	50.0000	0.241	0.5	ug/L	3	Standard
	Tl	205	316911.9	1.1	50.0000	0.505	1.0	ug/L	2	Standard
	Pb	206	109511.0	0.9	50.0000	0.418	0.8	ug/L	69	Standard
	Pb	207	98839.4	1.6	50.0000	0.552	1.1	ug/L	57	Standard
	Pb	208	275612.5	0.8	50.0000	0.320	0.6	ug/L	162	Standard
	U	238	186698.8	1.9	50.0000	0.792	1.6	ug/L	0	Standard
>	Bi	209	210931.1	0.7				ug/L	206180	Standard

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	Na	23	13.3	43.3	**5.0000**	2.833	56.7	mg/L	2	Standard
	Mg	24	4894.1	3.0	**5.0000**	0.279	5.6	mg/L	28	Standard
	K	39	380.0	8.0	**5.0000**	0.470	9.4	mg/L	7	Standard
	Ca	43	118.3	26.8	**5.0000**	1.901	38.0	mg/L	25	Standard
	Fe	54	9214.0	4.0	**5.0000**	0.291	5.8	mg/L	279	Standard
	Fe	57	2416.9	2.2	**5.0000**	0.241	4.8	mg/L	73	Standard
>	**Sc-1**	45	45367.9	2.7				mg/L	44343	Standard
	Cl	35	5665.7	2.0				ug/L	5612	Standard
	Kr	83	120.7	11.0				ug/L	108	Standard
	Br	81	3207.0	10.5				ug/L	3490	Standard
	P	31	353898.4	2.3				ug/L	350479	Standard
	S	34	19052.0	2.1				ug/L	17705	Standard
	Sr	88	45.0	38.5				ug/L	42	Standard
	C	12	13.3	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.7	204.8				mg/L	3	Standard
	Ho-1	165	6.7	86.6				mg/L	7	Standard
	Er	166	13.3	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
| >	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 4
Sample Date/Time: Wednesday, November 13, 2013 16:29:55
Number of Replicates: 3
Autosampler Position: 4
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	162554.1	1.3				ug/L	159627	Standard
	Be	9	245664.3	1.9	**99.0156**	1.625	1.6	ug/L	28	Standard
	Al	27	17632699.0	1.4	**98.7873**	2.593	2.6	ug/L	1227	Standard
	Sc	45	45411.3	2.9				ug/L	44343	Standard
	Ti	47	86275.3	0.4	**201.0769**	2.959	1.5	ug/L	21	Standard
	V	51	762400.6	1.3	**99.4634**	2.595	2.6	ug/L	1305	Standard
	Cr	52	697578.3	1.3	**99.5612**	1.718	1.7	ug/L	4727	Standard
	Cr	53	121727.1	1.6	**100.9082**	0.639	0.6	ug/L	288	Standard
	Mn	55	1263794.0	0.0	**99.1299**	1.278	1.3	ug/L	1062	Standard
	Co	59	801487.2	1.6	**99.9525**	1.941	1.9	ug/L	99	Standard
	Ni	60	236607.8	0.3	**99.9670**	1.511	1.5	ug/L	475	Standard
	Cu	65	230219.9	0.7	**99.2760**	1.571	1.6	ug/L	130	Standard
	Zn	66	123456.3	1.2	**99.2809**	1.398	1.4	ug/L	130	Standard
>	Ge	72	355984.8	1.3				ug/L	341919	Standard
	As	75	134855.1	1.2	**99.9251**	0.692	0.7	ug/L	-350	Standard
	Se	82	14448.0	0.5	**99.8465**	0.842	0.8	ug/L	-53	Standard
	Se-1	77	9326.5	1.8	**100.3683**	0.848	0.8	ug/L	84	Standard
>	Ga	71	91.7	16.7				mg/L	53	Standard
	Rb	85	2105.1	4.6				ug/L	13	Standard
	Y	89	366392.5	1.2				ug/L	364126	Standard
>	Rh	103	65.0	53.8				ug/L	12	Standard
	Mo	98	678142.7	1.6	**198.0675**	2.163	1.1	ug/L	24	Standard
	Ag	107	614149.1	0.4	**98.2786**	1.597	1.6	ug/L	45	Standard
	Cd	111	198902.0	1.6	**99.3081**	1.259	1.3	mg/L	2	Standard
	Cd	114	526485.7	0.8	**99.1574**	0.863	0.9	ug/L	10	Standard
>	In	115	390906.1	1.6				ug/L	372170	Standard
	Sn	118	118296.7	1.2	**98.0783**	1.039	1.1	ug/L	45	Standard
	Sb	123	285515.7	0.5	**99.8274**	1.130	1.1	ug/L	116	Standard
	Ba	135	175912.4	1.4	**99.2380**	0.548	0.6	ug/L	7	Standard
	Ce	140	73.3	10.4				ug/L	5	Standard
>	Tb	159	443248.1	1.8				ug/L	430345	Standard
	Ho	165	11.7	24.7				ug/L	7	Standard
	Tl	203	538726.7	0.6	**99.9425**	1.192	1.2	ug/L	3	Standard
	Tl	205	637904.7	1.3	**100.7867**	0.553	0.5	ug/L	2	Standard
	Pb	206	217430.7	0.7	**100.1129**	0.429	0.4	ug/L	69	Standard
	Pb	207	195734.4	1.6	**99.9828**	0.989	1.0	ug/L	57	Standard
	Pb	208	547020.7	0.4	**100.1026**	0.590	0.6	ug/L	162	Standard
	U	238	371067.2	1.1	**100.1585**	0.317	0.3	ug/L	0	Standard
>	Bi	209	208992.6	0.8				ug/L	206180	Standard

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	Na	23	28.3	66.8	**11.1006**	8.128	73.2	mg/L	2	Standard
	Mg	24	9995.0	1.0	**10.1183**	0.278	2.7	mg/L	28	Standard
	K	39	755.0	4.3	**10.0052**	0.635	6.4	mg/L	7	Standard
	Ca	43	221.7	12.4	**10.2564**	1.719	16.8	mg/L	25	Standard
	Fe	54	17902.9	0.9	**9.9267**	0.205	2.1	mg/L	279	Standard
	Fe	57	4672.4	4.2	**9.8899**	0.508	5.1	mg/L	73	Standard
>	**Sc-1**	45	45411.3	2.9				mg/L	44343	Standard
	Cl	35	5537.7	1.0				ug/L	5612	Standard
	Kr	83	123.7	4.5				ug/L	108	Standard
	Br	81	3327.0	1.8				ug/L	3490	Standard
	P	31	362771.7	0.8				ug/L	350479	Standard
	S	34	19202.2	1.2				ug/L	17705	Standard
	Sr	88	31.7	32.9				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.3	86.6				mg/L	3	Standard
	Ho-1	165	11.7	24.7				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Corr. Coef.	Na	23	Correlation coefficient < 0.998

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Method 6020 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, November 13, 2013 16:33:02
Number of Replicates: 3
Autosampler Position: 201
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	162829.1	3.0				ug/L	159627	Standard
	Be	9	121522.3	2.9	**48.8912**	1.108	2.3	ug/L	28	Standard
	Al	27	8819196.9	0.8	**49.3404**	1.913	3.9	ug/L	1227	Standard
	Sc	45	44466.8	1.8				ug/L	44343	Standard
	Ti	47	42929.7	1.3	**100.7869**	2.083	2.1	ug/L	21	Standard
	V	51	376995.6	1.3	**49.4617**	0.523	1.1	ug/L	1305	Standard
	Cr	52	350411.9	2.1	**50.0590**	1.113	2.2	ug/L	4727	Standard
	Cr	53	60505.6	2.2	**50.4035**	1.346	2.7	ug/L	288	Standard
	Mn	55	627386.5	1.1	**49.5378**	0.618	1.2	ug/L	1062	Standard
	Co	59	399273.2	1.8	**50.1608**	0.854	1.7	ug/L	99	Standard
	Ni	60	117429.8	2.1	**49.8843**	0.995	2.0	ug/L	475	Standard
	Cu	65	115261.1	1.2	**50.0551**	0.862	1.7	ug/L	130	Standard
	Zn	66	61820.9	0.9	**50.0124**	0.661	1.3	ug/L	130	Standard
>	Ge	72	353227.2	1.0				ug/L	341919	Standard
	As	75	66674.3	1.0	**49.9033**	0.701	1.4	ug/L	-350	Standard
	Se	82	7202.4	0.5	**50.3090**	0.745	1.5	ug/L	-53	Standard
	Se-1	77	4745.1	1.2	**50.9867**	0.287	0.6	ug/L	84	Standard
>	Ga	71	66.7	17.3				mg/L	53	Standard
	Rb	85	1065.0	7.9				ug/L	13	Standard
	Y	89	369643.1	0.6				ug/L	364126	Standard
>	Rh	103	33.3	17.3				ug/L	12	Standard
	Mo	98	334788.2	1.5	**99.4358**	0.688	0.7	ug/L	24	Standard
	Ag	107	311326.4	0.6	**50.6536**	0.439	0.9	ug/L	45	Standard
	Cd	111	99612.5	2.0	**50.5752**	1.032	2.0	mg/L	2	Standard
	Cd	114	262874.3	2.0	**50.3396**	0.493	1.0	ug/L	10	Standard
>	In	115	384353.1	1.0				ug/L	372170	Standard
	Sn	118	60259.3	3.4	**50.7838**	1.350	2.7	ug/L	45	Standard
	Sb	123	142509.9	1.4	**50.6548**	0.360	0.7	ug/L	116	Standard
	Ba	135	86942.7	0.9	**49.8808**	0.491	1.0	ug/L	7	Standard
	Ce	140	41.7	78.1				ug/L	5	Standard
>	Tb	159	439602.8	0.5				ug/L	430345	Standard
	Ho	165	6.7	86.6				ug/L	7	Standard
	Tl	203	269926.2	0.3	**49.9997**	0.253	0.5	ug/L	3	Standard
	Tl	205	313883.1	0.9	**49.5174**	0.546	1.1	ug/L	2	Standard
	Pb	206	108642.5	0.8	**49.9341**	0.060	0.1	ug/L	69	Standard
	Pb	207	98164.7	2.1	**50.0537**	0.657	1.3	ug/L	57	Standard
	Pb	208	272780.4	1.4	**49.8199**	0.286	0.6	ug/L	162	Standard
	U	238	185185.9	0.8	**49.9049**	0.384	0.8	ug/L	0	Standard
>	Bi	209	209295.0	0.8				ug/L	206180	Standard

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	Na	23	18.3	68.6	**6.9534**	5.931	85.3	mg/L	2	Standard
	Mg	24	4774.1	2.5	**4.9148**	0.206	4.2	mg/L	28	Standard
	K	39	396.7	15.9	**5.3136**	0.766	14.4	mg/L	7	Standard
	Ca	43	148.3	27.2	**6.5464**	2.038	31.1	mg/L	25	Standard
	Fe	54	9027.6	0.1	**5.0317**	0.090	1.8	mg/L	279	Standard
	Fe	57	2318.5	5.3	**4.9417**	0.280	5.7	mg/L	73	Standard
>	**Sc-1**	45	44466.8	1.8				mg/L	44343	Standard
	Cl	35	5532.3	1.6				ug/L	5612	Standard
	Kr	83	107.7	26.4				ug/L	108	Standard
	Br	81	3607.1	4.9				ug/L	3490	Standard
	P	31	357694.7	2.6				ug/L	350479	Standard
	S	34	18790.0	0.3				ug/L	17705	Standard
	Sr	88	53.3	5.4				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	5.9	100.8				mg/L	3	Standard
	Ho-1	165	6.7	86.6				mg/L	7	Standard
	Er	166	16.7	34.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.006	
	Be	9	97.782		
	Al	27	98.681		
	Sc	45			
	Ti	47	100.787		
	V	51	98.923		
	Cr	52	100.118		
	Cr	53			
	Mn	55	99.076		
	Co	59	100.322		
	Ni	60	99.769		
	Cu	65	100.110		
	Zn	66	100.025		
>	Ge	72		103.307	
	As	75	99.807		
	Se	82	100.618		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	99.436	
|	Ag	107	101.307	
|	Cd	111	101.150	
|	Cd	114		
|>	In	115		103.274
|	Sn	118	101.568	
|	Sb	123	101.310	
⌊	Ba	135	99.762	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	99.999	
|	Tl	205		
|	Pb	206	99.868	
|	Pb	207	100.107	
|	Pb	208	99.640	
|	U	238	99.810	
⌊>	Bi	209		101.511
⌈	Na	23	139.069	
|	Mg	24	98.295	
|	K	39	106.273	
|	Ca	43	130.927	
|	Fe	54	100.634	
|	Fe	57	98.834	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	
QC Std 1	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, November 13, 2013 16:36:08
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	158526.9	2.1				ug/L	159627	Standard
	Be	9	83.3	18.3	**0.0062**	0.006	89.4	ug/L	28	Standard
	Al	27	2021.9	76.8	**-0.0142**	0.009	60.7	ug/L	1227	Standard
	Sc	45	44694.2	1.6				ug/L	44343	Standard
	Ti	47	31.0	30.8	**-0.0209**	0.022	105.3	ug/L	21	Standard
	V	51	1304.0	3.0	**-0.0143**	0.004	27.3	ug/L	1305	Standard
	Cr	52	4673.1	1.6	**0.0034**	0.016	479.0	ug/L	4727	Standard
	Cr	53	291.7	14.4	**-0.0531**	0.038	71.0	ug/L	288	Standard
	Mn	55	1060.4	4.9	**-0.0227**	0.003	14.4	ug/L	1062	Standard
	Co	59	132.0	23.6	**-0.0167**	0.004	22.9	ug/L	99	Standard
	Ni	60	422.3	7.3	**-0.0388**	0.012	31.4	ug/L	475	Standard
	Cu	65	151.3	29.9	**-0.0018**	0.019	1094.9	ug/L	130	Standard
	Zn	66	152.7	14.4	**-0.0553**	0.017	30.3	ug/L	130	Standard
>	**Ge**	72	344571.7	1.1				ug/L	341919	Standard
	As	75	-332.4	8.6	**-0.0331**	0.021	64.8	ug/L	-350	Standard
	Se	82	-57.9	28.5	**-0.1206**	0.117	97.0	ug/L	-53	Standard
	Se-1	77	89.3	24.7	**0.0198**	0.236	1193.4	ug/L	84	Standard
>	**Ga**	71	31.7	18.2				mg/L	53	Standard
	Rb	85	16.7	17.3				ug/L	13	Standard
	Y	89	357557.1	1.6				ug/L	364126	Standard
>	**Rh**	103	8.3	34.6				ug/L	12	Standard
	Mo	98	115.6	49.0	**0.0188**	0.017	90.0	ug/L	24	Standard
	Ag	107	56.0	7.1	**-0.0096**	0.001	6.9	ug/L	45	Standard
	Cd	111	8.5	155.5	**-0.0087**	0.007	78.0	mg/L	2	Standard
	Cd	114	37.8	82.4	**-0.0046**	0.006	130.7	ug/L	10	Standard
>	**In**	115	376749.3	1.0				ug/L	372170	Standard
	Sn	118	83.7	16.2	**0.0336**	0.011	32.8	ug/L	45	Standard
	Sb	123	361.2	34.9	**0.1003**	0.045	44.6	ug/L	116	Standard
	Ba	135	17.7	46.1	**0.0043**	0.005	108.8	ug/L	7	Standard
	Ce	140	6.7	43.3				ug/L	5	Standard
>	**Tb**	159	431152.6	1.5				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	19.3	65.9	**-0.0005**	0.002	478.8	ug/L	3	Standard
	Tl	205	30.0	57.7	**-0.0076**	0.003	34.9	ug/L	2	Standard
	Pb	206	76.0	29.1	**0.0035**	0.011	304.2	ug/L	69	Standard
	Pb	207	63.0	5.5	**0.0019**	0.001	71.9	ug/L	57	Standard
	Pb	208	188.7	17.6	**-0.0106**	0.006	52.5	ug/L	162	Standard
	U	238	10.7	76.4	**-0.0169**	0.002	12.7	ug/L	0	Standard
>	**Bi**	209	207275.8	1.9				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	31.7	39.7	**-0.0078**	0.013	166.2	mg/L	28	Standard
	K	39	3.3	173.2	**-0.0425**	0.077	182.0	mg/L	7	Standard
	Ca	43	35.0	49.5	**0.5107**	0.908	177.9	mg/L	25	Standard
	Fe	54	242.6	19.0	**-0.0247**	0.024	98.5	mg/L	279	Standard
	Fe	57	51.7	22.3	**-0.0263**	0.025	93.8	mg/L	73	Standard
>	**Sc-1**	45	44694.2	1.6				mg/L	44343	Standard
	Cl	35	5549.0	1.5				ug/L	5612	Standard
	Kr	83	115.7	15.6				ug/L	108	Standard
	Br	81	3303.7	5.1				ug/L	3490	Standard
	P	31	352225.4	0.3				ug/L	350479	Standard
	S	34	19187.1	1.9				ug/L	17705	Standard
	Sr	88	30.0	44.1				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	93.0				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.311	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.776	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.230
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.531
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	Na	23	
QC Std 2	Ca	43	

Sample ID: QC Std 2
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Method 6020 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, November 13, 2013 16:39:14
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	158702.1	2.2				ug/L	159627	Standard
	Be	9	578.3	2.8	**0.2108**	0.012	5.6	ug/L	28	Standard
	Al	27	1266.7	13.3	**-0.0184**	0.001	6.1	ug/L	1227	Standard
	Sc	45	43766.5	2.8				ug/L	44343	Standard
	Ti	47	27.0	24.3	**-0.0302**	0.016	51.6	ug/L	21	Standard
	V	51	4114.2	5.3	**0.3673**	0.028	7.6	ug/L	1305	Standard
	Cr	52	9828.5	2.3	**0.7744**	0.033	4.3	ug/L	4727	Standard
	Cr	53	1088.4	4.0	**0.6347**	0.034	5.3	ug/L	288	Standard
	Mn	55	7246.1	0.8	**0.4814**	0.005	1.1	ug/L	1062	Standard
	Co	59	3200.3	2.7	**0.3804**	0.009	2.4	ug/L	99	Standard
	Ni	60	3932.5	0.6	**1.5034**	0.006	0.4	ug/L	475	Standard
	Cu	65	1854.8	4.5	**0.7608**	0.034	4.4	ug/L	130	Standard
	Zn	66	7962.8	2.0	**6.4706**	0.107	1.7	ug/L	130	Standard
>	**Ge**	72	343234.6	0.5				ug/L	341919	Standard
	As	75	151.1	15.4	**0.3366**	0.018	5.3	ug/L	-350	Standard
	Se	82	-14.1	96.9	**0.1907**	0.098	51.2	ug/L	-53	Standard
	Se-1	77	122.7	9.7	**0.4012**	0.135	33.7	ug/L	84	Standard
>	**Ga**	71	35.0	42.9				mg/L	53	Standard
	Rb	85	11.7	49.5				ug/L	13	Standard
	Y	89	357270.2	1.3				ug/L	364126	Standard
>	**Rh**	103	3.3	173.2				ug/L	12	Standard
	Mo	98	39.0	25.9	**-0.0042**	0.003	71.3	ug/L	24	Standard
	Ag	107	2471.9	1.3	**0.3962**	0.003	0.8	ug/L	45	Standard
	Cd	111	441.3	5.6	**0.2181**	0.012	5.3	mg/L	2	Standard
	Cd	114	1262.1	3.8	**0.2374**	0.008	3.2	ug/L	10	Standard
>	**In**	115	372578.2	1.0				ug/L	372170	Standard
	Sn	118	46.3	1.2	**0.0020**	0.000	18.8	ug/L	45	Standard
	Sb	123	1230.7	3.5	**0.4210**	0.011	2.6	ug/L	116	Standard
	Ba	135	1233.7	5.6	**0.7240**	0.035	4.8	ug/L	7	Standard
	Ce	140	6.7	173.2				ug/L	5	Standard
>	**Tb**	159	428309.0	1.8				ug/L	430345	Standard
	Ho	165	0.0					ug/L	7	Standard
	Tl	203	426.0	6.8	**0.0757**	0.004	5.4	ug/L	3	Standard
	Tl	205	530.0	4.1	**0.0723**	0.005	6.2	ug/L	2	Standard
	Pb	206	497.0	2.1	**0.1994**	0.005	2.3	ug/L	69	Standard
	Pb	207	437.7	7.9	**0.1955**	0.019	9.9	ug/L	57	Standard
	Pb	208	1211.0	1.7	**0.1786**	0.002	0.9	ug/L	162	Standard
	U	238	1421.4	4.3	**0.3679**	0.014	3.9	ug/L	0	Standard
>	**Bi**	209	206846.2	1.6				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.7457**	1.379	184.9	mg/L	2	Standard
	Mg	24	20.0	66.1	**-0.0193**	0.014	73.5	mg/L	28	Standard
	K	39	8.3	34.6	**0.0279**	0.038	137.4	mg/L	7	Standard
	Ca	43	31.7	48.2	**0.3855**	0.855	221.9	mg/L	25	Standard
	Fe	54	264.2	16.9	**-0.0086**	0.028	326.2	mg/L	279	Standard
	Fe	57	58.3	57.1	**-0.0083**	0.077	924.8	mg/L	73	Standard
>	**Sc-1**	45	43766.5	2.8				mg/L	44343	Standard
	Cl	35	5561.0	2.2				ug/L	5612	Standard
	Kr	83	114.7	6.8				ug/L	108	Standard
	Br	81	3490.4	3.6				ug/L	3490	Standard
	P	31	351446.4	3.8				ug/L	350479	Standard
	S	34	18462.9	1.3				ug/L	17705	Standard
	Sr	88	26.7	10.8				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	5.9	202.1				mg/L	3	Standard
	Ho-1	165	0.0					mg/L	7	Standard
	Er	166	16.7	124.9				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.421	
	Be	9	105.413		
	Al	27	-1.836		
	Sc	45			
	Ti	47			
	V	51	91.820		
	Cr	52	96.794		
	Cr	53			
	Mn	55	96.276		
	Co	59	95.089		
	Ni	60	93.962		
	Cu	65	95.103		
	Zn	66	103.529		
>	Ge	72		100.385	
	As	75	84.143		
	Se	82	47.671		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107	99.042	
|	Cd	111	90.865	
|	Cd	114		
|>	In	115		100.110
|	Sn	118		
|	Sb	123	105.246	
⌊	Ba	135	96.540	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	94.660	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	89.311	
|	U	238	91.971	
⌊>	Bi	209		100.323
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	
QC Std 3	Se	82	

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Method 6020 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, November 13, 2013 16:43:48
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	158563.8	1.2				ug/L	159627	Standard
	Be	9	570.0	6.1	**0.2074**	0.014	6.7	ug/L	28	Standard
	Al	27	1961.8	66.6	**-0.0144**	0.007	50.7	ug/L	1227	Standard
	Sc	45	44135.9	1.1				ug/L	44343	Standard
	Ti	47	30.0	13.3	**-0.0235**	0.009	39.8	ug/L	21	Standard
	V	51	4121.8	2.5	**0.3638**	0.011	3.1	ug/L	1305	Standard
	Cr	52	9532.0	1.9	**0.7185**	0.022	3.0	ug/L	4727	Standard
	Cr	53	1138.4	11.4	**0.6697**	0.108	16.1	ug/L	288	Standard
	Mn	55	7340.1	3.2	**0.4841**	0.017	3.5	ug/L	1062	Standard
	Co	59	3178.3	4.3	**0.3741**	0.016	4.3	ug/L	99	Standard
	Ni	60	3976.5	2.8	**1.5084**	0.041	2.7	ug/L	475	Standard
	Cu	65	1870.4	1.2	**0.7611**	0.007	0.9	ug/L	130	Standard
	Zn	66	7803.3	1.8	**6.2843**	0.092	1.5	ug/L	130	Standard
>	Ge	72	346053.6	0.4				ug/L	341919	Standard
	As	75	171.0	21.4	**0.3507**	0.028	7.9	ug/L	-350	Standard
	Se	82	-1.7	863.2	**0.2795**	0.104	37.1	ug/L	-53	Standard
	Se-1	77	128.0	11.8	**0.4494**	0.170	37.9	ug/L	84	Standard
>	Ga	71	36.7	15.7				mg/L	53	Standard
	Rb	85	18.3	56.8				ug/L	13	Standard
	Y	89	359911.3	0.7				ug/L	364126	Standard
>	Rh	103	1.7	173.2				ug/L	12	Standard
	Mo	98	79.8	133.4	**0.0080**	0.032	401.0	ug/L	24	Standard
	Ag	107	2520.2	4.4	**0.3999**	0.019	4.8	ug/L	45	Standard
	Cd	111	490.4	13.8	**0.2411**	0.035	14.5	mg/L	2	Standard
	Cd	114	1325.0	15.0	**0.2471**	0.038	15.5	ug/L	10	Standard
>	In	115	376520.9	0.9				ug/L	372170	Standard
	Sn	118	65.7	66.2	**0.0181**	0.037	205.7	ug/L	45	Standard
	Sb	123	1160.2	2.5	**0.3908**	0.011	2.8	ug/L	116	Standard
	Ba	135	1261.7	4.8	**0.7330**	0.034	4.7	ug/L	7	Standard
	Ce	140	11.7	49.5				ug/L	5	Standard
>	Tb	159	431488.0	0.8				ug/L	430345	Standard
	Ho	165	3.3	173.2				ug/L	7	Standard
	Tl	203	476.7	24.9	**0.0847**	0.022	26.3	ug/L	3	Standard
	Tl	205	528.3	3.3	**0.0714**	0.003	4.7	ug/L	2	Standard
	Pb	206	508.3	8.8	**0.2031**	0.021	10.4	ug/L	69	Standard
	Pb	207	439.7	12.9	**0.1949**	0.029	15.1	ug/L	57	Standard
	Pb	208	1252.7	3.3	**0.1847**	0.006	3.4	ug/L	162	Standard
	U	238	1440.4	5.3	**0.3705**	0.023	6.3	ug/L	0	Standard
>	Bi	209	208263.3	0.7				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	28.3	27.0	**-0.0108**	0.008	76.5	mg/L	28	Standard
	K	39	1.7	173.2	**-0.0644**	0.039	60.9	mg/L	7	Standard
	Ca	43	28.3	53.9	**0.1762**	0.816	463.3	mg/L	25	Standard
	Fe	54	290.4	10.3	**0.0050**	0.018	370.3	mg/L	279	Standard
	Fe	57	46.7	6.2	**-0.0359**	0.005	15.2	mg/L	73	Standard
>	**Sc-1**	45	44135.9	1.1				mg/L	44343	Standard
	Cl	35	5515.7	1.7				ug/L	5612	Standard
	Kr	83	109.7	11.8				ug/L	108	Standard
	Br	81	3417.1	8.9				ug/L	3490	Standard
	P	31	345114.9	1.3				ug/L	350479	Standard
	S	34	17660.3	2.9				ug/L	17705	Standard
	Sr	88	45.0	40.1				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	173.2				mg/L	3	Standard
	Ho-1	165	3.3	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.334	
	Be	9	103.701		
	Al	27	-1.444		
	Sc	45			
	Ti	47			
	V	51	90.944		
	Cr	52	89.815		
	Cr	53			
	Mn	55	96.825		
	Co	59	93.537		
	Ni	60	94.274		
	Cu	65	95.138		
	Zn	66	100.548		
>	Ge	72		101.209	
	As	75	87.682		
	Se	82	69.874		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98			
|	Ag	107	99.974		
|	Cd	111	100.479		
|	Cd	114			
|>	In	115		101.169	
|	Sn	118			
|	Sb	123	97.688		
⌊	Ba	135	97.730		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	105.838		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	92.365		
|	U	238	92.635		
⌊>	Bi	209		101.010	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	
QC Std 3	Se	82	

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Method 6020 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, November 13, 2013 16:46:53
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	157283.9	1.5				ug/L	159627	Standard
	Be	9	35.0	37.8	**-0.0135**	0.006	42.1	ug/L	28	Standard
	Al	27	7392345.6	9.1	**42.8212**	4.443	10.4	ug/L	1227	Standard
	Sc	45	44134.2	3.4				ug/L	44343	Standard
	Ti	47	38331.7	9.6	**94.6983**	11.039	11.7	ug/L	21	Standard
	V	51	1261.1	7.9	**-0.0159**	0.010	60.6	ug/L	1305	Standard
	Cr	52	5126.5	4.8	**0.0904**	0.054	60.1	ug/L	4727	Standard
	Cr	53	1880.1	13.5	**1.3551**	0.254	18.7	ug/L	288	Standard
	Mn	55	2428.5	2.5	**0.0934**	0.010	10.2	ug/L	1062	Standard
	Co	59	285.7	5.8	**0.0041**	0.002	57.8	ug/L	99	Standard
	Ni	60	1432.4	9.5	**0.4198**	0.074	17.6	ug/L	475	Standard
	Cu	65	619.3	14.2	**0.2146**	0.046	21.5	ug/L	130	Standard
	Zn	66	1723.4	9.0	**1.2904**	0.163	12.6	ug/L	130	Standard
>	Ge	72	336189.4	2.3				ug/L	341919	Standard
	As	75	-291.1	8.6	**-0.0075**	0.024	323.5	ug/L	-350	Standard
	Se	82	-47.8	37.2	**-0.0587**	0.133	226.4	ug/L	-53	Standard
	Se-1	77	258.7	9.1	**1.9976**	0.301	15.1	ug/L	84	Standard
>	Ga	71	131.7	25.3				mg/L	53	Standard
	Rb	85	3092.0	9.3				ug/L	13	Standard
	Y	89	354861.0	2.7				ug/L	364126	Standard
>	Rh	103	6.7	114.6				ug/L	12	Standard
	Mo	98	271444.5	6.3	**85.8203**	6.971	8.1	ug/L	24	Standard
	Ag	107	75.3	4.1	**-0.0058**	0.001	13.2	ug/L	45	Standard
	Cd	111	-36.1	22.9	**-0.0326**	0.005	14.6	mg/L	2	Standard
	Cd	114	696.7	11.9	**0.1301**	0.019	14.6	ug/L	10	Standard
>	In	115	361447.0	1.9				ug/L	372170	Standard
	Sn	118	60.3	7.5	**0.0158**	0.004	26.7	ug/L	45	Standard
	Sb	123	138.7	2.0	**0.0220**	0.001	3.8	ug/L	116	Standard
	Ba	135	44.7	7.9	**0.0213**	0.003	12.3	ug/L	7	Standard
	Ce	140	765.0	3.6				ug/L	5	Standard
>	Tb	159	425176.3	3.6				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	82.0	11.0	**0.0116**	0.001	11.2	ug/L	3	Standard
	Tl	205	51.7	49.7	**-0.0039**	0.004	111.6	ug/L	2	Standard
	Pb	206	157.0	9.3	**0.0430**	0.009	20.7	ug/L	69	Standard
	Pb	207	121.7	10.4	**0.0337**	0.007	21.3	ug/L	57	Standard
	Pb	208	366.7	5.2	**0.0241**	0.005	21.8	ug/L	162	Standard
	U	238	1.3	114.6	**-0.0194**	0.000	2.2	ug/L	0	Standard
>	Bi	209	202160.8	2.9				ug/L	206180	Standard

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	Na	23	48.3	43.1	**20.9940**	10.159	48.4	mg/L	2	Standard
	Mg	24	10485.3	4.4	**10.9351**	0.771	7.1	mg/L	28	Standard
	K	39	305.0	18.3	**4.1126**	0.807	19.6	mg/L	7	Standard
	Ca	43	265.0	10.0	**12.9247**	1.826	14.1	mg/L	25	Standard
	Fe	54	17899.9	6.6	**10.2320**	0.962	9.4	mg/L	279	Standard
	Fe	57	4750.7	5.1	**10.3680**	0.900	8.7	mg/L	73	Standard
>	**Sc-1**	45	44134.2	3.4				mg/L	44343	Standard
	Cl	35	4966.8	5.4				ug/L	5612	Standard
	Kr	83	108.0	13.7				ug/L	108	Standard
	Br	81	2973.6	11.8				ug/L	3490	Standard
	P	31	217329.6	1.9				ug/L	350479	Standard
	S	34	16303.8	1.9				ug/L	17705	Standard
	Sr	88	41.7	59.2				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-0.3	86.6				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		98.532	
	Be	9			
	Al	27	0.856		
	Sc	45			
	Ti	47	94.698		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.324	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	85.820		
|	Ag	107			
|	Cd	111			
|	Cd	114			
|>	In	115			97.119
|	Sn	118			
|	Sb	123			
⌊	Ba	135			
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203			
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208			
|	U	238			
⌊>	Bi	209			98.050
⌈	Na	23	167.952		
|	Mg	24	218.701		
|	K	39	82.252		
|	Ca	43	86.165		
|	Fe	54	81.856		
|	Fe	57	82.944		
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Al	27	
QC Std 4	Na	23	
QC Std 4	Mg	24	

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Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, November 13, 2013 16:49:59
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	168839.0	1.8				ug/L	159627	Standard
	Be	9	249318.4	2.0	**96.7731**	3.019	3.1	ug/L	28	Standard
	Al	27	7149479.1	1.8	**38.5403**	0.250	0.6	ug/L	1227	Standard
	Sc	45	45861.0	1.3				ug/L	44343	Standard
	Ti	47	39063.0	2.8	**90.5061**	3.197	3.5	ug/L	21	Standard
	V	51	742720.5	1.9	**96.3636**	2.574	2.7	ug/L	1305	Standard
	Cr	52	684826.3	1.9	**97.2035**	2.474	2.5	ug/L	4727	Standard
	Cr	53	122122.0	2.1	**100.7114**	2.956	2.9	ug/L	288	Standard
	Mn	55	1242935.2	1.2	**96.9701**	2.035	2.1	ug/L	1062	Standard
	Co	59	789885.4	1.3	**97.9774**	1.951	2.0	ug/L	99	Standard
	Ni	60	233673.9	0.8	**98.1906**	1.571	1.6	ug/L	475	Standard
	Cu	65	226698.1	1.8	**97.2357**	2.638	2.7	ug/L	130	Standard
	Zn	66	126435.7	0.7	**101.1369**	1.574	1.6	ug/L	130	Standard
>	Ge	72	357902.0	0.9				ug/L	341919	Standard
	As	75	136807.5	0.1	**100.8294**	0.802	0.8	ug/L	-350	Standard
	Se	82	14485.8	0.8	**99.5744**	1.658	1.7	ug/L	-53	Standard
	Se-1	77	9562.7	0.6	**102.3871**	1.138	1.1	ug/L	84	Standard
>	Ga	71	220.0	19.4				mg/L	53	Standard
	Rb	85	2978.6	3.0				ug/L	13	Standard
	Y	89	374787.5	1.2				ug/L	364126	Standard
>	Rh	103	40.0	25.0				ug/L	12	Standard
	Mo	98	281832.0	1.3	**83.6343**	0.354	0.4	ug/L	24	Standard
	Ag	107	605793.3	0.8	**98.4952**	0.110	0.1	ug/L	45	Standard
	Cd	111	200302.3	1.4	**101.6188**	0.488	0.5	mg/L	2	Standard
	Cd	114	512117.7	2.7	**97.9939**	1.774	1.8	ug/L	10	Standard
>	In	115	384675.9	0.9				ug/L	372170	Standard
	Sn	118	147.3	2.7	**0.0858**	0.003	3.9	ug/L	45	Standard
	Sb	123	285585.0	1.3	**101.4546**	0.364	0.4	ug/L	116	Standard
	Ba	135	175848.0	1.0	**100.8040**	0.194	0.2	ug/L	7	Standard
	Ce	140	791.7	2.6				ug/L	5	Standard
>	Tb	159	446409.3	0.5				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	537912.5	1.2	**98.2771**	1.281	1.3	ug/L	3	Standard
	Tl	205	621094.0	1.3	**96.6458**	0.946	1.0	ug/L	2	Standard
	Pb	206	218214.4	1.7	**98.9490**	1.315	1.3	ug/L	69	Standard
	Pb	207	195936.5	0.6	**98.5733**	0.057	0.1	ug/L	57	Standard
	Pb	208	539724.0	0.6	**97.2685**	0.312	0.3	ug/L	162	Standard
	U	238	368026.5	1.3	**97.8328**	0.849	0.9	ug/L	0	Standard
>	Bi	209	212205.1	0.6				ug/L	206180	Standard

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	Na	23	31.7	45.6	**12.5632**	6.409	51.0	mg/L	2	Standard
	Mg	24	10028.3	0.6	**10.0488**	0.186	1.9	mg/L	28	Standard
	K	39	320.0	5.6	**4.1466**	0.283	6.8	mg/L	7	Standard
	Ca	43	266.7	11.5	**12.4384**	1.577	12.7	mg/L	25	Standard
	Fe	54	18221.2	0.7	**10.0031**	0.189	1.9	mg/L	279	Standard
	Fe	57	4785.8	4.5	**10.0247**	0.335	3.3	mg/L	73	Standard
>	**Sc-1**	45	45861.0	1.3				mg/L	44343	Standard
	Cl	35	5226.2	3.2				ug/L	5612	Standard
	Kr	83	121.7	1.7				ug/L	108	Standard
	Br	81	3420.4	8.6				ug/L	3490	Standard
	P	31	324160.1	1.9				ug/L	350479	Standard
	S	34	16078.5	3.5				ug/L	17705	Standard
	Sr	88	36.7	34.3				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.771	
	Be	9	96.773		
	Al	27	0.771		
	Sc	45			
	Ti	47	90.506		
	V	51	96.364		
	Cr	52	97.204		
	Cr	53			
	Mn	55	96.970		
	Co	59	97.977		
	Ni	60	98.191		
	Cu	65	97.236		
	Zn	66	101.137		
>	Ge	72		104.674	
	As	75	100.829		
	Se	82	99.574		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	83.634	
|	Ag	107	98.495	
|	Cd	111	101.619	
|	Cd	114		
|>	In	115		103.360
|	Sn	118		
|	Sb	123	101.455	
⌊	Ba	135	100.804	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	98.277	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	97.268	
|	U	238	97.833	
⌊>	Bi	209		102.922
⌈	Na	23	100.505	
|	Mg	24	200.977	
|	K	39	82.932	
|	Ca	43	82.923	
|	Fe	54	80.025	
|	Fe	57	80.198	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Al	27	
QC Std 5	Na	23	
QC Std 5	Mg	24	

Sample ID: QC Std 5
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 16:53:05
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	163307.3	2.1				ug/L	159627	Standard
	Be	9	122622.9	3.2	**49.2105**	2.413	4.9	ug/L	28	Standard
	Al	27	8744748.5	2.4	**48.7472**	1.001	2.1	ug/L	1227	Standard
	Sc	45	45257.5	1.8				ug/L	44343	Standard
	Ti	47	43231.3	1.0	**100.9358**	1.608	1.6	ug/L	21	Standard
	V	51	377578.6	1.1	**49.2664**	0.460	0.9	ug/L	1305	Standard
	Cr	52	349551.9	2.0	**49.6585**	1.118	2.3	ug/L	4727	Standard
	Cr	53	61134.8	1.2	**50.6534**	1.186	2.3	ug/L	288	Standard
	Mn	55	631288.3	2.9	**49.5690**	1.242	2.5	ug/L	1062	Standard
	Co	59	402505.0	2.2	**50.2887**	0.969	1.9	ug/L	99	Standard
	Ni	60	119073.6	2.3	**50.3060**	1.010	2.0	ug/L	475	Standard
	Cu	65	115065.9	0.1	**49.6957**	0.522	1.1	ug/L	130	Standard
	Zn	66	62177.0	1.0	**50.0250**	0.665	1.3	ug/L	130	Standard
>	Ge	72	355175.8	1.2				ug/L	341919	Standard
	As	75	67344.3	2.3	**50.1244**	1.038	2.1	ug/L	-350	Standard
	Se	82	7182.7	2.3	**49.8920**	0.871	1.7	ug/L	-53	Standard
	Se-1	77	4785.8	2.0	**51.1445**	0.809	1.6	ug/L	84	Standard
>	Ga	71	48.3	26.0				mg/L	53	Standard
	Rb	85	1135.0	3.5				ug/L	13	Standard
	Y	89	374210.2	2.7				ug/L	364126	Standard
>	Rh	103	26.7	47.2				ug/L	12	Standard
	Mo	98	345227.2	2.0	**100.6650**	1.658	1.6	ug/L	24	Standard
	Ag	107	315011.3	1.8	**50.3144**	0.722	1.4	ug/L	45	Standard
	Cd	111	100501.5	0.3	**50.0947**	0.164	0.3	mg/L	2	Standard
	Cd	114	265475.3	3.2	**49.9104**	1.428	2.9	ug/L	10	Standard
>	In	115	391490.5	0.4				ug/L	372170	Standard
	Sn	118	60575.9	2.1	**50.1241**	0.985	2.0	ug/L	45	Standard
	Sb	123	142422.8	1.9	**49.6991**	0.766	1.5	ug/L	116	Standard
	Ba	135	88271.7	1.1	**49.7179**	0.503	1.0	ug/L	7	Standard
	Ce	140	28.3	44.4				ug/L	5	Standard
>	Tb	159	443114.6	0.5				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	272657.9	0.9	**50.0522**	0.242	0.5	ug/L	3	Standard
	Tl	205	319755.5	2.7	**49.9836**	0.838	1.7	ug/L	2	Standard
	Pb	206	110602.3	1.3	**50.3806**	0.601	1.2	ug/L	69	Standard
	Pb	207	99256.8	1.8	**50.1616**	0.882	1.8	ug/L	57	Standard
	Pb	208	273672.4	1.2	**49.5374**	0.603	1.2	ug/L	162	Standard
	U	238	187093.5	1.4	**49.9668**	0.616	1.2	ug/L	0	Standard
>	Bi	209	211190.4	1.1				ug/L	206180	Standard

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	Na	23	20.0	90.1	**7.3950**	7.924	107.1	mg/L	2	Standard
	Mg	24	4872.5	3.5	**4.9291**	0.254	5.2	mg/L	28	Standard
	K	39	338.3	4.8	**4.4459**	0.180	4.0	mg/L	7	Standard
	Ca	43	116.7	20.3	**4.7832**	1.339	28.0	mg/L	25	Standard
	Fe	54	9100.4	3.2	**4.9837**	0.238	4.8	mg/L	279	Standard
	Fe	57	2440.2	0.9	**5.1150**	0.113	2.2	mg/L	73	Standard
>	**Sc-1**	45	45257.5	1.8				mg/L	44343	Standard
	Cl	35	5395.0	1.0				ug/L	5612	Standard
	Kr	83	118.3	5.9				ug/L	108	Standard
	Br	81	3347.0	6.7				ug/L	3490	Standard
	P	31	332718.5	0.5				ug/L	350479	Standard
	S	34	17925.6	2.9				ug/L	17705	Standard
	Sr	88	31.7	91.2				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	86.6				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.306	
	Be	9	98.421		
	Al	27	97.494		
	Sc	45			
	Ti	47	100.936		
	V	51	98.533		
	Cr	52	99.317		
	Cr	53			
	Mn	55	99.138		
	Co	59	100.577		
	Ni	60	100.612		
	Cu	65	99.391		
	Zn	66	100.050		
>	Ge	72		103.877	
	As	75	100.249		
	Se	82	99.784		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	100.665		
|	Ag	107	100.629		
|	Cd	111	100.189		
|	Cd	114			
|>	In	115		105.191	
|	Sn	118	100.248		
|	Sb	123	99.398		
⌊	Ba	135	99.436		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	100.104		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	99.075		
|	U	238	99.934		
⌊>	Bi	209		102.430	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 16:56:11
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	163007.3	1.5				ug/L	159627	Standard
	Be	9	76.7	59.2	**0.0026**	0.018	693.0	ug/L	28	Standard
	Al	27	1386.7	6.5	**-0.0179**	0.001	3.0	ug/L	1227	Standard
	Sc	45	44861.3	1.9				ug/L	44343	Standard
	Ti	47	23.3	8.9	**-0.0395**	0.005	12.8	ug/L	21	Standard
	V	51	1206.3	2.9	**-0.0283**	0.005	17.3	ug/L	1305	Standard
	Cr	52	4629.0	3.4	**-0.0072**	0.020	281.9	ug/L	4727	Standard
	Cr	53	285.0	19.9	**-0.0603**	0.049	81.2	ug/L	288	Standard
	Mn	55	1077.7	1.8	**-0.0218**	0.001	6.5	ug/L	1062	Standard
	Co	59	124.7	16.7	**-0.0177**	0.003	14.7	ug/L	99	Standard
	Ni	60	401.0	2.1	**-0.0490**	0.004	7.7	ug/L	475	Standard
	Cu	65	136.0	7.6	**-0.0088**	0.004	50.5	ug/L	130	Standard
	Zn	66	136.7	5.3	**-0.0691**	0.006	8.4	ug/L	130	Standard
>	**Ge**	72	346522.8	0.4				ug/L	341919	Standard
	As	75	-316.3	2.0	**-0.0195**	0.005	24.9	ug/L	-350	Standard
	Se	82	-43.5	4.4	**-0.0162**	0.012	76.3	ug/L	-53	Standard
	Se-1	77	87.7	10.2	**-0.0030**	0.098	3296.8	ug/L	84	Standard
>	**Ga**	71	25.0	20.0				mg/L	53	Standard
	Rb	85	13.3	57.3				ug/L	13	Standard
	Y	89	364975.4	0.9				ug/L	364126	Standard
>	**Rh**	103	3.3	173.2				ug/L	12	Standard
	Mo	98	104.2	26.2	**0.0152**	0.008	52.6	ug/L	24	Standard
	Ag	107	90.0	5.1	**-0.0040**	0.001	15.3	ug/L	45	Standard
	Cd	111	6.2	88.7	**-0.0099**	0.003	28.3	mg/L	2	Standard
	Cd	114	34.2	21.2	**-0.0053**	0.001	26.3	ug/L	10	Standard
>	**In**	115	379471.2	1.0				ug/L	372170	Standard
	Sn	118	91.0	22.5	**0.0393**	0.017	43.1	ug/L	45	Standard
	Sb	123	388.9	24.9	**0.1094**	0.034	30.8	ug/L	116	Standard
	Ba	135	12.0	8.3	**0.0010**	0.001	54.2	ug/L	7	Standard
	Ce	140	13.3	43.3				ug/L	5	Standard
>	**Tb**	159	436230.2	1.7				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	20.3	32.0	**-0.0003**	0.001	338.0	ug/L	3	Standard
	Tl	205	28.3	36.7	**-0.0080**	0.002	20.5	ug/L	2	Standard
	Pb	206	74.7	5.1	**0.0022**	0.001	57.4	ug/L	69	Standard
	Pb	207	58.7	14.9	**-0.0009**	0.004	451.4	ug/L	57	Standard
	Pb	208	175.3	1.3	**-0.0136**	0.001	6.7	ug/L	162	Standard
	U	238	10.7	14.3	**-0.0170**	0.000	2.6	ug/L	0	Standard
>	**Bi**	209	210961.8	1.6				ug/L	206180	Standard

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Sheri L. Pahlgren

	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	33.3	17.3	**-0.0061**	0.007	108.2	mg/L	28	Standard
	K	39	5.0	100.0	**-0.0203**	0.067	327.0	mg/L	7	Standard
	Ca	43	25.0	0.0	**-0.0218**	0.026	118.1	mg/L	25	Standard
	Fe	54	229.7	5.8	**-0.0325**	0.005	16.8	mg/L	279	Standard
	Fe	57	51.7	31.1	**-0.0267**	0.034	129.4	mg/L	73	Standard
>	**Sc-1**	45	44861.3	1.9				mg/L	44343	Standard
	Cl	35	5517.7	0.9				ug/L	5612	Standard
	Kr	83	101.0	4.5				ug/L	108	Standard
	Br	81	3333.7	4.6				ug/L	3490	Standard
	P	31	336133.0	1.3				ug/L	350479	Standard
	S	34	18257.7	1.1				ug/L	17705	Standard
	Sr	88	26.7	43.3				ug/L	42	Standard
	C	12	10.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.5	8.7				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	10.0	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.118	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.346	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.962
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.319
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: PBW B8 WG452368-02
Sample Date/Time: Wednesday, November 13, 2013 17:00:41
Number of Replicates: 3
Autosampler Position: 336
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	143447.6	1.7				ug/L	159627	Standard
	Be	9	31.7	24.1	**-0.0137**	0.004	26.3	ug/L	28	Standard
	Al	27	1321.7	5.2	**-0.0173**	0.000	2.4	ug/L	1227	Standard
	Sc	45	38208.1	1.8				ug/L	44343	Standard
	Ti	47	22.0	15.7	**-0.0354**	0.010	28.9	ug/L	21	Standard
	V	51	996.4	6.9	**-0.0381**	0.012	31.0	ug/L	1305	Standard
	Cr	52	4089.9	4.6	**-0.0039**	0.028	701.2	ug/L	4727	Standard
	Cr	53	2836.9	4.7	**2.4520**	0.123	5.0	ug/L	288	Standard
	Mn	55	870.4	2.4	**-0.0289**	0.001	4.1	ug/L	1062	Standard
	Co	59	92.7	8.0	**-0.0201**	0.001	5.5	ug/L	99	Standard
	Ni	60	357.0	5.9	**-0.0468**	0.011	23.1	ug/L	475	Standard
	Cu	65	107.3	7.1	**-0.0150**	0.004	24.2	ug/L	130	Standard
	Zn	66	1371.4	3.5	**1.1091**	0.063	5.7	ug/L	130	Standard
>	**Ge**	72	304707.9	1.5				ug/L	341919	Standard
	As	75	-299.3	16.9	**-0.0374**	0.040	105.8	ug/L	-350	Standard
	Se	82	-52.3	16.4	**-0.1295**	0.066	50.8	ug/L	-53	Standard
	Se-1	77	237.0	6.8	**2.0293**	0.236	11.6	ug/L	84	Standard
>	**Ga**	71	31.7	50.8				mg/L	53	Standard
	Rb	85	25.0	60.0				ug/L	13	Standard
	Y	89	318254.5	0.8				ug/L	364126	Standard
>	**Rh**	103	0.0					ug/L	12	Standard
	Mo	98	19.5	10.1	**-0.0094**	0.001	6.6	ug/L	24	Standard
	Ag	107	40.3	18.9	**-0.0112**	0.001	13.2	ug/L	45	Standard
	Cd	111	14.6	43.8	**-0.0045**	0.004	81.7	mg/L	2	Standard
	Cd	114	38.7	38.2	**-0.0034**	0.003	99.5	ug/L	10	Standard
>	**In**	115	331664.7	1.2				ug/L	372170	Standard
	Sn	118	49.3	17.2	**0.0099**	0.009	88.8	ug/L	45	Standard
	Sb	123	75.9	7.1	**0.0008**	0.002	294.6	ug/L	116	Standard
	Ba	135	81.3	17.1	**0.0481**	0.009	18.9	ug/L	7	Standard
	Ce	140	3.3	173.2				ug/L	5	Standard
>	**Tb**	159	385099.6	1.1				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	50.7	31.7	**0.0062**	0.003	49.7	ug/L	3	Standard
	Tl	205	50.0	40.0	**-0.0037**	0.004	96.3	ug/L	2	Standard
	Pb	206	149.3	4.1	**0.0436**	0.002	3.9	ug/L	69	Standard
	Pb	207	124.3	14.1	**0.0391**	0.009	22.2	ug/L	57	Standard
	Pb	208	354.0	3.9	**0.0258**	0.003	11.2	ug/L	162	Standard
	U	238	2.0	86.6	**-0.0192**	0.000	2.6	ug/L	0	Standard
>	**Bi**	209	190354.2	1.8				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.6423**	1.558	242.6	mg/L	2	Standard
	Mg	24	31.7	32.9	**-0.0023**	0.012	535.4	mg/L	28	Standard
	K	39	8.3	91.7	**0.0440**	0.119	271.2	mg/L	7	Standard
	Ca	43	26.7	21.7	**0.3098**	0.349	112.6	mg/L	25	Standard
	Fe	54	93.1	29.7	**-0.1009**	0.019	19.3	mg/L	279	Standard
	Fe	57	76.7	30.1	**0.0563**	0.057	101.8	mg/L	73	Standard
>	**Sc-1**	45	38208.1	1.8				mg/L	44343	Standard
	Cl	35	4994.8	3.0				ug/L	5612	Standard
	Kr	83	106.0	5.7				ug/L	108	Standard
	Br	81	3050.3	2.5				ug/L	3490	Standard
	P	31	114861.2	5.4				ug/L	350479	Standard
	S	34	16906.1	1.3				ug/L	17705	Standard
	Sr	88	31.7	24.1				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.3	173.2				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.864	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.117	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.116
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	92.324
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: F BLANK WG452232-01
Sample Date/Time: Wednesday, November 13, 2013 17:03:45
Number of Replicates: 3
Autosampler Position: 337
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	143116.1	1.0				ug/L	159627	Standard
	Be	9	40.0	82.0	**-0.0099**	0.015	150.2	ug/L	28	Standard
	Al	27	1216.7	4.5	**-0.0179**	0.000	2.3	ug/L	1227	Standard
	Sc	45	39676.9	1.8				ug/L	44343	Standard
	Ti	47	16.3	18.7	**-0.0518**	0.009	16.6	ug/L	21	Standard
	V	51	733.5	7.9	**-0.0806**	0.010	11.9	ug/L	1305	Standard
	Cr	52	4117.2	2.6	**-0.0138**	0.023	166.2	ug/L	4727	Standard
	Cr	53	3072.0	3.3	**2.6167**	0.079	3.0	ug/L	288	Standard
	Mn	55	745.0	2.6	**-0.0418**	0.002	3.8	ug/L	1062	Standard
	Co	59	80.3	3.8	**-0.0222**	0.000	1.4	ug/L	99	Standard
	Ni	60	349.3	6.9	**-0.0542**	0.014	25.0	ug/L	475	Standard
	Cu	65	104.0	6.0	**-0.0178**	0.003	15.5	ug/L	130	Standard
	Zn	66	903.0	3.2	**0.6498**	0.032	4.9	ug/L	130	Standard
>	Ge	72	311319.5	1.2				ug/L	341919	Standard
	As	75	-323.9	8.4	**-0.0530**	0.022	41.6	ug/L	-350	Standard
	Se	82	-49.6	34.1	**-0.0998**	0.134	134.2	ug/L	-53	Standard
	Se-1	77	275.3	4.6	**2.4390**	0.120	4.9	ug/L	84	Standard
>	Ga	71	38.3	7.5				mg/L	53	Standard
	Rb	85	23.3	61.9				ug/L	13	Standard
	Y	89	322489.2	0.3				ug/L	364126	Standard
>	Rh	103	1.7	173.2				ug/L	12	Standard
	Mo	98	16.3	12.3	**-0.0107**	0.001	6.3	ug/L	24	Standard
	Ag	107	40.7	5.1	**-0.0114**	0.000	3.2	ug/L	45	Standard
	Cd	111	2.3	108.5	**-0.0117**	0.001	12.3	mg/L	2	Standard
	Cd	114	12.4	60.6	**-0.0093**	0.002	17.4	ug/L	10	Standard
>	In	115	340847.1	0.3				ug/L	372170	Standard
	Sn	118	34.7	24.0	**-0.0054**	0.008	147.4	ug/L	45	Standard
	Sb	123	38.2	21.3	**-0.0152**	0.003	21.2	ug/L	116	Standard
	Ba	135	5.3	47.2	**-0.0026**	0.002	64.2	ug/L	7	Standard
	Ce	140	10.0					ug/L	5	Standard
>	Tb	159	397146.4	1.1				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	45.0	13.9	**0.0048**	0.001	24.7	ug/L	3	Standard
	Tl	205	41.7	6.9	**-0.0054**	0.001	10.3	ug/L	2	Standard
	Pb	206	120.3	10.5	**0.0272**	0.006	21.2	ug/L	69	Standard
	Pb	207	96.7	13.8	**0.0221**	0.007	33.4	ug/L	57	Standard
	Pb	208	283.3	5.4	**0.0100**	0.003	32.3	ug/L	162	Standard
	U	238	0.3	173.2	**-0.0197**	0.000	0.8	ug/L	0	Standard
>	Bi	209	195881.5	1.2				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.6746**	1.502	222.6	mg/L	2	Standard
	Mg	24	1678.4	13.5	**1.9133**	0.287	15.0	mg/L	28	Standard
	K	39	5.0	100.0	**-0.0099**	0.077	780.1	mg/L	7	Standard
	Ca	43	31.7	18.2	**0.5533**	0.376	67.9	mg/L	25	Standard
	Fe	54	89.3	25.7	**-0.1058**	0.015	14.0	mg/L	279	Standard
	Fe	57	53.3	19.5	**-0.0082**	0.023	282.8	mg/L	73	Standard
>	**Sc-1**	45	39676.9	1.8				mg/L	44343	Standard
	Cl	35	4927.5	0.2				ug/L	5612	Standard
	Kr	83	98.3	13.8				ug/L	108	Standard
	Br	81	3003.6	4.2				ug/L	3490	Standard
	P	31	110451.6	4.1				ug/L	350479	Standard
	S	34	16173.6	3.7				ug/L	17705	Standard
	Sr	88	40.0	12.5				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.7	105.8				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.657	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.051	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	91.584
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.005
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG452232-01
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Method 6020 - Summary Report

Sample ID: F BLANK WG452232-02
Sample Date/Time: Wednesday, November 13, 2013 17:06:50
Number of Replicates: 3
Autosampler Position: 338
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	142009.1	0.4				ug/L	159627	Standard
	Be	9	50.0	45.8	**-0.0051**	0.011	206.0	ug/L	28	Standard
	Al	27	4279.0	36.8	**0.0018**	0.010	564.7	ug/L	1227	Standard
	Sc	45	39377.8	2.3				ug/L	44343	Standard
	Ti	47	30.7	12.3	**-0.0135**	0.011	78.3	ug/L	21	Standard
	V	51	870.5	17.9	**-0.0600**	0.024	39.2	ug/L	1305	Standard
	Cr	52	4343.0	2.3	**0.0241**	0.016	64.6	ug/L	4727	Standard
	Cr	53	3547.1	8.8	**3.0725**	0.283	9.2	ug/L	288	Standard
	Mn	55	1671.8	1.9	**0.0416**	0.003	7.2	ug/L	1062	Standard
	Co	59	118.7	21.2	**-0.0167**	0.004	21.9	ug/L	99	Standard
	Ni	60	375.7	13.4	**-0.0412**	0.025	61.3	ug/L	475	Standard
	Cu	65	144.7	20.7	**0.0024**	0.015	623.3	ug/L	130	Standard
	Zn	66	2792.9	1.6	**2.3941**	0.043	1.8	ug/L	130	Standard
>	Ge	72	310896.3	0.6				ug/L	341919	Standard
	As	75	-266.7	27.9	**-0.0048**	0.062	1276.9	ug/L	-350	Standard
	Se	82	-43.2	39.3	**-0.0488**	0.133	272.3	ug/L	-53	Standard
	Se-1	77	289.0	7.8	**2.6157**	0.302	11.6	ug/L	84	Standard
>	Ga	71	30.0	33.3				mg/L	53	Standard
	Rb	85	95.0	42.1				ug/L	13	Standard
	Y	89	323617.9	0.4				ug/L	364126	Standard
>	Rh	103	5.0	0.0				ug/L	12	Standard
	Mo	98	24.2	70.8	**-0.0080**	0.006	73.2	ug/L	24	Standard
	Ag	107	58.0	49.3	**-0.0081**	0.005	66.3	ug/L	45	Standard
	Cd	111	9.3	136.6	**-0.0077**	0.007	95.9	mg/L	2	Standard
	Cd	114	35.7	122.8	**-0.0042**	0.010	227.8	ug/L	10	Standard
>	In	115	339080.7	1.7				ug/L	372170	Standard
	Sn	118	37.7	10.7	**-0.0023**	0.004	177.4	ug/L	45	Standard
	Sb	123	42.7	31.6	**-0.0133**	0.005	41.2	ug/L	116	Standard
	Ba	135	66.7	38.1	**0.0374**	0.017	44.9	ug/L	7	Standard
	Ce	140	231.7	16.5				ug/L	5	Standard
>	Tb	159	390830.2	1.1				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	54.7	53.3	**0.0069**	0.006	84.9	ug/L	3	Standard
	Tl	205	75.0	11.5	**0.0004**	0.002	356.3	ug/L	2	Standard
	Pb	206	136.7	3.7	**0.0362**	0.003	7.1	ug/L	69	Standard
	Pb	207	120.0	14.8	**0.0357**	0.010	27.6	ug/L	57	Standard
	Pb	208	336.7	3.0	**0.0213**	0.002	8.8	ug/L	162	Standard
	U	238	16.3	157.3	**-0.0150**	0.008	49.9	ug/L	0	Standard
>	Bi	209	193286.7	0.2				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.6982**	1.461	209.3	mg/L	2	Standard
	Mg	24	38.3	27.2	**0.0046**	0.013	286.3	mg/L	28	Standard
	K	39	8.3	34.6	**0.0411**	0.044	106.8	mg/L	7	Standard
	Ca	43	20.0	25.0	**-0.1396**	0.301	215.4	mg/L	25	Standard
	Fe	54	112.8	25.4	**-0.0898**	0.020	22.3	mg/L	279	Standard
	Fe	57	68.3	18.4	**0.0299**	0.028	93.0	mg/L	73	Standard
>	**Sc-1**	45	39377.8	2.3				mg/L	44343	Standard
	Cl	35	4934.8	1.9				ug/L	5612	Standard
	Kr	83	106.7	13.6				ug/L	108	Standard
	Br	81	2973.6	7.9				ug/L	3490	Standard
	P	31	109457.5	2.8				ug/L	350479	Standard
	S	34	16232.0	3.2				ug/L	17705	Standard
	Sr	88	28.3	53.9				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	12.9	89.8				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	10.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		88.963	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.927	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		91.109
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		93.746
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG452232-02
Report Date/Time: Wednesday, November 13, 2013 17:09:04
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Method 6020 - Summary Report

Sample ID: LCSW B8 WG452368-03
Sample Date/Time: Wednesday, November 13, 2013 17:09:56
Number of Replicates: 3
Autosampler Position: 339
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	179694.5	1.5				ug/L	159627	Standard
	Be	9	1313.4	7.9	**0.4512**	0.043	9.6	ug/L	28	Standard
	Al	27	168699.1	1.6	**0.8294**	0.003	0.3	ug/L	1227	Standard
	Sc	45	46273.9	2.0				ug/L	44343	Standard
	Ti	47	4173.2	1.4	**9.4245**	0.067	0.7	ug/L	21	Standard
	V	51	74526.8	2.6	**9.3389**	0.214	2.3	ug/L	1305	Standard
	Cr	52	40103.4	2.7	**4.9476**	0.104	2.1	ug/L	4727	Standard
	Cr	53	21318.3	1.6	**17.0414**	0.355	2.1	ug/L	288	Standard
	Mn	55	64341.3	1.0	**4.8345**	0.068	1.4	ug/L	1062	Standard
	Co	59	16236.4	1.9	**1.9479**	0.016	0.8	ug/L	99	Standard
	Ni	60	12133.5	3.0	**4.8025**	0.110	2.3	ug/L	475	Standard
	Cu	65	12037.4	1.3	**5.0127**	0.041	0.8	ug/L	130	Standard
	Zn	66	13432.0	1.1	**10.4052**	0.051	0.5	ug/L	130	Standard
>	Ge	72	363843.1	1.5				ug/L	341919	Standard
	As	75	4815.6	1.8	**3.7048**	0.087	2.3	ug/L	-350	Standard
	Se	82	494.6	1.9	**3.6266**	0.095	2.6	ug/L	-53	Standard
	Se-1	77	1380.7	3.4	**13.7058**	0.711	5.2	ug/L	84	Standard
>	Ga	71	35.0	37.8				mg/L	53	Standard
	Rb	85	258.3	14.8				ug/L	13	Standard
	Y	89	380444.5	1.5				ug/L	364126	Standard
>	Rh	103	18.3	83.3				ug/L	12	Standard
	Mo	98	34221.5	2.4	**9.9232**	0.213	2.1	ug/L	24	Standard
	Ag	107	25064.4	1.0	**3.9697**	0.051	1.3	ug/L	45	Standard
	Cd	111	984.0	4.0	**0.4755**	0.019	4.0	mg/L	2	Standard
	Cd	114	3625.4	0.8	**0.6671**	0.010	1.5	ug/L	10	Standard
>	In	115	393113.8	0.7				ug/L	372170	Standard
	Sn	118	9758.1	2.2	**8.0090**	0.163	2.0	ug/L	45	Standard
	Sb	123	33722.1	2.3	**11.6954**	0.214	1.8	ug/L	116	Standard
	Ba	135	17326.9	1.4	**9.7137**	0.067	0.7	ug/L	7	Standard
	Ce	140	18.3	56.8				ug/L	5	Standard
>	Tb	159	451680.4	0.5				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	26362.2	0.8	**4.7489**	0.023	0.5	ug/L	3	Standard
	Tl	205	31262.2	1.9	**4.7884**	0.041	0.9	ug/L	2	Standard
	Pb	206	10940.3	2.1	**4.8654**	0.110	2.3	ug/L	69	Standard
	Pb	207	9821.5	2.2	**4.8470**	0.111	2.3	ug/L	57	Standard
	Pb	208	27106.5	1.5	**4.7775**	0.057	1.2	ug/L	162	Standard
	U	238	2.3	173.2	**-0.0192**	0.001	5.6	ug/L	0	Standard
>	Bi	209	215045.1	1.1				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	556.7	10.6	**0.5139**	0.048	9.3	mg/L	28	Standard
	K	39	31.7	50.8	**0.3284**	0.213	65.0	mg/L	7	Standard
	Ca	43	23.3	32.7	**-0.1425**	0.412	288.9	mg/L	25	Standard
	Fe	54	339.9	7.5	**0.0246**	0.016	64.0	mg/L	279	Standard
	Fe	57	75.0	20.0	**0.0195**	0.034	176.5	mg/L	73	Standard
>	**Sc-1**	45	46273.9	2.0				mg/L	44343	Standard
	Cl	35	5798.4	0.5				ug/L	5612	Standard
	Kr	83	112.3	4.4				ug/L	108	Standard
	Br	81	3813.8	5.4				ug/L	3490	Standard
	P	31	344698.8	0.9				ug/L	350479	Standard
	S	34	16797.6	1.5				ug/L	17705	Standard
	Sr	88	46.7	6.2				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	173.2				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.572	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.412	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.627
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.299
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311051901 WG452368-01
Sample Date/Time: Wednesday, November 13, 2013 17:13:01
Number of Replicates: 3
Autosampler Position: 340
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	170155.5	2.4				ug/L	159627	Standard
	Be	9	65.0	23.1	**-0.0031**	0.006	203.0	ug/L	28	Standard
	Al	27	45351.1	2.6	**0.2171**	0.000	0.2	ug/L	1227	Standard
	Sc	45	47937.4	3.6				ug/L	44343	Standard
	Ti	47	46.3	15.3	**0.0122**	0.015	124.4	ug/L	21	Standard
	V	51	1296.4	25.6	**-0.0215**	0.043	200.0	ug/L	1305	Standard
	Cr	52	5275.3	3.1	**0.0651**	0.015	22.3	ug/L	4727	Standard
	Cr	53	5727.8	13.4	**4.4389**	0.566	12.7	ug/L	288	Standard
	Mn	55	18843.4	2.5	**1.3661**	0.017	1.3	ug/L	1062	Standard
	Co	59	311.7	34.9	**0.0050**	0.013	258.7	ug/L	99	Standard
	Ni	60	696.3	3.9	**0.0705**	0.010	14.6	ug/L	475	Standard
	Cu	65	194.3	3.1	**0.0145**	0.003	22.1	ug/L	130	Standard
	Zn	66	5704.7	0.9	**4.3996**	0.042	0.9	ug/L	130	Standard
>	Ge	72	357088.1	1.4				ug/L	341919	Standard
	As	75	-328.6	23.9	**-0.0210**	0.054	258.6	ug/L	-350	Standard
	Se	82	-58.4	22.4	**-0.1091**	0.085	77.5	ug/L	-53	Standard
	Se-1	77	456.3	12.2	**3.9584**	0.548	13.8	ug/L	84	Standard
>	Ga	71	31.7	24.1				mg/L	53	Standard
	Rb	85	1471.7	5.4				ug/L	13	Standard
	Y	89	368487.7	1.6				ug/L	364126	Standard
>	Rh	103	5.0	100.0				ug/L	12	Standard
	Mo	98	144.6	57.8	**0.0260**	0.024	93.6	ug/L	24	Standard
	Ag	107	113.3	96.9	**-0.0007**	0.018	2358.5	ug/L	45	Standard
	Cd	111	38.1	148.8	**0.0059**	0.028	477.8	mg/L	2	Standard
	Cd	114	86.7	135.9	**0.0043**	0.022	513.0	ug/L	10	Standard
>	In	115	391302.0	0.5				ug/L	372170	Standard
	Sn	118	62.0	32.2	**0.0130**	0.016	126.6	ug/L	45	Standard
	Sb	123	70.2	25.7	**-0.0060**	0.006	105.3	ug/L	116	Standard
	Ba	135	702.3	9.5	**0.3897**	0.037	9.4	ug/L	7	Standard
	Ce	140	85.0	27.0				ug/L	5	Standard
>	Tb	159	445923.6	0.5				ug/L	430345	Standard
	Ho	165	8.3	91.7				ug/L	7	Standard
	Tl	203	156.3	91.4	**0.0240**	0.025	105.7	ug/L	3	Standard
	Tl	205	121.7	35.9	**0.0063**	0.006	103.1	ug/L	2	Standard
	Pb	206	151.7	33.2	**0.0360**	0.022	60.5	ug/L	69	Standard
	Pb	207	134.7	31.8	**0.0363**	0.020	56.4	ug/L	57	Standard
	Pb	208	331.3	12.0	**0.0137**	0.006	47.4	ug/L	162	Standard
	U	238	34.7	50.8	**-0.0107**	0.005	42.0	ug/L	0	Standard
>	Bi	209	214554.6	1.4				ug/L	206180	Standard

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	Na	23	6.7	86.6	**1.2849**	2.452	190.8	mg/L	2	Standard
	Mg	24	3135.3	2.4	**2.9786**	0.098	3.3	mg/L	28	Standard
	K	39	13.3	78.1	**0.0843**	0.137	163.0	mg/L	7	Standard
	Ca	43	48.3	15.8	**1.0565**	0.446	42.2	mg/L	25	Standard
	Fe	54	245.8	7.9	**-0.0322**	0.009	27.6	mg/L	279	Standard
	Fe	57	85.0	15.6	**0.0346**	0.032	92.9	mg/L	73	Standard
>	**Sc-1**	45	47937.4	3.6				mg/L	44343	Standard
	Cl	35	5494.3	0.8				ug/L	5612	Standard
	Kr	83	115.7	7.8				ug/L	108	Standard
	Br	81	3593.8	5.6				ug/L	3490	Standard
	P	31	332515.9	0.6				ug/L	350479	Standard
	S	34	17323.2	0.1				ug/L	17705	Standard
	Sr	88	33.3	8.7				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	3	Standard
	Ho-1	165	8.3	91.7				mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.596	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.436	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.141
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.062
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311051901S WG452368-04
Sample Date/Time: Wednesday, November 13, 2013 17:16:06
Number of Replicates: 3
Autosampler Position: 341
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	188496.4	7.6				ug/L	159627	Standard
	Be	9	746.7	86.6	**0.2430**	0.235	96.9	ug/L	28	Standard
	Al	27	129446.8	85.7	**0.6282**	0.561	89.3	ug/L	1227	Standard
	Sc	45	49966.0	8.4				ug/L	44343	Standard
	Ti	47	2551.7	85.7	**5.7383**	5.021	87.5	ug/L	21	Standard
	V	51	45675.1	85.8	**5.6627**	5.039	89.0	ug/L	1305	Standard
	Cr	52	24226.7	80.7	**2.7148**	2.778	102.3	ug/L	4727	Standard
	Cr	53	9731.2	83.2	**7.6232**	6.662	87.4	ug/L	288	Standard
	Mn	55	49410.5	85.4	**3.6948**	3.263	88.3	ug/L	1062	Standard
	Co	59	9595.5	85.4	**1.1398**	1.007	88.3	ug/L	99	Standard
	Ni	60	7392.0	83.3	**2.8425**	2.578	90.7	ug/L	475	Standard
	Cu	65	7114.1	85.2	**2.9397**	2.574	87.6	ug/L	130	Standard
	Zn	66	9092.7	85.0	**6.9961**	6.124	87.5	ug/L	130	Standard
>	**Ge**	72	380480.8	8.0				ug/L	341919	Standard
	As	75	2837.7	92.0	**2.2839**	1.886	82.6	ug/L	-350	Standard
	Se	82	291.7	100.4	**2.2762**	1.960	86.1	ug/L	-53	Standard
	Se-1	77	740.4	76.9	**6.8706**	6.134	89.3	ug/L	84	Standard
>	**Ga**	71	35.0	42.9				mg/L	53	Standard
	Rb	85	1006.7	84.2				ug/L	13	Standard
	Y	89	412953.5	15.2				ug/L	364126	Standard
>	**Rh**	103	15.0	145.3				ug/L	12	Standard
	Mo	98	20604.3	86.5	**5.9506**	5.169	86.9	ug/L	24	Standard
	Ag	107	14959.4	86.5	**2.3546**	2.057	87.4	ug/L	45	Standard
	Cd	111	603.2	86.4	**0.2855**	0.258	90.4	mg/L	2	Standard
	Cd	114	2552.1	85.2	**0.4641**	0.408	87.8	ug/L	10	Standard
>	**In**	115	430898.0	14.7				ug/L	372170	Standard
	Sn	118	7577.8	85.9	**6.1894**	5.365	86.7	ug/L	45	Standard
	Sb	123	20304.4	85.6	**7.0036**	6.040	86.2	ug/L	116	Standard
	Ba	135	10549.2	86.3	**5.8932**	5.099	86.5	ug/L	7	Standard
	Ce	140	383.3	78.8				ug/L	5	Standard
>	**Tb**	159	519423.1	25.3				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	15647.7	86.0	**2.8147**	2.432	86.4	ug/L	3	Standard
	Tl	205	19191.3	85.1	**2.9290**	2.520	86.0	ug/L	2	Standard
	Pb	206	6484.4	85.1	**2.8648**	2.482	86.6	ug/L	69	Standard
	Pb	207	5868.7	85.1	**2.8779**	2.492	86.6	ug/L	57	Standard
	Pb	208	16219.7	83.9	**2.8302**	2.441	86.2	ug/L	162	Standard
	U	238	36.3	116.6	**-0.0103**	0.011	110.3	ug/L	0	Standard
>	**Bi**	209	251375.1	25.0				ug/L	206180	Standard

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	Na	23	6.7	114.6	**1.2181**	3.299	270.8	mg/L	2	Standard
	Mg	24	2371.9	83.8	**2.2566**	1.933	85.6	mg/L	28	Standard
	K	39	16.7	91.7	**0.1252**	0.194	155.0	mg/L	7	Standard
	Ca	43	43.3	35.3	**0.7317**	0.816	111.5	mg/L	25	Standard
	Fe	54	274.3	55.1	**-0.0184**	0.085	463.6	mg/L	279	Standard
	Fe	57	95.0	10.5	**0.0481**	0.032	67.2	mg/L	73	Standard
>	**Sc-1**	45	49966.0	8.4				mg/L	44343	Standard
	Cl	35	4169.3	51.7				ug/L	5612	Standard
	Kr	83	98.7	13.8				ug/L	108	Standard
	Br	81	2503.6	54.8				ug/L	3490	Standard
	P	31	256104.9	53.3				ug/L	350479	Standard
	S	34	13648.8	48.1				ug/L	17705	Standard
	Sr	88	35.0	42.9				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	13.3	86.6				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.086	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.278	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	115.780
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	121.920
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: L1311051901S WG452368-04
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Method 6020 - Summary Report

Sample ID: L1311051901SD WG452368-05
Sample Date/Time: Wednesday, November 13, 2013 17:19:11
Number of Replicates: 3
Autosampler Position: 342
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	177422.9	1.3				ug/L	159627	Standard
	Be	9	1243.4	7.6	**0.4312**	0.036	8.3	ug/L	28	Standard
	Al	27	208410.3	0.9	**1.0443**	0.018	1.8	ug/L	1227	Standard
	Sc	45	46479.5	0.3				ug/L	44343	Standard
	Ti	47	4191.9	2.3	**9.6213**	0.140	1.5	ug/L	21	Standard
	V	51	73493.1	1.2	**9.3591**	0.045	0.5	ug/L	1305	Standard
	Cr	52	38256.6	3.8	**4.7743**	0.133	2.8	ug/L	4727	Standard
	Cr	53	15784.9	0.5	**12.7477**	0.224	1.8	ug/L	288	Standard
	Mn	55	78294.8	1.5	**6.0033**	0.028	0.5	ug/L	1062	Standard
	Co	59	15604.7	3.1	**1.9014**	0.033	1.7	ug/L	99	Standard
	Ni	60	12141.9	3.0	**4.8875**	0.117	2.4	ug/L	475	Standard
	Cu	65	11516.7	2.0	**4.8712**	0.023	0.5	ug/L	130	Standard
	Zn	66	14495.9	3.1	**11.4276**	0.253	2.2	ug/L	130	Standard
>	Ge	72	358047.5	1.6				ug/L	341919	Standard
	As	75	4752.0	1.9	**3.7138**	0.037	1.0	ug/L	-350	Standard
	Se	82	499.6	7.8	**3.7124**	0.231	6.2	ug/L	-53	Standard
	Se-1	77	1103.0	2.2	**10.9361**	0.148	1.4	ug/L	84	Standard
>	Ga	71	31.7	55.5				mg/L	53	Standard
	Rb	85	1565.1	4.4				ug/L	13	Standard
	Y	89	379324.3	2.1				ug/L	364126	Standard
>	Rh	103	23.3	24.7				ug/L	12	Standard
	Mo	98	33593.8	3.0	**9.6994**	0.239	2.5	ug/L	24	Standard
	Ag	107	23998.3	1.9	**3.7838**	0.046	1.2	ug/L	45	Standard
	Cd	111	927.0	4.4	**0.4453**	0.018	4.1	mg/L	2	Standard
	Cd	114	4021.0	1.2	**0.7379**	0.004	0.5	ug/L	10	Standard
>	In	115	394761.5	0.8				ug/L	372170	Standard
	Sn	118	12661.3	1.7	**10.3597**	0.149	1.4	ug/L	45	Standard
	Sb	123	32636.3	1.0	**11.2709**	0.051	0.5	ug/L	116	Standard
	Ba	135	17493.1	1.2	**9.7663**	0.094	1.0	ug/L	7	Standard
	Ce	140	98.3	24.0				ug/L	5	Standard
>	Tb	159	447179.7	2.0				ug/L	430345	Standard
	Ho	165	8.3	34.6				ug/L	7	Standard
	Tl	203	25882.4	2.9	**4.6162**	0.099	2.2	ug/L	3	Standard
	Tl	205	30029.7	0.8	**4.5543**	0.037	0.8	ug/L	2	Standard
	Pb	206	10674.1	1.2	**4.6992**	0.025	0.5	ug/L	69	Standard
	Pb	207	9568.7	2.6	**4.6743**	0.089	1.9	ug/L	57	Standard
	Pb	208	26152.2	2.0	**4.5622**	0.093	2.0	ug/L	162	Standard
	U	238	27.7	7.5	**-0.0126**	0.001	5.1	ug/L	0	Standard
>	Bi	209	217185.8	1.7				ug/L	206180	Standard

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	Na	23	13.3	21.7	**4.3211**	1.261	29.2	mg/L	2	Standard
	Mg	24	3662.1	5.2	**3.5945**	0.194	5.4	mg/L	28	Standard
	K	39	40.0	12.5	**0.4347**	0.064	14.7	mg/L	7	Standard
	Ca	43	61.7	26.1	**1.8022**	0.824	45.7	mg/L	25	Standard
	Fe	54	322.0	12.2	**0.0138**	0.021	152.9	mg/L	279	Standard
	Fe	57	116.7	16.2	**0.1058**	0.040	38.2	mg/L	73	Standard
>	**Sc-1**	45	46479.5	0.3				mg/L	44343	Standard
	Cl	35	5871.1	1.5				ug/L	5612	Standard
	Kr	83	117.7	7.9				ug/L	108	Standard
	Br	81	3597.1	15.4				ug/L	3490	Standard
	P	31	345262.1	3.2				ug/L	350479	Standard
	S	34	17827.1	0.6				ug/L	17705	Standard
	Sr	88	46.7	16.4				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	99.7				mg/L	3	Standard
	Ho-1	165	8.3	34.6				mg/L	7	Standard
	Er	166	6.7	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.148	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.717	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	106.070
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.338
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311049301
Sample Date/Time: Wednesday, November 13, 2013 17:22:16
Number of Replicates: 3
Autosampler Position: 343
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	168795.1	1.4				ug/L	159627	Standard
	Be	9	30.0	60.1	**-0.0165**	0.007	43.7	ug/L	28	Standard
	Al	27	533925.9	1.4	**2.8559**	0.080	2.8	ug/L	1227	Standard
	Sc	45	46228.8	0.9				ug/L	44343	Standard
	Ti	47	29.3	37.7	**-0.0262**	0.026	98.4	ug/L	21	Standard
	V	51	1314.5	20.0	**-0.0162**	0.035	215.4	ug/L	1305	Standard
	Cr	52	6031.9	5.4	**0.1882**	0.047	24.8	ug/L	4727	Standard
	Cr	53	4865.8	2.5	**3.7979**	0.108	2.8	ug/L	288	Standard
	Mn	55	15703.8	1.6	**1.1413**	0.022	1.9	ug/L	1062	Standard
	Co	59	261.3	6.8	**-0.0006**	0.002	406.1	ug/L	99	Standard
	Ni	60	1267.1	5.6	**0.3204**	0.031	9.7	ug/L	475	Standard
	Cu	65	1016.4	2.9	**0.3755**	0.011	2.9	ug/L	130	Standard
	Zn	66	2006.1	3.1	**1.4561**	0.043	3.0	ug/L	130	Standard
>	**Ge**	72	351142.1	0.5				ug/L	341919	Standard
	As	75	-154.4	54.7	**0.1052**	0.063	59.6	ug/L	-350	Standard
	Se	82	419.5	6.8	**3.2223**	0.215	6.7	ug/L	-53	Standard
	Se-1	77	796.4	1.0	**7.7922**	0.114	1.5	ug/L	84	Standard
>	**Ga**	71	45.0	40.1				mg/L	53	Standard
	Rb	85	18694.9	2.0				ug/L	13	Standard
	Y	89	372428.6	2.6				ug/L	364126	Standard
>	**Rh**	103	6.7	114.6				ug/L	12	Standard
	Mo	98	1122.5	3.1	**0.3162**	0.008	2.6	ug/L	24	Standard
	Ag	107	41.3	17.5	**-0.0122**	0.001	9.2	ug/L	45	Standard
	Cd	111	96.6	9.1	**0.0359**	0.005	13.3	mg/L	2	Standard
	Cd	114	280.5	11.6	**0.0417**	0.007	17.1	ug/L	10	Standard
>	**In**	115	385670.3	2.1				ug/L	372170	Standard
	Sn	118	42.0	10.9	**-0.0031**	0.003	101.1	ug/L	45	Standard
	Sb	123	339.2	2.7	**0.0898**	0.006	6.4	ug/L	116	Standard
	Ba	135	2804.6	1.8	**1.5984**	0.056	3.5	ug/L	7	Standard
	Ce	140	8.3	69.3				ug/L	5	Standard
>	**Tb**	159	442853.9	0.6				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	184.0	0.9	**0.0297**	0.001	2.1	ug/L	3	Standard
	Tl	205	186.7	19.4	**0.0168**	0.006	34.9	ug/L	2	Standard
	Pb	206	136.3	2.8	**0.0302**	0.002	7.6	ug/L	69	Standard
	Pb	207	128.0	10.2	**0.0341**	0.006	18.6	ug/L	57	Standard
	Pb	208	330.0	1.0	**0.0144**	0.000	1.9	ug/L	162	Standard
	U	238	22.3	27.4	**-0.0139**	0.002	11.3	ug/L	0	Standard
>	**Bi**	209	211371.9	1.0				ug/L	206180	Standard

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	Na	23	26.7	28.6	**10.2325**	3.277	32.0	mg/L	2	Standard
	Mg	24	6538.1	0.7	**6.4842**	0.047	0.7	mg/L	28	Standard
	K	39	326.7	12.4	**4.2014**	0.568	13.5	mg/L	7	Standard
	Ca	43	156.7	22.6	**6.6969**	1.877	28.0	mg/L	25	Standard
	Fe	54	254.1	10.5	**-0.0228**	0.014	60.8	mg/L	279	Standard
	Fe	57	136.7	18.0	**0.1494**	0.054	36.4	mg/L	73	Standard
>	**Sc-1**	45	46228.8	0.9				mg/L	44343	Standard
	Cl	35	6236.6	2.5				ug/L	5612	Standard
	Kr	83	108.3	12.8				ug/L	108	Standard
	Br	81	4610.7	6.2				ug/L	3490	Standard
	P	31	326498.4	2.4				ug/L	350479	Standard
	S	34	17440.0	2.4				ug/L	17705	Standard
	Sr	88	53.3	14.3				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	173.2				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.744	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.697	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.627
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.518
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311049501
Sample Date/Time: Wednesday, November 13, 2013 17:25:20
Number of Replicates: 3
Autosampler Position: 344
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	189011.4	60.2				ug/L	159627	Standard
	Be	9	13.3	21.7	**-0.0226**	0.002	10.6	ug/L	28	Standard
	Al	27	795.0	37.3	**-0.0214**	0.001	5.4	ug/L	1227	Standard
	Sc	45	50016.8	59.4				ug/L	44343	Standard
	Ti	47	25.7	41.7	**-0.0284**	0.036	126.9	ug/L	21	Standard
	V	51	677.6	51.6	**-0.1017**	0.041	39.9	ug/L	1305	Standard
	Cr	52	2729.3	54.4	**-0.2838**	0.210	74.0	ug/L	4727	Standard
	Cr	53	528.3	12.2	**0.2024**	0.289	142.6	ug/L	288	Standard
	Mn	55	834.4	32.6	**-0.0393**	0.029	72.6	ug/L	1062	Standard
	Co	59	162.7	6.6	**-0.0100**	0.015	147.7	ug/L	99	Standard
	Ni	60	229.7	18.4	**-0.1161**	0.051	44.1	ug/L	475	Standard
	Cu	65	103.7	66.1	**-0.0248**	0.027	107.8	ug/L	130	Standard
	Zn	66	126.0	59.1	**-0.0909**	0.002	2.5	ug/L	130	Standard
>	**Ge**	72	398235.6	59.9				ug/L	341919	Standard
	As	75	-243.3	86.8	**0.0448**	0.145	323.9	ug/L	-350	Standard
	Se	82	-64.8	77.0	**-0.1474**	0.315	213.9	ug/L	-53	Standard
	Se-1	77	84.0	13.4	**0.0377**	0.523	1386.0	ug/L	84	Standard
>	**Ga**	71	13.3	57.3				mg/L	53	Standard
	Rb	85	16.7	34.6				ug/L	13	Standard
	Y	89	436060.4	54.6				ug/L	364126	Standard
>	**Rh**	103	3.3	86.6				ug/L	12	Standard
	Mo	98	11.2	58.8	**-0.0134**	0.001	7.2	ug/L	24	Standard
	Ag	107	44.3	62.1	**-0.0129**	0.001	8.8	ug/L	45	Standard
	Cd	111	1.3	44.0	**-0.0124**	0.000	3.1	mg/L	2	Standard
	Cd	114	12.2	82.3	**-0.0099**	0.001	13.6	ug/L	10	Standard
>	**In**	115	447052.6	55.9				ug/L	372170	Standard
	Sn	118	42.7	55.8	**-0.0078**	0.006	70.3	ug/L	45	Standard
	Sb	123	19.0	46.1	**-0.0244**	0.002	6.8	ug/L	116	Standard
	Ba	135	5.3	47.2	**-0.0033**	0.000	9.7	ug/L	7	Standard
	Ce	140	8.3	124.9				ug/L	5	Standard
>	**Tb**	159	552008.0	54.7				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	85.3	34.7	**0.0106**	0.009	88.9	ug/L	3	Standard
	Tl	205	103.3	32.2	**0.0035**	0.012	341.0	ug/L	2	Standard
	Pb	206	101.0	25.6	**0.0113**	0.026	226.6	ug/L	69	Standard
	Pb	207	93.3	24.2	**0.0128**	0.023	175.9	ug/L	57	Standard
	Pb	208	242.3	34.3	**-0.0063**	0.018	294.2	ug/L	162	Standard
	U	238	0.0		**-0.0198**			ug/L	0	Standard
>	**Bi**	209	270656.6	54.3				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	26.7	60.3	**-0.0151**	0.005	34.1	mg/L	28	Standard
	K	39	1.7	173.2	**-0.0747**	0.021	28.7	mg/L	7	Standard
	Ca	43	41.7	6.9	**1.3025**	1.838	141.1	mg/L	25	Standard
	Fe	54	139.2	66.4	**-0.0871**	0.048	55.0	mg/L	279	Standard
	Fe	57	68.3	23.5	**0.0488**	0.144	294.8	mg/L	73	Standard
>	**Sc-1**	45	50016.8	59.4				mg/L	44343	Standard
	Cl	35	2630.9	58.9				ug/L	5612	Standard
	Kr	83	125.3	66.8				ug/L	108	Standard
	Br	81	1270.1	79.3				ug/L	3490	Standard
	P	31	144939.7	72.6				ug/L	350479	Standard
	S	34	7942.5	57.4				ug/L	17705	Standard
	Sr	88	51.7	5.6				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	201.4				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	6.7	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.408	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		116.471	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	120.121
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	131.272
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: L1311049501
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 17:28:26
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	171486.7	0.7				ug/L	159627	Standard
	Be	9	125803.5	1.1	**48.0510**	0.756	1.6	ug/L	28	Standard
	Al	27	9063275.8	1.8	**48.1093**	0.887	1.8	ug/L	1227	Standard
	Sc	45	47287.0	2.0				ug/L	44343	Standard
	Ti	47	44316.7	1.8	**99.3659**	1.462	1.5	ug/L	21	Standard
	V	51	381472.6	0.5	**47.7997**	0.213	0.4	ug/L	1305	Standard
	Cr	52	353817.9	0.6	**48.2544**	0.263	0.5	ug/L	4727	Standard
	Cr	53	62440.1	2.1	**49.6738**	0.915	1.8	ug/L	288	Standard
	Mn	55	645850.2	0.7	**48.7070**	0.282	0.6	ug/L	1062	Standard
	Co	59	408320.6	1.2	**48.9969**	0.486	1.0	ug/L	99	Standard
	Ni	60	122081.6	1.0	**49.5338**	0.360	0.7	ug/L	475	Standard
	Cu	65	119123.5	1.5	**49.4088**	0.587	1.2	ug/L	130	Standard
	Zn	66	63450.3	1.4	**49.0231**	0.531	1.1	ug/L	130	Standard
>	Ge	72	369794.0	0.3				ug/L	341919	Standard
	As	75	69219.2	1.5	**49.4847**	0.624	1.3	ug/L	-350	Standard
	Se	82	7367.5	1.3	**49.1573**	0.499	1.0	ug/L	-53	Standard
	Se-1	77	4879.1	0.8	**50.0603**	0.280	0.6	ug/L	84	Standard
>	Ga	71	56.7	20.4				mg/L	53	Standard
	Rb	85	1186.7	8.5				ug/L	13	Standard
	Y	89	384375.0	1.3				ug/L	364126	Standard
>	Rh	103	18.3	87.7				ug/L	12	Standard
	Mo	98	355359.3	1.8	**100.0044**	2.123	2.1	ug/L	24	Standard
	Ag	107	322881.1	0.6	**49.7689**	0.091	0.2	ug/L	45	Standard
	Cd	111	103637.2	1.6	**49.8483**	0.547	1.1	mg/L	2	Standard
	Cd	114	271383.6	1.2	**49.2404**	0.616	1.3	ug/L	10	Standard
>	In	115	405681.9	0.5				ug/L	372170	Standard
	Sn	118	61561.5	1.7	**49.1578**	0.803	1.6	ug/L	45	Standard
	Sb	123	144084.3	0.6	**48.5209**	0.128	0.3	ug/L	116	Standard
	Ba	135	90557.2	1.1	**49.2199**	0.275	0.6	ug/L	7	Standard
	Ce	140	30.0	72.6				ug/L	5	Standard
>	Tb	159	461503.4	0.9				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	276607.3	1.2	**49.2524**	0.261	0.5	ug/L	3	Standard
	Tl	205	324758.8	1.1	**49.2519**	0.748	1.5	ug/L	2	Standard
	Pb	206	112718.8	1.0	**49.8037**	0.476	1.0	ug/L	69	Standard
	Pb	207	100961.9	0.6	**49.4918**	0.167	0.3	ug/L	57	Standard
	Pb	208	275830.5	1.0	**48.4290**	0.481	1.0	ug/L	162	Standard
	U	238	186340.3	1.5	**48.2714**	0.595	1.2	ug/L	0	Standard
>	Bi	209	217719.2	0.8				ug/L	206180	Standard

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	Na	23	16.7	75.5	**5.6039**	5.274	94.1	mg/L	2	Standard
	Mg	24	4972.5	2.9	**4.8108**	0.117	2.4	mg/L	28	Standard
	K	39	368.3	4.8	**4.6404**	0.305	6.6	mg/L	7	Standard
	Ca	43	125.0	31.2	**4.9123**	1.913	38.9	mg/L	25	Standard
	Fe	54	9456.2	2.8	**4.9556**	0.232	4.7	mg/L	279	Standard
	Fe	57	2348.5	3.4	**4.7008**	0.196	4.2	mg/L	73	Standard
>	**Sc-1**	45	47287.0	2.0				mg/L	44343	Standard
	Cl	35	5722.4	0.9				ug/L	5612	Standard
	Kr	83	110.0	17.3				ug/L	108	Standard
	Br	81	3673.8	6.9				ug/L	3490	Standard
	P	31	351589.6	2.8				ug/L	350479	Standard
	S	34	19163.8	0.5				ug/L	17705	Standard
	Sr	88	28.3	36.7				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.5	256.6				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	16.7	124.9				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		107.430	
	Be	9	96.102		
	Al	27	96.219		
	Sc	45			
	Ti	47	99.366		
	V	51	95.599		
	Cr	52	96.509		
	Cr	53			
	Mn	55	97.414		
	Co	59	97.994		
	Ni	60	99.068		
	Cu	65	98.818		
	Zn	66	98.046		
>	Ge	72		108.152	
	As	75	98.969		
	Se	82	98.315		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	100.004		
|	Ag	107	99.538		
|	Cd	111	99.697		
|	Cd	114			
|>	In	115		109.004	
|	Sn	118	98.316		
|	Sb	123	97.042		
⌊	Ba	135	98.440		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	98.505		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.858		
|	U	238	96.543		
⌊>	Bi	209		105.596	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 17:31:31
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	170366.0	1.9				ug/L	159627	Standard
	Be	9	45.0	55.6	**-0.0108**	0.010	89.2	ug/L	28	Standard
	Al	27	1490.1	40.7	**-0.0177**	0.003	18.2	ug/L	1227	Standard
	Sc	45	44644.0	1.1				ug/L	44343	Standard
	Ti	47	21.7	2.7	**-0.0446**	0.002	4.0	ug/L	21	Standard
	V	51	1340.8	1.9	**-0.0140**	0.001	10.7	ug/L	1305	Standard
	Cr	52	4589.7	3.3	**-0.0270**	0.015	53.8	ug/L	4727	Standard
	Cr	53	446.7	18.5	**0.0698**	0.068	97.4	ug/L	288	Standard
	Mn	55	1091.7	5.9	**-0.0225**	0.004	19.5	ug/L	1062	Standard
	Co	59	130.0	8.9	**-0.0173**	0.001	8.1	ug/L	99	Standard
	Ni	60	370.7	1.3	**-0.0655**	0.001	0.9	ug/L	475	Standard
	Cu	65	137.0	11.3	**-0.0096**	0.007	69.3	ug/L	130	Standard
	Zn	66	142.0	0.7	**-0.0671**	0.001	1.3	ug/L	130	Standard
>	Ge	72	353815.1	1.1				ug/L	341919	Standard
	As	75	-314.8	12.9	**-0.0135**	0.031	227.5	ug/L	-350	Standard
	Se	82	-43.3	36.7	**-0.0089**	0.110	1236.4	ug/L	-53	Standard
	Se-1	77	87.3	7.5	**-0.0267**	0.069	259.8	ug/L	84	Standard
>	Ga	71	31.7	9.1				mg/L	53	Standard
	Rb	85	23.3	65.5				ug/L	13	Standard
	Y	89	378016.4	1.4				ug/L	364126	Standard
>	Rh	103	6.7	86.6				ug/L	12	Standard
	Mo	98	101.7	46.1	**0.0135**	0.014	99.7	ug/L	24	Standard
	Ag	107	67.0	21.7	**-0.0081**	0.002	28.1	ug/L	45	Standard
	Cd	111	7.5	59.0	**-0.0093**	0.002	23.6	mg/L	2	Standard
	Cd	114	37.3	69.9	**-0.0050**	0.005	97.4	ug/L	10	Standard
>	In	115	390638.5	0.8				ug/L	372170	Standard
	Sn	118	102.0	17.7	**0.0463**	0.015	31.6	ug/L	45	Standard
	Sb	123	295.3	33.1	**0.0728**	0.034	46.2	ug/L	116	Standard
	Ba	135	21.0	31.2	**0.0058**	0.004	62.3	ug/L	7	Standard
	Ce	140	15.0	57.7				ug/L	5	Standard
>	Tb	159	443807.8	0.4				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	32.7	45.4	**0.0019**	0.003	145.6	ug/L	3	Standard
	Tl	205	26.7	86.6	**-0.0083**	0.004	43.4	ug/L	2	Standard
	Pb	206	87.7	8.4	**0.0077**	0.004	45.7	ug/L	69	Standard
	Pb	207	58.7	3.9	**-0.0012**	0.001	105.9	ug/L	57	Standard
	Pb	208	171.7	7.3	**-0.0146**	0.002	16.1	ug/L	162	Standard
	U	238	11.3	96.8	**-0.0168**	0.003	17.3	ug/L	0	Standard
>	Bi	209	213454.1	0.5				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	21.7	96.1	**-0.0181**	0.022	119.2	mg/L	28	Standard
	K	39	5.0	173.2	**-0.0185**	0.119	641.0	mg/L	7	Standard
	Ca	43	30.0	0.0	**0.2499**	0.018	7.3	mg/L	25	Standard
	Fe	54	264.2	10.1	**-0.0120**	0.015	120.8	mg/L	279	Standard
	Fe	57	63.3	22.8	**-0.0009**	0.030	3489.7	mg/L	73	Standard
>	**Sc-1**	45	44644.0	1.1				mg/L	44343	Standard
	Cl	35	5807.8	2.4				ug/L	5612	Standard
	Kr	83	102.7	12.7				ug/L	108	Standard
	Br	81	3477.1	7.0				ug/L	3490	Standard
	P	31	348284.7	1.5				ug/L	350479	Standard
	S	34	19138.7	0.3				ug/L	17705	Standard
	Sr	88	26.7	57.3				ug/L	42	Standard
	C	12	13.3	114.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	5.7	195.1				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	20.0	50.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.728	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.479	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.962
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.528
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311049201
Sample Date/Time: Wednesday, November 13, 2013 17:34:36
Number of Replicates: 3
Autosampler Position: 345
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	171031.6	1.1				ug/L	159627	Standard
	Be	9	45.0	19.2	**-0.0109**	0.003	31.5	ug/L	28	Standard
	Al	27	2531.9	3.9	**-0.0122**	0.000	3.5	ug/L	1227	Standard
	Sc	45	47175.0	2.4				ug/L	44343	Standard
	Ti	47	29.7	5.1	**-0.0276**	0.005	17.0	ug/L	21	Standard
	V	51	1378.9	18.6	**-0.0133**	0.036	269.6	ug/L	1305	Standard
	Cr	52	5902.8	5.9	**0.1415**	0.064	45.1	ug/L	4727	Standard
	Cr	53	4118.9	5.7	**3.0549**	0.240	7.9	ug/L	288	Standard
	Mn	55	2096.1	3.0	**0.0526**	0.003	4.9	ug/L	1062	Standard
	Co	59	232.7	14.0	**-0.0052**	0.004	87.0	ug/L	99	Standard
	Ni	60	1251.4	0.8	**0.2959**	0.010	3.5	ug/L	475	Standard
	Cu	65	333.3	4.6	**0.0718**	0.004	5.5	ug/L	130	Standard
	Zn	66	2336.8	2.2	**1.6626**	0.024	1.4	ug/L	130	Standard
>	**Ge**	72	363273.4	1.9				ug/L	341919	Standard
	As	75	-205.9	16.1	**0.0718**	0.022	30.0	ug/L	-350	Standard
	Se	82	240.5	3.5	**1.9152**	0.041	2.1	ug/L	-53	Standard
	Se-1	77	648.3	5.6	**5.9282**	0.495	8.4	ug/L	84	Standard
>	**Ga**	71	45.0	29.4				mg/L	53	Standard
	Rb	85	18282.7	2.2				ug/L	13	Standard
	Y	89	375258.5	0.3				ug/L	364126	Standard
>	**Rh**	103	11.7	49.5				ug/L	12	Standard
	Mo	98	502.6	4.3	**0.1297**	0.005	3.5	ug/L	24	Standard
	Ag	107	46.7	8.7	**-0.0114**	0.001	6.2	ug/L	45	Standard
	Cd	111	3.6	42.2	**-0.0113**	0.001	6.4	mg/L	2	Standard
	Cd	114	23.0	38.5	**-0.0076**	0.002	22.9	ug/L	10	Standard
>	**In**	115	393260.8	1.7				ug/L	372170	Standard
	Sn	118	73.0	13.9	**0.0218**	0.008	35.0	ug/L	45	Standard
	Sb	123	98.3	12.2	**0.0036**	0.004	100.2	ug/L	116	Standard
	Ba	135	6443.0	3.7	**3.6063**	0.075	2.1	ug/L	7	Standard
	Ce	140	35.0	14.3				ug/L	5	Standard
>	**Tb**	159	457559.7	0.7				ug/L	430345	Standard
	Ho	165	3.3	173.2				ug/L	7	Standard
	Tl	203	86.0	8.4	**0.0111**	0.001	9.4	ug/L	3	Standard
	Tl	205	120.0	4.2	**0.0057**	0.001	18.9	ug/L	2	Standard
	Pb	206	241.3	3.5	**0.0741**	0.005	7.1	ug/L	69	Standard
	Pb	207	211.3	8.3	**0.0723**	0.007	9.3	ug/L	57	Standard
	Pb	208	560.3	4.3	**0.0524**	0.003	6.2	ug/L	162	Standard
	U	238	1.7	91.7	**-0.0194**	0.000	2.0	ug/L	0	Standard
>	**Bi**	209	219309.6	2.1				ug/L	206180	Standard

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	Na	23	36.7	39.4	**14.2849**	6.065	42.5	mg/L	2	Standard
	Mg	24	6481.4	2.1	**6.3021**	0.280	4.4	mg/L	28	Standard
	K	39	271.7	11.8	**3.4013**	0.355	10.4	mg/L	7	Standard
	Ca	43	173.3	10.9	**7.3548**	0.753	10.2	mg/L	25	Standard
	Fe	54	242.3	21.8	**-0.0316**	0.031	97.0	mg/L	279	Standard
	Fe	57	146.7	32.2	**0.1650**	0.103	62.3	mg/L	73	Standard
>	**Sc-1**	45	47175.0	2.4				mg/L	44343	Standard
	Cl	35	6296.0	5.0				ug/L	5612	Standard
	Kr	83	105.0	5.3				ug/L	108	Standard
	Br	81	4637.4	2.8				ug/L	3490	Standard
	P	31	350823.9	1.4				ug/L	350479	Standard
	S	34	18708.2	0.6				ug/L	17705	Standard
	Sr	88	36.7	20.8				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.3	86.6				mg/L	3	Standard
	Ho-1	165	3.3	173.2				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		107.145	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.245	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.667
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.368
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311049201PS WG452570-01
Sample Date/Time: Wednesday, November 13, 2013 17:37:42
Number of Replicates: 3
Autosampler Position: 346
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	171043.4	1.0				ug/L	159627	Standard
	Be	9	123160.3	1.3	**47.1591**	0.234	0.5	ug/L	28	Standard
	Al	27	2633.6	6.0	**-0.0116**	0.001	7.5	ug/L	1227	Standard
	Sc	45	47845.4	0.5				ug/L	44343	Standard
	Ti	47	36.7	24.4	**-0.0110**	0.020	179.2	ug/L	21	Standard
	V	51	366870.7	1.8	**47.2247**	0.759	1.6	ug/L	1305	Standard
	Cr	52	340448.3	2.8	**47.6889**	1.073	2.3	ug/L	4727	Standard
	Cr	53	64179.2	5.2	**52.4600**	2.289	4.4	ug/L	288	Standard
	Mn	55	620988.3	1.5	**48.1105**	0.511	1.1	ug/L	1062	Standard
	Co	59	393526.1	2.3	**48.5099**	0.801	1.7	ug/L	99	Standard
	Ni	60	116500.6	1.8	**48.5570**	0.653	1.3	ug/L	475	Standard
	Cu	65	115717.2	1.0	**49.3098**	0.403	0.8	ug/L	130	Standard
	Zn	66	63398.0	1.2	**50.3292**	0.587	1.2	ug/L	130	Standard
>	Ge	72	359956.5	1.0				ug/L	341919	Standard
	As	75	66787.9	2.3	**49.0504**	0.662	1.4	ug/L	-350	Standard
	Se	82	7299.6	3.0	**50.0257**	1.056	2.1	ug/L	-53	Standard
	Se-1	77	5319.6	1.8	**56.1867**	0.494	0.9	ug/L	84	Standard
>	Ga	71	63.3	19.9				mg/L	53	Standard
	Rb	85	17348.3	5.1				ug/L	13	Standard
	Y	89	373894.0	0.9				ug/L	364126	Standard
>	Rh	103	36.7	7.9				ug/L	12	Standard
	Mo	98	475.2	3.2	**0.1215**	0.007	5.4	ug/L	24	Standard
	Ag	107	296787.2	3.8	**47.0586**	1.126	2.4	ug/L	45	Standard
	Cd	111	99861.4	2.3	**49.4221**	0.780	1.6	mg/L	2	Standard
	Cd	114	254775.4	3.1	**47.5572**	0.935	2.0	ug/L	10	Standard
>	In	115	394287.8	1.6				ug/L	372170	Standard
	Sn	118	128.7	4.7	**0.0674**	0.004	6.1	ug/L	45	Standard
	Sb	123	141884.1	0.5	**49.1682**	0.698	1.4	ug/L	116	Standard
	Ba	135	94397.5	1.5	**52.7949**	0.687	1.3	ug/L	7	Standard
	Ce	140	35.0	65.5				ug/L	5	Standard
>	Tb	159	448584.9	1.7				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	269176.2	1.8	**47.0872**	0.078	0.2	ug/L	3	Standard
	Tl	205	316650.5	2.0	**47.1861**	1.339	2.8	ug/L	2	Standard
	Pb	206	109102.5	1.9	**47.3553**	0.066	0.1	ug/L	69	Standard
	Pb	207	98591.8	1.3	**47.4815**	0.346	0.7	ug/L	57	Standard
	Pb	208	269411.2	1.4	**46.4704**	0.406	0.9	ug/L	162	Standard
	U	238	181906.2	1.3	**46.2966**	0.319	0.7	ug/L	0	Standard
>	Bi	209	221617.4	1.9				ug/L	206180	Standard

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	Na	23	25.0	52.9	**9.1216**	5.586	61.2	mg/L	2	Standard
	Mg	24	6556.4	1.4	**6.2811**	0.071	1.1	mg/L	28	Standard
	K	39	310.0	17.1	**3.8428**	0.677	17.6	mg/L	7	Standard
	Ca	43	193.3	1.5	**8.2347**	0.189	2.3	mg/L	25	Standard
	Fe	54	264.0	11.7	**-0.0222**	0.016	73.2	mg/L	279	Standard
	Fe	57	138.3	21.2	**0.1430**	0.061	42.6	mg/L	73	Standard
>	**Sc-1**	45	47845.4	0.5				mg/L	44343	Standard
	Cl	35	6652.1	2.6				ug/L	5612	Standard
	Kr	83	113.7	5.7				ug/L	108	Standard
	Br	81	4454.0	3.5				ug/L	3490	Standard
	P	31	351249.8	2.5				ug/L	350479	Standard
	S	34	19105.4	3.0				ug/L	17705	Standard
	Sr	88	58.3	24.7				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		107.152	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.275	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.943
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.487
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311049201SDL WG452570-02
Sample Date/Time: Wednesday, November 13, 2013 17:40:47
Number of Replicates: 3
Autosampler Position: 347
Sample Description: 250
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	208516.8	4.4				ug/L	159627	Standard
	Be	9	11.7	65.5	**-0.0245**	0.003	10.4	ug/L	28	Standard
	Al	27	723.4	9.4	**-0.0225**	0.000	0.9	ug/L	1227	Standard
	Sc	45	54660.3	6.4				ug/L	44343	Standard
	Ti	47	15.7	16.1	**-0.0638**	0.003	4.8	ug/L	21	Standard
	V	51	501.1	7.1	**-0.1330**	0.008	5.8	ug/L	1305	Standard
	Cr	52	2179.8	11.7	**-0.4182**	0.023	5.5	ug/L	4727	Standard
	Cr	53	471.7	10.7	**0.0374**	0.030	79.4	ug/L	288	Standard
	Mn	55	773.4	10.9	**-0.0554**	0.010	17.6	ug/L	1062	Standard
	Co	59	149.7	14.8	**-0.0174**	0.002	13.6	ug/L	99	Standard
	Ni	60	234.7	4.2	**-0.1366**	0.010	7.4	ug/L	475	Standard
	Cu	65	72.7	10.5	**-0.0418**	0.003	6.9	ug/L	130	Standard
	Zn	66	153.3	43.2	**-0.0755**	0.042	55.3	ug/L	130	Standard
>	**Ge**	72	409395.3	7.1				ug/L	341919	Standard
	As	75	-355.4	97.3	**-0.0191**	0.249	1302.1	ug/L	-350	Standard
	Se	82	-104.5	113.7	**-0.3707**	0.789	212.9	ug/L	-53	Standard
	Se-1	77	77.7	7.8	**-0.2475**	0.027	10.8	ug/L	84	Standard
>	**Ga**	71	10.0	100.0				mg/L	53	Standard
	Rb	85	85.0	107.3				ug/L	13	Standard
	Y	89	429713.1	11.9				ug/L	364126	Standard
>	**Rh**	103	3.3	86.6				ug/L	12	Standard
	Mo	98	12.1	57.5	**-0.0131**	0.002	13.5	ug/L	24	Standard
	Ag	107	55.0	22.0	**-0.0113**	0.001	11.9	ug/L	45	Standard
	Cd	111	5.3	92.7	**-0.0108**	0.002	20.4	mg/L	2	Standard
	Cd	114	15.5	130.8	**-0.0094**	0.003	36.0	ug/L	10	Standard
>	**In**	115	454106.3	9.3				ug/L	372170	Standard
	Sn	118	44.3	13.8	**-0.0068**	0.001	21.0	ug/L	45	Standard
	Sb	123	334.6	54.0	**0.0677**	0.046	68.5	ug/L	116	Standard
	Ba	135	33.3	132.2	**0.0107**	0.022	206.4	ug/L	7	Standard
	Ce	140	8.3	69.3				ug/L	5	Standard
>	**Tb**	159	603664.2	7.7				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	89.0	5.1	**0.0076**	0.001	11.3	ug/L	3	Standard
	Tl	205	113.3	40.0	**0.0003**	0.005	2041.2	ug/L	2	Standard
	Pb	206	100.0	16.5	**0.0003**	0.003	863.7	ug/L	69	Standard
	Pb	207	96.0	11.8	**0.0039**	0.003	68.1	ug/L	57	Standard
	Pb	208	266.0	6.3	**-0.0110**	0.004	36.6	ug/L	162	Standard
	U	238	8.0	152.1	**-0.0183**	0.002	13.0	ug/L	0	Standard
>	**Bi**	209	297512.0	8.3				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	53.3	101.1	**0.0028**	0.041	1505.0	mg/L	28	Standard
	K	39	6.7	43.3	**-0.0142**	0.027	187.3	mg/L	7	Standard
	Ca	43	40.0	21.7	**0.3996**	0.415	103.7	mg/L	25	Standard
	Fe	54	142.9	31.4	**-0.0958**	0.025	25.7	mg/L	279	Standard
	Fe	57	88.3	23.6	**0.0183**	0.034	185.2	mg/L	73	Standard
>	**Sc-1**	45	54660.3	6.4				mg/L	44343	Standard
	Cl	35	2155.5	13.8				ug/L	5612	Standard
	Kr	83	207.7	97.2				ug/L	108	Standard
	Br	81	950.0	17.2				ug/L	3490	Standard
	P	31	131672.9	30.4				ug/L	350479	Standard
	S	34	6466.4	13.6				ug/L	17705	Standard
	Sr	88	68.3	25.7				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	86.6				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		130.628	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		119.735	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	122.016
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	144.297
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 52 Lower	Cr	52	
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: L1311049201SDL WG452570-02
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 17:43:54
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	189237.9	13.2				ug/L	159627	Standard
	Be	9	41.7	36.7	**-0.0131**	0.007	52.7	ug/L	28	Standard
	Al	27	891.7	22.1	**-0.0212**	0.001	6.8	ug/L	1227	Standard
	Sc	45	48272.9	14.6				ug/L	44343	Standard
	Ti	47	20.0	22.9	**-0.0524**	0.006	11.9	ug/L	21	Standard
	V	51	957.8	43.1	**-0.0709**	0.059	83.2	ug/L	1305	Standard
	Cr	52	3613.1	33.6	**-0.1964**	0.199	101.5	ug/L	4727	Standard
	Cr	53	436.7	6.7	**0.0362**	0.049	136.4	ug/L	288	Standard
	Mn	55	929.7	22.6	**-0.0396**	0.021	52.6	ug/L	1062	Standard
	Co	59	130.3	5.8	**-0.0185**	0.001	3.8	ug/L	99	Standard
	Ni	60	259.0	23.4	**-0.1200**	0.031	26.2	ug/L	475	Standard
	Cu	65	149.0	45.3	**-0.0078**	0.032	406.3	ug/L	130	Standard
	Zn	66	137.7	13.4	**-0.0795**	0.004	4.8	ug/L	130	Standard
>	**Ge**	72	383487.2	9.6				ug/L	341919	Standard
	As	75	-358.2	62.2	**-0.0339**	0.168	494.8	ug/L	-350	Standard
	Se	82	-84.0	86.3	**-0.2671**	0.495	185.3	ug/L	-53	Standard
	Se-1	77	82.0	29.6	**-0.1349**	0.310	230.0	ug/L	84	Standard
>	**Ga**	71	11.7	24.7				mg/L	53	Standard
	Rb	85	21.7	93.3				ug/L	13	Standard
	Y	89	420011.3	13.8				ug/L	364126	Standard
>	**Rh**	103	6.7	43.3				ug/L	12	Standard
	Mo	98	19.2	8.0	**-0.0112**	0.000	2.8	ug/L	24	Standard
	Ag	107	48.0	34.4	**-0.0119**	0.003	22.9	ug/L	45	Standard
	Cd	111	3.0	58.1	**-0.0118**	0.001	6.0	mg/L	2	Standard
	Cd	114	16.8	45.3	**-0.0090**	0.002	17.8	ug/L	10	Standard
>	**In**	115	443674.7	14.8				ug/L	372170	Standard
	Sn	118	55.3	18.1	**0.0026**	0.010	366.4	ug/L	45	Standard
	Sb	123	137.5	17.2	**0.0118**	0.002	16.0	ug/L	116	Standard
	Ba	135	11.3	22.2	**-0.0004**	0.001	194.9	ug/L	7	Standard
	Ce	140	10.0	86.6				ug/L	5	Standard
>	**Tb**	159	534093.5	19.2				ug/L	430345	Standard
	Ho	165	0.0					ug/L	7	Standard
	Tl	203	34.3	31.1	**0.0009**	0.001	119.4	ug/L	3	Standard
	Tl	205	43.3	52.0	**-0.0072**	0.002	26.4	ug/L	2	Standard
	Pb	206	86.3	16.8	**-0.0002**	0.001	817.8	ug/L	69	Standard
	Pb	207	75.3	17.9	**0.0001**	0.001	2141.7	ug/L	57	Standard
	Pb	208	208.3	28.6	**-0.0154**	0.002	15.5	ug/L	162	Standard
	U	238	2.7	142.0	**-0.0192**	0.001	4.4	ug/L	0	Standard
>	**Bi**	209	263534.9	20.7				ug/L	206180	Standard

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Sheri L. Pfalzgraf

	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	18.3	56.8	**-0.0236**	0.007	30.3	mg/L	28	Standard
	K	39	5.0	100.0	**-0.0183**	0.069	378.5	mg/L	7	Standard
	Ca	43	25.0	34.6	**-0.0823**	0.532	646.3	mg/L	25	Standard
	Fe	54	192.5	29.4	**-0.0573**	0.042	73.6	mg/L	279	Standard
	Fe	57	85.0	30.6	**0.0323**	0.048	148.6	mg/L	73	Standard
>	**Sc-1**	45	48272.9	14.6				mg/L	44343	Standard
	Cl	35	3808.5	44.0				ug/L	5612	Standard
	Kr	83	164.0	67.9				ug/L	108	Standard
	Br	81	1806.8	54.5				ug/L	3490	Standard
	P	31	236022.1	42.1				ug/L	350479	Standard
	S	34	11905.3	43.2				ug/L	17705	Standard
	Sr	88	38.3	19.9				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	86.7				mg/L	3	Standard
	Ho-1	165	0.0					mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.550	
	Be	9	-0.026		
	Al	27	-0.042		
	Sc	45			
	Ti	47	-0.052		
	V	51	-0.142		
	Cr	52	-0.393		
	Cr	53			
	Mn	55	-0.079		
	Co	59	-0.037		
	Ni	60	-0.240		
	Cu	65	-0.016		
	Zn	66	-0.159		
>	Ge	72		112.157	
	As	75	-0.068		
	Se	82	-0.534		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	-0.011	
|	Ag	107	-0.024	
|	Cd	111	-0.024	
|	Cd	114		
|>	In	115		119.213
|	Sn	118	0.005	
|	Sb	123	0.024	
⌊	Ba	135	-0.001	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	0.002	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	-0.031	
|	U	238	-0.038	
⌊>	Bi	209		127.818
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	
QC Std 6	Al	27	
QC Std 6	Ti	47	
QC Std 6	V	51	
QC Std 6	Cr	52	

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QC Std 6	Mn	55	
QC Std 6	Co	59	
QC Std 6	Ni	60	
QC Std 6	Cu	65	
QC Std 6	Zn	66	
QC Std 6	As	75	
QC Std 6	Se	82	
QC Std 6	Mo	98	
QC Std 6	Ag	107	
QC Std 6	Cd	111	
QC Std 6	Sn	118	
QC Std 6	Sb	123	
QC Std 6	Ba	135	
QC Std 6	Tl	203	
QC Std 6	Pb	208	
QC Std 6	U	238	
Bi 209 Int Std for QC Std	Bi	209	Rerun sample

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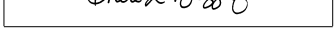

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 17:46:58
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	176381.0	2.0				ug/L	159627	Standard
	Be	9	65.0	53.3	**-0.0041**	0.013	308.2	ug/L	28	Standard
	Al	27	1056.7	15.6	**-0.0202**	0.001	3.7	ug/L	1227	Standard
	Sc	45	46401.0	1.8				ug/L	44343	Standard
	Ti	47	21.3	2.7	**-0.0470**	0.001	1.2	ug/L	21	Standard
	V	51	1489.0	4.2	**-0.0008**	0.011	1362.8	ug/L	1305	Standard
	Cr	52	5441.6	2.3	**0.0703**	0.004	5.2	ug/L	4727	Standard
	Cr	53	418.3	17.0	**0.0340**	0.051	149.7	ug/L	288	Standard
	Mn	55	1089.4	4.9	**-0.0254**	0.006	22.1	ug/L	1062	Standard
	Co	59	114.7	7.1	**-0.0197**	0.001	6.2	ug/L	99	Standard
	Ni	60	335.0	6.1	**-0.0854**	0.009	10.6	ug/L	475	Standard
	Cu	65	120.7	7.8	**-0.0184**	0.004	22.7	ug/L	130	Standard
	Zn	66	146.7	14.3	**-0.0672**	0.017	26.0	ug/L	130	Standard
>	**Ge**	72	365856.4	1.9				ug/L	341919	Standard
	As	75	-314.6	9.8	**-0.0059**	0.026	436.0	ug/L	-350	Standard
	Se	82	-43.7	23.2	**-0.0023**	0.073	3185.1	ug/L	-53	Standard
	Se-1	77	88.0	9.0	**-0.0499**	0.098	196.4	ug/L	84	Standard
>	**Ga**	71	26.7	28.6				mg/L	53	Standard
	Rb	85	15.0	33.3				ug/L	13	Standard
	Y	89	380827.8	3.1				ug/L	364126	Standard
>	**Rh**	103	3.3	86.6				ug/L	12	Standard
	Mo	98	14.2	14.8	**-0.0121**	0.001	5.5	ug/L	24	Standard
	Ag	107	50.0	22.3	**-0.0111**	0.002	15.9	ug/L	45	Standard
	Cd	111	5.3	142.5	**-0.0105**	0.004	35.5	mg/L	2	Standard
	Cd	114	19.1	60.6	**-0.0085**	0.002	25.7	ug/L	10	Standard
>	**In**	115	402859.7	1.8				ug/L	372170	Standard
	Sn	118	95.3	13.7	**0.0383**	0.009	24.4	ug/L	45	Standard
	Sb	123	57.3	5.2	**-0.0110**	0.001	11.4	ug/L	116	Standard
	Ba	135	17.0	41.2	**0.0033**	0.004	119.4	ug/L	7	Standard
	Ce	140	6.7	86.6				ug/L	5	Standard
>	**Tb**	159	454279.8	2.1				ug/L	430345	Standard
	Ho	165	6.7	114.6				ug/L	7	Standard
	Tl	203	19.0	72.4	**-0.0007**	0.003	361.2	ug/L	3	Standard
	Tl	205	15.0	57.7	**-0.0101**	0.001	12.8	ug/L	2	Standard
	Pb	206	78.7	8.9	**0.0028**	0.003	126.5	ug/L	69	Standard
	Pb	207	56.3	19.5	**-0.0031**	0.005	153.6	ug/L	57	Standard
	Pb	208	172.3	2.3	**-0.0152**	0.000	2.1	ug/L	162	Standard
	U	238	1.7	124.9	**-0.0194**	0.001	2.8	ug/L	0	Standard
>	**Bi**	209	218807.2	2.5				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.8227**	1.245	151.4	mg/L	2	Standard
	Mg	24	30.0	28.9	**-0.0106**	0.009	83.8	mg/L	28	Standard
	K	39	5.0	173.2	**-0.0211**	0.114	541.2	mg/L	7	Standard
	Ca	43	20.0	43.3	**-0.3158**	0.456	144.5	mg/L	25	Standard
	Fe	54	281.0	7.9	**-0.0084**	0.013	151.2	mg/L	279	Standard
	Fe	57	63.3	16.4	**-0.0061**	0.019	317.6	mg/L	73	Standard
>	**Sc-1**	45	46401.0	1.8				mg/L	44343	Standard
	Cl	35	6158.6	1.4				ug/L	5612	Standard
	Kr	83	108.3	7.9				ug/L	108	Standard
	Br	81	3317.0	8.4				ug/L	3490	Standard
	P	31	350913.5	2.3				ug/L	350479	Standard
	S	34	18751.6	1.4				ug/L	17705	Standard
	Sr	88	46.7	53.9				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	187.1				mg/L	3	Standard
	Ho-1	165	6.7	114.6				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.496	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.001	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.246
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.124
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: PBW A4 WG452538-03
Sample Date/Time: Wednesday, November 13, 2013 17:50:04
Number of Replicates: 3
Autosampler Position: 205
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	152491.9	0.9				ug/L	159627	Standard
	Be	9	38.3	45.8	**-0.0117**	0.007	63.1	ug/L	28	Standard
	Al	27	1141.7	3.0	**-0.0188**	0.000	1.4	ug/L	1227	Standard
	Sc	45	40793.2	1.9				ug/L	44343	Standard
	Ti	47	18.3	42.4	**-0.0479**	0.020	41.0	ug/L	21	Standard
	V	51	1252.6	2.9	**-0.0076**	0.008	106.7	ug/L	1305	Standard
	Cr	52	4598.7	1.8	**0.0469**	0.003	7.3	ug/L	4727	Standard
	Cr	53	333.3	18.1	**0.0060**	0.060	1000.7	ug/L	288	Standard
	Mn	55	615.3	4.3	**-0.0548**	0.003	5.5	ug/L	1062	Standard
	Co	59	92.3	45.5	**-0.0207**	0.006	29.1	ug/L	99	Standard
	Ni	60	321.7	7.9	**-0.0714**	0.014	19.2	ug/L	475	Standard
	Cu	65	72.0	1.4	**-0.0344**	0.001	2.8	ug/L	130	Standard
	Zn	66	380.3	76.0	**0.1582**	0.257	162.4	ug/L	130	Standard
>	Ge	72	319021.0	1.5				ug/L	341919	Standard
	As	75	-307.5	9.1	**-0.0327**	0.020	60.5	ug/L	-350	Standard
	Se	82	-48.8	18.7	**-0.0835**	0.066	79.3	ug/L	-53	Standard
	Se-1	77	80.0	13.1	**-0.0105**	0.136	1301.2	ug/L	84	Standard
>	Ga	71	31.7	24.1				mg/L	53	Standard
	Rb	85	15.0	88.2				ug/L	13	Standard
	Y	89	328959.0	2.4				ug/L	364126	Standard
>	Rh	103	3.3	173.2				ug/L	12	Standard
	Mo	98	9.8	80.9	**-0.0129**	0.003	19.9	ug/L	24	Standard
	Ag	107	50.0	26.5	**-0.0099**	0.002	23.7	ug/L	45	Standard
	Cd	111	11.6	136.2	**-0.0066**	0.009	135.0	mg/L	2	Standard
	Cd	114	32.4	111.8	**-0.0051**	0.008	148.2	ug/L	10	Standard
>	In	115	348398.0	0.5				ug/L	372170	Standard
	Sn	118	34.7	6.7	**-0.0061**	0.002	37.1	ug/L	45	Standard
	Sb	123	36.9	23.9	**-0.0160**	0.003	21.4	ug/L	116	Standard
	Ba	135	12.0	116.7	**0.0016**	0.009	561.5	ug/L	7	Standard
	Ce	140	11.7	49.5				ug/L	5	Standard
>	Tb	159	402039.3	0.7				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	34.3	78.7	**0.0027**	0.005	197.1	ug/L	3	Standard
	Tl	205	18.3	31.5	**-0.0093**	0.001	10.5	ug/L	2	Standard
	Pb	206	73.3	8.8	**0.0042**	0.003	80.3	ug/L	69	Standard
	Pb	207	56.7	18.9	**0.0004**	0.006	1672.9	ug/L	57	Standard
	Pb	208	168.0	2.6	**-0.0125**	0.001	8.6	ug/L	162	Standard
	U	238	1.7	124.9	**-0.0193**	0.001	3.1	ug/L	0	Standard
>	Bi	209	195757.5	0.7				ug/L	206180	Standard

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Sheri L. Babcock

	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	21.7	35.3	**-0.0161**	0.008	50.5	mg/L	28	Standard
	K	39	3.3	173.2	**-0.0370**	0.087	234.1	mg/L	7	Standard
	Ca	43	21.7	70.5	**-0.0735**	0.902	1227.1	mg/L	25	Standard
	Fe	54	77.5	43.1	**-0.1149**	0.021	17.9	mg/L	279	Standard
	Fe	57	58.3	26.2	**0.0009**	0.039	4487.3	mg/L	73	Standard
>	**Sc-1**	45	40793.2	1.9				mg/L	44343	Standard
	Cl	35	5511.7	1.3				ug/L	5612	Standard
	Kr	83	104.7	9.9				ug/L	108	Standard
	Br	81	3017.0	8.4				ug/L	3490	Standard
	P	31	112711.1	1.3				ug/L	350479	Standard
	S	34	18227.6	4.2				ug/L	17705	Standard
	Sr	88	38.3	27.2				ug/L	42	Standard
	C	12	16.7	34.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	93.0				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		95.530	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.303	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	93.613
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.945
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: LCSW A4 WG452538-04
Sample Date/Time: Wednesday, November 13, 2013 17:53:09
Number of Replicates: 3
Autosampler Position: 206
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	188171.7	11.7				ug/L	159627	Standard
	Be	9	20.0	50.0	**-0.0209**	0.004	20.7	ug/L	28	Standard
	Al	27	916.7	21.1	**-0.0211**	0.001	6.4	ug/L	1227	Standard
	Sc	45	49735.4	10.4				ug/L	44343	Standard
	Ti	47	20.3	20.5	**-0.0507**	0.011	21.3	ug/L	21	Standard
	V	51	785.2	37.3	**-0.0918**	0.043	46.7	ug/L	1305	Standard
	Cr	52	3099.7	31.2	**-0.2642**	0.165	62.4	ug/L	4727	Standard
	Cr	53	336.7	15.2	**-0.0383**	0.065	169.7	ug/L	288	Standard
	Mn	55	842.0	19.4	**-0.0459**	0.017	38.0	ug/L	1062	Standard
	Co	59	98.3	8.3	**-0.0222**	0.001	2.4	ug/L	99	Standard
	Ni	60	244.0	5.1	**-0.1263**	0.013	10.5	ug/L	475	Standard
	Cu	65	119.0	42.6	**-0.0196**	0.025	125.7	ug/L	130	Standard
	Zn	66	127.7	1.6	**-0.0856**	0.011	12.6	ug/L	130	Standard
>	**Ge**	72	381614.8	10.0				ug/L	341919	Standard
	As	75	-378.8	54.1	**-0.0513**	0.163	318.1	ug/L	-350	Standard
	Se	82	-101.2	59.0	**-0.3885**	0.443	114.1	ug/L	-53	Standard
	Se-1	77	62.7	26.8	**-0.3423**	0.179	52.4	ug/L	84	Standard
>	**Ga**	71	23.3	86.6				mg/L	53	Standard
	Rb	85	13.3	57.3				ug/L	13	Standard
	Y	89	425594.6	9.1				ug/L	364126	Standard
>	**Rh**	103	5.0	100.0				ug/L	12	Standard
	Mo	98	12.9	34.2	**-0.0128**	0.001	9.2	ug/L	24	Standard
	Ag	107	49.0	6.1	**-0.0120**	0.000	3.7	ug/L	45	Standard
	Cd	111	0.6	89.7	**-0.0128**	0.000	1.9	mg/L	2	Standard
	Cd	114	10.3	31.2	**-0.0103**	0.000	3.7	ug/L	10	Standard
>	**In**	115	448379.1	8.1				ug/L	372170	Standard
	Sn	118	51.7	22.9	**-0.0004**	0.011	2791.7	ug/L	45	Standard
	Sb	123	52.8	15.3	**-0.0142**	0.003	23.4	ug/L	116	Standard
	Ba	135	5.0	20.0	**-0.0035**	0.001	19.5	ug/L	7	Standard
	Ce	140	10.0	100.0				ug/L	5	Standard
>	**Tb**	159	555600.9	14.4				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	10.3	55.0	**-0.0027**	0.001	24.7	ug/L	3	Standard
	Tl	205	16.7	75.5	**-0.0104**	0.002	15.1	ug/L	2	Standard
	Pb	206	79.7	7.7	**-0.0035**	0.004	111.0	ug/L	69	Standard
	Pb	207	64.0	15.4	**-0.0055**	0.002	44.0	ug/L	57	Standard
	Pb	208	204.7	25.7	**-0.0170**	0.003	18.0	ug/L	162	Standard
	U	238	0.3	173.2	**-0.0197**	0.000	0.7	ug/L	0	Standard
>	**Bi**	209	273530.6	15.1				ug/L	206180	Standard

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Sheri L. Pfalzgraf

	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	28.3	71.3	**-0.0132**	0.022	165.5	mg/L	28	Standard
	K	39	1.7	173.2	**-0.0687**	0.032	46.3	mg/L	7	Standard
	Ca	43	41.7	50.0	**0.5910**	0.770	130.3	mg/L	25	Standard
	Fe	54	172.7	49.2	**-0.0713**	0.050	70.5	mg/L	279	Standard
	Fe	57	78.3	36.3	**0.0195**	0.073	376.8	mg/L	73	Standard
>	**Sc-1**	45	49735.4	10.4				mg/L	44343	Standard
	Cl	35	3241.7	32.3				ug/L	5612	Standard
	Kr	83	191.0	56.5				ug/L	108	Standard
	Br	81	1663.4	41.1				ug/L	3490	Standard
	P	31	219962.3	48.7				ug/L	350479	Standard
	S	34	10428.8	32.7				ug/L	17705	Standard
	Sr	88	65.0	20.4				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.3	173.2				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	6.7	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		117.882	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.610	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSW A4 WG452538-04
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	120.477
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	132.666
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: LCSW A4 WG452538-04
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Method 6020 - Summary Report

Sample ID: L1311060405 WG452538-01
Sample Date/Time: Wednesday, November 13, 2013 17:56:13
Number of Replicates: 3
Autosampler Position: 207
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	203124.4	59.7				ug/L	159627	Standard
	Be	9	21.7	66.6	**-0.0214**	0.004	18.8	ug/L	28	Standard
	Al	27	816.7	32.7	**-0.0215**	0.001	5.7	ug/L	1227	Standard
	Sc	45	53024.2	61.5				ug/L	44343	Standard
	Ti	47	14.7	3.9	**-0.0581**	0.020	35.2	ug/L	21	Standard
	V	51	789.4	50.2	**-0.0958**	0.038	39.2	ug/L	1305	Standard
	Cr	52	3002.3	51.3	**-0.3008**	0.147	48.9	ug/L	4727	Standard
	Cr	53	326.7	17.4	**-0.0215**	0.127	592.3	ug/L	288	Standard
	Mn	55	826.0	42.5	**-0.0483**	0.016	34.1	ug/L	1062	Standard
	Co	59	104.0	16.1	**-0.0195**	0.009	44.8	ug/L	99	Standard
	Ni	60	227.0	23.2	**-0.1245**	0.040	32.2	ug/L	475	Standard
	Cu	65	128.3	48.9	**-0.0177**	0.021	117.6	ug/L	130	Standard
	Zn	66	133.0	48.1	**-0.0849**	0.011	13.3	ug/L	130	Standard
>	Ge	72	410682.0	59.3				ug/L	341919	Standard
	As	75	-322.5	80.7	**-0.0015**	0.190	12303.7	ug/L	-350	Standard
	Se	82	-84.4	83.0	**-0.2758**	0.480	174.0	ug/L	-53	Standard
	Se-1	77	65.7	25.4	**-0.2683**	0.240	89.3	ug/L	84	Standard
>	Ga	71	20.0	50.0				mg/L	53	Standard
	Rb	85	18.3	15.7				ug/L	13	Standard
	Y	89	431453.6	58.1				ug/L	364126	Standard
>	Rh	103	1.7	173.2				ug/L	12	Standard
	Mo	98	8.6	57.6	**-0.0139**	0.001	8.8	ug/L	24	Standard
	Ag	107	40.0	51.3	**-0.0132**	0.001	9.1	ug/L	45	Standard
	Cd	111	1.7	92.6	**-0.0120**	0.001	7.7	mg/L	2	Standard
	Cd	114	15.3	62.2	**-0.0095**	0.001	12.1	ug/L	10	Standard
>	In	115	455095.6	58.5				ug/L	372170	Standard
	Sn	118	50.0	65.0	**-0.0034**	0.019	569.8	ug/L	45	Standard
	Sb	123	40.8	58.8	**-0.0184**	0.003	15.8	ug/L	116	Standard
	Ba	135	8.0	33.1	**-0.0016**	0.002	103.2	ug/L	7	Standard
	Ce	140	8.3	124.9				ug/L	5	Standard
>	Tb	159	542670.6	52.9				ug/L	430345	Standard
	Ho	165	0.0					ug/L	7	Standard
	Tl	203	13.0	67.1	**-0.0015**	0.003	170.8	ug/L	3	Standard
	Tl	205	13.3	57.3	**-0.0108**	0.001	6.3	ug/L	2	Standard
	Pb	206	73.7	40.3	**-0.0044**	0.004	98.8	ug/L	69	Standard
	Pb	207	70.3	49.3	**-0.0023**	0.002	72.2	ug/L	57	Standard
	Pb	208	185.3	35.1	**-0.0174**	0.005	29.5	ug/L	162	Standard
	U	238	0.0		**-0.0198**			ug/L	0	Standard
>	Bi	209	269720.4	53.9				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-1.1567**	0.667	57.7	mg/L	2	Standard
	Mg	24	15.0	33.3	**-0.0227**	0.012	51.8	mg/L	28	Standard
	K	39	0.0		**-0.0871**	0.000	0.0	mg/L	7	Standard
	Ca	43	35.0	65.5	**1.2481**	2.864	229.5	mg/L	25	Standard
	Fe	54	189.7	62.2	**-0.0704**	0.051	73.0	mg/L	279	Standard
	Fe	57	68.3	11.2	**0.0323**	0.119	367.5	mg/L	73	Standard
>	**Sc-1**	45	53024.2	61.5				mg/L	44343	Standard
	Cl	35	3269.1	51.5				ug/L	5612	Standard
	Kr	83	163.3	77.4				ug/L	108	Standard
	Br	81	1686.8	60.4				ug/L	3490	Standard
	P	31	207137.4	65.0				ug/L	350479	Standard
	S	34	10475.9	52.0				ug/L	17705	Standard
	Sr	88	51.7	40.3				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	10.0	100.0				mg/L	3	Standard
	Ho-1	165	0.0					mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		127.249	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		120.111	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	122.282
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	130.818
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311060406S WG452538-05
Sample Date/Time: Wednesday, November 13, 2013 17:59:18
Number of Replicates: 3
Autosampler Position: 208
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	173496.3	2.2				ug/L	159627	Standard
	Be	9	57214.6	3.5	**21.5797**	0.336	1.6	ug/L	28	Standard
	Al	27	46020190.7	2.1	**241.6821**	9.569	4.0	ug/L	1227	Standard
	Sc	45	48114.6	1.1				ug/L	44343	Standard
	Ti	47	921.7	15.1	**2.1274**	0.347	16.3	ug/L	21	Standard
	V	51	204637.1	1.6	**27.4619**	0.502	1.8	ug/L	1305	Standard
	Cr	52	164476.5	1.9	**23.7465**	0.293	1.2	ug/L	4727	Standard
	Cr	53	33234.7	1.0	**28.2728**	0.584	2.1	ug/L	288	Standard
	Mn	55	305783.6	3.0	**24.7150**	0.691	2.8	ug/L	1062	Standard
	Co	59	177253.3	1.7	**22.8278**	0.356	1.6	ug/L	99	Standard
	Ni	60	58833.0	0.9	**25.5325**	0.189	0.7	ug/L	475	Standard
	Cu	65	50828.1	1.3	**22.6083**	0.395	1.7	ug/L	130	Standard
	Zn	66	31327.4	0.9	**25.9125**	0.165	0.6	ug/L	130	Standard
>	**Ge**	72	344294.5	1.1				ug/L	341919	Standard
	As	75	33974.8	1.5	**26.1915**	0.102	0.4	ug/L	-350	Standard
	Se	82	4162.5	0.2	**29.9471**	0.282	0.9	ug/L	-53	Standard
	Se-1	77	3325.0	2.4	**36.3882**	1.285	3.5	ug/L	84	Standard
>	**Ga**	71	141.7	23.0				mg/L	53	Standard
	Rb	85	9042.7	4.7				ug/L	13	Standard
	Y	89	362389.5	0.9				ug/L	364126	Standard
>	**Rh**	103	351.7	13.4				ug/L	12	Standard
	Mo	98	6334.2	3.7	**1.9560**	0.071	3.6	ug/L	24	Standard
	Ag	107	132366.5	2.1	**22.5597**	0.378	1.7	ug/L	45	Standard
	Cd	111	43918.3	1.6	**23.3622**	0.291	1.2	mg/L	2	Standard
	Cd	114	112493.8	1.2	**22.5730**	0.203	0.9	ug/L	10	Standard
>	**In**	115	366716.8	0.7				ug/L	372170	Standard
	Sn	118	86.0	6.5	**0.0377**	0.004	11.6	ug/L	45	Standard
	Sb	123	63911.1	0.5	**23.7940**	0.124	0.5	ug/L	116	Standard
	Ba	135	73268.1	1.0	**44.0548**	0.391	0.9	ug/L	7	Standard
	Ce	140	2977.0	5.1				ug/L	5	Standard
>	**Tb**	159	425246.9	0.8				ug/L	430345	Standard
	Ho	165	56.7	10.2				ug/L	7	Standard
	Tl	203	118552.4	0.9	**23.6803**	0.190	0.8	ug/L	3	Standard
	Tl	205	137536.6	2.0	**23.3911**	0.313	1.3	ug/L	2	Standard
	Pb	206	49004.8	0.5	**24.2744**	0.053	0.2	ug/L	69	Standard
	Pb	207	41865.8	2.2	**23.0054**	0.349	1.5	ug/L	57	Standard
	Pb	208	116944.3	1.1	**23.0099**	0.085	0.4	ug/L	162	Standard
	U	238	93020.0	1.4	**27.0238**	0.224	0.8	ug/L	0	Standard
>	**Bi**	209	194070.0	0.7				ug/L	206180	Standard

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	Na	23	151.7	3.8	**62.8848**	1.786	2.8	mg/L	2	Standard
	Mg	24	127329.5	1.1	**122.0510**	1.529	1.3	mg/L	28	Standard
	K	39	66.7	18.9	**0.7544**	0.168	22.3	mg/L	7	Standard
	Ca	43	841.7	5.8	**40.1052**	1.981	4.9	mg/L	25	Standard
	Fe	54	334.7	13.1	**0.0145**	0.022	151.1	mg/L	279	Standard
	Fe	57	380.0	16.0	**0.6309**	0.126	20.0	mg/L	73	Standard
>	**Sc-1**	45	48114.6	1.1				mg/L	44343	Standard
	Cl	35	6337.3	0.6				ug/L	5612	Standard
	Kr	83	121.3	4.5				ug/L	108	Standard
	Br	81	38916.6	3.6				ug/L	3490	Standard
	P	31	384167.0	1.8				ug/L	350479	Standard
	S	34	16243.7	1.7				ug/L	17705	Standard
	Sr	88	1018.4	4.2				ug/L	42	Standard
	C	12	20.0	50.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	81.9	17.5				mg/L	3	Standard
	Ho-1	165	56.7	10.2				mg/L	7	Standard
	Er	166	30.0	66.7				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.689	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.695	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.535
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.126
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	

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Method 6020 - Summary Report

Sample ID: L1311060407SD WG452538-06
Sample Date/Time: Wednesday, November 13, 2013 18:02:23
Number of Replicates: 3
Autosampler Position: 209
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	198623.2	10.7				ug/L	159627	Standard
	Be	9	26.7	54.1	**-0.0190**	0.005	28.5	ug/L	28	Standard
	Al	27	2671.9	45.9	**-0.0132**	0.007	50.1	ug/L	1227	Standard
	Sc	45	51101.6	9.9				ug/L	44343	Standard
	Ti	47	14.7	17.2	**-0.0648**	0.006	8.9	ug/L	21	Standard
	V	51	979.3	29.4	**-0.0740**	0.040	54.6	ug/L	1305	Standard
	Cr	52	3606.5	31.1	**-0.2194**	0.171	77.9	ug/L	4727	Standard
	Cr	53	546.7	4.1	**0.1036**	0.035	34.2	ug/L	288	Standard
	Mn	55	932.0	18.4	**-0.0426**	0.016	37.8	ug/L	1062	Standard
	Co	59	108.3	8.0	**-0.0215**	0.002	8.2	ug/L	99	Standard
	Ni	60	223.7	3.4	**-0.1385**	0.008	6.1	ug/L	475	Standard
	Cu	65	145.7	35.2	**-0.0119**	0.023	192.9	ug/L	130	Standard
	Zn	66	155.7	2.1	**-0.0697**	0.010	14.5	ug/L	130	Standard
>	Ge	72	398643.0	7.4				ug/L	341919	Standard
	As	75	-320.6	63.1	**0.0023**	0.143	6235.2	ug/L	-350	Standard
	Se	82	-86.1	62.5	**-0.2553**	0.356	139.3	ug/L	-53	Standard
	Se-1	77	83.3	4.2	**-0.1700**	0.068	39.9	ug/L	84	Standard
>	Ga	71	11.7	65.5				mg/L	53	Standard
	Rb	85	23.3	24.7				ug/L	13	Standard
	Y	89	441480.6	9.4				ug/L	364126	Standard
>	Rh	103	8.3	91.7				ug/L	12	Standard
	Mo	98	8.7	33.1	**-0.0140**	0.001	4.3	ug/L	24	Standard
	Ag	107	56.0	17.0	**-0.0112**	0.001	12.7	ug/L	45	Standard
	Cd	111	3.3	76.1	**-0.0117**	0.001	8.2	mg/L	2	Standard
	Cd	114	13.6	73.9	**-0.0098**	0.001	14.8	ug/L	10	Standard
>	In	115	462260.5	8.0				ug/L	372170	Standard
	Sn	118	51.3	4.9	**-0.0021**	0.004	184.4	ug/L	45	Standard
	Sb	123	29.2	13.6	**-0.0218**	0.001	6.4	ug/L	116	Standard
	Ba	135	13.7	53.9	**0.0004**	0.003	767.9	ug/L	7	Standard
	Ce	140	13.3	21.7				ug/L	5	Standard
>	Tb	159	564583.0	10.6				ug/L	430345	Standard
	Ho	165	6.7	114.6				ug/L	7	Standard
	Tl	203	79.0	38.6	**0.0067**	0.003	43.3	ug/L	3	Standard
	Tl	205	75.0	46.7	**-0.0037**	0.003	81.6	ug/L	2	Standard
	Pb	206	91.0	41.9	**-0.0010**	0.009	937.6	ug/L	69	Standard
	Pb	207	74.7	18.2	**-0.0020**	0.003	143.1	ug/L	57	Standard
	Pb	208	232.3	10.0	**-0.0133**	0.001	6.0	ug/L	162	Standard
	U	238	8.3	81.7	**-0.0182**	0.001	6.3	ug/L	0	Standard
>	Bi	209	277719.1	11.3				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.8653**	1.172	135.4	mg/L	2	Standard
	Mg	24	30.0	28.9	**-0.0132**	0.008	63.5	mg/L	28	Standard
	K	39	6.7	43.3	**-0.0073**	0.036	487.0	mg/L	7	Standard
	Ca	43	36.7	64.4	**0.3191**	1.057	331.3	mg/L	25	Standard
	Fe	54	182.5	44.1	**-0.0688**	0.049	70.7	mg/L	279	Standard
	Fe	57	93.3	11.2	**0.0415**	0.037	89.9	mg/L	73	Standard
>	**Sc-1**	45	51101.6	9.9				mg/L	44343	Standard
	Cl	35	3371.7	31.6				ug/L	5612	Standard
	Kr	83	185.0	58.8				ug/L	108	Standard
	Br	81	1966.8	23.6				ug/L	3490	Standard
	P	31	211837.9	43.8				ug/L	350479	Standard
	S	34	10131.9	30.9				ug/L	17705	Standard
	Sr	88	63.3	29.9				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	173.2				mg/L	3	Standard
	Ho-1	165	6.7	114.6				mg/L	7	Standard
	Er	166	6.7	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		124.430	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		116.590	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	124.207
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	134.697
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: L1311060407SD WG452538-06
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Method 6020 - Summary Report

Sample ID: L1311045210
Sample Date/Time: Wednesday, November 13, 2013 18:05:27
Number of Replicates: 3
Autosampler Position: 210
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	176773.6	1.0				ug/L	159627	Standard
	Be	9	31.7	32.9	**-0.0164**	0.004	23.5	ug/L	28	Standard
	Al	27	19080.4	5.5	**0.0727**	0.006	8.6	ug/L	1227	Standard
	Sc	45	47420.8	1.2				ug/L	44343	Standard
	Ti	47	151.0	14.6	**0.2481**	0.050	20.0	ug/L	21	Standard
	V	51	1815.9	5.8	**0.0413**	0.014	34.5	ug/L	1305	Standard
	Cr	52	6390.3	3.9	**0.2055**	0.032	15.7	ug/L	4727	Standard
	Cr	53	551.7	9.5	**0.1437**	0.041	28.3	ug/L	288	Standard
	Mn	55	11068.4	0.5	**0.7394**	0.006	0.8	ug/L	1062	Standard
	Co	59	182.3	5.1	**-0.0115**	0.001	9.2	ug/L	99	Standard
	Ni	60	1058.4	1.1	**0.2138**	0.004	1.8	ug/L	475	Standard
	Cu	65	491.0	2.2	**0.1377**	0.005	3.7	ug/L	130	Standard
	Zn	66	2489.5	2.0	**1.7748**	0.035	2.0	ug/L	130	Standard
>	**Ge**	72	364804.9	0.5				ug/L	341919	Standard
	As	75	-309.7	20.5	**-0.0026**	0.045	1760.6	ug/L	-350	Standard
	Se	82	-41.8	53.7	**0.0103**	0.150	1453.4	ug/L	-53	Standard
	Se-1	77	92.3	17.6	**-0.0026**	0.171	6666.7	ug/L	84	Standard
>	**Ga**	71	51.7	20.1				mg/L	53	Standard
	Rb	85	323.3	4.7				ug/L	13	Standard
	Y	89	382101.7	2.5				ug/L	364126	Standard
>	**Rh**	103	5.0	0.0				ug/L	12	Standard
	Mo	98	417.6	4.7	**0.1034**	0.006	5.6	ug/L	24	Standard
	Ag	107	61.3	3.4	**-0.0092**	0.000	3.2	ug/L	45	Standard
	Cd	111	15.1	20.4	**-0.0057**	0.002	26.9	mg/L	2	Standard
	Cd	114	51.4	37.0	**-0.0025**	0.004	141.1	ug/L	10	Standard
>	**In**	115	398704.8	0.3				ug/L	372170	Standard
	Sn	118	71.0	8.6	**0.0194**	0.005	24.8	ug/L	45	Standard
	Sb	123	62.9	11.1	**-0.0089**	0.002	27.7	ug/L	116	Standard
	Ba	135	370.0	3.4	**0.1986**	0.006	3.2	ug/L	7	Standard
	Ce	140	256.7	8.1				ug/L	5	Standard
>	**Tb**	159	452825.6	0.8				ug/L	430345	Standard
	Ho	165	10.0					ug/L	7	Standard
	Tl	203	32.3	9.9	**0.0017**	0.001	33.2	ug/L	3	Standard
	Tl	205	43.3	6.7	**-0.0058**	0.000	7.9	ug/L	2	Standard
	Pb	206	371.7	7.2	**0.1320**	0.012	9.4	ug/L	69	Standard
	Pb	207	321.0	8.9	**0.1264**	0.014	11.1	ug/L	57	Standard
	Pb	208	889.7	2.7	**0.1105**	0.004	3.3	ug/L	162	Standard
	U	238	5.0	52.9	**-0.0185**	0.001	3.7	ug/L	0	Standard
>	**Bi**	209	218404.5	0.4				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	66.7	18.9	**0.0244**	0.012	50.3	mg/L	28	Standard
	K	39	11.7	24.7	**0.0619**	0.036	57.5	mg/L	7	Standard
	Ca	43	13.3	57.3	**-0.6791**	0.377	55.5	mg/L	25	Standard
	Fe	54	344.3	18.5	**0.0224**	0.034	153.0	mg/L	279	Standard
	Fe	57	91.7	19.2	**0.0495**	0.036	73.0	mg/L	73	Standard
>	**Sc-1**	45	47420.8	1.2				mg/L	44343	Standard
	Cl	35	6262.0	2.2				ug/L	5612	Standard
	Kr	83	107.3	22.6				ug/L	108	Standard
	Br	81	4834.1	3.5				ug/L	3490	Standard
	P	31	350806.7	2.8				ug/L	350479	Standard
	S	34	18075.8	0.4				ug/L	17705	Standard
	Sr	88	45.0	29.4				ug/L	42	Standard
	C	12	10.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.2	186.8				mg/L	3	Standard
	Ho-1	165	10.0					mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.742	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.693	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.130
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.929
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311069101 WG452538-02
Sample Date/Time: Wednesday, November 13, 2013 18:08:33
Number of Replicates: 3
Autosampler Position: 211
Sample Description: 2
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	195366.6	1.3				ug/L	159627	Standard
	Be	9	51.7	11.2	**-0.0108**	0.002	16.8	ug/L	28	Standard
	Al	27	4327887.7	0.7	**20.1530**	0.394	2.0	ug/L	1227	Standard
	Sc	45	50555.9	1.0				ug/L	44343	Standard
	Ti	47	460.0	27.0	**0.8861**	0.260	29.3	ug/L	21	Standard
	V	51	17271.0	1.0	**1.8769**	0.018	1.0	ug/L	1305	Standard
	Cr	52	15108.2	0.3	**1.2980**	0.017	1.3	ug/L	4727	Standard
	Cr	53	2278.5	3.7	**1.4311**	0.052	3.6	ug/L	288	Standard
	Mn	55	57657.5	1.7	**4.0373**	0.025	0.6	ug/L	1062	Standard
	Co	59	1480.4	3.3	**0.1355**	0.004	2.9	ug/L	99	Standard
	Ni	60	3000.3	3.7	**0.9398**	0.030	3.2	ug/L	475	Standard
	Cu	65	3507.7	1.0	**1.3172**	0.026	2.0	ug/L	130	Standard
	Zn	66	2487.2	1.8	**1.6528**	0.022	1.3	ug/L	130	Standard
>	**Ge**	72	388686.8	1.2				ug/L	341919	Standard
	As	75	7259.1	1.3	**5.1361**	0.019	0.4	ug/L	-350	Standard
	Se	82	21.2	74.7	**0.4244**	0.099	23.3	ug/L	-53	Standard
	Se-1	77	138.0	7.7	**0.3927**	0.117	29.9	ug/L	84	Standard
>	**Ga**	71	3137.0	7.1				mg/L	53	Standard
	Rb	85	16472.3	3.1				ug/L	13	Standard
	Y	89	391672.3	2.9				ug/L	364126	Standard
>	**Rh**	103	73.3	34.3				ug/L	12	Standard
	Mo	98	16306.2	2.3	**4.4659**	0.072	1.6	ug/L	24	Standard
	Ag	107	286.3	5.0	**0.0243**	0.002	10.0	ug/L	45	Standard
	Cd	111	30.4	17.5	**0.0012**	0.003	213.1	mg/L	2	Standard
	Cd	114	121.1	19.7	**0.0095**	0.004	45.8	ug/L	10	Standard
>	**In**	115	415358.6	0.7				ug/L	372170	Standard
	Sn	118	84.3	11.0	**0.0275**	0.007	24.6	ug/L	45	Standard
	Sb	123	692.7	3.4	**0.1975**	0.007	3.7	ug/L	116	Standard
	Ba	135	39717.7	1.3	**21.0810**	0.144	0.7	ug/L	7	Standard
	Ce	140	838.4	4.8				ug/L	5	Standard
>	**Tb**	159	468875.9	1.9				ug/L	430345	Standard
	Ho	165	21.7	13.3				ug/L	7	Standard
	Tl	203	2199.5	3.0	**0.3771**	0.008	2.2	ug/L	3	Standard
	Tl	205	2706.9	1.2	**0.3873**	0.005	1.4	ug/L	2	Standard
	Pb	206	383.3	5.5	**0.1330**	0.008	6.0	ug/L	69	Standard
	Pb	207	322.0	2.3	**0.1232**	0.005	3.8	ug/L	57	Standard
	Pb	208	873.3	1.8	**0.1040**	0.002	2.0	ug/L	162	Standard
	U	238	1325.1	3.6	**0.3144**	0.011	3.3	ug/L	0	Standard
>	**Bi**	209	223695.3	0.8				ug/L	206180	Standard

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	Na	23	28.3	10.2	**9.9137**	1.145	11.6	mg/L	2	Standard
	Mg	24	6971.6	3.1	**6.3203**	0.134	2.1	mg/L	28	Standard
	K	39	66.7	41.3	**0.7109**	0.325	45.7	mg/L	7	Standard
	Ca	43	291.7	16.3	**12.3461**	2.360	19.1	mg/L	25	Standard
	Fe	54	367.9	11.8	**0.0229**	0.023	99.6	mg/L	279	Standard
	Fe	57	176.7	7.1	**0.2017**	0.026	13.1	mg/L	73	Standard
>	**Sc-1**	45	50555.9	1.0				mg/L	44343	Standard
	Cl	35	6467.4	0.7				ug/L	5612	Standard
	Kr	83	107.7	7.9				ug/L	108	Standard
	Br	81	9449.6	3.1				ug/L	3490	Standard
	P	31	425415.1	1.2				ug/L	350479	Standard
	S	34	17882.2	1.6				ug/L	17705	Standard
	Sr	88	181.7	44.5				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	30.0	57.7				mg/L	0	Standard
	Dy	164	15.2	38.0				mg/L	3	Standard
	Ho-1	165	21.7	13.3				mg/L	7	Standard
	Er	166	30.0	33.3				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.390	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		113.678	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	111.605
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	108.495
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1311069101 WG452538-02
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Method 6020 - Summary Report

Sample ID: L1311069101DP WG452538-07
Sample Date/Time: Wednesday, November 13, 2013 18:11:37
Number of Replicates: 3
Autosampler Position: 212
Sample Description: 2
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	193155.2	1.5				ug/L	159627	Standard
	Be	9	46.7	44.6	**-0.0123**	0.007	59.9	ug/L	28	Standard
	Al	27	4470746.7	0.4	**21.0571**	0.307	1.5	ug/L	1227	Standard
	Sc	45	51646.2	1.3				ug/L	44343	Standard
	Ti	47	283.0	14.1	**0.5054**	0.078	15.5	ug/L	21	Standard
	V	51	17611.1	0.8	**1.9074**	0.014	0.7	ug/L	1305	Standard
	Cr	52	15485.6	1.3	**1.3377**	0.003	0.2	ug/L	4727	Standard
	Cr	53	2338.5	1.5	**1.4684**	0.004	0.3	ug/L	288	Standard
	Mn	55	56400.8	1.2	**3.9280**	0.075	1.9	ug/L	1062	Standard
	Co	59	1504.1	3.5	**0.1373**	0.004	2.8	ug/L	99	Standard
	Ni	60	3067.3	1.8	**0.9605**	0.036	3.7	ug/L	475	Standard
	Cu	65	3415.1	2.1	**1.2740**	0.031	2.5	ug/L	130	Standard
	Zn	66	2215.5	3.9	**1.4444**	0.054	3.7	ug/L	130	Standard
>	Ge	72	390572.8	1.3				ug/L	341919	Standard
	As	75	7489.7	1.1	**5.2678**	0.012	0.2	ug/L	-350	Standard
	Se	82	9.2	186.1	**0.3498**	0.108	31.0	ug/L	-53	Standard
	Se-1	77	141.7	1.8	**0.4219**	0.039	9.2	ug/L	84	Standard
>	Ga	71	3080.3	5.4				mg/L	53	Standard
	Rb	85	17318.2	2.2				ug/L	13	Standard
	Y	89	398637.8	0.5				ug/L	364126	Standard
>	Rh	103	78.3	22.4				ug/L	12	Standard
	Mo	98	16828.4	1.6	**4.5845**	0.047	1.0	ug/L	24	Standard
	Ag	107	47.7	23.6	**-0.0117**	0.002	15.2	ug/L	45	Standard
	Cd	111	21.4	40.2	**-0.0030**	0.004	136.7	mg/L	2	Standard
	Cd	114	133.7	6.5	**0.0116**	0.002	15.8	ug/L	10	Standard
>	In	115	417649.5	1.2				ug/L	372170	Standard
	Sn	118	50.0	14.0	**0.0005**	0.005	1120.1	ug/L	45	Standard
	Sb	123	680.3	2.6	**0.1922**	0.008	4.1	ug/L	116	Standard
	Ba	135	40513.4	1.1	**21.3875**	0.283	1.3	ug/L	7	Standard
	Ce	140	641.7	10.8				ug/L	5	Standard
>	Tb	159	473304.5	1.2				ug/L	430345	Standard
	Ho	165	21.7	13.3				ug/L	7	Standard
	Tl	203	2238.2	2.3	**0.3840**	0.006	1.5	ug/L	3	Standard
	Tl	205	2706.9	2.5	**0.3874**	0.006	1.6	ug/L	2	Standard
	Pb	206	180.0	4.7	**0.0456**	0.003	7.1	ug/L	69	Standard
	Pb	207	152.7	6.6	**0.0424**	0.005	12.4	ug/L	57	Standard
	Pb	208	391.3	8.9	**0.0216**	0.007	32.0	ug/L	162	Standard
	U	238	1408.7	1.5	**0.3357**	0.009	2.8	ug/L	0	Standard
>	Bi	209	223607.5	1.4				ug/L	206180	Standard

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	Na	23	33.3	8.7	**11.6608**	1.268	10.9	mg/L	2	Standard
	Mg	24	7110.0	1.6	**6.3103**	0.026	0.4	mg/L	28	Standard
	K	39	58.3	17.8	**0.5988**	0.131	21.8	mg/L	7	Standard
	Ca	43	206.7	33.0	**8.1670**	3.268	40.0	mg/L	25	Standard
	Fe	54	385.9	9.6	**0.0277**	0.018	63.3	mg/L	279	Standard
	Fe	57	148.3	21.7	**0.1410**	0.060	42.8	mg/L	73	Standard
>	**Sc-1**	45	51646.2	1.3				mg/L	44343	Standard
	Cl	35	6742.2	0.1				ug/L	5612	Standard
	Kr	83	108.3	18.6				ug/L	108	Standard
	Br	81	8409.0	4.3				ug/L	3490	Standard
	P	31	433590.4	2.4				ug/L	350479	Standard
	S	34	17937.3	2.7				ug/L	17705	Standard
	Sr	88	211.7	2.7				ug/L	42	Standard
	C	12	26.7	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	30.0	33.3				mg/L	0	Standard
	Dy	164	35.4	17.9				mg/L	3	Standard
	Ho-1	165	21.7	13.3				mg/L	7	Standard
	Er	166	26.7	43.3				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		121.004	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		114.230	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311069101DP WG452538-07
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	112.220
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	108.452
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1311069101DP WG452538-07
Report Date/Time: Wednesday, November 13, 2013 18:13:51
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Method 6020 - Summary Report

Sample ID: L1311069101PS WG452573-01
Sample Date/Time: Wednesday, November 13, 2013 18:14:43
Number of Replicates: 3
Autosampler Position: 213
Sample Description: 2
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	191562.3	2.7				ug/L	159627	Standard
	Be	9	133850.3	0.9	**45.7877**	1.457	3.2	ug/L	28	Standard
	Al	27	4336595.2	0.9	**20.6034**	0.662	3.2	ug/L	1227	Standard
	Sc	45	51397.0	1.9				ug/L	44343	Standard
	Ti	47	361.0	12.3	**0.6840**	0.096	14.0	ug/L	21	Standard
	V	51	417719.8	1.2	**50.3629**	0.492	1.0	ug/L	1305	Standard
	Cr	52	381329.4	1.6	**50.0550**	0.640	1.3	ug/L	4727	Standard
	Cr	53	66552.6	2.8	**50.9450**	1.491	2.9	ug/L	288	Standard
	Mn	55	730568.3	0.9	**53.0139**	0.591	1.1	ug/L	1062	Standard
	Co	59	424856.0	1.4	**49.0453**	0.675	1.4	ug/L	99	Standard
	Ni	60	129855.1	1.1	**50.6916**	0.394	0.8	ug/L	475	Standard
	Cu	65	128676.2	1.4	**51.3463**	0.578	1.1	ug/L	130	Standard
	Zn	66	68420.1	0.0	**50.8633**	0.188	0.4	ug/L	130	Standard
>	Ge	72	384395.7	0.4				ug/L	341919	Standard
	As	75	79674.1	0.9	**54.7723**	0.385	0.7	ug/L	-350	Standard
	Se	82	7478.7	1.1	**48.0122**	0.578	1.2	ug/L	-53	Standard
	Se-1	77	5022.8	2.6	**49.5698**	1.386	2.8	ug/L	84	Standard
>	Ga	71	3178.7	1.9				mg/L	53	Standard
	Rb	85	15646.4	2.9				ug/L	13	Standard
	Y	89	392684.6	1.8				ug/L	364126	Standard
>	Rh	103	85.0	11.8				ug/L	12	Standard
	Mo	98	16229.5	0.9	**4.4866**	0.065	1.5	ug/L	24	Standard
	Ag	107	339084.5	0.9	**51.5229**	0.701	1.4	ug/L	45	Standard
	Cd	111	106347.1	1.3	**50.4243**	0.746	1.5	mg/L	2	Standard
	Cd	114	272168.3	1.1	**48.6754**	0.283	0.6	ug/L	10	Standard
>	In	115	411562.7	0.6				ug/L	372170	Standard
	Sn	118	114.7	13.2	**0.0520**	0.012	22.7	ug/L	45	Standard
	Sb	123	151350.0	1.1	**50.2406**	0.480	1.0	ug/L	116	Standard
	Ba	135	132971.4	1.8	**71.2461**	1.346	1.9	ug/L	7	Standard
	Ce	140	793.4	8.1				ug/L	5	Standard
>	Tb	159	466894.9	0.9				ug/L	430345	Standard
	Ho	165	38.3	19.9				ug/L	7	Standard
	Tl	203	290883.5	0.9	**50.8331**	0.400	0.8	ug/L	3	Standard
	Tl	205	342741.6	2.6	**51.0102**	1.301	2.6	ug/L	2	Standard
	Pb	206	118863.1	0.6	**51.5431**	0.226	0.4	ug/L	69	Standard
	Pb	207	106978.7	1.3	**51.4671**	0.580	1.1	ug/L	57	Standard
	Pb	208	287594.2	1.1	**49.5559**	0.470	0.9	ug/L	162	Standard
	U	238	198208.4	0.7	**50.3927**	0.303	0.6	ug/L	0	Standard
>	Bi	209	221840.2	0.2				ug/L	206180	Standard

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	Na	23	43.3	24.0	**15.7133**	4.287	27.3	mg/L	2	Standard
	Mg	24	6878.2	6.3	**6.1371**	0.458	7.5	mg/L	28	Standard
	K	39	60.0	22.0	**0.6216**	0.162	26.1	mg/L	7	Standard
	Ca	43	248.3	12.1	**10.1255**	1.564	15.4	mg/L	25	Standard
	Fe	54	394.6	10.1	**0.0332**	0.023	67.7	mg/L	279	Standard
	Fe	57	158.3	12.0	**0.1615**	0.039	24.0	mg/L	73	Standard
>	**Sc-1**	45	51397.0	1.9				mg/L	44343	Standard
	Cl	35	6553.4	0.7				ug/L	5612	Standard
	Kr	83	113.7	1.8				ug/L	108	Standard
	Br	81	9889.9	4.8				ug/L	3490	Standard
	P	31	414449.6	1.7				ug/L	350479	Standard
	S	34	17657.0	3.0				ug/L	17705	Standard
	Sr	88	211.7	9.8				ug/L	42	Standard
	C	12	30.0	33.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	36.7	15.7				mg/L	0	Standard
	Dy	164	35.7	16.4				mg/L	3	Standard
	Ho-1	165	38.3	19.9				mg/L	7	Standard
	Er	166	20.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		120.006	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.423	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	110.585
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.595
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311069101SDL WG452573-02
Sample Date/Time: Wednesday, November 13, 2013 18:17:47
Number of Replicates: 3
Autosampler Position: 214
Sample Description: 10
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	159852.4	2.0				ug/L	159627	Standard
	Be	9	45.0	40.1	**-0.0097**	0.007	74.4	ug/L	28	Standard
	Al	27	744774.1	0.4	**4.2187**	0.079	1.9	ug/L	1227	Standard
	Sc	45	43748.1	0.5				ug/L	44343	Standard
	Ti	47	105.0	30.3	**0.1565**	0.077	48.9	ug/L	21	Standard
	V	51	4289.3	1.5	**0.3864**	0.008	2.2	ug/L	1305	Standard
	Cr	52	7190.7	0.8	**0.3727**	0.008	2.1	ug/L	4727	Standard
	Cr	53	776.7	4.9	**0.3607**	0.032	9.0	ug/L	288	Standard
	Mn	55	10931.3	0.5	**0.7744**	0.004	0.5	ug/L	1062	Standard
	Co	59	321.0	7.4	**0.0075**	0.003	40.9	ug/L	99	Standard
	Ni	60	821.7	2.8	**0.1345**	0.011	7.8	ug/L	475	Standard
	Cu	65	705.0	1.5	**0.2439**	0.005	2.0	ug/L	130	Standard
	Zn	66	2088.5	3.5	**1.5488**	0.061	3.9	ug/L	130	Standard
>	**Ge**	72	345986.1	0.2				ug/L	341919	Standard
	As	75	1198.5	3.3	**1.1324**	0.030	2.6	ug/L	-350	Standard
	Se	82	-30.0	7.1	**0.0789**	0.015	18.7	ug/L	-53	Standard
	Se-1	77	93.0	14.1	**0.0583**	0.146	250.6	ug/L	84	Standard
>	**Ga**	71	598.3	5.6				mg/L	53	Standard
	Rb	85	2963.6	3.8				ug/L	13	Standard
	Y	89	351966.5	1.2				ug/L	364126	Standard
>	**Rh**	103	11.7	65.5				ug/L	12	Standard
	Mo	98	2816.0	0.1	**0.8419**	0.009	1.0	ug/L	24	Standard
	Ag	107	104.0	10.7	**-0.0015**	0.002	124.3	ug/L	45	Standard
	Cd	111	10.5	61.9	**-0.0076**	0.003	45.0	mg/L	2	Standard
	Cd	114	48.6	37.2	**-0.0024**	0.004	144.8	ug/L	10	Standard
>	**In**	115	374743.9	0.9				ug/L	372170	Standard
	Sn	118	53.3	18.0	**0.0078**	0.008	102.2	ug/L	45	Standard
	Sb	123	327.7	14.6	**0.0890**	0.017	18.9	ug/L	116	Standard
	Ba	135	7013.0	0.3	**4.1211**	0.026	0.6	ug/L	7	Standard
	Ce	140	165.0	31.6				ug/L	5	Standard
>	**Tb**	159	428342.2	0.7				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	452.0	6.9	**0.0778**	0.006	8.0	ug/L	3	Standard
	Tl	205	525.0	15.9	**0.0685**	0.012	17.9	ug/L	2	Standard
	Pb	206	127.3	4.0	**0.0254**	0.003	10.6	ug/L	69	Standard
	Pb	207	112.3	8.9	**0.0254**	0.005	21.2	ug/L	57	Standard
	Pb	208	316.0	10.3	**0.0110**	0.005	49.2	ug/L	162	Standard
	U	238	238.3	7.3	**0.0430**	0.005	11.5	ug/L	0	Standard
>	**Bi**	209	214219.1	0.8				ug/L	206180	Standard

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	Na	23	6.7	114.6	**1.5641**	3.547	226.8	mg/L	2	Standard
	Mg	24	1336.7	7.0	**1.3692**	0.101	7.3	mg/L	28	Standard
	K	39	16.7	62.4	**0.1435**	0.143	99.9	mg/L	7	Standard
	Ca	43	63.3	22.8	**2.0888**	0.786	37.6	mg/L	25	Standard
	Fe	54	124.1	8.0	**-0.0908**	0.006	6.6	mg/L	279	Standard
	Fe	57	80.0	18.8	**0.0393**	0.033	84.6	mg/L	73	Standard
>	**Sc-1**	45	43748.1	0.5				mg/L	44343	Standard
	Cl	35	6057.9	4.4				ug/L	5612	Standard
	Kr	83	103.3	5.5				ug/L	108	Standard
	Br	81	4257.3	8.0				ug/L	3490	Standard
	P	31	171748.5	2.9				ug/L	350479	Standard
	S	34	18124.2	2.1				ug/L	17705	Standard
	Sr	88	81.7	24.7				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.0	93.6				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	13.3	43.3				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.141	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.189	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.692
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.899
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311069101SDL WG452573-02
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 18:20:53
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	174585.8	3.4				ug/L	159627	Standard
	Be	9	128348.4	3.2	**48.1519**	0.250	0.5	ug/L	28	Standard
	Al	27	8911182.6	1.7	**46.4854**	1.312	2.8	ug/L	1227	Standard
	Sc	45	49281.7	1.5				ug/L	44343	Standard
	Ti	47	45073.6	1.2	**100.8482**	0.608	0.6	ug/L	21	Standard
	V	51	386519.6	0.5	**48.3305**	0.089	0.2	ug/L	1305	Standard
	Cr	52	355840.9	1.3	**48.4274**	0.389	0.8	ug/L	4727	Standard
	Cr	53	61476.2	2.7	**48.7946**	1.094	2.2	ug/L	288	Standard
	Mn	55	647657.6	1.4	**48.7370**	0.385	0.8	ug/L	1062	Standard
	Co	59	405922.1	1.5	**48.6035**	0.515	1.1	ug/L	99	Standard
	Ni	60	122253.0	1.6	**49.4955**	0.485	1.0	ug/L	475	Standard
	Cu	65	118680.7	0.8	**49.1197**	0.118	0.2	ug/L	130	Standard
	Zn	66	64209.1	0.2	**49.5071**	0.335	0.7	ug/L	130	Standard
>	Ge	72	370589.8	0.6				ug/L	341919	Standard
	As	75	69149.8	0.6	**49.3304**	0.102	0.2	ug/L	-350	Standard
	Se	82	7323.5	2.4	**48.7611**	1.007	2.1	ug/L	-53	Standard
	Se-1	77	4784.4	0.6	**48.9627**	0.041	0.1	ug/L	84	Standard
>	Ga	71	53.3	10.8				mg/L	53	Standard
	Rb	85	1143.4	2.2				ug/L	13	Standard
	Y	89	382973.5	1.2				ug/L	364126	Standard
>	Rh	103	35.0	14.3				ug/L	12	Standard
	Mo	98	356038.1	1.2	**100.3285**	2.040	2.0	ug/L	24	Standard
	Ag	107	324460.7	1.3	**50.0744**	0.228	0.5	ug/L	45	Standard
	Cd	111	103819.6	1.6	**49.9992**	0.368	0.7	mg/L	2	Standard
	Cd	114	273066.4	1.4	**49.6070**	0.368	0.7	ug/L	10	Standard
>	In	115	405202.4	1.8				ug/L	372170	Standard
	Sn	118	62973.6	0.9	**50.3564**	0.979	1.9	ug/L	45	Standard
	Sb	123	143868.2	0.6	**48.5187**	1.127	2.3	ug/L	116	Standard
	Ba	135	90798.3	1.9	**49.4141**	0.781	1.6	ug/L	7	Standard
	Ce	140	36.7	56.8				ug/L	5	Standard
>	Tb	159	459190.2	1.3				ug/L	430345	Standard
	Ho	165	6.7	43.3				ug/L	7	Standard
	Tl	203	278971.2	0.8	**49.2013**	0.364	0.7	ug/L	3	Standard
	Tl	205	323458.1	1.2	**48.5830**	0.240	0.5	ug/L	2	Standard
	Pb	206	114092.3	1.3	**49.9277**	0.224	0.4	ug/L	69	Standard
	Pb	207	102406.6	1.1	**49.7197**	0.133	0.3	ug/L	57	Standard
	Pb	208	277248.3	0.6	**48.2131**	0.168	0.3	ug/L	162	Standard
	U	238	188944.8	0.6	**48.4804**	0.261	0.5	ug/L	0	Standard
>	Bi	209	219816.8	0.9				ug/L	206180	Standard

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	Na	23	25.0	52.9	**8.8824**	5.608	63.1	mg/L	2	Standard
	Mg	24	5039.2	2.9	**4.6765**	0.103	2.2	mg/L	28	Standard
	K	39	325.0	18.7	**3.9124**	0.747	19.1	mg/L	7	Standard
	Ca	43	120.0	14.4	**4.4289**	0.835	18.8	mg/L	25	Standard
	Fe	54	9401.2	1.7	**4.7177**	0.099	2.1	mg/L	279	Standard
	Fe	57	2466.9	5.6	**4.7411**	0.345	7.3	mg/L	73	Standard
>	**Sc-1**	45	49281.7	1.5				mg/L	44343	Standard
	Cl	35	6097.9	2.5				ug/L	5612	Standard
	Kr	83	101.0	4.5				ug/L	108	Standard
	Br	81	3433.7	8.2				ug/L	3490	Standard
	P	31	382989.9	3.2				ug/L	350479	Standard
	S	34	20832.6	0.8				ug/L	17705	Standard
	Sr	88	38.3	19.9				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.7	100.8				mg/L	3	Standard
	Ho-1	165	6.7	43.3				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		109.371	
	Be	9	96.304		
	Al	27	92.971		
	Sc	45			
	Ti	47	100.848		
	V	51	96.661		
	Cr	52	96.855		
	Cr	53			
	Mn	55	97.474		
	Co	59	97.207		
	Ni	60	98.991		
	Cu	65	98.239		
	Zn	66	99.014		
>	Ge	72		108.385	
	As	75	98.661		
	Se	82	97.522		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	100.328	
|	Ag	107	100.149	
|	Cd	111	99.998	
|	Cd	114		
|>	In	115		108.876
|	Sn	118	100.713	
|	Sb	123	97.037	
⌊	Ba	135	98.828	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	98.403	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	96.426	
|	U	238	96.961	
⌊>	Bi	209		106.614
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Wednesday, November 13, 2013 18:23:06
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 18:23:58
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	175040.0	4.6				ug/L	159627	Standard
	Be	9	80.0	48.8	**0.0023**	0.016	719.1	ug/L	28	Standard
	Al	27	4231.1	118.7	**-0.0028**	0.028	1005.2	ug/L	1227	Standard
	Sc	45	47320.5	2.4				ug/L	44343	Standard
	Ti	47	25.7	27.4	**-0.0366**	0.017	45.5	ug/L	21	Standard
	V	51	1441.5	13.5	**-0.0053**	0.027	498.8	ug/L	1305	Standard
	Cr	52	4974.5	4.5	**0.0110**	0.038	343.1	ug/L	4727	Standard
	Cr	53	315.0	5.7	**-0.0468**	0.015	32.4	ug/L	288	Standard
	Mn	55	1138.0	17.5	**-0.0209**	0.016	77.3	ug/L	1062	Standard
	Co	59	225.0	92.3	**-0.0060**	0.026	432.5	ug/L	99	Standard
	Ni	60	362.3	9.6	**-0.0729**	0.016	21.7	ug/L	475	Standard
	Cu	65	144.7	13.1	**-0.0078**	0.008	108.7	ug/L	130	Standard
	Zn	66	156.3	11.0	**-0.0586**	0.014	24.1	ug/L	130	Standard
>	**Ge**	72	362876.9	1.0				ug/L	341919	Standard
	As	75	-317.7	12.5	**-0.0098**	0.030	305.2	ug/L	-350	Standard
	Se	82	-53.0	10.4	**-0.0673**	0.040	59.1	ug/L	-53	Standard
	Se-1	77	84.7	3.8	**-0.0787**	0.042	53.6	ug/L	84	Standard
>	**Ga**	71	28.3	62.0				mg/L	53	Standard
	Rb	85	18.3	78.7				ug/L	13	Standard
	Y	89	376504.0	0.7				ug/L	364126	Standard
>	**Rh**	103	0.0					ug/L	12	Standard
	Mo	98	83.8	53.0	**0.0078**	0.012	160.9	ug/L	24	Standard
	Ag	107	62.3	21.3	**-0.0091**	0.002	22.9	ug/L	45	Standard
	Cd	111	10.2	98.7	**-0.0081**	0.005	61.6	mg/L	2	Standard
	Cd	114	30.5	24.3	**-0.0064**	0.001	20.8	ug/L	10	Standard
>	**In**	115	399424.4	0.8				ug/L	372170	Standard
	Sn	118	104.7	10.2	**0.0466**	0.008	17.3	ug/L	45	Standard
	Sb	123	379.8	18.4	**0.0995**	0.024	24.3	ug/L	116	Standard
	Ba	135	26.0	17.6	**0.0083**	0.003	30.9	ug/L	7	Standard
	Ce	140	1.7	173.2				ug/L	5	Standard
>	**Tb**	159	457426.6	1.5				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	26.3	76.5	**0.0005**	0.003	661.8	ug/L	3	Standard
	Tl	205	143.3	155.4	**0.0094**	0.034	362.4	ug/L	2	Standard
	Pb	206	87.7	16.0	**0.0063**	0.007	104.6	ug/L	69	Standard
	Pb	207	71.7	20.4	**0.0040**	0.007	184.5	ug/L	57	Standard
	Pb	208	270.3	53.3	**0.0016**	0.026	1595.9	ug/L	162	Standard
	U	238	46.7	151.0	**-0.0077**	0.018	238.0	ug/L	0	Standard
>	**Bi**	209	221352.9	1.8				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	41.7	13.9	**0.0002**	0.006	3852.9	mg/L	28	Standard
	K	39	5.0	0.0	**-0.0230**	0.002	6.9	mg/L	7	Standard
	Ca	43	21.7	26.6	**-0.2620**	0.267	102.0	mg/L	25	Standard
	Fe	54	270.9	20.2	**-0.0168**	0.030	177.3	mg/L	279	Standard
	Fe	57	48.3	21.5	**-0.0393**	0.021	53.8	mg/L	73	Standard
>	**Sc-1**	45	47320.5	2.4				mg/L	44343	Standard
	Cl	35	6138.6	2.6				ug/L	5612	Standard
	Kr	83	111.7	5.8				ug/L	108	Standard
	Br	81	3547.1	7.8				ug/L	3490	Standard
	P	31	370891.6	1.0				ug/L	350479	Standard
	S	34	20997.9	2.2				ug/L	17705	Standard
	Sr	88	31.7	55.5				ug/L	42	Standard
	C	12	13.3	114.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		109.656	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.129	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.323
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.359
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: PBW 53 WG452456-04
Sample Date/Time: Wednesday, November 13, 2013 18:27:04
Number of Replicates: 3
Autosampler Position: 215
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	147398.6	1.2				ug/L	159627	Standard
	Be	9	35.0	14.3	**-0.0126**	0.002	17.7	ug/L	28	Standard
	Al	27	1043.4	17.3	**-0.0192**	0.001	6.3	ug/L	1227	Standard
	Sc	45	40071.3	1.5				ug/L	44343	Standard
	Ti	47	20.0	43.6	**-0.0432**	0.023	52.5	ug/L	21	Standard
	V	51	1116.8	4.0	**-0.0268**	0.006	21.9	ug/L	1305	Standard
	Cr	52	4039.2	2.9	**-0.0403**	0.016	40.7	ug/L	4727	Standard
	Cr	53	280.0	8.9	**-0.0431**	0.022	51.2	ug/L	288	Standard
	Mn	55	537.3	3.4	**-0.0614**	0.002	2.8	ug/L	1062	Standard
	Co	59	76.3	8.0	**-0.0230**	0.001	3.6	ug/L	99	Standard
	Ni	60	291.7	5.5	**-0.0851**	0.008	9.2	ug/L	475	Standard
	Cu	65	62.3	17.2	**-0.0390**	0.005	13.3	ug/L	130	Standard
	Zn	66	407.0	69.7	**0.1846**	0.254	137.8	ug/L	130	Standard
>	Ge	72	317781.6	0.5				ug/L	341919	Standard
	As	75	-291.1	14.6	**-0.0203**	0.034	168.2	ug/L	-350	Standard
	Se	82	-53.0	27.6	**-0.1173**	0.111	94.5	ug/L	-53	Standard
	Se-1	77	76.7	15.1	**-0.0485**	0.139	286.4	ug/L	84	Standard
>	Ga	71	18.3	15.7				mg/L	53	Standard
	Rb	85	10.0	86.6				ug/L	13	Standard
	Y	89	324031.7	0.9				ug/L	364126	Standard
>	Rh	103	10.0	50.0				ug/L	12	Standard
	Mo	98	11.2	34.6	**-0.0125**	0.001	10.0	ug/L	24	Standard
	Ag	107	39.7	46.6	**-0.0117**	0.003	28.4	ug/L	45	Standard
	Cd	111	4.3	174.1	**-0.0106**	0.004	39.5	mg/L	2	Standard
	Cd	114	7.4	78.8	**-0.0104**	0.001	11.6	ug/L	10	Standard
>	In	115	349175.8	1.0				ug/L	372170	Standard
	Sn	118	34.7	7.3	**-0.0061**	0.003	42.0	ug/L	45	Standard
	Sb	123	61.0	1.6	**-0.0066**	0.000	4.5	ug/L	116	Standard
	Ba	135	3.7	56.8	**-0.0037**	0.001	35.8	ug/L	7	Standard
	Ce	140	5.0	100.0				ug/L	5	Standard
>	Tb	159	406169.7	1.6				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	12.3	40.8	**-0.0017**	0.001	55.9	ug/L	3	Standard
	Tl	205	11.7	137.8	**-0.0105**	0.003	25.1	ug/L	2	Standard
	Pb	206	65.3	20.0	**-0.0007**	0.007	915.1	ug/L	69	Standard
	Pb	207	60.0	8.3	**0.0012**	0.003	254.3	ug/L	57	Standard
	Pb	208	142.7	7.5	**-0.0184**	0.002	11.1	ug/L	162	Standard
	U	238	1.3	173.2	**-0.0194**	0.001	3.3	ug/L	0	Standard
>	Bi	209	202033.5	0.9				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	30.0	50.0	**-0.0059**	0.018	296.2	mg/L	28	Standard
	K	39	11.7	24.7	**0.0898**	0.046	51.0	mg/L	7	Standard
	Ca	43	36.7	15.7	**0.8293**	0.369	44.5	mg/L	25	Standard
	Fe	54	86.0	17.7	**-0.1084**	0.010	9.6	mg/L	279	Standard
	Fe	57	75.0	26.7	**0.0436**	0.050	114.1	mg/L	73	Standard
>	**Sc-1**	45	40071.3	1.5				mg/L	44343	Standard
	Cl	35	5452.3	2.5				ug/L	5612	Standard
	Kr	83	105.7	11.9				ug/L	108	Standard
	Br	81	2873.6	4.7				ug/L	3490	Standard
	P	31	119071.1	1.5				ug/L	350479	Standard
	S	34	19192.1	1.4				ug/L	17705	Standard
	Sr	88	28.3	27.0				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.7	173.2				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.339	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.941	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		93.822
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.989
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 53 WG452456-04
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Method 6020 - Summary Report

Sample ID: F BLANK WG452244-01
Sample Date/Time: Wednesday, November 13, 2013 18:30:09
Number of Replicates: 3
Autosampler Position: 216
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	149579.9	1.8				ug/L	159627	Standard
	Be	9	26.7	57.3	**-0.0164**	0.007	40.8	ug/L	28	Standard
	Al	27	980.0	12.5	**-0.0197**	0.001	3.3	ug/L	1227	Standard
	Sc	45	40669.5	1.3				ug/L	44343	Standard
	Ti	47	17.3	12.0	**-0.0503**	0.006	11.3	ug/L	21	Standard
	V	51	1169.4	2.5	**-0.0199**	0.004	18.4	ug/L	1305	Standard
	Cr	52	3985.2	4.9	**-0.0518**	0.035	67.4	ug/L	4727	Standard
	Cr	53	248.3	4.2	**-0.0736**	0.008	11.2	ug/L	288	Standard
	Mn	55	622.3	12.7	**-0.0542**	0.007	13.0	ug/L	1062	Standard
	Co	59	72.7	9.4	**-0.0235**	0.001	4.3	ug/L	99	Standard
	Ni	60	302.3	1.8	**-0.0807**	0.002	2.3	ug/L	475	Standard
	Cu	65	62.0	9.0	**-0.0393**	0.002	6.4	ug/L	130	Standard
	Zn	66	431.0	76.6	**0.2053**	0.298	145.2	ug/L	130	Standard
>	Ge	72	319270.8	0.6				ug/L	341919	Standard
	As	75	-313.7	10.7	**-0.0377**	0.026	70.1	ug/L	-350	Standard
	Se	82	-56.9	4.1	**-0.1454**	0.018	12.2	ug/L	-53	Standard
	Se-1	77	84.7	10.0	**0.0444**	0.103	233.1	ug/L	84	Standard
>	Ga	71	18.3	83.3				mg/L	53	Standard
	Rb	85	25.0	20.0				ug/L	13	Standard
	Y	89	329758.3	0.8				ug/L	364126	Standard
>	Rh	103	11.7	65.5				ug/L	12	Standard
	Mo	98	13.8	19.0	**-0.0117**	0.001	7.3	ug/L	24	Standard
	Ag	107	45.7	11.2	**-0.0107**	0.001	8.5	ug/L	45	Standard
	Cd	111	1.0	0.5	**-0.0125**	0.000	0.0	mg/L	2	Standard
	Cd	114	7.4	76.9	**-0.0104**	0.001	11.4	ug/L	10	Standard
>	In	115	352412.2	0.3				ug/L	372170	Standard
	Sn	118	34.7	8.3	**-0.0064**	0.003	40.9	ug/L	45	Standard
	Sb	123	34.5	11.6	**-0.0171**	0.002	8.9	ug/L	116	Standard
	Ba	135	6.7	17.3	**-0.0018**	0.001	39.1	ug/L	7	Standard
	Ce	140	8.3	34.6				ug/L	5	Standard
>	Tb	159	403880.6	0.5				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	9.3	16.4	**-0.0023**	0.000	13.5	ug/L	3	Standard
	Tl	205	11.7	65.5	**-0.0105**	0.001	12.1	ug/L	2	Standard
	Pb	206	66.3	8.6	**-0.0002**	0.003	1169.0	ug/L	69	Standard
	Pb	207	55.3	5.8	**-0.0013**	0.002	125.0	ug/L	57	Standard
	Pb	208	149.0	12.1	**-0.0171**	0.003	20.0	ug/L	162	Standard
	U	238	0.0		**-0.0198**			ug/L	0	Standard
>	Bi	209	201585.2	0.8				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	38.3	41.9	**0.0031**	0.019	597.5	mg/L	28	Standard
	K	39	5.0	173.2	**-0.0116**	0.131	1130.4	mg/L	7	Standard
	Ca	43	21.7	70.5	**-0.0725**	0.904	1246.3	mg/L	25	Standard
	Fe	54	74.5	13.6	**-0.1166**	0.006	5.0	mg/L	279	Standard
	Fe	57	66.7	24.1	**0.0208**	0.038	184.0	mg/L	73	Standard
>	**Sc-1**	45	40669.5	1.3				mg/L	44343	Standard
	Cl	35	5469.0	1.4				ug/L	5612	Standard
	Kr	83	110.0	7.4				ug/L	108	Standard
	Br	81	2736.9	7.4				ug/L	3490	Standard
	P	31	115923.5	1.1				ug/L	350479	Standard
	S	34	18996.9	1.2				ug/L	17705	Standard
	Sr	88	46.7	12.4				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	179.6				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.706	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.376	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: F BLANK WG452244-01
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	94.691
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.771
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG452244-01
Report Date/Time: Wednesday, November 13, 2013 18:32:23
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Method 6020 - Summary Report

Sample ID: LCSW 53 WG452456-05
Sample Date/Time: Wednesday, November 13, 2013 18:33:14
Number of Replicates: 3
Autosampler Position: 217
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	180888.5	1.0				ug/L	159627	Standard
	Be	9	64679.4	1.3	**23.4050**	0.246	1.1	ug/L	28	Standard
	Al	27	6945.7	85.7	**0.0094**	0.030	321.0	ug/L	1227	Standard
	Sc	45	47800.3	1.2				ug/L	44343	Standard
	Ti	47	46.3	70.8	**0.0088**	0.075	846.8	ug/L	21	Standard
	V	51	187177.5	2.1	**23.3208**	0.256	1.1	ug/L	1305	Standard
	Cr	52	177232.6	1.2	**23.7904**	0.072	0.3	ug/L	4727	Standard
	Cr	53	31445.9	1.6	**24.8288**	0.203	0.8	ug/L	288	Standard
	Mn	55	330088.6	1.8	**24.8027**	0.208	0.8	ug/L	1062	Standard
	Co	59	204324.3	1.3	**24.4654**	0.166	0.7	ug/L	99	Standard
	Ni	60	61920.3	0.9	**24.9774**	0.147	0.6	ug/L	475	Standard
	Cu	65	60291.1	0.8	**24.9369**	0.062	0.2	ug/L	130	Standard
	Zn	66	35169.8	1.5	**27.0513**	0.146	0.5	ug/L	130	Standard
>	Ge	72	370337.9	1.0				ug/L	341919	Standard
	As	75	33726.1	1.7	**24.1881**	0.208	0.9	ug/L	-350	Standard
	Se	82	3518.8	0.7	**23.5969**	0.118	0.5	ug/L	-53	Standard
	Se-1	77	2458.5	2.8	**24.6976**	0.496	2.0	ug/L	84	Standard
>	Ga	71	33.3	8.7				mg/L	53	Standard
	Rb	85	48.3	23.9				ug/L	13	Standard
	Y	89	380363.9	1.1				ug/L	364126	Standard
>	Rh	103	10.0					ug/L	12	Standard
	Mo	98	50.4	35.6	**-0.0020**	0.005	265.2	ug/L	24	Standard
	Ag	107	164564.0	1.6	**25.2893**	0.187	0.7	ug/L	45	Standard
	Cd	111	50582.9	1.3	**24.2600**	0.110	0.5	mg/L	2	Standard
	Cd	114	128916.1	1.4	**23.3232**	0.244	1.0	ug/L	10	Standard
>	In	115	406743.3	0.9				ug/L	372170	Standard
	Sn	118	66.3	30.5	**0.0146**	0.017	113.3	ug/L	45	Standard
	Sb	123	71680.3	0.7	**24.0607**	0.105	0.4	ug/L	116	Standard
	Ba	135	45490.5	1.4	**24.6579**	0.231	0.9	ug/L	7	Standard
	Ce	140	56.7	18.4				ug/L	5	Standard
>	Tb	159	453805.9	0.5				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	140414.2	2.1	**24.4523**	0.424	1.7	ug/L	3	Standard
	Tl	205	166594.3	1.3	**24.7041**	0.211	0.9	ug/L	2	Standard
	Pb	206	58953.5	2.0	**25.4606**	0.355	1.4	ug/L	69	Standard
	Pb	207	50265.6	2.4	**24.0834**	0.447	1.9	ug/L	57	Standard
	Pb	208	138619.0	1.0	**23.7816**	0.167	0.7	ug/L	162	Standard
	U	238	90935.4	0.2	**23.0314**	0.117	0.5	ug/L	0	Standard
>	Bi	209	222591.2	0.6				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	20.0	25.0	**-0.0212**	0.005	21.6	mg/L	28	Standard
	K	39	1.7	173.2	**-0.0662**	0.036	54.6	mg/L	7	Standard
	Ca	43	26.7	10.8	**-0.0204**	0.147	721.4	mg/L	25	Standard
	Fe	54	271.2	9.2	**-0.0182**	0.014	79.6	mg/L	279	Standard
	Fe	57	61.7	26.1	**-0.0129**	0.034	264.2	mg/L	73	Standard
>	**Sc-1**	45	47800.3	1.2				mg/L	44343	Standard
	Cl	35	6189.9	2.5				ug/L	5612	Standard
	Kr	83	107.7	9.3				ug/L	108	Standard
	Br	81	3793.8	2.4				ug/L	3490	Standard
	P	31	374828.4	1.1				ug/L	350479	Standard
	S	34	19821.3	4.0				ug/L	17705	Standard
	Sr	88	45.0	58.8				ug/L	42	Standard
	C	12	10.0	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	0.0					mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.320	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.312	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	109.290
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.959
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW 53 WG452456-05
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Method 6020 - Summary Report

Sample ID: L1311055703 WG452456-01
Sample Date/Time: Wednesday, November 13, 2013 18:36:19
Number of Replicates: 3
Autosampler Position: 218
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	177013.9	3.5				ug/L	159627	Standard
	Be	9	85.0	35.8	**0.0031**	0.010	327.6	ug/L	28	Standard
	Al	27	16576668.8	2.7	**85.3760**	5.025	5.9	ug/L	1227	Standard
	Sc	45	49370.3	1.7				ug/L	44343	Standard
	Ti	47	1800.4	1.9	**4.0220**	0.082	2.0	ug/L	21	Standard
	V	51	14449.4	1.0	**1.6618**	0.011	0.7	ug/L	1305	Standard
	Cr	52	9944.6	2.4	**0.7110**	0.017	2.4	ug/L	4727	Standard
	Cr	53	1333.4	4.5	**0.7837**	0.048	6.1	ug/L	288	Standard
	Mn	55	467633.2	0.3	**35.9077**	0.479	1.3	ug/L	1062	Standard
	Co	59	1487.4	10.0	**0.1482**	0.016	10.9	ug/L	99	Standard
	Ni	60	3449.7	2.1	**1.2094**	0.044	3.6	ug/L	475	Standard
	Cu	65	2690.2	2.4	**1.0697**	0.041	3.9	ug/L	130	Standard
	Zn	66	17591.9	0.3	**13.7193**	0.168	1.2	ug/L	130	Standard
>	Ge	72	362943.3	1.2				ug/L	341919	Standard
	As	75	976.5	11.0	**0.9284**	0.070	7.6	ug/L	-350	Standard
	Se	82	161.8	8.2	**1.3846**	0.076	5.5	ug/L	-53	Standard
	Se-1	77	203.0	3.6	**1.1826**	0.088	7.4	ug/L	84	Standard
>	Ga	71	278.3	16.1				mg/L	53	Standard
	Rb	85	12980.6	1.6				ug/L	13	Standard
	Y	89	381114.3	1.5				ug/L	364126	Standard
>	Rh	103	86.7	14.5				ug/L	12	Standard
	Mo	98	4865.8	2.8	**1.4010**	0.024	1.7	ug/L	24	Standard
	Ag	107	139.7	68.4	**0.0034**	0.015	446.6	ug/L	45	Standard
	Cd	111	144.1	4.8	**0.0587**	0.003	4.7	mg/L	2	Standard
	Cd	114	385.0	20.6	**0.0602**	0.014	23.6	ug/L	10	Standard
>	In	115	391995.4	1.1				ug/L	372170	Standard
	Sn	118	123.3	20.7	**0.0635**	0.020	31.9	ug/L	45	Standard
	Sb	123	271.6	20.8	**0.0641**	0.019	29.5	ug/L	116	Standard
	Ba	135	74443.1	1.4	**41.8736**	0.168	0.4	ug/L	7	Standard
	Ce	140	9197.8	4.5				ug/L	5	Standard
>	Tb	159	447682.7	0.5				ug/L	430345	Standard
	Ho	165	125.0	8.0				ug/L	7	Standard
	Tl	203	192.0	48.1	**0.0312**	0.017	53.0	ug/L	3	Standard
	Tl	205	163.3	16.9	**0.0132**	0.004	30.8	ug/L	2	Standard
	Pb	206	3345.4	2.5	**1.4973**	0.027	1.8	ug/L	69	Standard
	Pb	207	2725.9	2.8	**1.3517**	0.019	1.4	ug/L	57	Standard
	Pb	208	7662.8	0.8	**1.3473**	0.034	2.5	ug/L	162	Standard
	U	238	3611.1	1.2	**0.9478**	0.008	0.8	ug/L	0	Standard
>	Bi	209	210579.2	1.6				ug/L	206180	Standard

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	Na	23	51.7	44.7	**19.7503**	9.303	47.1	mg/L	2	Standard
	Mg	24	38565.7	0.8	**36.0044**	0.777	2.2	mg/L	28	Standard
	K	39	30.0	16.7	**0.2810**	0.057	20.4	mg/L	7	Standard
	Ca	43	426.7	18.9	**19.1007**	3.561	18.6	mg/L	25	Standard
	Fe	54	552.6	14.4	**0.1227**	0.038	30.9	mg/L	279	Standard
	Fe	57	295.0	0.0	**0.4434**	0.010	2.2	mg/L	73	Standard
>	**Sc-1**	45	49370.3	1.7				mg/L	44343	Standard
	Cl	35	6093.9	1.7				ug/L	5612	Standard
	Kr	83	105.0	8.1				ug/L	108	Standard
	Br	81	31091.9	2.1				ug/L	3490	Standard
	P	31	403997.1	2.4				ug/L	350479	Standard
	S	34	17611.9	3.3				ug/L	17705	Standard
	Sr	88	241.7	15.3				ug/L	42	Standard
	C	12	26.7	21.7				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	209.5	11.8				mg/L	3	Standard
	Ho-1	165	125.0	8.0				mg/L	7	Standard
	Er	166	150.0	30.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.892	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.149	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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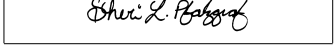

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.327
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.133
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311055704S WG452456-06
Sample Date/Time: Wednesday, November 13, 2013 18:39:24
Number of Replicates: 3
Autosampler Position: 219
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	173774.5	2.4				ug/L	159627	Standard
	Be	9	64525.4	0.7	**24.3122**	0.407	1.7	ug/L	28	Standard
	Al	27	16830875.9	0.4	**88.2223**	2.430	2.8	ug/L	1227	Standard
	Sc	45	49671.3	1.8				ug/L	44343	Standard
	Ti	47	2050.5	8.0	**4.5963**	0.338	7.3	ug/L	21	Standard
	V	51	201619.7	0.7	**25.6776**	0.138	0.5	ug/L	1305	Standard
	Cr	52	177696.4	1.2	**24.3781**	0.019	0.1	ug/L	4727	Standard
	Cr	53	31788.3	2.5	**25.6440**	0.483	1.9	ug/L	288	Standard
	Mn	55	764426.4	0.2	**58.8212**	0.818	1.4	ug/L	1062	Standard
	Co	59	197157.0	1.4	**24.1097**	0.060	0.2	ug/L	99	Standard
	Ni	60	61223.1	0.4	**25.2261**	0.203	0.8	ug/L	475	Standard
	Cu	65	58914.3	1.4	**24.8861**	0.071	0.3	ug/L	130	Standard
	Zn	66	44978.0	1.4	**35.3897**	0.202	0.6	ug/L	130	Standard
>	Ge	72	362607.1	1.2				ug/L	341919	Standard
	As	75	35766.4	0.9	**26.1817**	0.123	0.5	ug/L	-350	Standard
	Se	82	3857.6	0.5	**26.3889**	0.436	1.7	ug/L	-53	Standard
	Se-1	77	2601.9	0.9	**26.7782**	0.143	0.5	ug/L	84	Standard
>	Ga	71	395.0	6.7				mg/L	53	Standard
	Rb	85	13539.4	4.4				ug/L	13	Standard
	Y	89	377818.2	1.3				ug/L	364126	Standard
>	Rh	103	101.7	36.3				ug/L	12	Standard
	Mo	98	4862.4	2.5	**1.3995**	0.019	1.4	ug/L	24	Standard
	Ag	107	153067.3	0.5	**24.4002**	0.179	0.7	ug/L	45	Standard
	Cd	111	49735.8	2.1	**24.7411**	0.278	1.1	mg/L	2	Standard
	Cd	114	126018.7	1.8	**23.6496**	0.457	1.9	ug/L	10	Standard
>	In	115	392142.2	1.2				ug/L	372170	Standard
	Sn	118	122.3	10.5	**0.0628**	0.010	16.4	ug/L	45	Standard
	Sb	123	71037.7	1.5	**24.7326**	0.115	0.5	ug/L	116	Standard
	Ba	135	117629.9	1.0	**66.1464**	0.296	0.4	ug/L	7	Standard
	Ce	140	7958.8	1.4				ug/L	5	Standard
>	Tb	159	454763.5	1.7				ug/L	430345	Standard
	Ho	165	115.0	7.5				ug/L	7	Standard
	Tl	203	134813.8	0.1	**24.6670**	0.100	0.4	ug/L	3	Standard
	Tl	205	159210.5	0.9	**24.8049**	0.133	0.5	ug/L	2	Standard
	Pb	206	58507.7	0.5	**26.5511**	0.257	1.0	ug/L	69	Standard
	Pb	207	49997.7	1.1	**25.1706**	0.190	0.8	ug/L	57	Standard
	Pb	208	138342.8	0.8	**24.9382**	0.114	0.5	ug/L	162	Standard
	U	238	94958.4	1.7	**25.2686**	0.326	1.3	ug/L	0	Standard
>	Bi	209	211863.3	0.4				ug/L	206180	Standard

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	Na	23	75.0	24.0	**29.3557**	7.547	25.7	mg/L	2	Standard
	Mg	24	39117.1	2.4	**36.2919**	0.753	2.1	mg/L	28	Standard
	K	39	46.7	6.2	**0.4831**	0.045	9.2	mg/L	7	Standard
	Ca	43	348.3	10.4	**15.2801**	1.731	11.3	mg/L	25	Standard
	Fe	54	639.1	2.6	**0.1658**	0.003	1.7	mg/L	279	Standard
	Fe	57	306.7	16.0	**0.4628**	0.097	21.0	mg/L	73	Standard
>	**Sc-1**	45	49671.3	1.8				mg/L	44343	Standard
	Cl	35	6049.9	0.9				ug/L	5612	Standard
	Kr	83	113.0	5.4				ug/L	108	Standard
	Br	81	46648.4	2.3				ug/L	3490	Standard
	P	31	393224.4	1.2				ug/L	350479	Standard
	S	34	17780.4	2.9				ug/L	17705	Standard
	Sr	88	238.3	17.8				ug/L	42	Standard
	C	12	50.0	80.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	176.1	21.1				mg/L	3	Standard
	Ho-1	165	115.0	7.5				mg/L	7	Standard
	Er	166	150.0	13.3				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.863	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.051	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.366
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.756
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311055704S WG452456-06
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Method 6020 - Summary Report

Sample ID: L1311055705SD WG452456-07
Sample Date/Time: Wednesday, November 13, 2013 18:42:28
Number of Replicates: 3
Autosampler Position: 220
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	178709.5	0.8				ug/L	159627	Standard
	Be	9	65600.1	1.7	**24.0269**	0.247	1.0	ug/L	28	Standard
	Al	27	16370555.0	1.2	**83.4028**	0.854	1.0	ug/L	1227	Standard
	Sc	45	49893.7	3.0				ug/L	44343	Standard
	Ti	47	1160.4	7.3	**2.5635**	0.214	8.4	ug/L	21	Standard
	V	51	197307.6	1.5	**25.1412**	0.314	1.3	ug/L	1305	Standard
	Cr	52	177309.9	1.4	**24.3403**	0.037	0.2	ug/L	4727	Standard
	Cr	53	32112.3	1.6	**25.9290**	0.473	1.8	ug/L	288	Standard
	Mn	55	711414.6	0.9	**54.7675**	0.261	0.5	ug/L	1062	Standard
	Co	59	196832.4	1.3	**24.0872**	0.188	0.8	ug/L	99	Standard
	Ni	60	60827.5	0.7	**25.0804**	0.416	1.7	ug/L	475	Standard
	Cu	65	58134.0	0.6	**24.5749**	0.311	1.3	ug/L	130	Standard
	Zn	66	50190.0	1.1	**39.5395**	0.064	0.2	ug/L	130	Standard
>	Ge	72	362361.0	1.2				ug/L	341919	Standard
	As	75	35809.7	1.1	**26.2304**	0.055	0.2	ug/L	-350	Standard
	Se	82	3848.9	2.0	**26.3430**	0.308	1.2	ug/L	-53	Standard
	Se-1	77	2596.9	0.2	**26.7452**	0.302	1.1	ug/L	84	Standard
>	Ga	71	205.0	18.4				mg/L	53	Standard
	Rb	85	10510.3	2.4				ug/L	13	Standard
	Y	89	376687.0	1.1				ug/L	364126	Standard
>	Rh	103	103.3	28.4				ug/L	12	Standard
	Mo	98	4660.1	2.4	**1.3385**	0.020	1.5	ug/L	24	Standard
	Ag	107	152963.6	1.0	**24.3447**	0.014	0.1	ug/L	45	Standard
	Cd	111	49549.0	0.7	**24.6123**	0.120	0.5	mg/L	2	Standard
	Cd	114	125741.9	1.9	**23.5586**	0.284	1.2	ug/L	10	Standard
>	In	115	392746.9	0.9				ug/L	372170	Standard
	Sn	118	106.0	17.7	**0.0493**	0.016	32.9	ug/L	45	Standard
	Sb	123	70721.8	1.1	**24.5858**	0.253	1.0	ug/L	116	Standard
	Ba	135	114215.2	0.6	**64.1274**	0.197	0.3	ug/L	7	Standard
	Ce	140	5441.0	4.1				ug/L	5	Standard
>	Tb	159	450542.1	2.0				ug/L	430345	Standard
	Ho	165	83.3	6.9				ug/L	7	Standard
	Tl	203	135102.7	0.5	**24.8132**	0.159	0.6	ug/L	3	Standard
	Tl	205	157822.8	1.5	**24.6806**	0.227	0.9	ug/L	2	Standard
	Pb	206	58491.7	1.9	**26.6413**	0.277	1.0	ug/L	69	Standard
	Pb	207	49696.0	1.3	**25.1124**	0.094	0.4	ug/L	57	Standard
	Pb	208	137223.2	1.3	**24.8288**	0.146	0.6	ug/L	162	Standard
	U	238	95121.7	0.7	**25.4085**	0.124	0.5	ug/L	0	Standard
>	Bi	209	211073.5	1.1				ug/L	206180	Standard

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	Na	23	85.0	25.6	**33.4082**	9.601	28.7	mg/L	2	Standard
	Mg	24	37031.9	1.2	**34.2245**	1.262	3.7	mg/L	28	Standard
	K	39	41.7	27.7	**0.4211**	0.150	35.6	mg/L	7	Standard
	Ca	43	320.0	6.8	**13.8468**	0.572	4.1	mg/L	25	Standard
	Fe	54	446.1	13.7	**0.0649**	0.024	37.1	mg/L	279	Standard
	Fe	57	223.3	24.7	**0.2996**	0.119	39.7	mg/L	73	Standard
>	**Sc-1**	45	49893.7	3.0				mg/L	44343	Standard
	Cl	35	6070.6	4.5				ug/L	5612	Standard
	Kr	83	118.7	14.7				ug/L	108	Standard
	Br	81	32745.3	1.2				ug/L	3490	Standard
	P	31	400790.0	3.1				ug/L	350479	Standard
	S	34	17540.1	0.7				ug/L	17705	Standard
	Sr	88	228.3	11.2				ug/L	42	Standard
	C	12	53.3	39.0				mg/L	0	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	123.5	3.4				mg/L	3	Standard
	Ho-1	165	83.3	6.9				mg/L	7	Standard
	Er	166	66.7	48.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.954	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.979	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311055705SD WG452456-07
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	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	105.529
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	102.373
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311051802
Sample Date/Time: Wednesday, November 13, 2013 18:45:34
Number of Replicates: 3
Autosampler Position: 221
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	164254.2	2.4				ug/L	159627	Standard
	Be	9	70.0	37.1	**-0.0002**	0.011	6378.1	ug/L	28	Standard
	Al	27	41697.3	21.0	**0.2058**	0.050	24.5	ug/L	1227	Standard
	Sc	45	46452.8	2.7				ug/L	44343	Standard
	Ti	47	56.3	8.8	**0.0435**	0.011	25.4	ug/L	21	Standard
	V	51	2891.8	6.6	**0.2098**	0.029	13.8	ug/L	1305	Standard
	Cr	52	9420.3	1.9	**0.7424**	0.037	5.0	ug/L	4727	Standard
	Cr	53	623.3	4.0	**0.2447**	0.017	7.1	ug/L	288	Standard
	Mn	55	4664.4	19.9	**0.2793**	0.080	28.7	ug/L	1062	Standard
	Co	59	7844.0	2.5	**1.0021**	0.034	3.4	ug/L	99	Standard
	Ni	60	36913.2	0.1	**16.3184**	0.125	0.8	ug/L	475	Standard
	Cu	65	7498.2	3.0	**3.3552**	0.105	3.1	ug/L	130	Standard
	Zn	66	2971.6	1.9	**2.3513**	0.029	1.2	ug/L	130	Standard
>	**Ge**	72	336349.5	0.9				ug/L	341919	Standard
	As	75	51.6	88.2	**0.2612**	0.036	13.8	ug/L	-350	Standard
	Se	82	33.1	17.1	**0.5332**	0.043	8.0	ug/L	-53	Standard
	Se-1	77	117.0	4.3	**0.3639**	0.046	12.6	ug/L	84	Standard
>	**Ga**	71	1391.7	4.3				mg/L	53	Standard
	Rb	85	845.0	10.0				ug/L	13	Standard
	Y	89	360556.5	0.9				ug/L	364126	Standard
>	**Rh**	103	158.3	18.2				ug/L	12	Standard
	Mo	98	6025.0	0.7	**1.8673**	0.024	1.3	ug/L	24	Standard
	Ag	107	149.0	102.4	**0.0065**	0.026	396.1	ug/L	45	Standard
	Cd	111	81.2	163.6	**0.0300**	0.070	234.8	mg/L	2	Standard
	Cd	114	224.1	136.4	**0.0329**	0.061	185.7	ug/L	10	Standard
>	**In**	115	365280.8	1.5				ug/L	372170	Standard
	Sn	118	94.7	17.4	**0.0456**	0.014	29.9	ug/L	45	Standard
	Sb	123	179.3	20.7	**0.0365**	0.013	36.3	ug/L	116	Standard
	Ba	135	84387.4	1.5	**50.9408**	0.179	0.4	ug/L	7	Standard
	Ce	140	98.3	133.6				ug/L	5	Standard
>	**Tb**	159	433909.3	1.2				ug/L	430345	Standard
	Ho	165	5.0	0.0				ug/L	7	Standard
	Tl	203	165.7	135.5	**0.0290**	0.045	154.7	ug/L	3	Standard
	Tl	205	53.3	116.5	**-0.0033**	0.011	316.7	ug/L	2	Standard
	Pb	206	378.0	73.8	**0.1552**	0.138	89.1	ug/L	69	Standard
	Pb	207	303.3	81.9	**0.1360**	0.137	100.4	ug/L	57	Standard
	Pb	208	559.3	31.9	**0.0646**	0.035	54.5	ug/L	162	Standard
	U	238	39.0	108.1	**-0.0085**	0.012	144.1	ug/L	0	Standard
>	**Bi**	209	194615.3	0.7				ug/L	206180	Standard

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	Na	23	925.0	4.4	**405.9759**	27.044	6.7	mg/L	2	Standard
	Mg	24	3923.8	4.1	**3.8585**	0.202	5.2	mg/L	28	Standard
	K	39	21.7	35.3	**0.1967**	0.103	52.2	mg/L	7	Standard
	Ca	43	5174.2	1.6	**262.7334**	5.739	2.2	mg/L	25	Standard
	Fe	54	303.7	24.9	**0.0035**	0.040	1130.2	mg/L	279	Standard
	Fe	57	2008.5	4.7	**4.0785**	0.305	7.5	mg/L	73	Standard
>	**Sc-1**	45	46452.8	2.7				mg/L	44343	Standard
	Cl	35	7481.2	1.8				ug/L	5612	Standard
	Kr	83	131.7	7.2				ug/L	108	Standard
	Br	81	5267.6	8.9				ug/L	3490	Standard
	P	31	374504.5	1.8				ug/L	350479	Standard
	S	34	20288.6	1.9				ug/L	17705	Standard
	Sr	88	440.0	11.4				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	173.2				mg/L	0	Standard
	Dy	164	13.2	89.8				mg/L	3	Standard
	Ho-1	165	5.0	0.0				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.899	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.371	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.149
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.391
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311051802PS WG452576-01
Sample Date/Time: Wednesday, November 13, 2013 18:48:38
Number of Replicates: 3
Autosampler Position: 222
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	168971.1	3.6				ug/L	159627	Standard
	Be	9	118419.5	2.8	**45.9130**	0.860	1.9	ug/L	28	Standard
	Al	27	34763.2	0.6	**0.1619**	0.006	3.5	ug/L	1227	Standard
	Sc	45	47765.2	3.3				ug/L	44343	Standard
	Ti	47	52.0	20.3	**0.0292**	0.025	86.8	ug/L	21	Standard
	V	51	386586.0	0.3	**51.7407**	0.522	1.0	ug/L	1305	Standard
	Cr	52	358994.9	2.5	**52.3410**	1.588	3.0	ug/L	4727	Standard
	Cr	53	60801.8	2.3	**51.6592**	0.934	1.8	ug/L	288	Standard
	Mn	55	632685.3	1.7	**50.9578**	1.225	2.4	ug/L	1062	Standard
	Co	59	402776.6	0.9	**51.6107**	0.569	1.1	ug/L	99	Standard
	Ni	60	157943.4	1.3	**68.5147**	0.963	1.4	ug/L	475	Standard
	Cu	65	118027.3	1.4	**52.2777**	0.784	1.5	ug/L	130	Standard
	Zn	66	60518.6	1.8	**49.9302**	0.756	1.5	ug/L	130	Standard
>	Ge	72	346326.8	0.7				ug/L	341919	Standard
	As	75	67953.5	1.5	**51.8633**	0.825	1.6	ug/L	-350	Standard
	Se	82	6857.1	1.7	**48.8547**	0.765	1.6	ug/L	-53	Standard
	Se-1	77	4590.7	1.0	**50.2969**	0.223	0.4	ug/L	84	Standard
>	Ga	71	1616.8	7.0				mg/L	53	Standard
	Rb	85	938.4	9.3				ug/L	13	Standard
	Y	89	366928.8	1.4				ug/L	364126	Standard
>	Rh	103	205.0	11.2				ug/L	12	Standard
	Mo	98	6310.9	2.3	**1.9069**	0.046	2.4	ug/L	24	Standard
	Ag	107	293757.0	1.3	**49.0213**	0.312	0.6	ug/L	45	Standard
	Cd	111	96841.8	2.2	**50.4270**	0.463	0.9	mg/L	2	Standard
	Cd	114	247792.4	1.0	**48.6760**	0.342	0.7	ug/L	10	Standard
>	In	115	374718.5	1.2				ug/L	372170	Standard
	Sn	118	96.7	6.7	**0.0453**	0.006	12.8	ug/L	45	Standard
	Sb	123	144328.0	0.6	**52.6246**	0.371	0.7	ug/L	116	Standard
	Ba	135	174026.7	2.1	**102.4043**	0.911	0.9	ug/L	7	Standard
	Ce	140	43.3	46.6				ug/L	5	Standard
>	Tb	159	448793.4	0.9				ug/L	430345	Standard
	Ho	165	0.0					ug/L	7	Standard
	Tl	203	264035.3	1.4	**52.3029**	0.508	1.0	ug/L	3	Standard
	Tl	205	301132.0	1.8	**50.8030**	0.784	1.5	ug/L	2	Standard
	Pb	206	103779.6	1.9	**51.0107**	0.737	1.4	ug/L	69	Standard
	Pb	207	93103.2	1.2	**50.7733**	0.411	0.8	ug/L	57	Standard
	Pb	208	263002.1	1.1	**51.3724**	0.361	0.7	ug/L	162	Standard
	U	238	187747.1	0.8	**54.1107**	0.511	0.9	ug/L	0	Standard
>	Bi	209	195702.8	0.6				ug/L	206180	Standard

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	Na	23	930.0	2.3	**396.9676**	22.289	5.6	mg/L	2	Standard
	Mg	24	4332.3	2.4	**4.1488**	0.235	5.7	mg/L	28	Standard
	K	39	18.3	15.7	**0.1451**	0.030	21.0	mg/L	7	Standard
	Ca	43	5862.8	4.3	**289.5812**	8.874	3.1	mg/L	25	Standard
	Fe	54	373.6	8.2	**0.0372**	0.023	61.5	mg/L	279	Standard
	Fe	57	2168.5	6.1	**4.2848**	0.252	5.9	mg/L	73	Standard
>	**Sc-1**	45	47765.2	3.3				mg/L	44343	Standard
	Cl	35	7888.1	2.0				ug/L	5612	Standard
	Kr	83	156.7	5.4				ug/L	108	Standard
	Br	81	5431.0	3.2				ug/L	3490	Standard
	P	31	498941.7	1.6				ug/L	350479	Standard
	S	34	20196.8	0.6				ug/L	17705	Standard
	Sr	88	473.3	9.8				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	34.6				mg/L	0	Standard
	Dy	164	3.0	201.4				mg/L	3	Standard
	Ho-1	165	0.0					mg/L	7	Standard
	Er	166	6.7	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.854	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.289	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.685
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.918
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1311051802PS WG452576-01
Report Date/Time: Wednesday, November 13, 2013 18:50:51
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Method 6020 - Summary Report

Sample ID: L1311051802SDL WG452576-02
Sample Date/Time: Wednesday, November 13, 2013 18:51:43
Number of Replicates: 3
Autosampler Position: 223
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	187640.5	14.4				ug/L	159627	Standard
	Be	9	46.7	32.7	**-0.0113**	0.007	65.8	ug/L	28	Standard
	Al	27	2952.1	95.2	**-0.0097**	0.017	174.9	ug/L	1227	Standard
	Sc	45	51495.2	14.3				ug/L	44343	Standard
	Ti	47	16.0	16.5	**-0.0599**	0.011	17.9	ug/L	21	Standard
	V	51	1055.5	46.6	**-0.0562**	0.080	141.7	ug/L	1305	Standard
	Cr	52	3938.2	45.6	**-0.1400**	0.321	229.4	ug/L	4727	Standard
	Cr	53	265.0	35.3	**-0.0899**	0.099	110.3	ug/L	288	Standard
	Mn	55	854.7	36.3	**-0.0439**	0.032	72.8	ug/L	1062	Standard
	Co	59	476.7	105.8	**0.0272**	0.069	252.8	ug/L	99	Standard
	Ni	60	1902.2	123.8	**0.6115**	1.077	176.2	ug/L	475	Standard
	Cu	65	470.3	113.7	**0.1406**	0.250	177.5	ug/L	130	Standard
	Zn	66	658.7	106.1	**0.3617**	0.615	170.1	ug/L	130	Standard
>	**Ge**	72	384449.3	14.9				ug/L	341919	Standard
	As	75	-178.1	49.0	**0.0919**	0.079	86.2	ug/L	-350	Standard
	Se	82	-43.9	58.4	**-0.0058**	0.210	3595.2	ug/L	-53	Standard
	Se-1	77	71.3	11.8	**-0.2466**	0.185	75.2	ug/L	84	Standard
>	**Ga**	71	91.7	110.5				mg/L	53	Standard
	Rb	85	63.3	70.8				ug/L	13	Standard
	Y	89	417654.0	16.7				ug/L	364126	Standard
>	**Rh**	103	15.0	115.5				ug/L	12	Standard
	Mo	98	313.0	127.9	**0.0755**	0.120	159.4	ug/L	24	Standard
	Ag	107	60.3	11.0	**-0.0101**	0.002	17.0	ug/L	45	Standard
	Cd	111	7.5	35.4	**-0.0098**	0.001	7.5	mg/L	2	Standard
	Cd	114	23.7	37.6	**-0.0079**	0.002	22.2	ug/L	10	Standard
>	**In**	115	440675.6	16.4				ug/L	372170	Standard
	Sn	118	47.3	22.4	**-0.0034**	0.007	198.5	ug/L	45	Standard
	Sb	123	290.2	42.9	**0.0572**	0.023	39.4	ug/L	116	Standard
	Ba	135	5120.1	125.6	**2.8916**	3.722	128.7	ug/L	7	Standard
	Ce	140	16.7	69.3				ug/L	5	Standard
>	**Tb**	159	554074.3	19.4				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	31.3	25.8	**0.0004**	0.001	220.4	ug/L	3	Standard
	Tl	205	28.3	10.2	**-0.0089**	0.001	9.1	ug/L	2	Standard
	Pb	206	89.7	3.6	**0.0007**	0.007	1099.1	ug/L	69	Standard
	Pb	207	84.0	1.2	**0.0032**	0.007	224.4	ug/L	57	Standard
	Pb	208	229.0	2.0	**-0.0125**	0.006	50.7	ug/L	162	Standard
	U	238	10.0	26.5	**-0.0177**	0.001	3.6	ug/L	0	Standard
>	**Bi**	209	273709.4	20.7				ug/L	206180	Standard

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	Na	23	65.0	118.4	**27.7150**	36.626	132.2	mg/L	2	Standard
	Mg	24	313.3	114.9	**0.2766**	0.391	141.3	mg/L	28	Standard
	K	39	5.0	100.0	**-0.0256**	0.058	226.1	mg/L	7	Standard
	Ca	43	400.0	103.9	**19.2618**	23.208	120.5	mg/L	25	Standard
	Fe	54	126.2	57.5	**-0.0962**	0.049	50.5	mg/L	279	Standard
	Fe	57	208.3	52.8	**0.2816**	0.276	98.1	mg/L	73	Standard
>	**Sc-1**	45	51495.2	14.3				mg/L	44343	Standard
	Cl	35	3878.6	46.8				ug/L	5612	Standard
	Kr	83	110.0	50.2				ug/L	108	Standard
	Br	81	1750.1	59.6				ug/L	3490	Standard
	P	31	133938.2	36.0				ug/L	350479	Standard
	S	34	10782.8	48.7				ug/L	17705	Standard
	Sr	88	91.7	22.0				ug/L	42	Standard
	C	12	13.3	114.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.8	177.4				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		117.549	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.439	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	118.407
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	132.752
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 18:54:51
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	173109.7	4.7				ug/L	159627	Standard
	Be	9	127637.2	2.5	**48.3250**	1.089	2.3	ug/L	28	Standard
	Al	27	9168549.3	0.0	**48.2818**	2.272	4.7	ug/L	1227	Standard
	Sc	45	49325.3	4.2				ug/L	44343	Standard
	Ti	47	44673.4	1.7	**101.1430**	1.358	1.3	ug/L	21	Standard
	V	51	373875.9	1.1	**47.3015**	0.373	0.8	ug/L	1305	Standard
	Cr	52	344930.6	2.2	**47.4875**	0.883	1.9	ug/L	4727	Standard
	Cr	53	60934.0	2.4	**48.9446**	1.133	2.3	ug/L	288	Standard
	Mn	55	626733.7	0.7	**47.7233**	0.188	0.4	ug/L	1062	Standard
	Co	59	394146.3	1.3	**47.7556**	0.457	1.0	ug/L	99	Standard
	Ni	60	118919.2	1.0	**48.7171**	0.287	0.6	ug/L	475	Standard
	Cu	65	117242.9	0.6	**49.1033**	0.256	0.5	ug/L	130	Standard
	Zn	66	62268.4	0.8	**48.5781**	0.368	0.8	ug/L	130	Standard
>	**Ge**	72	366226.5	0.4				ug/L	341919	Standard
	As	75	67648.3	1.4	**48.8352**	0.514	1.1	ug/L	-350	Standard
	Se	82	7218.0	2.6	**48.6305**	1.058	2.2	ug/L	-53	Standard
	Se-1	77	4743.4	1.4	**49.1238**	0.607	1.2	ug/L	84	Standard
>	**Ga**	71	46.7	22.3				mg/L	53	Standard
	Rb	85	1110.0	3.6				ug/L	13	Standard
	Y	89	381657.6	1.3				ug/L	364126	Standard
>	**Rh**	103	16.7	17.3				ug/L	12	Standard
	Mo	98	334443.8	1.3	**94.1776**	1.003	1.1	ug/L	24	Standard
	Ag	107	318306.0	1.1	**49.0978**	0.438	0.9	ug/L	45	Standard
	Cd	111	102254.1	1.4	**49.2198**	0.661	1.3	mg/L	2	Standard
	Cd	114	269120.0	1.5	**48.8647**	0.788	1.6	ug/L	10	Standard
>	**In**	115	405392.4	0.3				ug/L	372170	Standard
	Sn	118	62962.6	2.5	**50.3131**	1.246	2.5	ug/L	45	Standard
	Sb	123	145623.3	1.0	**49.0747**	0.469	1.0	ug/L	116	Standard
	Ba	135	89597.5	1.0	**48.7338**	0.449	0.9	ug/L	7	Standard
	Ce	140	35.0	28.6				ug/L	5	Standard
>	**Tb**	159	455341.6	1.3				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	274447.7	0.4	**48.9637**	0.540	1.1	ug/L	3	Standard
	Tl	205	315598.4	1.4	**47.9518**	0.774	1.6	ug/L	2	Standard
	Pb	206	110723.4	0.7	**49.0143**	0.345	0.7	ug/L	69	Standard
	Pb	207	99765.7	0.4	**49.0001**	0.624	1.3	ug/L	57	Standard
	Pb	208	271691.3	1.0	**47.7907**	0.348	0.7	ug/L	162	Standard
	U	238	185086.4	1.3	**48.0391**	0.736	1.5	ug/L	0	Standard
>	**Bi**	209	217310.7	0.9				ug/L	206180	Standard

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	Na	23	23.3	44.6	**8.2002**	4.631	56.5	mg/L	2	Standard
	Mg	24	5302.6	6.5	**4.9158**	0.110	2.2	mg/L	28	Standard
	K	39	320.0	5.6	**3.8572**	0.373	9.7	mg/L	7	Standard
	Ca	43	128.3	9.8	**4.8152**	0.385	8.0	mg/L	25	Standard
	Fe	54	9625.2	3.5	**4.8303**	0.080	1.6	mg/L	279	Standard
	Fe	57	2568.6	1.9	**4.9419**	0.287	5.8	mg/L	73	Standard
>	**Sc-1**	45	49325.3	4.2				mg/L	44343	Standard
	Cl	35	6526.7	0.8				ug/L	5612	Standard
	Kr	83	119.0	5.5				ug/L	108	Standard
	Br	81	3383.7	12.7				ug/L	3490	Standard
	P	31	410574.0	1.2				ug/L	350479	Standard
	S	34	22239.6	0.3				ug/L	17705	Standard
	Sr	88	41.7	45.4				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.446	
	Be	9	96.650		
	Al	27	96.564		
	Sc	45			
	Ti	47	101.143		
	V	51	94.603		
	Cr	52	94.975		
	Cr	53			
	Mn	55	95.447		
	Co	59	95.511		
	Ni	60	97.434		
	Cu	65	98.207		
	Zn	66	97.156		
>	Ge	72		107.109	
	As	75	97.670		
	Se	82	97.261		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	94.178		
|	Ag	107	98.196		
|	Cd	111	98.440		
|	Cd	114			
|>	In	115		108.927	
|	Sn	118	100.626		
|	Sb	123	98.149		
⌊	Ba	135	97.468		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	97.927		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	95.581		
|	U	238	96.078		
⌊>	Bi	209		105.398	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 18:57:55
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	173070.6	4.0				ug/L	159627	Standard
	Be	9	111.7	41.4	**0.0141**	0.017	122.5	ug/L	28	Standard
	Al	27	2523.7	111.6	**-0.0124**	0.015	118.6	ug/L	1227	Standard
	Sc	45	47532.8	2.1				ug/L	44343	Standard
	Ti	47	29.3	47.0	**-0.0277**	0.033	117.9	ug/L	21	Standard
	V	51	1272.6	2.3	**-0.0261**	0.006	21.9	ug/L	1305	Standard
	Cr	52	4605.0	0.8	**-0.0371**	0.011	29.5	ug/L	4727	Standard
	Cr	53	305.0	6.6	**-0.0533**	0.019	36.6	ug/L	288	Standard
	Mn	55	1071.7	10.1	**-0.0256**	0.009	35.7	ug/L	1062	Standard
	Co	59	118.0	30.6	**-0.0191**	0.005	24.2	ug/L	99	Standard
	Ni	60	287.3	16.9	**-0.1032**	0.022	21.0	ug/L	475	Standard
	Cu	65	135.3	26.7	**-0.0113**	0.016	141.5	ug/L	130	Standard
	Zn	66	153.3	18.5	**-0.0601**	0.024	39.5	ug/L	130	Standard
>	**Ge**	72	360602.8	1.2				ug/L	341919	Standard
	As	75	-311.8	20.9	**-0.0067**	0.047	697.3	ug/L	-350	Standard
	Se	82	-47.6	29.5	**-0.0316**	0.094	296.7	ug/L	-53	Standard
	Se-1	77	85.0	13.9	**-0.0699**	0.123	176.5	ug/L	84	Standard
>	**Ga**	71	35.0	28.6				mg/L	53	Standard
	Rb	85	23.3	32.7				ug/L	13	Standard
	Y	89	376476.7	0.8				ug/L	364126	Standard
>	**Rh**	103	6.7	114.6				ug/L	12	Standard
	Mo	98	77.5	39.0	**0.0059**	0.009	145.4	ug/L	24	Standard
	Ag	107	80.3	39.9	**-0.0063**	0.005	78.5	ug/L	45	Standard
	Cd	111	8.2	144.1	**-0.0091**	0.006	63.3	mg/L	2	Standard
	Cd	114	35.4	101.5	**-0.0055**	0.007	119.9	ug/L	10	Standard
>	**In**	115	401357.3	0.4				ug/L	372170	Standard
	Sn	118	110.3	16.0	**0.0508**	0.014	28.5	ug/L	45	Standard
	Sb	123	367.3	35.6	**0.0945**	0.044	46.7	ug/L	116	Standard
	Ba	135	28.0	50.6	**0.0094**	0.008	83.0	ug/L	7	Standard
	Ce	140	13.3	43.3				ug/L	5	Standard
>	**Tb**	159	453962.8	1.4				ug/L	430345	Standard
	Ho	165	8.3	34.6				ug/L	7	Standard
	Tl	203	28.0	130.3	**0.0009**	0.007	717.2	ug/L	3	Standard
	Tl	205	106.7	136.7	**0.0038**	0.022	584.0	ug/L	2	Standard
	Pb	206	81.3	8.2	**0.0041**	0.003	73.2	ug/L	69	Standard
	Pb	207	65.7	21.9	**0.0016**	0.007	434.1	ug/L	57	Standard
	Pb	208	237.3	52.5	**-0.0037**	0.022	595.6	ug/L	162	Standard
	U	238	56.3	154.8	**-0.0052**	0.023	434.2	ug/L	0	Standard
>	**Bi**	209	217740.1	0.7				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.8080**	1.271	157.3	mg/L	2	Standard
	Mg	24	35.0	28.6	**-0.0066**	0.009	143.2	mg/L	28	Standard
	K	39	11.7	65.5	**0.0632**	0.101	160.4	mg/L	7	Standard
	Ca	43	16.7	45.8	**-0.5062**	0.401	79.3	mg/L	25	Standard
	Fe	54	287.5	5.6	**-0.0087**	0.006	63.7	mg/L	279	Standard
	Fe	57	85.0	5.9	**0.0353**	0.008	23.4	mg/L	73	Standard
>	**Sc-1**	45	47532.8	2.1				mg/L	44343	Standard
	Cl	35	6428.0	2.1				ug/L	5612	Standard
	Kr	83	113.7	5.6				ug/L	108	Standard
	Br	81	3627.1	2.1				ug/L	3490	Standard
	P	31	402327.6	1.7				ug/L	350479	Standard
	S	34	21939.2	1.6				ug/L	17705	Standard
	Sr	88	40.0	21.7				ug/L	42	Standard
	C	12	16.7	91.7				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	200.7				mg/L	3	Standard
	Ho-1	165	8.3	34.6				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.422	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.464	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.842
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.607
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1311047601
Sample Date/Time: Wednesday, November 13, 2013 19:01:03
Number of Replicates: 3
Autosampler Position: 224
Sample Description: 5
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	149541.5	3.3				ug/L	159627	Standard
	Be	9	368.3	3.4	**0.1335**	0.010	7.9	ug/L	28	Standard
	Al	27	2842729.4	0.3	**17.3002**	0.598	3.5	ug/L	1227	Standard
	Sc	45	46026.5	2.5				ug/L	44343	Standard
	Ti	47	13528.4	0.5	**35.2394**	0.535	1.5	ug/L	21	Standard
	V	51	168586.7	0.6	**24.4893**	0.148	0.6	ug/L	1305	Standard
	Cr	52	30681.0	1.8	**4.2479**	0.040	0.9	ug/L	4727	Standard
	Cr	53	4799.1	4.7	**4.1652**	0.170	4.1	ug/L	288	Standard
	Mn	55	1202607.5	1.1	**105.6615**	0.091	0.1	ug/L	1062	Standard
	Co	59	63191.8	0.2	**8.7966**	0.087	1.0	ug/L	99	Standard
	Ni	60	65650.6	0.2	**30.9151**	0.357	1.2	ug/L	475	Standard
	Cu	65	65873.9	1.3	**31.7693**	0.307	1.0	ug/L	130	Standard
	Zn	66	37741.6	0.4	**33.8783**	0.378	1.1	ug/L	130	Standard
>	**Ge**	72	317794.7	1.0				ug/L	341919	Standard
	As	75	15509.6	0.4	**13.0666**	0.171	1.3	ug/L	-350	Standard
	Se	82	114.2	7.2	**1.1723**	0.056	4.8	ug/L	-53	Standard
	Se-1	77	192.3	7.9	**1.3595**	0.178	13.1	ug/L	84	Standard
>	**Ga**	71	3755.5	5.7				mg/L	53	Standard
	Rb	85	23980.6	2.0				ug/L	13	Standard
	Y	89	395844.7	1.2				ug/L	364126	Standard
>	**Rh**	103	21.7	93.3				ug/L	12	Standard
	Mo	98	23825.0	1.0	**7.9678**	0.087	1.1	ug/L	24	Standard
	Ag	107	231.0	11.0	**0.0236**	0.005	20.4	ug/L	45	Standard
	Cd	111	262.6	3.2	**0.1373**	0.005	3.5	mg/L	2	Standard
	Cd	114	762.0	5.4	**0.1527**	0.008	5.4	ug/L	10	Standard
>	**In**	115	340727.6	0.7				ug/L	372170	Standard
	Sn	118	297.7	3.7	**0.2449**	0.011	4.6	ug/L	45	Standard
	Sb	123	1611.9	4.9	**0.6164**	0.036	5.8	ug/L	116	Standard
	Ba	135	19560.3	0.5	**12.6541**	0.055	0.4	ug/L	7	Standard
	Ce	140	166511.7	1.4				ug/L	5	Standard
>	**Tb**	159	410800.3	1.5				ug/L	430345	Standard
	Ho	165	3140.3	2.8				ug/L	7	Standard
	Tl	203	304.7	2.5	**0.0588**	0.001	2.2	ug/L	3	Standard
	Tl	205	371.7	2.8	**0.0530**	0.002	3.6	ug/L	2	Standard
	Pb	206	86615.9	0.4	**44.3673**	0.342	0.8	ug/L	69	Standard
	Pb	207	73718.9	0.4	**41.8922**	0.148	0.4	ug/L	57	Standard
	Pb	208	205071.1	0.1	**41.7378**	0.208	0.5	ug/L	162	Standard
	U	238	7548.5	1.1	**2.2483**	0.033	1.5	ug/L	0	Standard
>	**Bi**	209	187787.2	0.4				ug/L	206180	Standard

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	Na	23	35.0	0.0	**14.0096**	0.382	2.7	mg/L	2	Standard
	Mg	24	141524.6	1.3	**141.8413**	1.974	1.4	mg/L	28	Standard
	K	39	70.0	7.1	**0.8346**	0.045	5.4	mg/L	7	Standard
	Ca	43	178.3	4.3	**7.8495**	0.594	7.6	mg/L	25	Standard
	Fe	54	4908.3	2.4	**2.5650**	0.009	0.4	mg/L	279	Standard
	Fe	57	1311.7	5.9	**2.6364**	0.116	4.4	mg/L	73	Standard
>	**Sc-1**	45	46026.5	2.5				mg/L	44343	Standard
	Cl	35	5565.7	1.3				ug/L	5612	Standard
	Kr	83	106.3	5.4				ug/L	108	Standard
	Br	81	4850.8	6.0				ug/L	3490	Standard
	P	31	216910.0	0.5				ug/L	350479	Standard
	S	34	17176.4	2.0				ug/L	17705	Standard
	Sr	88	51.7	22.3				ug/L	42	Standard
	C	12	60.0	60.1				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	76.7	37.7				mg/L	0	Standard
	Dy	164	4897.5	7.0				mg/L	3	Standard
	Ho-1	165	3140.3	2.8				mg/L	7	Standard
	Er	166	2923.6	5.9				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.682	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.944	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	91.552
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	91.079
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1311062501 WG452456-03
Sample Date/Time: Wednesday, November 13, 2013 19:04:08
Number of Replicates: 3
Autosampler Position: 225
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	178767.3	2.9				ug/L	159627	Standard
	Be	9	63.3	27.7	**-0.0048**	0.007	146.5	ug/L	28	Standard
	Al	27	9146578.6	0.3	**46.5978**	1.353	2.9	ug/L	1227	Standard
	Sc	45	49679.7	1.0				ug/L	44343	Standard
	Ti	47	585.0	13.7	**1.2250**	0.177	14.5	ug/L	21	Standard
	V	51	4417.5	2.2	**0.3687**	0.012	3.3	ug/L	1305	Standard
	Cr	52	6756.8	1.7	**0.2497**	0.016	6.5	ug/L	4727	Standard
	Cr	53	1103.4	20.7	**0.5844**	0.183	31.3	ug/L	288	Standard
	Mn	55	62485.6	1.5	**4.6419**	0.085	1.8	ug/L	1062	Standard
	Co	59	803.7	4.9	**0.0634**	0.005	7.8	ug/L	99	Standard
	Ni	60	4424.6	1.4	**1.5905**	0.021	1.3	ug/L	475	Standard
	Cu	65	4247.6	1.9	**1.7055**	0.032	1.9	ug/L	130	Standard
	Zn	66	9315.9	1.9	**7.0848**	0.152	2.1	ug/L	130	Standard
>	Ge	72	367644.9	0.2				ug/L	341919	Standard
	As	75	429.1	8.9	**0.5280**	0.028	5.3	ug/L	-350	Standard
	Se	82	148.5	4.5	**1.2820**	0.044	3.4	ug/L	-53	Standard
	Se-1	77	222.3	3.8	**1.3580**	0.091	6.7	ug/L	84	Standard
>	Ga	71	175.0	15.1				mg/L	53	Standard
	Rb	85	12506.8	0.6				ug/L	13	Standard
	Y	89	386677.7	1.6				ug/L	364126	Standard
>	Rh	103	63.3	12.1				ug/L	12	Standard
	Mo	98	4432.0	2.8	**1.2494**	0.015	1.2	ug/L	24	Standard
	Ag	107	50.7	9.7	**-0.0109**	0.001	8.1	ug/L	45	Standard
	Cd	111	66.3	9.6	**0.0193**	0.003	16.0	mg/L	2	Standard
	Cd	114	178.1	21.8	**0.0208**	0.007	31.7	ug/L	10	Standard
>	In	115	399810.7	1.6				ug/L	372170	Standard
	Sn	118	131.3	6.2	**0.0682**	0.006	9.3	ug/L	45	Standard
	Sb	123	279.5	6.7	**0.0650**	0.006	8.6	ug/L	116	Standard
	Ba	135	26673.1	1.0	**14.7082**	0.208	1.4	ug/L	7	Standard
	Ce	140	2300.2	35.5				ug/L	5	Standard
>	Tb	159	453196.5	2.1				ug/L	430345	Standard
	Ho	165	51.7	59.1				ug/L	7	Standard
	Tl	203	143.3	9.4	**0.0217**	0.003	12.0	ug/L	3	Standard
	Tl	205	161.7	9.4	**0.0124**	0.003	20.7	ug/L	2	Standard
	Pb	206	255.3	7.9	**0.0820**	0.009	11.5	ug/L	69	Standard
	Pb	207	201.3	3.6	**0.0690**	0.003	4.5	ug/L	57	Standard
	Pb	208	594.0	6.3	**0.0599**	0.006	10.6	ug/L	162	Standard
	U	238	1536.1	5.0	**0.3818**	0.023	6.0	ug/L	0	Standard
>	Bi	209	215854.1	0.9				ug/L	206180	Standard

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	Na	23	61.7	37.4	**23.8091**	9.427	39.6	mg/L	2	Standard
	Mg	24	8637.5	1.6	**7.9811**	0.175	2.2	mg/L	28	Standard
	K	39	86.7	28.5	**0.9690**	0.290	29.9	mg/L	7	Standard
	Ca	43	313.3	14.8	**13.5933**	2.074	15.3	mg/L	25	Standard
	Fe	54	424.0	13.7	**0.0551**	0.031	56.9	mg/L	279	Standard
	Fe	57	213.3	10.6	**0.2795**	0.045	16.0	mg/L	73	Standard
>	**Sc-1**	45	49679.7	1.0				mg/L	44343	Standard
	Cl	35	6362.7	2.6				ug/L	5612	Standard
	Kr	83	109.3	1.9				ug/L	108	Standard
	Br	81	16011.8	5.3				ug/L	3490	Standard
	P	31	378694.6	1.3				ug/L	350479	Standard
	S	34	18648.1	0.8				ug/L	17705	Standard
	Sr	88	188.3	22.3				ug/L	42	Standard
	C	12	23.3	65.5				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	173.2				mg/L	0	Standard
	Dy	164	64.0	36.3				mg/L	3	Standard
	Ho-1	165	51.7	59.1				mg/L	7	Standard
	Er	166	56.7	10.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.991	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.524	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.427
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.692
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311062501DP WG452456-10
Sample Date/Time: Wednesday, November 13, 2013 19:07:12
Number of Replicates: 3
Autosampler Position: 226
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	202636.3	6.4				ug/L	159627	Standard
	Be	9	23.3	65.5	**-0.0204**	0.006	27.2	ug/L	28	Standard
	Al	27	1118.4	43.8	**-0.0207**	0.002	9.7	ug/L	1227	Standard
	Sc	45	53395.9	7.2				ug/L	44343	Standard
	Ti	47	21.3	17.7	**-0.0498**	0.011	22.2	ug/L	21	Standard
	V	51	846.3	32.8	**-0.0879**	0.042	47.8	ug/L	1305	Standard
	Cr	52	2954.6	28.4	**-0.2982**	0.143	48.1	ug/L	4727	Standard
	Cr	53	296.7	20.1	**-0.0775**	0.063	81.4	ug/L	288	Standard
	Mn	55	788.0	19.7	**-0.0518**	0.016	30.7	ug/L	1062	Standard
	Co	59	94.3	8.0	**-0.0229**	0.002	7.7	ug/L	99	Standard
	Ni	60	202.3	10.4	**-0.1457**	0.009	6.0	ug/L	475	Standard
	Cu	65	89.0	34.6	**-0.0335**	0.015	44.5	ug/L	130	Standard
	Zn	66	146.3	8.5	**-0.0746**	0.018	23.5	ug/L	130	Standard
>	**Ge**	72	393428.4	8.7				ug/L	341919	Standard
	As	75	-380.9	56.1	**-0.0435**	0.164	376.7	ug/L	-350	Standard
	Se	82	-103.6	56.1	**-0.3783**	0.418	110.4	ug/L	-53	Standard
	Se-1	77	60.7	11.0	**-0.3825**	0.080	21.0	ug/L	84	Standard
>	**Ga**	71	26.7	43.3				mg/L	53	Standard
	Rb	85	23.3	44.6				ug/L	13	Standard
	Y	89	431296.7	10.6				ug/L	364126	Standard
>	**Rh**	103	5.0	173.2				ug/L	12	Standard
	Mo	98	16.3	32.2	**-0.0120**	0.001	11.0	ug/L	24	Standard
	Ag	107	52.7	24.0	**-0.0116**	0.001	10.4	ug/L	45	Standard
	Cd	111	2.3	66.2	**-0.0121**	0.001	4.4	mg/L	2	Standard
	Cd	114	15.6	49.0	**-0.0094**	0.002	16.6	ug/L	10	Standard
>	**In**	115	454550.3	11.3				ug/L	372170	Standard
	Sn	118	40.7	5.1	**-0.0092**	0.003	28.6	ug/L	45	Standard
	Sb	123	52.6	6.2	**-0.0145**	0.003	17.9	ug/L	116	Standard
	Ba	135	9.0	22.2	**-0.0016**	0.001	50.8	ug/L	7	Standard
	Ce	140	6.7	43.3				ug/L	5	Standard
>	**Tb**	159	568798.8	9.6				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	16.3	84.5	**-0.0019**	0.002	87.4	ug/L	3	Standard
	Tl	205	15.0	88.2	**-0.0107**	0.001	12.9	ug/L	2	Standard
	Pb	206	92.0	22.5	**-0.0005**	0.005	1005.0	ug/L	69	Standard
	Pb	207	71.7	18.4	**-0.0034**	0.003	75.2	ug/L	57	Standard
	Pb	208	205.0	9.4	**-0.0173**	0.001	5.7	ug/L	162	Standard
	U	238	2.0	50.0	**-0.0194**	0.000	0.9	ug/L	0	Standard
>	**Bi**	209	279569.7	9.2				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	15.0	33.3	**-0.0274**	0.005	17.2	mg/L	28	Standard
	K	39	1.7	173.2	**-0.0695**	0.031	43.9	mg/L	7	Standard
	Ca	43	25.0	40.0	**-0.2404**	0.396	164.8	mg/L	25	Standard
	Fe	54	167.8	33.8	**-0.0815**	0.032	39.8	mg/L	279	Standard
	Fe	57	80.0	16.5	**0.0085**	0.032	376.3	mg/L	73	Standard
>	**Sc-1**	45	53395.9	7.2				mg/L	44343	Standard
	Cl	35	3023.0	27.2				ug/L	5612	Standard
	Kr	83	178.0	57.1				ug/L	108	Standard
	Br	81	1616.8	21.0				ug/L	3490	Standard
	P	31	189712.5	45.0				ug/L	350479	Standard
	S	34	9331.4	29.4				ug/L	17705	Standard
	Sr	88	51.7	24.4				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.8	99.2				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		126.944	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		115.065	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	122.135
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	135.595
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: L1311062501DP WG452456-10
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Method 6020 - Summary Report

Sample ID: L1311062502
Sample Date/Time: Wednesday, November 13, 2013 19:10:17
Number of Replicates: 3
Autosampler Position: 227
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	344465.5	1.4				ug/L	159627	Standard
	Be	9	2911.9	2.4	**0.5258**	0.005	1.0	ug/L	28	Standard
	Al	27	S	S	**S**	S	S	ug/L	1227	Standard
	Sc	45	128348.2	2.5				ug/L	44343	Standard
	Ti	47	85253.2	1.0	**207.1035**	2.056	1.0	ug/L	21	Standard
	V	51	4784853.5	1.8	**651.5843**	5.701	0.9	ug/L	1305	Standard
	Cr	52	4196386.2	0.7	**627.9267**	6.239	1.0	ug/L	4727	Standard
	Cr	53	686581.1	1.2	**594.8290**	10.262	1.7	ug/L	288	Standard
	Mn	55	129483123.6	1.5	**10597.0402**	45.265	0.4	ug/L	1062	Standard
	Co	59	370108.9	2.9	**48.0821**	0.701	1.5	ug/L	99	Standard
	Ni	60	2494456.1	0.3	**1100.7971**	16.453	1.5	ug/L	475	Standard
	Cu	65	412324.2	0.5	**185.3906**	1.961	1.1	ug/L	130	Standard
	Zn	66	3142882.7	0.9	**2639.2328**	36.188	1.4	ug/L	130	Standard
>	**Ge**	72	341523.5	1.6				ug/L	341919	Standard
	As	75	154379.5	1.4	**119.1986**	1.447	1.2	ug/L	-350	Standard
	Se	82	182670.2	1.4	**1312.2272**	2.716	0.2	ug/L	-53	Standard
	Se-1	77	139455.7	1.9	**1578.6494**	9.243	0.6	ug/L	84	Standard
>	**Ga**	71	52500.8	2.3				mg/L	53	Standard
	Rb	85	609136.7	0.2				ug/L	13	Standard
	Y	89	6097554.5	0.8				ug/L	364126	Standard
>	**Rh**	103	13717.9	0.7				ug/L	12	Standard
	Mo	98	772836.0	1.5	**294.9426**	2.383	0.8	ug/L	24	Standard
	Ag	107	7299.4	0.2	**1.5076**	0.011	0.7	ug/L	45	Standard
	Cd	111	83479.9	1.8	**54.4524**	0.651	1.2	mg/L	2	Standard
	Cd	114	210362.9	0.4	**51.7622**	0.419	0.8	ug/L	10	Standard
>	**In**	115	299153.3	0.7				ug/L	372170	Standard
	Sn	118	4059.5	1.0	**4.3611**	0.040	0.9	ug/L	45	Standard
	Sb	123	44764.3	0.2	**20.4258**	0.178	0.9	ug/L	116	Standard
	Ba	135	1632537.9	0.5	**1203.4957**	9.223	0.8	ug/L	7	Standard
	Ce	140	1607543.1	0.4				ug/L	5	Standard
>	**Tb**	159	456611.3	1.8				ug/L	430345	Standard
	Ho	165	119773.2	1.1				ug/L	7	Standard
	Tl	203	19632.0	2.4	**4.7674**	0.031	0.7	ug/L	3	Standard
	Tl	205	22937.4	3.1	**4.7369**	0.139	2.9	ug/L	2	Standard
	Pb	206	251284.7	3.6	**151.5613**	1.620	1.1	ug/L	69	Standard
	Pb	207	108447.1	4.1	**72.5458**	1.051	1.4	ug/L	57	Standard
	Pb	208	352694.9	2.2	**84.5504**	0.612	0.7	ug/L	162	Standard
	U	238	1692286.6	3.3	**598.4367**	4.498	0.8	ug/L	0	Standard
>	**Bi**	209	159533.6	2.7				ug/L	206180	Standard

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	Na	23	1450.1	7.4	**229.5589**	19.052	8.3	mg/L	2	Standard
	Mg	24	58456.0	3.9	**20.9682**	0.495	2.4	mg/L	28	Standard
	K	39	545.0	13.5	**2.4838**	0.286	11.5	mg/L	7	Standard
	Ca	43	6164.6	3.1	**112.4816**	0.947	0.8	mg/L	25	Standard
	Fe	54	130106.1	1.3	**25.7791**	0.564	2.2	mg/L	279	Standard
	Fe	57	41953.1	4.4	**31.6978**	0.835	2.6	mg/L	73	Standard
>	**Sc-1**	45	128348.2	2.5				mg/L	44343	Standard
	Cl	35	20391.1	5.9				ug/L	5612	Standard
	Kr	83	1264.4	0.6				ug/L	108	Standard
	Br	81	146255.9	1.3				ug/L	3490	Standard
	P	31	844111.4	0.5				ug/L	350479	Standard
	S	34	11044.0	5.8				ug/L	17705	Standard
	Sr	88	96844.1	5.2				ug/L	42	Standard
	C	12	23.3	137.8				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	36607.5	2.7				mg/L	0	Standard
	Dy	164	150529.6	3.1				mg/L	3	Standard
	Ho-1	165	119773.2	1.1				mg/L	7	Standard
	Er	166	123962.1	3.5				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		215.794	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.884	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	80.381
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	77.376
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	

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Cr 53 Upper, S, EEE	Cr	53
Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
As 75 Upper, S, EEE	As	75
Se 82 Upper, S, EEE	Se	82
Se-1 77 Upper, S, EEE	Se-1	77
Mo 98 Upper, S, EEE	Mo	98
Ba 135 Upper, S, EEE	Ba	135
Pb 206 Upper, S, EEE	Pb	206
U 238 Upper, S, EEE	U	238

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Method 6020 - Summary Report

Sample ID: L1311062601
Sample Date/Time: Wednesday, November 13, 2013 19:13:23
Number of Replicates: 3
Autosampler Position: 228
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	175939.9	3.8				ug/L	159627	Standard
	Be	9	65.0	20.4	**-0.0040**	0.004	104.5	ug/L	28	Standard
	Al	27	32270832.6	0.3	**167.1757**	6.022	3.6	ug/L	1227	Standard
	Sc	45	47698.3	0.9				ug/L	44343	Standard
	Ti	47	1594.8	8.4	**3.7108**	0.347	9.3	ug/L	21	Standard
	V	51	22291.3	2.2	**2.7913**	0.096	3.4	ug/L	1305	Standard
	Cr	52	22531.7	2.8	**2.6233**	0.113	4.3	ug/L	4727	Standard
	Cr	53	7071.7	5.1	**5.7112**	0.235	4.1	ug/L	288	Standard
	Mn	55	867514.1	1.6	**69.5987**	1.463	2.1	ug/L	1062	Standard
	Co	59	3729.8	1.7	**0.4424**	0.005	1.2	ug/L	99	Standard
	Ni	60	29765.9	1.0	**12.6732**	0.135	1.1	ug/L	475	Standard
	Cu	65	44978.7	1.0	**19.7911**	0.241	1.2	ug/L	130	Standard
	Zn	66	10085.7	2.6	**8.1329**	0.246	3.0	ug/L	130	Standard
>	**Ge**	72	347883.8	1.2				ug/L	341919	Standard
	As	75	4330.4	3.0	**3.4976**	0.126	3.6	ug/L	-350	Standard
	Se	82	1037.5	0.9	**7.6074**	0.124	1.6	ug/L	-53	Standard
	Se-1	77	976.7	1.7	**9.8795**	0.125	1.3	ug/L	84	Standard
>	**Ga**	71	670.0	3.4				mg/L	53	Standard
	Rb	85	108508.9	1.0				ug/L	13	Standard
	Y	89	346280.8	2.7				ug/L	364126	Standard
>	**Rh**	103	261.7	2.9				ug/L	12	Standard
	Mo	98	162838.8	2.9	**51.1848**	0.833	1.6	ug/L	24	Standard
	Ag	107	72.3	45.0	**-0.0064**	0.006	90.2	ug/L	45	Standard
	Cd	111	70.4	66.5	**0.0250**	0.026	102.9	mg/L	2	Standard
	Cd	114	669.6	11.1	**0.1239**	0.016	12.9	ug/L	10	Standard
>	**In**	115	363082.9	1.4				ug/L	372170	Standard
	Sn	118	326.0	23.6	**0.2522**	0.065	25.6	ug/L	45	Standard
	Sb	123	3734.8	2.3	**1.3760**	0.046	3.3	ug/L	116	Standard
	Ba	135	114134.0	1.1	**69.3181**	0.178	0.3	ug/L	7	Standard
	Ce	140	6441.4	29.7				ug/L	5	Standard
>	**Tb**	159	430837.5	1.8				ug/L	430345	Standard
	Ho	165	153.3	15.4				ug/L	7	Standard
	Tl	203	524.7	5.9	**0.1008**	0.007	6.7	ug/L	3	Standard
	Tl	205	636.7	8.3	**0.0960**	0.009	9.7	ug/L	2	Standard
	Pb	206	595.3	19.8	**0.2641**	0.061	23.2	ug/L	69	Standard
	Pb	207	471.0	5.1	**0.2289**	0.016	7.1	ug/L	57	Standard
	Pb	208	1244.0	9.9	**0.2001**	0.025	12.6	ug/L	162	Standard
	U	238	3407.4	6.0	**0.9716**	0.060	6.2	ug/L	0	Standard
>	**Bi**	209	193929.1	1.6				ug/L	206180	Standard

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	Na	23	196.7	14.0	**82.7877**	12.175	14.7	mg/L	2	Standard
	Mg	24	172398.6	0.3	**166.7109**	1.817	1.1	mg/L	28	Standard
	K	39	315.0	13.0	**3.9155**	0.491	12.5	mg/L	7	Standard
	Ca	43	978.4	9.8	**47.3005**	5.190	11.0	mg/L	25	Standard
	Fe	54	649.4	10.3	**0.1851**	0.038	20.5	mg/L	279	Standard
	Fe	57	571.7	6.8	**1.0287**	0.076	7.4	mg/L	73	Standard
>	**Sc-1**	45	47698.3	0.9				mg/L	44343	Standard
	Cl	35	7361.1	3.3				ug/L	5612	Standard
	Kr	83	150.7	2.1				ug/L	108	Standard
	Br	81	56635.7	1.8				ug/L	3490	Standard
	P	31	391471.9	1.6				ug/L	350479	Standard
	S	34	12708.7	0.2				ug/L	17705	Standard
	Sr	88	871.7	6.4				ug/L	42	Standard
	C	12	36.7	56.8				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	306.7	35.2				mg/L	0	Standard
	Dy	164	225.7	28.7				mg/L	3	Standard
	Ho-1	165	153.3	15.4				mg/L	7	Standard
	Er	166	160.0	73.7				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.219	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.744	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.558
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.058
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	

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Method 6020 - Summary Report

Sample ID: L1311051802
Sample Date/Time: Wednesday, November 13, 2013 19:16:28
Number of Replicates: 3
Autosampler Position: 229
Sample Description: 25
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	166579.0	0.4				ug/L	159627	Standard
	Be	9	41.7	48.5	**-0.0118**	0.008	67.4	ug/L	28	Standard
	Al	27	47181.3	139.4	**0.2325**	0.360	154.9	ug/L	1227	Standard
	Sc	45	42319.0	1.5				ug/L	44343	Standard
	Ti	47	22.7	13.5	**-0.0405**	0.008	19.4	ug/L	21	Standard
	V	51	2053.1	28.0	**0.0882**	0.078	88.1	ug/L	1305	Standard
	Cr	52	6310.0	9.3	**0.2505**	0.084	33.7	ug/L	4727	Standard
	Cr	53	746.7	3.3	**0.3408**	0.026	7.7	ug/L	288	Standard
	Mn	55	11398.7	153.3	**0.8194**	1.423	173.6	ug/L	1062	Standard
	Co	59	417.3	34.7	**0.0204**	0.019	91.6	ug/L	99	Standard
	Ni	60	1707.1	9.4	**0.5267**	0.069	13.1	ug/L	475	Standard
	Cu	65	500.0	3.0	**0.1549**	0.009	5.6	ug/L	130	Standard
	Zn	66	2386.9	5.5	**1.8140**	0.116	6.4	ug/L	130	Standard
>	**Ge**	72	342951.4	0.9				ug/L	341919	Standard
	As	75	-294.4	15.3	**-0.0051**	0.033	652.5	ug/L	-350	Standard
	Se	82	-50.8	24.1	**-0.0713**	0.085	119.1	ug/L	-53	Standard
	Se-1	77	98.7	2.6	**0.1316**	0.034	26.0	ug/L	84	Standard
>	**Ga**	71	108.3	18.7				mg/L	53	Standard
	Rb	85	156.7	90.3				ug/L	13	Standard
	Y	89	342684.1	1.5				ug/L	364126	Standard
>	**Rh**	103	25.0	72.1				ug/L	12	Standard
	Mo	98	395.2	53.4	**0.1041**	0.065	62.1	ug/L	24	Standard
	Ag	107	114.0	99.5	**0.0002**	0.019	10574.2	ug/L	45	Standard
	Cd	111	39.0	163.9	**0.0073**	0.033	457.0	mg/L	2	Standard
	Cd	114	148.6	142.4	**0.0173**	0.042	241.5	ug/L	10	Standard
>	**In**	115	375508.0	0.7				ug/L	372170	Standard
	Sn	118	51.0	35.8	**0.0057**	0.016	277.8	ug/L	45	Standard
	Sb	123	44.3	58.1	**-0.0143**	0.009	65.8	ug/L	116	Standard
	Ba	135	3804.5	20.2	**2.2292**	0.458	20.5	ug/L	7	Standard
	Ce	140	365.0	166.1				ug/L	5	Standard
>	**Tb**	159	428851.7	1.2				ug/L	430345	Standard
	Ho	165	28.3	173.2				ug/L	7	Standard
	Tl	203	144.7	80.1	**0.0221**	0.021	95.1	ug/L	3	Standard
	Tl	205	146.7	52.2	**0.0102**	0.012	115.7	ug/L	2	Standard
	Pb	206	167.3	79.0	**0.0434**	0.060	137.3	ug/L	69	Standard
	Pb	207	106.0	75.2	**0.0223**	0.040	178.7	ug/L	57	Standard
	Pb	208	241.3	27.5	**-0.0023**	0.012	522.7	ug/L	162	Standard
	U	238	88.0	166.3	**0.0034**	0.039	1130.2	ug/L	0	Standard
>	**Bi**	209	214140.4	0.9				ug/L	206180	Standard

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	Na	23	45.0	29.4	**20.2116**	6.426	31.8	mg/L	2	Standard
	Mg	24	160.0	35.2	**0.1346**	0.065	48.0	mg/L	28	Standard
	K	39	3.3	173.2	**-0.0385**	0.084	218.8	mg/L	7	Standard
	Ca	43	213.3	5.4	**10.6109**	0.772	7.3	mg/L	25	Standard
	Fe	54	104.0	37.7	**-0.1003**	0.025	24.8	mg/L	279	Standard
	Fe	57	161.7	8.9	**0.2330**	0.028	11.9	mg/L	73	Standard
>	**Sc-1**	45	42319.0	1.5				mg/L	44343	Standard
	Cl	35	5797.1	3.4				ug/L	5612	Standard
	Kr	83	120.0	6.0				ug/L	108	Standard
	Br	81	3560.4	2.7				ug/L	3490	Standard
	P	31	124872.6	1.7				ug/L	350479	Standard
	S	34	16600.8	2.6				ug/L	17705	Standard
	Sr	88	71.7	31.5				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	53.3	10.8				mg/L	0	Standard
	Dy	164	38.1	61.9				mg/L	3	Standard
	Ho-1	165	28.3	173.2				mg/L	7	Standard
	Er	166	40.0	152.1				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.355	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.302	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.897
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.861
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311051802PS WG452576-01
Sample Date/Time: Wednesday, November 13, 2013 19:19:34
Number of Replicates: 3
Autosampler Position: 230
Sample Description: 25
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	190198.0	0.5				ug/L	159627	Standard
	Be	9	132258.1	1.1	**45.5435**	0.585	1.3	ug/L	28	Standard
	Al	27	23199.6	130.7	**0.0855**	0.145	170.0	ug/L	1227	Standard
	Sc	45	49015.8	1.3				ug/L	44343	Standard
	Ti	47	24.7	19.2	**-0.0413**	0.010	25.0	ug/L	21	Standard
	V	51	375268.6	1.5	**45.9655**	0.384	0.8	ug/L	1305	Standard
	Cr	52	353498.2	0.3	**47.1225**	0.389	0.8	ug/L	4727	Standard
	Cr	53	61678.6	0.6	**47.9679**	0.491	1.0	ug/L	288	Standard
	Mn	55	662427.0	1.5	**48.8422**	0.302	0.6	ug/L	1062	Standard
	Co	59	408395.6	0.7	**47.9141**	0.115	0.2	ug/L	99	Standard
	Ni	60	123573.0	2.0	**49.0168**	0.529	1.1	ug/L	475	Standard
	Cu	65	120410.7	1.9	**48.8269**	0.469	1.0	ug/L	130	Standard
	Zn	66	65383.4	0.9	**49.3931**	0.034	0.1	ug/L	130	Standard
>	**Ge**	72	378224.8	0.9				ug/L	341919	Standard
	As	75	68747.0	1.4	**48.0573**	0.238	0.5	ug/L	-350	Standard
	Se	82	7186.2	1.7	**46.8911**	0.361	0.8	ug/L	-53	Standard
	Se-1	77	4911.8	1.2	**49.2596**	0.703	1.4	ug/L	84	Standard
>	**Ga**	71	131.7	11.6				mg/L	53	Standard
	Rb	85	178.3	122.3				ug/L	13	Standard
	Y	89	387754.5	1.3				ug/L	364126	Standard
>	**Rh**	103	61.7	23.4				ug/L	12	Standard
	Mo	98	411.3	28.0	**0.0975**	0.030	31.2	ug/L	24	Standard
	Ag	107	325517.8	1.5	**49.3769**	0.416	0.8	ug/L	45	Standard
	Cd	111	104321.2	1.9	**49.3780**	0.267	0.5	mg/L	2	Standard
	Cd	114	262862.5	2.4	**46.9294**	0.450	1.0	ug/L	10	Standard
>	**In**	115	412246.2	1.4				ug/L	372170	Standard
	Sn	118	85.0	17.0	**0.0285**	0.011	37.7	ug/L	45	Standard
	Sb	123	140164.6	0.6	**46.4516**	0.372	0.8	ug/L	116	Standard
	Ba	135	93372.5	1.1	**49.9449**	0.216	0.4	ug/L	7	Standard
	Ce	140	228.3	139.5				ug/L	5	Standard
>	**Tb**	159	473042.2	1.7				ug/L	430345	Standard
	Ho	165	21.7	153.7				ug/L	7	Standard
	Tl	203	279955.8	0.6	**47.7928**	0.496	1.0	ug/L	3	Standard
	Tl	205	337115.8	0.5	**49.0164**	0.784	1.6	ug/L	2	Standard
	Pb	206	117896.3	1.0	**49.9401**	0.470	0.9	ug/L	69	Standard
	Pb	207	106125.1	1.2	**49.8809**	1.122	2.2	ug/L	57	Standard
	Pb	208	274971.2	1.2	**46.2818**	0.531	1.1	ug/L	162	Standard
	U	238	186315.7	1.5	**46.2729**	0.769	1.7	ug/L	0	Standard
>	**Bi**	209	227102.8	1.1				ug/L	206180	Standard

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	Na	23	41.7	18.3	**15.8519**	3.296	20.8	mg/L	2	Standard
	Mg	24	180.0	9.6	**0.1288**	0.015	11.5	mg/L	28	Standard
	K	39	3.3	173.2	**-0.0457**	0.072	156.7	mg/L	7	Standard
	Ca	43	205.0	12.9	**8.5638**	1.213	14.2	mg/L	25	Standard
	Fe	54	253.5	28.3	**-0.0308**	0.039	127.2	mg/L	279	Standard
	Fe	57	125.0	32.0	**0.1092**	0.077	70.5	mg/L	73	Standard
>	**Sc-1**	45	49015.8	1.3				mg/L	44343	Standard
	Cl	35	6582.1	1.8				ug/L	5612	Standard
	Kr	83	120.0	17.9				ug/L	108	Standard
	Br	81	3807.1	4.6				ug/L	3490	Standard
	P	31	360472.8	0.8				ug/L	350479	Standard
	S	34	18064.1	1.5				ug/L	17705	Standard
	Sr	88	50.0	50.0				ug/L	42	Standard
	C	12	13.3	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	36.7	56.8				mg/L	0	Standard
	Dy	164	32.2	123.4				mg/L	3	Standard
	Ho-1	165	21.7	153.7				mg/L	7	Standard
	Er	166	23.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		119.152	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.618	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	110.768
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	110.148
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311051802SDL WG452576-02
Sample Date/Time: Wednesday, November 13, 2013 19:22:38
Number of Replicates: 3
Autosampler Position: 231
Sample Description: 125
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	164533.6	0.9				ug/L	159627	Standard
	Be	9	36.7	31.5	**-0.0135**	0.005	34.9	ug/L	28	Standard
	Al	27	3117.0	1.1	**-0.0084**	0.000	2.2	ug/L	1227	Standard
	Sc	45	41219.3	2.4				ug/L	44343	Standard
	Ti	47	11.0	24.1	**-0.0678**	0.006	9.5	ug/L	21	Standard
	V	51	1600.5	2.7	**0.0350**	0.008	22.5	ug/L	1305	Standard
	Cr	52	5623.7	2.0	**0.1799**	0.012	6.6	ug/L	4727	Standard
	Cr	53	478.3	10.5	**0.1245**	0.043	34.4	ug/L	288	Standard
	Mn	55	716.4	1.5	**-0.0481**	0.001	2.2	ug/L	1062	Standard
	Co	59	68.3	4.7	**-0.0245**	0.000	1.6	ug/L	99	Standard
	Ni	60	411.3	3.7	**-0.0358**	0.008	23.1	ug/L	475	Standard
	Cu	65	96.3	10.0	**-0.0243**	0.004	16.9	ug/L	130	Standard
	Zn	66	515.0	59.7	**0.2661**	0.271	102.0	ug/L	130	Standard
>	Ge	72	330496.1	0.8				ug/L	341919	Standard
	As	75	-290.7	9.7	**-0.0108**	0.022	200.0	ug/L	-350	Standard
	Se	82	-51.7	11.4	**-0.0919**	0.041	45.1	ug/L	-53	Standard
	Se-1	77	97.7	4.3	**0.1619**	0.056	34.7	ug/L	84	Standard
>	Ga	71	31.7	18.2				mg/L	53	Standard
	Rb	85	20.0	25.0				ug/L	13	Standard
	Y	89	324977.0	1.5				ug/L	364126	Standard
>	Rh	103	16.7	17.3				ug/L	12	Standard
	Mo	98	15.9	7.3	**-0.0111**	0.000	3.5	ug/L	24	Standard
	Ag	107	38.7	7.9	**-0.0121**	0.001	4.4	ug/L	45	Standard
	Cd	111	1.6	35.6	**-0.0122**	0.000	2.6	mg/L	2	Standard
	Cd	114	9.1	54.4	**-0.0101**	0.001	10.0	ug/L	10	Standard
>	In	115	360687.6	0.4				ug/L	372170	Standard
	Sn	118	32.0	11.3	**-0.0096**	0.003	32.7	ug/L	45	Standard
	Sb	123	132.6	17.1	**0.0198**	0.008	43.0	ug/L	116	Standard
	Ba	135	6.3	39.7	**-0.0021**	0.002	73.0	ug/L	7	Standard
	Ce	140	13.3	78.1				ug/L	5	Standard
>	Tb	159	411834.4	1.4				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	41.0	21.3	**0.0036**	0.002	44.7	ug/L	3	Standard
	Tl	205	25.0	91.7	**-0.0084**	0.004	43.5	ug/L	2	Standard
	Pb	206	58.7	17.1	**-0.0045**	0.005	103.0	ug/L	69	Standard
	Pb	207	58.3	2.6	**-0.0004**	0.001	175.9	ug/L	57	Standard
	Pb	208	142.3	6.3	**-0.0190**	0.002	9.1	ug/L	162	Standard
	U	238	2.3	65.5	**-0.0192**	0.000	2.2	ug/L	0	Standard
>	Bi	209	206505.4	0.3				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.7137**	1.434	200.9	mg/L	2	Standard
	Mg	24	23.3	12.4	**-0.0144**	0.003	22.7	mg/L	28	Standard
	K	39	3.3	173.2	**-0.0369**	0.087	235.6	mg/L	7	Standard
	Ca	43	33.3	37.7	**0.5861**	0.767	130.9	mg/L	25	Standard
	Fe	54	94.2	29.5	**-0.1050**	0.017	15.8	mg/L	279	Standard
	Fe	57	75.0	11.5	**0.0385**	0.021	54.8	mg/L	73	Standard
>	**Sc-1**	45	41219.3	2.4				mg/L	44343	Standard
	Cl	35	5589.7	3.0				ug/L	5612	Standard
	Kr	83	106.3	4.7				ug/L	108	Standard
	Br	81	2947.0	4.5				ug/L	3490	Standard
	P	31	115747.1	0.6				ug/L	350479	Standard
	S	34	17353.3	1.4				ug/L	17705	Standard
	Sr	88	38.3	52.7				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	20.0	86.6				mg/L	0	Standard
	Dy	164	3.0	187.1				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.074	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.659	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311051802SDL WG452576-02
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.915
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.158
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311051802SDL WG452576-02
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 19:25:45
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	182493.0	2.8				ug/L	159627	Standard
	Be	9	131673.3	3.0	**47.2545**	0.143	0.3	ug/L	28	Standard
	Al	27	8816576.0	0.6	**43.9957**	1.196	2.7	ug/L	1227	Standard
	Sc	45	48967.4	3.4				ug/L	44343	Standard
	Ti	47	44510.6	2.5	**98.5792**	2.620	2.7	ug/L	21	Standard
	V	51	371487.5	2.7	**45.9681**	1.162	2.5	ug/L	1305	Standard
	Cr	52	346608.4	2.6	**46.6696**	1.320	2.8	ug/L	4727	Standard
	Cr	53	61354.0	1.8	**48.2097**	1.336	2.8	ug/L	288	Standard
	Mn	55	646755.9	1.9	**48.1804**	1.268	2.6	ug/L	1062	Standard
	Co	59	405256.9	1.5	**48.0313**	0.664	1.4	ug/L	99	Standard
	Ni	60	121973.8	2.3	**48.8784**	1.044	2.1	ug/L	475	Standard
	Cu	65	118498.0	1.4	**48.5480**	0.916	1.9	ug/L	130	Standard
	Zn	66	64693.5	1.9	**49.3674**	0.495	1.0	ug/L	130	Standard
>	**Ge**	72	374423.6	1.5				ug/L	341919	Standard
	As	75	68861.7	1.7	**48.6267**	0.586	1.2	ug/L	-350	Standard
	Se	82	7131.4	1.8	**47.0107**	0.788	1.7	ug/L	-53	Standard
	Se-1	77	4993.2	2.6	**50.6039**	0.691	1.4	ug/L	84	Standard
>	**Ga**	71	73.3	17.2				mg/L	53	Standard
	Rb	85	993.4	5.9				ug/L	13	Standard
	Y	89	381082.1	2.9				ug/L	364126	Standard
>	**Rh**	103	33.3	8.7				ug/L	12	Standard
	Mo	98	366972.4	0.4	**102.8788**	0.762	0.7	ug/L	24	Standard
	Ag	107	321408.6	1.4	**49.3519**	0.103	0.2	ug/L	45	Standard
	Cd	111	104122.6	1.6	**49.8918**	0.457	0.9	mg/L	2	Standard
	Cd	114	270894.3	1.5	**48.9685**	0.999	2.0	ug/L	10	Standard
>	**In**	115	407236.8	1.2				ug/L	372170	Standard
	Sn	118	63864.0	2.7	**50.7979**	0.871	1.7	ug/L	45	Standard
	Sb	123	138084.8	0.8	**46.3230**	0.174	0.4	ug/L	116	Standard
	Ba	135	89715.2	1.2	**48.5769**	0.097	0.2	ug/L	7	Standard
	Ce	140	30.0	33.3				ug/L	5	Standard
>	**Tb**	159	457677.4	2.5				ug/L	430345	Standard
	Ho	165	11.7	137.8				ug/L	7	Standard
	Tl	203	278374.3	1.5	**48.6318**	0.208	0.4	ug/L	3	Standard
	Tl	205	332090.0	0.5	**49.4154**	0.629	1.3	ug/L	2	Standard
	Pb	206	116977.6	1.9	**50.7085**	0.581	1.1	ug/L	69	Standard
	Pb	207	105265.1	0.8	**50.6295**	0.203	0.4	ug/L	57	Standard
	Pb	208	271861.4	1.4	**46.8296**	0.422	0.9	ug/L	162	Standard
	U	238	186152.7	1.5	**47.3132**	0.495	1.0	ug/L	0	Standard
>	**Bi**	209	221903.6	1.1				ug/L	206180	Standard

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	Na	23	23.3	53.9	**8.2807**	5.370	64.9	mg/L	2	Standard
	Mg	24	4447.3	3.6	**4.1537**	0.237	5.7	mg/L	28	Standard
	K	39	273.3	13.2	**3.3017**	0.471	14.3	mg/L	7	Standard
	Ca	43	86.7	37.1	**2.8285**	1.483	52.4	mg/L	25	Standard
	Fe	54	8955.3	2.2	**4.5193**	0.200	4.4	mg/L	279	Standard
	Fe	57	2306.8	6.6	**4.4587**	0.420	9.4	mg/L	73	Standard
>	**Sc-1**	45	48967.4	3.4				mg/L	44343	Standard
	Cl	35	5855.8	3.7				ug/L	5612	Standard
	Kr	83	109.0	4.6				ug/L	108	Standard
	Br	81	3530.4	8.4				ug/L	3490	Standard
	P	31	384143.1	1.8				ug/L	350479	Standard
	S	34	19781.2	1.7				ug/L	17705	Standard
	Sr	88	28.3	36.7				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	33.3	45.8				mg/L	0	Standard
	Dy	164	3.0	200.7				mg/L	3	Standard
	Ho-1	165	11.7	137.8				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.325	
	Be	9	94.509		
	Al	27	87.991		
	Sc	45			
	Ti	47	98.579		
	V	51	91.936		
	Cr	52	93.339		
	Cr	53			
	Mn	55	96.361		
	Co	59	96.063		
	Ni	60	97.757		
	Cu	65	97.096		
	Zn	66	98.735		
>	Ge	72		109.507	
	As	75	97.253		
	Se	82	94.021		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	102.879		
|	Ag	107	98.704		
|	Cd	111	99.784		
|	Cd	114			
|>	In	115		109.422	
|	Sn	118	101.596		
|	Sb	123	92.646		
⌊	Ba	135	97.154		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	97.264		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	93.659		
|	U	238	94.626		
⌊>	Bi	209		107.626	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 19:28:50
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	180428.4	2.5				ug/L	159627	Standard
	Be	9	73.3	25.8	**-0.0015**	0.007	474.2	ug/L	28	Standard
	Al	27	2793.6	11.6	**-0.0115**	0.002	14.9	ug/L	1227	Standard
	Sc	45	47832.1	1.0				ug/L	44343	Standard
	Ti	47	23.0	27.2	**-0.0432**	0.015	33.9	ug/L	21	Standard
	V	51	1323.5	3.0	**-0.0222**	0.005	22.9	ug/L	1305	Standard
	Cr	52	4654.7	3.0	**-0.0402**	0.025	63.0	ug/L	4727	Standard
	Cr	53	388.3	5.8	**0.0102**	0.020	196.7	ug/L	288	Standard
	Mn	55	1240.7	8.3	**-0.0139**	0.009	62.3	ug/L	1062	Standard
	Co	59	134.7	39.4	**-0.0173**	0.007	38.1	ug/L	99	Standard
	Ni	60	414.7	6.2	**-0.0528**	0.010	19.3	ug/L	475	Standard
	Cu	65	147.3	4.0	**-0.0073**	0.002	27.7	ug/L	130	Standard
	Zn	66	169.3	7.0	**-0.0497**	0.008	16.4	ug/L	130	Standard
>	**Ge**	72	366227.4	0.9				ug/L	341919	Standard
	As	75	-340.9	11.0	**-0.0241**	0.025	105.1	ug/L	-350	Standard
	Se	82	-56.7	6.6	**-0.0886**	0.029	32.4	ug/L	-53	Standard
	Se-1	77	95.0	2.8	**0.0221**	0.031	141.6	ug/L	84	Standard
>	**Ga**	71	60.0	22.0				mg/L	53	Standard
	Rb	85	15.0	100.0				ug/L	13	Standard
	Y	89	374249.6	1.3				ug/L	364126	Standard
>	**Rh**	103	5.0	100.0				ug/L	12	Standard
	Mo	98	115.9	39.7	**0.0168**	0.013	76.8	ug/L	24	Standard
	Ag	107	94.0	41.0	**-0.0042**	0.006	146.9	ug/L	45	Standard
	Cd	111	14.5	96.1	**-0.0060**	0.007	110.4	mg/L	2	Standard
	Cd	114	37.0	47.5	**-0.0052**	0.003	59.8	ug/L	10	Standard
>	**In**	115	401195.3	1.4				ug/L	372170	Standard
	Sn	118	112.0	15.0	**0.0521**	0.012	23.6	ug/L	45	Standard
	Sb	123	312.3	19.8	**0.0758**	0.020	25.9	ug/L	116	Standard
	Ba	135	21.0	37.8	**0.0055**	0.004	78.7	ug/L	7	Standard
	Ce	140	10.0	50.0				ug/L	5	Standard
>	**Tb**	159	454661.9	1.6				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	45.7	35.7	**0.0039**	0.003	72.3	ug/L	3	Standard
	Tl	205	60.0	52.0	**-0.0035**	0.005	137.2	ug/L	2	Standard
	Pb	206	84.7	12.1	**0.0048**	0.005	97.5	ug/L	69	Standard
	Pb	207	75.3	27.2	**0.0056**	0.010	178.2	ug/L	57	Standard
	Pb	208	179.7	14.6	**-0.0144**	0.005	33.3	ug/L	162	Standard
	U	238	18.3	84.6	**-0.0151**	0.004	26.3	ug/L	0	Standard
>	**Bi**	209	222358.2	1.3				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	25.0	40.0	**-0.0165**	0.009	57.6	mg/L	28	Standard
	K	39	10.0		**0.0397**	0.001	3.4	mg/L	7	Standard
	Ca	43	23.3	32.7	**-0.1845**	0.389	210.6	mg/L	25	Standard
	Fe	54	270.7	12.2	**-0.0187**	0.017	89.3	mg/L	279	Standard
	Fe	57	86.7	46.6	**0.0382**	0.084	220.8	mg/L	73	Standard
>	**Sc-1**	45	47832.1	1.0				mg/L	44343	Standard
	Cl	35	5830.5	1.6				ug/L	5612	Standard
	Kr	83	111.7	1.0				ug/L	108	Standard
	Br	81	3337.0	4.3				ug/L	3490	Standard
	P	31	365539.6	5.2				ug/L	350479	Standard
	S	34	19464.2	1.8				ug/L	17705	Standard
	Sr	88	43.3	35.3				ug/L	42	Standard
	C	12	13.3	114.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	26.7	21.7				mg/L	0	Standard
	Dy	164	6.5	93.0				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.031	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.109	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.799
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.846
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: PBW 15 WG452549-02
Sample Date/Time: Wednesday, November 13, 2013 19:31:57
Number of Replicates: 3
Autosampler Position: 232
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	159417.6	0.6				ug/L	159627	Standard
	Be	9	41.7	73.3	**-0.0111**	0.012	112.4	ug/L	28	Standard
	Al	27	14160.8	130.4	**0.0550**	0.105	190.8	ug/L	1227	Standard
	Sc	45	41318.0	4.1				ug/L	44343	Standard
	Ti	47	15.7	22.4	**-0.0559**	0.008	15.2	ug/L	21	Standard
	V	51	1211.6	18.1	**-0.0190**	0.030	157.4	ug/L	1305	Standard
	Cr	52	4099.2	6.4	**-0.0530**	0.037	70.1	ug/L	4727	Standard
	Cr	53	381.7	11.1	**0.0400**	0.042	105.1	ug/L	288	Standard
	Mn	55	2628.1	106.4	**0.1138**	0.235	206.9	ug/L	1062	Standard
	Co	59	151.3	82.6	**-0.0133**	0.017	125.7	ug/L	99	Standard
	Ni	60	417.0	9.7	**-0.0324**	0.018	55.7	ug/L	475	Standard
	Cu	65	87.7	32.0	**-0.0282**	0.013	45.6	ug/L	130	Standard
	Zn	66	505.7	59.5	**0.2584**	0.260	100.8	ug/L	130	Standard
>	Ge	72	328896.6	1.1				ug/L	341919	Standard
	As	75	-251.5	17.0	**0.0197**	0.032	164.5	ug/L	-350	Standard
	Se	82	-38.7	30.2	**0.0029**	0.085	2935.3	ug/L	-53	Standard
	Se-1	77	80.3	11.8	**-0.0372**	0.104	278.9	ug/L	84	Standard
>	Ga	71	33.3	45.8				mg/L	53	Standard
	Rb	85	18.3	41.7				ug/L	13	Standard
	Y	89	324624.4	1.2				ug/L	364126	Standard
>	Rh	103	5.0	173.2				ug/L	12	Standard
	Mo	98	66.1	103.0	**0.0047**	0.021	455.2	ug/L	24	Standard
	Ag	107	100.3	79.5	**-0.0015**	0.014	919.4	ug/L	45	Standard
	Cd	111	11.9	101.2	**-0.0066**	0.007	98.4	mg/L	2	Standard
	Cd	114	35.6	42.6	**-0.0047**	0.003	65.1	ug/L	10	Standard
>	In	115	361352.4	0.3				ug/L	372170	Standard
	Sn	118	39.3	12.5	**-0.0030**	0.004	144.0	ug/L	45	Standard
	Sb	123	82.6	43.4	**0.0008**	0.014	1774.8	ug/L	116	Standard
	Ba	135	23.0	72.6	**0.0080**	0.010	126.9	ug/L	7	Standard
	Ce	140	16.7	45.8				ug/L	5	Standard
>	Tb	159	408947.5	1.2				ug/L	430345	Standard
	Ho	165	6.7	114.6				ug/L	7	Standard
	Tl	203	40.3	49.9	**0.0035**	0.004	107.2	ug/L	3	Standard
	Tl	205	71.7	119.3	**-0.0009**	0.014	1558.8	ug/L	2	Standard
	Pb	206	88.3	32.9	**0.0095**	0.014	142.1	ug/L	69	Standard
	Pb	207	69.0	48.4	**0.0053**	0.017	326.9	ug/L	57	Standard
	Pb	208	186.3	35.0	**-0.0107**	0.012	113.4	ug/L	162	Standard
	U	238	42.3	148.7	**-0.0082**	0.017	210.6	ug/L	0	Standard
>	Bi	209	205254.9	0.3				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	38.3	41.9	**0.0018**	0.017	901.3	mg/L	28	Standard
	K	39	6.7	86.6	**0.0119**	0.086	724.5	mg/L	7	Standard
	Ca	43	36.7	20.8	**0.7739**	0.530	68.4	mg/L	25	Standard
	Fe	54	86.1	48.4	**-0.1095**	0.028	25.1	mg/L	279	Standard
	Fe	57	70.0	14.3	**0.0258**	0.018	68.8	mg/L	73	Standard
>	**Sc-1**	45	41318.0	4.1				mg/L	44343	Standard
	Cl	35	5106.9	1.8				ug/L	5612	Standard
	Kr	83	94.7	10.7				ug/L	108	Standard
	Br	81	2720.2	8.4				ug/L	3490	Standard
	P	31	119758.4	3.3				ug/L	350479	Standard
	S	34	18796.7	2.5				ug/L	17705	Standard
	Sr	88	48.3	31.6				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	3.2	173.2				mg/L	3	Standard
	Ho-1	165	6.7	114.6				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.869	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.191	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.093
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.551
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 15 WG452549-02
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Method 6020 - Summary Report

Sample ID: F BLANK WG452521-01
Sample Date/Time: Wednesday, November 13, 2013 19:35:02
Number of Replicates: 3
Autosampler Position: 233
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	202446.9	22.2				ug/L	159627	Standard
	Be	9	21.7	35.3	**-0.0213**	0.001	4.3	ug/L	28	Standard
	Al	27	1563.4	15.5	**-0.0182**	0.003	15.4	ug/L	1227	Standard
	Sc	45	49795.4	19.2				ug/L	44343	Standard
	Ti	47	17.0	11.8	**-0.0578**	0.007	11.8	ug/L	21	Standard
	V	51	582.7	42.2	**-0.1140**	0.047	40.9	ug/L	1305	Standard
	Cr	52	2309.2	34.5	**-0.3596**	0.178	49.4	ug/L	4727	Standard
	Cr	53	308.3	14.7	**-0.0574**	0.062	108.6	ug/L	288	Standard
	Mn	55	742.0	12.0	**-0.0521**	0.018	34.2	ug/L	1062	Standard
	Co	59	84.0	10.9	**-0.0237**	0.002	8.0	ug/L	99	Standard
	Ni	60	279.0	0.7	**-0.1104**	0.022	19.8	ug/L	475	Standard
	Cu	65	56.7	14.3	**-0.0453**	0.008	17.7	ug/L	130	Standard
	Zn	66	307.7	63.7	**0.0743**	0.206	277.9	ug/L	130	Standard
>	Ge	72	382269.0	20.6				ug/L	341919	Standard
	As	75	-250.8	81.0	**0.0243**	0.185	760.7	ug/L	-350	Standard
	Se	82	-58.3	89.6	**-0.1363**	0.442	324.6	ug/L	-53	Standard
	Se-1	77	69.3	12.9	**-0.2596**	0.185	71.4	ug/L	84	Standard
>	Ga	71	26.7	28.6				mg/L	53	Standard
	Rb	85	10.0	50.0				ug/L	13	Standard
	Y	89	413202.0	18.5				ug/L	364126	Standard
>	Rh	103	5.0	173.2				ug/L	12	Standard
	Mo	98	12.9	51.4	**-0.0130**	0.001	9.6	ug/L	24	Standard
	Ag	107	45.3	11.1	**-0.0125**	0.002	12.5	ug/L	45	Standard
	Cd	111	5.0	40.3	**-0.0108**	0.001	10.9	mg/L	2	Standard
	Cd	114	10.5	74.0	**-0.0102**	0.001	13.1	ug/L	10	Standard
>	In	115	457096.7	18.1				ug/L	372170	Standard
	Sn	118	44.3	13.6	**-0.0060**	0.009	142.4	ug/L	45	Standard
	Sb	123	79.2	29.1	**-0.0070**	0.003	40.4	ug/L	116	Standard
	Ba	135	9.7	23.9	**-0.0011**	0.002	162.3	ug/L	7	Standard
	Ce	140	8.3	69.3				ug/L	5	Standard
>	Tb	159	561599.7	17.9				ug/L	430345	Standard
	Ho	165	5.0	173.2				ug/L	7	Standard
	Tl	203	18.3	19.2	**-0.0016**	0.000	3.2	ug/L	3	Standard
	Tl	205	10.0	100.0	**-0.0113**	0.001	9.1	ug/L	2	Standard
	Pb	206	98.0	24.5	**0.0015**	0.004	274.8	ug/L	69	Standard
	Pb	207	74.0	27.6	**-0.0027**	0.003	106.5	ug/L	57	Standard
	Pb	208	203.7	20.4	**-0.0177**	0.002	9.7	ug/L	162	Standard
	U	238	1.7	34.6	**-0.0195**	0.000	0.8	ug/L	0	Standard
>	Bi	209	280875.0	17.3				ug/L	206180	Standard

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	Na	23	3.3	173.2	**0.1059**	2.854	2695.0	mg/L	2	Standard
	Mg	24	28.3	44.4	**-0.0143**	0.010	71.7	mg/L	28	Standard
	K	39	3.3	86.6	**-0.0459**	0.038	81.8	mg/L	7	Standard
	Ca	43	36.7	34.3	**0.4194**	0.618	147.4	mg/L	25	Standard
	Fe	54	129.7	42.3	**-0.0916**	0.041	45.0	mg/L	279	Standard
	Fe	57	93.3	17.2	**0.0519**	0.064	123.1	mg/L	73	Standard
>	**Sc-1**	45	49795.4	19.2				mg/L	44343	Standard
	Cl	35	2614.9	42.9				ug/L	5612	Standard
	Kr	83	125.0	72.8				ug/L	108	Standard
	Br	81	1340.1	37.2				ug/L	3490	Standard
	P	31	130769.4	34.5				ug/L	350479	Standard
	S	34	9171.3	36.1				ug/L	17705	Standard
	Sr	88	71.7	28.2				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	3.0	187.1				mg/L	3	Standard
	Ho-1	165	5.0	173.2				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		126.825	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.801	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	122.819
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	136.228
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: LCSW 15 WG452549-03
Sample Date/Time: Wednesday, November 13, 2013 19:38:07
Number of Replicates: 3
Autosampler Position: 234
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	214181.3	77.4				ug/L	159627	Standard
	Be	9	21.7	48.0	**-0.0201**	0.003	13.7	ug/L	28	Standard
	Al	27	1540.1	37.7	**-0.0170**	0.004	24.4	ug/L	1227	Standard
	Sc	45	53665.4	78.5				ug/L	44343	Standard
	Ti	47	15.0	35.3	**-0.0512**	0.031	60.6	ug/L	21	Standard
	V	51	621.3	52.1	**-0.1037**	0.035	34.1	ug/L	1305	Standard
	Cr	52	2286.5	51.7	**-0.3337**	0.155	46.4	ug/L	4727	Standard
	Cr	53	306.7	17.6	**0.0451**	0.259	574.4	ug/L	288	Standard
	Mn	55	805.4	46.1	**-0.0380**	0.031	81.7	ug/L	1062	Standard
	Co	59	97.7	10.5	**-0.0145**	0.018	125.3	ug/L	99	Standard
	Ni	60	221.0	14.6	**-0.0924**	0.102	110.2	ug/L	475	Standard
	Cu	65	86.7	63.5	**-0.0297**	0.021	70.3	ug/L	130	Standard
	Zn	66	143.0	66.1	**-0.0740**	0.017	22.3	ug/L	130	Standard
>	Ge	72	411355.1	79.3				ug/L	341919	Standard
	As	75	-281.5	73.1	**0.0036**	0.137	3795.9	ug/L	-350	Standard
	Se	82	-77.4	71.9	**-0.2760**	0.351	127.2	ug/L	-53	Standard
	Se-1	77	72.7	20.7	**0.1102**	0.807	732.8	ug/L	84	Standard
>	Ga	71	41.7	70.3				mg/L	53	Standard
	Rb	85	25.0	20.0				ug/L	13	Standard
	Y	89	432513.4	73.8				ug/L	364126	Standard
>	Rh	103	8.3	91.7				ug/L	12	Standard
	Mo	98	17.6	60.0	**-0.0113**	0.001	11.0	ug/L	24	Standard
	Ag	107	48.7	69.9	**-0.0122**	0.000	3.4	ug/L	45	Standard
	Cd	111	1.6	35.3	**-0.0119**	0.001	11.0	mg/L	2	Standard
	Cd	114	10.6	28.3	**-0.0093**	0.002	22.6	ug/L	10	Standard
>	In	115	465211.5	74.0				ug/L	372170	Standard
	Sn	118	40.3	62.0	**-0.0077**	0.005	66.8	ug/L	45	Standard
	Sb	123	65.9	59.9	**-0.0092**	0.004	44.4	ug/L	116	Standard
	Ba	135	6.7	108.5	**-0.0031**	0.001	39.1	ug/L	7	Standard
	Ce	140	10.0	86.6				ug/L	5	Standard
>	Tb	159	555231.1	71.8				ug/L	430345	Standard
	Ho	165	3.3	173.2				ug/L	7	Standard
	Tl	203	28.0	50.0	**0.0031**	0.009	274.5	ug/L	3	Standard
	Tl	205	20.0	90.1	**-0.0069**	0.007	106.8	ug/L	2	Standard
	Pb	206	79.3	54.8	**0.0010**	0.014	1407.7	ug/L	69	Standard
	Pb	207	65.7	82.6	**-0.0055**	0.004	71.5	ug/L	57	Standard
	Pb	208	209.3	59.2	**-0.0127**	0.009	72.1	ug/L	162	Standard
	U	238	0.7	86.6	**-0.0195**	0.000	1.5	ug/L	0	Standard
>	Bi	209	275266.5	73.0				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	20.0	25.0	**-0.0144**	0.019	130.6	mg/L	28	Standard
	K	39	6.7	114.6	**-0.0352**	0.047	134.1	mg/L	7	Standard
	Ca	43	45.0	19.2	**2.0468**	2.826	138.1	mg/L	25	Standard
	Fe	54	148.1	79.9	**-0.0801**	0.057	71.7	mg/L	279	Standard
	Fe	57	98.3	33.9	**0.1971**	0.374	189.5	mg/L	73	Standard
>	**Sc-1**	45	53665.4	78.5				mg/L	44343	Standard
	Cl	35	2520.3	55.7				ug/L	5612	Standard
	Kr	83	153.0	69.6				ug/L	108	Standard
	Br	81	1363.4	62.3				ug/L	3490	Standard
	P	31	180220.5	70.4				ug/L	350479	Standard
	S	34	8741.4	54.5				ug/L	17705	Standard
	Sr	88	53.3	42.3				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.2	86.7				mg/L	3	Standard
	Ho-1	165	3.3	173.2				mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		134.176	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		120.308	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	125.000
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	133.508
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Sample ID: LCSW 15 WG452549-03
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Method 6020 - Summary Report

Sample ID: L1311062901 WG452549-01
Sample Date/Time: Wednesday, November 13, 2013 19:41:13
Number of Replicates: 3
Autosampler Position: 235
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	203547.6	13.4				ug/L	159627	Standard
	Be	9	21.7	48.0	-0.0208	0.004	19.8	ug/L	28	Standard
	Al	27	1690.1	12.7	-0.0179	0.002	10.6	ug/L	1227	Standard
	Sc	45	49789.0	10.9				ug/L	44343	Standard
	Ti	47	17.7	28.5	-0.0571	0.014	25.1	ug/L	21	Standard
	V	51	816.8	36.7	-0.0904	0.045	49.8	ug/L	1305	Standard
	Cr	52	2979.0	36.4	-0.2892	0.180	62.1	ug/L	4727	Standard
	Cr	53	281.7	26.7	-0.0863	0.077	88.9	ug/L	288	Standard
	Mn	55	934.0	21.6	-0.0406	0.021	52.9	ug/L	1062	Standard
	Co	59	104.3	5.8	-0.0218	0.002	6.9	ug/L	99	Standard
	Ni	60	240.0	14.5	-0.1301	0.021	16.4	ug/L	475	Standard
	Cu	65	107.0	53.8	-0.0252	0.026	104.5	ug/L	130	Standard
	Zn	66	152.7	6.6	-0.0700	0.015	21.7	ug/L	130	Standard
>	Ge	72	393865.5	12.8				ug/L	341919	Standard
	As	75	-352.9	58.2	-0.0284	0.157	554.2	ug/L	-350	Standard
	Se	82	-92.4	52.5	-0.3132	0.353	112.7	ug/L	-53	Standard
	Se-1	77	75.0	25.3	-0.2260	0.259	114.8	ug/L	84	Standard
>	Ga	71	23.3	44.6				mg/L	53	Standard
	Rb	85	25.0	34.6				ug/L	13	Standard
	Y	89	432182.0	16.1				ug/L	364126	Standard
>	Rh	103	6.7	86.6				ug/L	12	Standard
	Mo	98	13.5	28.4	-0.0127	0.001	8.9	ug/L	24	Standard
	Ag	107	48.3	6.3	-0.0121	0.001	10.9	ug/L	45	Standard
	Cd	111	1.0	102.5	-0.0127	0.000	3.0	mg/L	2	Standard
	Cd	114	5.3	55.3	-0.0111	0.001	4.8	ug/L	10	Standard
>	In	115	454369.2	14.3				ug/L	372170	Standard
	Sn	118	49.7	6.2	-0.0026	0.003	131.1	ug/L	45	Standard
	Sb	123	37.4	24.2	-0.0190	0.003	18.0	ug/L	116	Standard
	Ba	135	6.7	45.8	-0.0027	0.002	69.3	ug/L	7	Standard
	Ce	140	8.3	69.3				ug/L	5	Standard
>	Tb	159	550949.1	19.6				ug/L	430345	Standard
	Ho	165	13.3	114.6				ug/L	7	Standard
	Tl	203	14.3	74.6	-0.0022	0.001	50.2	ug/L	3	Standard
	Tl	205	18.3	63.0	-0.0102	0.001	12.7	ug/L	2	Standard
	Pb	206	80.7	25.5	-0.0034	0.001	40.5	ug/L	69	Standard
	Pb	207	72.7	12.5	-0.0014	0.005	349.8	ug/L	57	Standard
	Pb	208	195.3	15.4	-0.0176	0.002	10.9	ug/L	162	Standard
	U	238	1.3	86.6	-0.0195	0.000	1.3	ug/L	0	Standard
>	Bi	209	270534.9	20.5				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	21.7	26.6	**-0.0199**	0.007	35.8	mg/L	28	Standard
	K	39	6.7	86.6	**-0.0006**	0.075	12133.1	mg/L	7	Standard
	Ca	43	36.7	43.8	**0.3629**	0.553	152.3	mg/L	25	Standard
	Fe	54	189.7	41.1	**-0.0625**	0.048	76.7	mg/L	279	Standard
	Fe	57	76.7	35.9	**0.0097**	0.043	440.8	mg/L	73	Standard
>	**Sc-1**	45	49789.0	10.9				mg/L	44343	Standard
	Cl	35	3395.1	43.6				ug/L	5612	Standard
	Kr	83	180.0	51.8				ug/L	108	Standard
	Br	81	1850.1	53.1				ug/L	3490	Standard
	P	31	239973.8	48.5				ug/L	350479	Standard
	S	34	11548.3	42.2				ug/L	17705	Standard
	Sr	88	55.0	31.5				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.7	86.6				mg/L	3	Standard
	Ho-1	165	13.3	114.6				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		127.515	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		115.193	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311062901 WG452549-01
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	122.086
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	131.213
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Approved: November 15, 2013

Method 6020 - Summary Report

Sample ID: L1311062903S WG452549-04
Sample Date/Time: Wednesday, November 13, 2013 19:44:18
Number of Replicates: 3
Autosampler Position: 236
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	167612.0	0.9				ug/L	159627	Standard
	Be	9	13235.8	0.9	**5.1469**	0.004	0.1	ug/L	28	Standard
	Al	27	1112198.0	0.6	**6.0179**	0.056	0.9	ug/L	1227	Standard
	Sc	45	43830.0	1.3				ug/L	44343	Standard
	Ti	47	32.3	9.9	**-0.0178**	0.008	43.1	ug/L	21	Standard
	V	51	35722.2	1.1	**4.6167**	0.018	0.4	ug/L	1305	Standard
	Cr	52	35852.0	0.8	**4.6146**	0.015	0.3	ug/L	4727	Standard
	Cr	53	5956.2	3.4	**4.7953**	0.141	2.9	ug/L	288	Standard
	Mn	55	69358.1	0.5	**5.4991**	0.048	0.9	ug/L	1062	Standard
	Co	59	37215.7	0.7	**4.7466**	0.028	0.6	ug/L	99	Standard
	Ni	60	12201.9	0.8	**5.0963**	0.019	0.4	ug/L	475	Standard
	Cu	65	11378.3	0.3	**4.9864**	0.020	0.4	ug/L	130	Standard
	Zn	66	22129.5	0.8	**18.1754**	0.122	0.7	ug/L	130	Standard
>	**Ge**	72	345706.6	0.7				ug/L	341919	Standard
	As	75	6685.2	1.0	**5.3105**	0.070	1.3	ug/L	-350	Standard
	Se	82	712.2	4.5	**5.3458**	0.263	4.9	ug/L	-53	Standard
	Se-1	77	604.3	2.0	**5.7815**	0.143	2.5	ug/L	84	Standard
>	**Ga**	71	46.7	12.4				mg/L	53	Standard
	Rb	85	2153.5	3.5				ug/L	13	Standard
	Y	89	346985.3	1.3				ug/L	364126	Standard
>	**Rh**	103	10.0	86.6				ug/L	12	Standard
	Mo	98	73.5	16.0	**0.0062**	0.004	58.5	ug/L	24	Standard
	Ag	107	30516.0	0.2	**5.0689**	0.031	0.6	ug/L	45	Standard
	Cd	111	10136.6	0.8	**5.2602**	0.060	1.1	mg/L	2	Standard
	Cd	114	25461.5	3.0	**4.9845**	0.168	3.4	ug/L	10	Standard
>	**In**	115	375213.0	0.4				ug/L	372170	Standard
	Sn	118	56.7	12.8	**0.0106**	0.006	58.9	ug/L	45	Standard
	Sb	123	13793.0	1.2	**4.9949**	0.075	1.5	ug/L	116	Standard
	Ba	135	9483.3	1.0	**5.5680**	0.078	1.4	ug/L	7	Standard
	Ce	140	26.7	21.7				ug/L	5	Standard
>	**Tb**	159	428069.1	1.8				ug/L	430345	Standard
	Ho	165	6.7	173.2				ug/L	7	Standard
	Tl	203	27021.1	0.9	**4.9185**	0.023	0.5	ug/L	3	Standard
	Tl	205	31541.1	0.2	**4.8823**	0.035	0.7	ug/L	2	Standard
	Pb	206	11506.7	1.1	**5.1726**	0.045	0.9	ug/L	69	Standard
	Pb	207	9719.1	1.7	**4.8464**	0.071	1.5	ug/L	57	Standard
	Pb	208	26359.3	0.8	**4.6937**	0.051	1.1	ug/L	162	Standard
	U	238	17338.9	2.3	**4.5772**	0.104	2.3	ug/L	0	Standard
>	**Bi**	209	212816.9	0.5				ug/L	206180	Standard

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	Na	23	15.0	33.3	**5.4497**	2.326	42.7	mg/L	2	Standard
	Mg	24	550.0	11.2	**0.5380**	0.058	10.7	mg/L	28	Standard
	K	39	53.3	28.6	**0.6494**	0.202	31.1	mg/L	7	Standard
	Ca	43	73.3	27.6	**2.6316**	1.140	43.3	mg/L	25	Standard
	Fe	54	118.5	12.3	**-0.0941**	0.009	9.8	mg/L	279	Standard
	Fe	57	96.7	16.6	**0.0763**	0.038	50.0	mg/L	73	Standard
>	**Sc-1**	45	43830.0	1.3				mg/L	44343	Standard
	Cl	35	5483.7	2.3				ug/L	5612	Standard
	Kr	83	100.7	12.4				ug/L	108	Standard
	Br	81	3030.3	6.9				ug/L	3490	Standard
	P	31	170556.9	3.2				ug/L	350479	Standard
	S	34	17309.9	0.4				ug/L	17705	Standard
	Sr	88	56.7	18.4				ug/L	42	Standard
	C	12	16.7	34.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	2.9	218.3				mg/L	3	Standard
	Ho-1	165	6.7	173.2				mg/L	7	Standard
	Er	166	10.0	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.002	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.108	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	100.818
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.219
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311062904SD WG452549-05
Sample Date/Time: Wednesday, November 13, 2013 19:47:23
Number of Replicates: 3
Autosampler Position: 237
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	170413.0	0.7				ug/L	159627	Standard
	Be	9	13938.1	2.5	**5.3326**	0.170	3.2	ug/L	28	Standard
	Al	27	1170064.8	1.7	**6.2273**	0.070	1.1	ug/L	1227	Standard
	Sc	45	44523.7	2.8				ug/L	44343	Standard
	Ti	47	45.0	17.8	**0.0119**	0.019	158.8	ug/L	21	Standard
	V	51	37732.1	0.5	**4.8541**	0.005	0.1	ug/L	1305	Standard
	Cr	52	38045.0	1.4	**4.9027**	0.101	2.1	ug/L	4727	Standard
	Cr	53	6248.0	1.7	**5.0113**	0.124	2.5	ug/L	288	Standard
	Mn	55	74245.1	1.2	**5.8549**	0.063	1.1	ug/L	1062	Standard
	Co	59	39444.9	1.1	**5.0000**	0.061	1.2	ug/L	99	Standard
	Ni	60	12953.9	1.3	**5.3873**	0.063	1.2	ug/L	475	Standard
	Cu	65	12102.8	0.6	**5.2731**	0.004	0.1	ug/L	130	Standard
	Zn	66	22086.8	0.9	**18.0205**	0.157	0.9	ug/L	130	Standard
>	Ge	72	347975.9	0.6				ug/L	341919	Standard
	As	75	7066.7	0.9	**5.5657**	0.056	1.0	ug/L	-350	Standard
	Se	82	760.4	3.3	**5.6512**	0.180	3.2	ug/L	-53	Standard
	Se-1	77	607.3	0.3	**5.7706**	0.029	0.5	ug/L	84	Standard
>	Ga	71	43.3	24.0				mg/L	53	Standard
	Rb	85	2318.5	6.5				ug/L	13	Standard
	Y	89	352629.9	1.1				ug/L	364126	Standard
>	Rh	103	15.0	33.3				ug/L	12	Standard
	Mo	98	84.8	21.1	**0.0092**	0.005	58.6	ug/L	24	Standard
	Ag	107	32256.6	0.8	**5.2703**	0.027	0.5	ug/L	45	Standard
	Cd	111	10580.3	1.2	**5.4006**	0.104	1.9	mg/L	2	Standard
	Cd	114	27134.8	1.6	**5.2245**	0.056	1.1	ug/L	10	Standard
>	In	115	381505.3	0.8				ug/L	372170	Standard
	Sn	118	42.7	12.0	**-0.0021**	0.005	225.9	ug/L	45	Standard
	Sb	123	14580.8	1.0	**5.1941**	0.032	0.6	ug/L	116	Standard
	Ba	135	9882.9	2.1	**5.7064**	0.069	1.2	ug/L	7	Standard
	Ce	140	21.7	53.3				ug/L	5	Standard
>	Tb	159	428890.1	1.8				ug/L	430345	Standard
	Ho	165	5.0	0.0				ug/L	7	Standard
	Tl	203	28285.0	0.8	**5.1295**	0.020	0.4	ug/L	3	Standard
	Tl	205	33672.4	0.3	**5.1935**	0.051	1.0	ug/L	2	Standard
	Pb	206	12020.4	1.2	**5.3848**	0.087	1.6	ug/L	69	Standard
	Pb	207	10146.1	1.3	**5.0414**	0.038	0.8	ug/L	57	Standard
	Pb	208	27833.0	1.6	**4.9396**	0.056	1.1	ug/L	162	Standard
	U	238	18311.1	0.6	**4.8169**	0.052	1.1	ug/L	0	Standard
>	Bi	209	213622.8	0.8				ug/L	206180	Standard

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	Na	23	11.7	65.5	**3.8599**	3.663	94.9	mg/L	2	Standard
	Mg	24	641.7	8.1	**0.6257**	0.072	11.6	mg/L	28	Standard
	K	39	31.7	50.8	**0.3438**	0.218	63.5	mg/L	7	Standard
	Ca	43	106.7	7.2	**4.3455**	0.564	13.0	mg/L	25	Standard
	Fe	54	119.3	12.1	**-0.0947**	0.010	10.6	mg/L	279	Standard
	Fe	57	106.7	5.4	**0.0947**	0.014	15.1	mg/L	73	Standard
>	**Sc-1**	45	44523.7	2.8				mg/L	44343	Standard
	Cl	35	5659.1	0.6				ug/L	5612	Standard
	Kr	83	105.0	10.8				ug/L	108	Standard
	Br	81	3243.7	4.9				ug/L	3490	Standard
	P	31	173408.6	1.8				ug/L	350479	Standard
	S	34	17405.0	1.2				ug/L	17705	Standard
	Sr	88	66.7	4.3				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	10.0	173.2				mg/L	0	Standard
	Dy	164	9.2	108.7				mg/L	3	Standard
	Ho-1	165	5.0	0.0				mg/L	7	Standard
	Er	166	16.7	34.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.757	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.771	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.508
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.610
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311066102
Sample Date/Time: Wednesday, November 13, 2013 19:50:28
Number of Replicates: 3
Autosampler Position: 238
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	219526.6	31.0				ug/L	159627	Standard
	Be	9	15.0	88.2	**-0.0239**	0.004	17.5	ug/L	28	Standard
	Al	27	1350.1	24.4	**-0.0199**	0.001	6.6	ug/L	1227	Standard
	Sc	45	53638.8	30.2				ug/L	44343	Standard
	Ti	47	17.0	30.6	**-0.0581**	0.020	33.8	ug/L	21	Standard
	V	51	712.4	41.0	**-0.1074**	0.038	35.2	ug/L	1305	Standard
	Cr	52	2661.3	38.8	**-0.3499**	0.148	42.3	ug/L	4727	Standard
	Cr	53	265.0	29.0	**-0.1096**	0.057	52.3	ug/L	288	Standard
	Mn	55	787.4	33.4	**-0.0537**	0.021	38.7	ug/L	1062	Standard
	Co	59	84.7	14.1	**-0.0243**	0.002	6.6	ug/L	99	Standard
	Ni	60	242.0	5.2	**-0.1314**	0.019	14.5	ug/L	475	Standard
	Cu	65	77.3	53.6	**-0.0394**	0.018	44.5	ug/L	130	Standard
	Zn	66	136.7	25.2	**-0.0863**	0.015	17.2	ug/L	130	Standard
>	**Ge**	72	411764.0	27.3				ug/L	341919	Standard
	As	75	-249.7	112.4	**0.0461**	0.199	431.0	ug/L	-350	Standard
	Se	82	-70.6	123.7	**-0.1688**	0.574	340.0	ug/L	-53	Standard
	Se-1	77	66.0	4.0	**-0.3360**	0.140	41.6	ug/L	84	Standard
>	**Ga**	71	26.7	39.0				mg/L	53	Standard
	Rb	85	18.3	15.7				ug/L	13	Standard
	Y	89	445234.5	28.0				ug/L	364126	Standard
>	**Rh**	103	3.3	86.6				ug/L	12	Standard
	Mo	98	9.3	17.0	**-0.0138**	0.001	4.6	ug/L	24	Standard
	Ag	107	52.0	24.0	**-0.0120**	0.000	1.2	ug/L	45	Standard
	Cd	111	2.3	49.9	**-0.0121**	0.001	4.5	mg/L	2	Standard
	Cd	114	20.5	60.8	**-0.0087**	0.002	25.4	ug/L	10	Standard
>	**In**	115	474234.9	26.0				ug/L	372170	Standard
	Sn	118	45.3	20.5	**-0.0069**	0.004	63.4	ug/L	45	Standard
	Sb	123	72.5	10.3	**-0.0089**	0.004	46.6	ug/L	116	Standard
	Ba	135	9.7	15.8	**-0.0012**	0.002	146.6	ug/L	7	Standard
	Ce	140	10.0	50.0				ug/L	5	Standard
>	**Tb**	159	580456.8	27.6				ug/L	430345	Standard
	Ho	165	13.3	57.3				ug/L	7	Standard
	Tl	203	16.0	48.8	**-0.0017**	0.002	88.6	ug/L	3	Standard
	Tl	205	10.0	50.0	**-0.0112**	0.001	6.9	ug/L	2	Standard
	Pb	206	90.7	32.5	**-0.0018**	0.002	114.6	ug/L	69	Standard
	Pb	207	81.7	43.7	**-0.0011**	0.005	427.1	ug/L	57	Standard
	Pb	208	204.0	23.5	**-0.0181**	0.002	10.3	ug/L	162	Standard
	U	238	6.3	24.1	**-0.0185**	0.000	2.6	ug/L	0	Standard
>	**Bi**	209	288596.4	28.6				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	20.0	66.1	**-0.0226**	0.013	55.8	mg/L	28	Standard
	K	39	6.7	114.6	**-0.0121**	0.096	793.1	mg/L	7	Standard
	Ca	43	30.0	72.6	**0.2340**	1.493	638.0	mg/L	25	Standard
	Fe	54	122.7	39.1	**-0.1028**	0.026	25.0	mg/L	279	Standard
	Fe	57	76.7	49.4	**0.0191**	0.118	617.9	mg/L	73	Standard
>	**Sc-1**	45	53638.8	30.2				mg/L	44343	Standard
	Cl	35	2406.2	33.8				ug/L	5612	Standard
	Kr	83	144.3	95.2				ug/L	108	Standard
	Br	81	1083.4	40.2				ug/L	3490	Standard
	P	31	164640.9	59.1				ug/L	350479	Standard
	S	34	8012.3	37.5				ug/L	17705	Standard
	Sr	88	48.3	26.0				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	3.2	173.2				mg/L	3	Standard
	Ho-1	165	13.3	57.3				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		137.525	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		120.427	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	127.424
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	139.973
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Approved: November 15, 2013

Method 6020 - Summary Report

Sample ID: L1311066104
Sample Date/Time: Wednesday, November 13, 2013 19:53:32
Number of Replicates: 3
Autosampler Position: 239
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	184840.7	0.8				ug/L	159627	Standard
	Be	9	56.7	13.5	**-0.0081**	0.003	35.1	ug/L	28	Standard
	Al	27	3067936.0	1.3	**15.0922**	0.304	2.0	ug/L	1227	Standard
	Sc	45	47848.8	2.3				ug/L	44343	Standard
	Ti	47	186.3	3.2	**0.3270**	0.015	4.6	ug/L	21	Standard
	V	51	2290.8	1.3	**0.1007**	0.004	3.5	ug/L	1305	Standard
	Cr	52	8247.9	4.5	**0.4615**	0.041	8.9	ug/L	4727	Standard
	Cr	53	705.0	11.1	**0.2658**	0.059	22.2	ug/L	288	Standard
	Mn	55	11917.0	1.1	**0.8009**	0.004	0.5	ug/L	1062	Standard
	Co	59	1231.7	2.0	**0.1157**	0.002	1.4	ug/L	99	Standard
	Ni	60	7037.6	1.5	**2.6731**	0.014	0.5	ug/L	475	Standard
	Cu	65	14233.7	0.9	**5.9016**	0.068	1.1	ug/L	130	Standard
	Zn	66	4044.5	0.8	**2.9854**	0.035	1.2	ug/L	130	Standard
>	**Ge**	72	366183.8	1.0				ug/L	341919	Standard
	As	75	-88.5	58.9	**0.1573**	0.037	23.4	ug/L	-350	Standard
	Se	82	14.5	96.6	**0.3889**	0.094	24.3	ug/L	-53	Standard
	Se-1	77	125.0	4.9	**0.3394**	0.075	22.2	ug/L	84	Standard
>	**Ga**	71	65.0	33.5				mg/L	53	Standard
	Rb	85	5841.1	6.5				ug/L	13	Standard
	Y	89	367086.2	3.0				ug/L	364126	Standard
>	**Rh**	103	105.0	26.5				ug/L	12	Standard
	Mo	98	2049.8	3.1	**0.5768**	0.025	4.3	ug/L	24	Standard
	Ag	107	79.3	13.8	**-0.0063**	0.002	31.3	ug/L	45	Standard
	Cd	111	29.8	15.5	**0.0016**	0.002	137.5	mg/L	2	Standard
	Cd	114	92.1	40.6	**0.0052**	0.007	133.3	ug/L	10	Standard
>	**In**	115	394890.6	2.0				ug/L	372170	Standard
	Sn	118	108.0	11.6	**0.0503**	0.010	19.0	ug/L	45	Standard
	Sb	123	268.2	4.2	**0.0624**	0.004	7.0	ug/L	116	Standard
	Ba	135	18527.3	2.3	**10.3402**	0.046	0.4	ug/L	7	Standard
	Ce	140	463.3	10.5				ug/L	5	Standard
>	**Tb**	159	444057.1	1.2				ug/L	430345	Standard
	Ho	165	30.0	44.1				ug/L	7	Standard
	Tl	203	36.7	10.3	**0.0026**	0.001	25.6	ug/L	3	Standard
	Tl	205	33.3	37.7	**-0.0072**	0.002	26.8	ug/L	2	Standard
	Pb	206	546.0	3.1	**0.2169**	0.009	4.3	ug/L	69	Standard
	Pb	207	474.7	2.9	**0.2093**	0.005	2.3	ug/L	57	Standard
	Pb	208	1287.0	0.9	**0.1877**	0.003	1.8	ug/L	162	Standard
	U	238	2252.8	2.7	**0.5819**	0.021	3.6	ug/L	0	Standard
>	**Bi**	209	211287.1	0.9				ug/L	206180	Standard

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	Na	23	196.7	21.3	**82.7385**	19.767	23.9	mg/L	2	Standard
	Mg	24	5506.0	4.3	**5.2665**	0.114	2.2	mg/L	28	Standard
	K	39	86.7	3.3	**1.0122**	0.060	6.0	mg/L	7	Standard
	Ca	43	1018.4	12.7	**49.0584**	5.841	11.9	mg/L	25	Standard
	Fe	54	335.7	6.7	**0.0163**	0.015	92.0	mg/L	279	Standard
	Fe	57	530.0	0.0	**0.9406**	0.025	2.7	mg/L	73	Standard
>	**Sc-1**	45	47848.8	2.3				mg/L	44343	Standard
	Cl	35	7248.4	1.5				ug/L	5612	Standard
	Kr	83	122.7	5.0				ug/L	108	Standard
	Br	81	4527.3	9.9				ug/L	3490	Standard
	P	31	370950.6	2.0				ug/L	350479	Standard
	S	34	17368.3	2.6				ug/L	17705	Standard
	Sr	88	280.0	1.8				ug/L	42	Standard
	C	12	13.3	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	29.8	67.8				mg/L	3	Standard
	Ho-1	165	30.0	44.1				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.795	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.097	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	106.105
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.477
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311066104PS WG452664-01
Sample Date/Time: Wednesday, November 13, 2013 19:56:37
Number of Replicates: 3
Autosampler Position: 240
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	190635.2	0.8				ug/L	159627	Standard
	Be	9	130817.7	3.4	**44.9395**	1.329	3.0	ug/L	28	Standard
	Al	27	3147613.7	0.1	**15.0124**	0.116	0.8	ug/L	1227	Standard
	Sc	45	50626.1	1.8				ug/L	44343	Standard
	Ti	47	251.7	16.4	**0.4483**	0.095	21.1	ug/L	21	Standard
	V	51	386948.7	1.9	**46.5994**	0.367	0.8	ug/L	1305	Standard
	Cr	52	356600.2	1.0	**46.7284**	0.158	0.3	ug/L	4727	Standard
	Cr	53	63059.3	0.6	**48.2176**	0.427	0.9	ug/L	288	Standard
	Mn	55	663620.6	1.5	**48.1051**	0.200	0.4	ug/L	1062	Standard
	Co	59	410084.6	1.8	**47.2988**	0.277	0.6	ug/L	99	Standard
	Ni	60	128639.6	2.3	**50.1712**	0.603	1.2	ug/L	475	Standard
	Cu	65	133226.9	1.6	**53.1217**	0.211	0.4	ug/L	130	Standard
	Zn	66	66614.8	0.5	**49.4793**	0.422	0.9	ug/L	130	Standard
>	**Ge**	72	384702.7	1.2				ug/L	341919	Standard
	As	75	69276.1	1.1	**47.6159**	0.209	0.4	ug/L	-350	Standard
	Se	82	7129.1	0.7	**45.7469**	0.335	0.7	ug/L	-53	Standard
	Se-1	77	4907.8	2.6	**48.3665**	0.759	1.6	ug/L	84	Standard
>	**Ga**	71	105.0	29.0				mg/L	53	Standard
	Rb	85	6079.6	2.5				ug/L	13	Standard
	Y	89	381657.0	2.3				ug/L	364126	Standard
>	**Rh**	103	126.7	47.1				ug/L	12	Standard
	Mo	98	2182.7	5.0	**0.5901**	0.028	4.8	ug/L	24	Standard
	Ag	107	310670.4	1.3	**47.2643**	0.419	0.9	ug/L	45	Standard
	Cd	111	102362.2	1.1	**48.5990**	0.516	1.1	mg/L	2	Standard
	Cd	114	256452.5	1.3	**45.9263**	0.416	0.9	ug/L	10	Standard
>	**In**	115	411006.1	0.5				ug/L	372170	Standard
	Sn	118	119.7	7.0	**0.0560**	0.006	11.3	ug/L	45	Standard
	Sb	123	137590.2	1.3	**45.7309**	0.409	0.9	ug/L	116	Standard
	Ba	135	107696.8	1.2	**57.7789**	0.524	0.9	ug/L	7	Standard
	Ce	140	1380.1	101.4				ug/L	5	Standard
>	**Tb**	159	460541.9	1.3				ug/L	430345	Standard
	Ho	165	15.0	33.3				ug/L	7	Standard
	Tl	203	274666.6	0.6	**48.5914**	0.103	0.2	ug/L	3	Standard
	Tl	205	331664.1	0.2	**49.9732**	0.495	1.0	ug/L	2	Standard
	Pb	206	116851.6	0.9	**51.2967**	0.483	0.9	ug/L	69	Standard
	Pb	207	104523.0	0.5	**50.9069**	0.294	0.6	ug/L	57	Standard
	Pb	208	267534.7	1.2	**46.6645**	0.262	0.6	ug/L	162	Standard
	U	238	189096.3	0.3	**48.6697**	0.269	0.6	ug/L	0	Standard
>	**Bi**	209	219138.7	0.8				ug/L	206180	Standard

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Sheri L. Pfalzgraf

	Na	23	178.3	14.4	**70.5856**	11.449	16.2	mg/L	2	Standard
	Mg	24	5519.3	3.8	**4.9905**	0.227	4.6	mg/L	28	Standard
	K	39	60.0	16.7	**0.6316**	0.117	18.6	mg/L	7	Standard
	Ca	43	981.7	9.7	**44.5734**	3.715	8.3	mg/L	25	Standard
	Fe	54	348.8	8.7	**0.0130**	0.016	126.7	mg/L	279	Standard
	Fe	57	453.3	12.4	**0.7332**	0.103	14.0	mg/L	73	Standard
>	**Sc-1**	45	50626.1	1.8				mg/L	44343	Standard
	Cl	35	7547.2	1.7				ug/L	5612	Standard
	Kr	83	120.7	12.3				ug/L	108	Standard
	Br	81	5124.2	3.2				ug/L	3490	Standard
	P	31	496237.9	1.3				ug/L	350479	Standard
	S	34	17745.4	4.9				ug/L	17705	Standard
	Sr	88	316.7	10.3				ug/L	42	Standard
	C	12	23.3	24.7				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	43.3				mg/L	0	Standard
	Dy	164	18.4	180.0				mg/L	3	Standard
	Ho-1	165	15.0	33.3				mg/L	7	Standard
	Er	166	33.3	96.4				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		119.425	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.513	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	110.435
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.285
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311066104PS WG452664-01
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Method 6020 - Summary Report

Sample ID: L1311066104SDL WG452664-02
Sample Date/Time: Wednesday, November 13, 2013 19:59:43
Number of Replicates: 3
Autosampler Position: 241
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	169541.8	1.5				ug/L	159627	Standard
	Be	9	78.3	25.8	**0.0020**	0.007	361.7	ug/L	28	Standard
	Al	27	555588.3	1.8	**2.9588**	0.009	0.3	ug/L	1227	Standard
	Sc	45	43475.6	0.7				ug/L	44343	Standard
	Ti	47	83.0	18.0	**0.1072**	0.038	35.5	ug/L	21	Standard
	V	51	2563.5	2.9	**0.1602**	0.013	7.9	ug/L	1305	Standard
	Cr	52	6492.7	0.7	**0.2856**	0.006	2.0	ug/L	4727	Standard
	Cr	53	438.3	9.8	**0.0774**	0.036	46.3	ug/L	288	Standard
	Mn	55	12755.4	1.1	**0.9390**	0.004	0.4	ug/L	1062	Standard
	Co	59	412.3	3.5	**0.0202**	0.002	9.0	ug/L	99	Standard
	Ni	60	1671.4	2.3	**0.5170**	0.020	3.9	ug/L	475	Standard
	Cu	65	2973.3	2.5	**1.2730**	0.031	2.4	ug/L	130	Standard
	Zn	66	3483.1	1.9	**2.7533**	0.047	1.7	ug/L	130	Standard
>	Ge	72	340270.9	0.8				ug/L	341919	Standard
	As	75	-154.3	24.0	**0.1013**	0.030	29.2	ug/L	-350	Standard
	Se	82	-13.8	74.3	**0.1921**	0.074	38.3	ug/L	-53	Standard
	Se-1	77	106.0	8.6	**0.2239**	0.109	48.8	ug/L	84	Standard
>	Ga	71	33.3	62.5				mg/L	53	Standard
	Rb	85	1093.4	1.8				ug/L	13	Standard
	Y	89	346675.8	2.2				ug/L	364126	Standard
>	Rh	103	16.7	75.5				ug/L	12	Standard
	Mo	98	557.8	3.0	**0.1559**	0.004	2.5	ug/L	24	Standard
	Ag	107	74.7	22.4	**-0.0063**	0.003	42.4	ug/L	45	Standard
	Cd	111	25.2	33.8	**0.0002**	0.004	2234.9	mg/L	2	Standard
	Cd	114	130.5	10.3	**0.0140**	0.003	20.0	ug/L	10	Standard
>	In	115	370073.2	1.3				ug/L	372170	Standard
	Sn	118	602.7	5.8	**0.4895**	0.026	5.3	ug/L	45	Standard
	Sb	123	496.8	12.9	**0.1529**	0.021	14.0	ug/L	116	Standard
	Ba	135	3662.1	1.4	**2.1764**	0.029	1.3	ug/L	7	Standard
	Ce	140	145.0	27.6				ug/L	5	Standard
>	Tb	159	415283.0	1.1				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	254.7	18.1	**0.0428**	0.008	19.3	ug/L	3	Standard
	Tl	205	320.0	23.6	**0.0378**	0.012	30.9	ug/L	2	Standard
	Pb	206	322.7	6.0	**0.1156**	0.008	6.9	ug/L	69	Standard
	Pb	207	273.0	10.3	**0.1079**	0.014	13.1	ug/L	57	Standard
	Pb	208	763.0	5.3	**0.0933**	0.007	7.6	ug/L	162	Standard
	U	238	478.3	5.2	**0.1084**	0.006	5.7	ug/L	0	Standard
>	Bi	209	210558.7	0.6				ug/L	206180	Standard

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Approved: November 15, 2013
Sheri L. Babcock

	Na	23	41.7	48.5	**18.0544**	9.545	52.9	mg/L	2	Standard
	Mg	24	1125.0	3.2	**1.1535**	0.045	3.9	mg/L	28	Standard
	K	39	13.3	57.3	**0.0986**	0.106	107.2	mg/L	7	Standard
	Ca	43	211.7	8.3	**10.1978**	0.987	9.7	mg/L	25	Standard
	Fe	54	127.4	16.3	**-0.0884**	0.012	13.3	mg/L	279	Standard
	Fe	57	158.3	3.6	**0.2160**	0.015	6.8	mg/L	73	Standard
>	**Sc-1**	45	43475.6	0.7				mg/L	44343	Standard
	Cl	35	6566.1	2.4				ug/L	5612	Standard
	Kr	83	99.0	3.0				ug/L	108	Standard
	Br	81	3027.0	7.0				ug/L	3490	Standard
	P	31	166518.5	1.5				ug/L	350479	Standard
	S	34	18294.4	0.7				ug/L	17705	Standard
	Sr	88	91.7	25.2				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	19.5	104.9				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.211	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.518	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311066104SDL WG452664-02
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.437
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.124
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311066104SDL WG452664-02
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 20:02:50
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	180903.6	1.0				ug/L	159627	Standard
	Be	9	129620.6	2.3	**46.9311**	1.142	2.4	ug/L	28	Standard
	Al	27	8601987.4	1.4	**43.2816**	0.604	1.4	ug/L	1227	Standard
	Sc	45	48153.1	0.6				ug/L	44343	Standard
	Ti	47	44469.8	1.0	**99.7206**	0.696	0.7	ug/L	21	Standard
	V	51	366974.1	1.0	**45.9789**	0.152	0.3	ug/L	1305	Standard
	Cr	52	339287.3	1.9	**46.2466**	0.681	1.5	ug/L	4727	Standard
	Cr	53	60437.0	1.7	**48.0738**	0.484	1.0	ug/L	288	Standard
	Mn	55	631899.0	0.9	**47.6590**	0.662	1.4	ug/L	1062	Standard
	Co	59	392884.4	0.5	**47.1484**	0.165	0.4	ug/L	99	Standard
	Ni	60	120419.7	1.6	**48.8606**	0.620	1.3	ug/L	475	Standard
	Cu	65	116973.8	0.7	**48.5227**	0.486	1.0	ug/L	130	Standard
	Zn	66	64187.3	0.6	**49.6003**	0.175	0.4	ug/L	130	Standard
>	Ge	72	369763.0	0.7				ug/L	341919	Standard
	As	75	67638.2	0.5	**48.3652**	0.299	0.6	ug/L	-350	Standard
	Se	82	7132.8	1.5	**47.6057**	0.682	1.4	ug/L	-53	Standard
	Se-1	77	4907.8	0.9	**50.3652**	0.327	0.6	ug/L	84	Standard
>	Ga	71	71.7	16.1				mg/L	53	Standard
	Rb	85	1006.7	1.7				ug/L	13	Standard
	Y	89	370131.1	2.2				ug/L	364126	Standard
>	Rh	103	28.3	27.0				ug/L	12	Standard
	Mo	98	360426.5	0.6	**102.8083**	0.917	0.9	ug/L	24	Standard
	Ag	107	316707.1	1.2	**49.4811**	0.408	0.8	ug/L	45	Standard
	Cd	111	101755.8	1.2	**49.6117**	0.559	1.1	mg/L	2	Standard
	Cd	114	263440.3	1.3	**48.4499**	0.684	1.4	ug/L	10	Standard
>	In	115	400231.5	0.3				ug/L	372170	Standard
	Sn	118	62096.3	1.4	**50.2629**	0.864	1.7	ug/L	45	Standard
	Sb	123	136478.6	1.2	**46.5836**	0.407	0.9	ug/L	116	Standard
	Ba	135	88096.7	0.6	**48.5357**	0.280	0.6	ug/L	7	Standard
	Ce	140	38.3	7.5				ug/L	5	Standard
>	Tb	159	450284.8	0.6				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	276770.0	0.3	**48.3142**	0.206	0.4	ug/L	3	Standard
	Tl	205	332553.5	1.1	**49.4412**	0.631	1.3	ug/L	2	Standard
	Pb	206	115809.2	0.4	**50.1631**	0.017	0.0	ug/L	69	Standard
	Pb	207	104060.8	1.3	**50.0082**	0.648	1.3	ug/L	57	Standard
	Pb	208	268922.1	1.4	**46.2840**	0.481	1.0	ug/L	162	Standard
	U	238	185911.3	0.7	**47.2132**	0.182	0.4	ug/L	0	Standard
>	Bi	209	222083.8	0.4				ug/L	206180	Standard

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	Na	23	21.7	48.0	**7.6743**	4.465	58.2	mg/L	2	Standard
	Mg	24	4830.8	2.1	**4.5874**	0.075	1.6	mg/L	28	Standard
	K	39	298.3	17.0	**3.6726**	0.656	17.9	mg/L	7	Standard
	Ca	43	113.3	13.5	**4.2324**	0.717	16.9	mg/L	25	Standard
	Fe	54	9042.9	4.4	**4.6418**	0.228	4.9	mg/L	279	Standard
	Fe	57	2416.9	4.3	**4.7508**	0.209	4.4	mg/L	73	Standard
>	**Sc-1**	45	48153.1	0.6				mg/L	44343	Standard
	Cl	35	6163.9	4.3				ug/L	5612	Standard
	Kr	83	102.3	10.4				ug/L	108	Standard
	Br	81	3383.7	0.9				ug/L	3490	Standard
	P	31	392790.0	1.2				ug/L	350479	Standard
	S	34	21366.7	0.8				ug/L	17705	Standard
	Sr	88	31.7	55.5				ug/L	42	Standard
	C	12	16.7	69.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	6.7	86.6				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.329	
	Be	9	93.862		
	Al	27	86.563		
	Sc	45			
	Ti	47	99.721		
	V	51	91.958		
	Cr	52	92.493		
	Cr	53			
	Mn	55	95.318		
	Co	59	94.297		
	Ni	60	97.721		
	Cu	65	97.045		
	Zn	66	99.201		
>	Ge	72		108.143	
	As	75	96.730		
	Se	82	95.211		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	102.808	
|	Ag	107	98.962	
|	Cd	111	99.223	
|	Cd	114		
|>	In	115		107.540
|	Sn	118	100.526	
|	Sb	123	93.167	
⌊	Ba	135	97.071	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	96.628	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	92.568	
|	U	238	94.426	
⌊>	Bi	209		107.713
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 20:05:55
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	179148.3	2.4				ug/L	159627	Standard
	Be	9	40.0	12.5	**-0.0135**	0.002	13.7	ug/L	28	Standard
	Al	27	1961.8	23.0	**-0.0157**	0.002	13.9	ug/L	1227	Standard
	Sc	45	46763.7	1.8				ug/L	44343	Standard
	Ti	47	22.0	16.4	**-0.0451**	0.008	17.0	ug/L	21	Standard
	V	51	1217.2	3.8	**-0.0339**	0.008	23.6	ug/L	1305	Standard
	Cr	52	4394.3	1.3	**-0.0700**	0.004	5.6	ug/L	4727	Standard
	Cr	53	288.3	5.6	**-0.0681**	0.016	23.1	ug/L	288	Standard
	Mn	55	1079.7	6.1	**-0.0254**	0.006	23.8	ug/L	1062	Standard
	Co	59	113.0	14.2	**-0.0198**	0.002	10.6	ug/L	99	Standard
	Ni	60	334.3	3.3	**-0.0843**	0.006	7.2	ug/L	475	Standard
	Cu	65	147.7	5.8	**-0.0065**	0.004	61.8	ug/L	130	Standard
	Zn	66	172.0	16.6	**-0.0459**	0.024	51.4	ug/L	130	Standard
>	Ge	72	362304.7	1.3				ug/L	341919	Standard
	As	75	-298.7	6.8	**0.0036**	0.017	480.7	ug/L	-350	Standard
	Se	82	-44.3	7.1	**-0.0084**	0.024	285.6	ug/L	-53	Standard
	Se-1	77	88.7	14.4	**-0.0357**	0.127	354.6	ug/L	84	Standard
>	Ga	71	31.7	65.7				mg/L	53	Standard
	Rb	85	16.7	17.3				ug/L	13	Standard
	Y	89	364671.4	0.4				ug/L	364126	Standard
>	Rh	103	8.3	69.3				ug/L	12	Standard
	Mo	98	89.5	6.4	**0.0096**	0.002	19.4	ug/L	24	Standard
	Ag	107	72.0	19.3	**-0.0075**	0.002	30.3	ug/L	45	Standard
	Cd	111	11.5	52.8	**-0.0074**	0.003	41.1	mg/L	2	Standard
	Cd	114	43.5	29.8	**-0.0039**	0.002	63.1	ug/L	10	Standard
>	In	115	397336.1	0.9				ug/L	372170	Standard
	Sn	118	118.3	11.9	**0.0582**	0.011	18.3	ug/L	45	Standard
	Sb	123	316.1	40.6	**0.0781**	0.043	55.2	ug/L	116	Standard
	Ba	135	25.3	16.4	**0.0081**	0.002	30.0	ug/L	7	Standard
	Ce	140	8.3	91.7				ug/L	5	Standard
>	Tb	159	443454.9	1.3				ug/L	430345	Standard
	Ho	165	3.3	173.2				ug/L	7	Standard
	Tl	203	34.7	60.1	**0.0021**	0.004	181.3	ug/L	3	Standard
	Tl	205	30.0	72.6	**-0.0079**	0.003	41.9	ug/L	2	Standard
	Pb	206	86.7	3.5	**0.0060**	0.001	24.8	ug/L	69	Standard
	Pb	207	68.3	7.2	**0.0025**	0.003	101.5	ug/L	57	Standard
	Pb	208	175.0	9.1	**-0.0150**	0.002	15.6	ug/L	162	Standard
	U	238	13.7	68.0	**-0.0163**	0.002	14.8	ug/L	0	Standard
>	Bi	209	220398.9	1.4				ug/L	206180	Standard

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Sheri L. Babcock

	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	25.0	20.0	**-0.0158**	0.005	31.6	mg/L	28	Standard
	K	39	0.0		**-0.0871**	0.000	0.0	mg/L	7	Standard
	Ca	43	25.0	0.0	**-0.0756**	0.023	30.5	mg/L	25	Standard
	Fe	54	252.8	7.9	**-0.0251**	0.010	40.0	mg/L	279	Standard
	Fe	57	86.7	3.3	**0.0418**	0.008	19.6	mg/L	73	Standard
>	**Sc-1**	45	46763.7	1.8				mg/L	44343	Standard
	Cl	35	5929.2	1.3				ug/L	5612	Standard
	Kr	83	97.3	5.7				ug/L	108	Standard
	Br	81	3110.3	8.8				ug/L	3490	Standard
	P	31	377735.5	3.3				ug/L	350479	Standard
	S	34	21039.6	3.0				ug/L	17705	Standard
	Sr	88	33.3	67.6				ug/L	42	Standard
	C	12	13.3	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	2.9	173.2				mg/L	3	Standard
	Ho-1	165	3.3	173.2				mg/L	7	Standard
	Er	166	10.0	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.229	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.962	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	106.762
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	106.896
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311066106
Sample Date/Time: Wednesday, November 13, 2013 20:09:03
Number of Replicates: 3
Autosampler Position: 242
Sample Description: 25
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	180701.2	0.3				ug/L	159627	Standard
	Be	9	53.3	19.5	**-0.0088**	0.004	42.5	ug/L	28	Standard
	Al	27	51069.3	2.0	**0.2318**	0.006	2.6	ug/L	1227	Standard
	Sc	45	46909.2	1.6				ug/L	44343	Standard
	Ti	47	251.0	27.2	**0.4949**	0.159	32.2	ug/L	21	Standard
	V	51	23137.7	2.0	**2.8611**	0.017	0.6	ug/L	1305	Standard
	Cr	52	12390.7	0.7	**1.1068**	0.038	3.4	ug/L	4727	Standard
	Cr	53	1293.4	9.9	**0.7807**	0.091	11.7	ug/L	288	Standard
	Mn	55	9158.8	0.6	**0.6171**	0.011	1.8	ug/L	1062	Standard
	Co	59	5296.9	0.9	**0.6333**	0.016	2.5	ug/L	99	Standard
	Ni	60	25033.3	2.7	**10.4759**	0.384	3.7	ug/L	475	Standard
	Cu	65	462791.5	1.5	**201.4615**	2.450	1.2	ug/L	130	Standard
	Zn	66	3073.3	1.5	**2.3164**	0.003	0.1	ug/L	130	Standard
>	**Ge**	72	352736.7	1.5				ug/L	341919	Standard
	As	75	943.6	5.0	**0.9249**	0.038	4.1	ug/L	-350	Standard
	Se	82	44.8	23.0	**0.6031**	0.072	12.0	ug/L	-53	Standard
	Se-1	77	125.0	7.0	**0.3903**	0.114	29.1	ug/L	84	Standard
>	**Ga**	71	561.7	6.7				mg/L	53	Standard
	Rb	85	5362.6	3.0				ug/L	13	Standard
	Y	89	356689.5	2.3				ug/L	364126	Standard
>	**Rh**	103	188.3	1.5				ug/L	12	Standard
	Mo	98	41141.5	1.9	**12.4419**	0.023	0.2	ug/L	24	Standard
	Ag	107	78.0	9.0	**-0.0059**	0.001	15.5	ug/L	45	Standard
	Cd	111	-1.7	199.8	**-0.0140**	0.002	12.7	mg/L	2	Standard
	Cd	114	97.2	15.1	**0.0070**	0.003	36.0	ug/L	10	Standard
>	**In**	115	377063.8	1.9				ug/L	372170	Standard
	Sn	118	105.7	16.8	**0.0524**	0.014	26.2	ug/L	45	Standard
	Sb	123	308.5	5.3	**0.0813**	0.004	5.2	ug/L	116	Standard
	Ba	135	29157.4	1.2	**17.0483**	0.117	0.7	ug/L	7	Standard
	Ce	140	413.3	17.0				ug/L	5	Standard
>	**Tb**	159	436692.4	1.0				ug/L	430345	Standard
	Ho	165	8.3	69.3				ug/L	7	Standard
	Tl	203	26.3	17.9	**0.0009**	0.001	110.4	ug/L	3	Standard
	Tl	205	20.0	43.3	**-0.0092**	0.001	14.2	ug/L	2	Standard
	Pb	206	512.3	11.2	**0.2073**	0.022	10.6	ug/L	69	Standard
	Pb	207	473.0	17.4	**0.2142**	0.037	17.4	ug/L	57	Standard
	Pb	208	1110.0	3.3	**0.1608**	0.003	1.6	ug/L	162	Standard
	U	238	17.7	21.4	**-0.0150**	0.001	7.1	ug/L	0	Standard
>	**Bi**	209	205913.9	2.2				ug/L	206180	Standard

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	Na	23	585.0	6.8	**253.5371**	19.758	7.8	mg/L	2	Standard
	Mg	24	4147.2	4.0	**4.0372**	0.105	2.6	mg/L	28	Standard
	K	39	108.3	14.1	**1.3119**	0.179	13.7	mg/L	7	Standard
	Ca	43	2688.6	4.9	**134.5228**	6.999	5.2	mg/L	25	Standard
	Fe	54	250.3	4.1	**-0.0268**	0.007	24.7	mg/L	279	Standard
	Fe	57	1110.0	11.4	**2.1666**	0.259	12.0	mg/L	73	Standard
>	**Sc-1**	45	46909.2	1.6				mg/L	44343	Standard
	Cl	35	7847.4	2.2				ug/L	5612	Standard
	Kr	83	130.3	4.7				ug/L	108	Standard
	Br	81	6174.6	3.3				ug/L	3490	Standard
	P	31	389472.4	0.7				ug/L	350479	Standard
	S	34	17289.9	3.8				ug/L	17705	Standard
	Sr	88	461.7	6.0				ug/L	42	Standard
	C	12	26.7	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	40.0	25.0				mg/L	0	Standard
	Dy	164	9.4	3.0				mg/L	3	Standard
	Ho-1	165	8.3	69.3				mg/L	7	Standard
	Er	166	13.3	43.3				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.202	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.164	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.315
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.871
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cu 65 Upper, S, EEE	Cu	65	

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Method 6020 - Summary Report

Sample ID: L1311066102
Sample Date/Time: Wednesday, November 13, 2013 20:12:07
Number of Replicates: 3
Autosampler Position: 243
Sample Description: 25
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	223124.3	20.1				ug/L	159627	Standard
	Be	9	43.3	73.3	**-0.0152**	0.009	61.4	ug/L	28	Standard
	Al	27	34831.6	166.0	**0.1171**	0.237	202.4	ug/L	1227	Standard
	Sc	45	52886.7	13.9				ug/L	44343	Standard
	Ti	47	19.0	41.8	**-0.0564**	0.019	34.4	ug/L	21	Standard
	V	51	969.3	35.2	**-0.0781**	0.058	74.0	ug/L	1305	Standard
	Cr	52	3745.5	34.1	**-0.2142**	0.240	111.9	ug/L	4727	Standard
	Cr	53	290.0	27.1	**-0.0995**	0.057	57.7	ug/L	288	Standard
	Mn	55	1148.4	39.9	**-0.0310**	0.033	107.5	ug/L	1062	Standard
	Co	59	91.7	26.3	**-0.0240**	0.002	9.7	ug/L	99	Standard
	Ni	60	294.7	37.6	**-0.1160**	0.044	38.1	ug/L	475	Standard
	Cu	65	231.0	55.8	**0.0175**	0.049	282.8	ug/L	130	Standard
	Zn	66	223.0	30.1	**-0.0301**	0.047	156.1	ug/L	130	Standard
>	**Ge**	72	425670.3	16.8				ug/L	341919	Standard
	As	75	-338.9	32.3	**0.0042**	0.083	1945.2	ug/L	-350	Standard
	Se	82	-83.8	49.8	**-0.2024**	0.249	123.2	ug/L	-53	Standard
	Se-1	77	64.0	20.5	**-0.3751**	0.225	60.1	ug/L	84	Standard
>	**Ga**	71	21.7	13.3				mg/L	53	Standard
	Rb	85	23.3	65.5				ug/L	13	Standard
	Y	89	453854.3	15.0				ug/L	364126	Standard
>	**Rh**	103	5.0	100.0				ug/L	12	Standard
	Mo	98	22.2	36.1	**-0.0110**	0.002	16.0	ug/L	24	Standard
	Ag	107	55.7	18.3	**-0.0117**	0.001	5.6	ug/L	45	Standard
	Cd	111	5.3	76.6	**-0.0109**	0.002	15.3	mg/L	2	Standard
	Cd	114	33.4	14.7	**-0.0069**	0.001	11.5	ug/L	10	Standard
>	**In**	115	487553.7	17.0				ug/L	372170	Standard
	Sn	118	58.7	8.7	**0.0015**	0.009	562.2	ug/L	45	Standard
	Sb	123	88.2	69.2	**-0.0050**	0.018	361.8	ug/L	116	Standard
	Ba	135	24.0	83.0	**0.0051**	0.009	184.1	ug/L	7	Standard
	Ce	140	21.7	74.2				ug/L	5	Standard
>	**Tb**	159	587552.2	22.8				ug/L	430345	Standard
	Ho	165	11.7	89.2				ug/L	7	Standard
	Tl	203	12.3	41.6	**-0.0024**	0.001	31.5	ug/L	3	Standard
	Tl	205	91.7	163.8	**-0.0013**	0.018	1355.1	ug/L	2	Standard
	Pb	206	93.7	18.7	**-0.0004**	0.002	452.2	ug/L	69	Standard
	Pb	207	77.3	26.3	**-0.0020**	0.005	236.4	ug/L	57	Standard
	Pb	208	298.3	47.6	**-0.0059**	0.019	316.4	ug/L	162	Standard
	U	238	90.0	170.3	**-0.0013**	0.032	2494.6	ug/L	0	Standard
>	**Bi**	209	289331.5	24.9				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.7833**	1.314	167.7	mg/L	2	Standard
	Mg	24	23.3	99.0	**-0.0204**	0.019	95.0	mg/L	28	Standard
	K	39	0.0		**-0.0871**	0.000	0.0	mg/L	7	Standard
	Ca	43	23.3	44.6	**-0.3075**	0.372	121.0	mg/L	25	Standard
	Fe	54	177.5	25.4	**-0.0742**	0.035	47.8	mg/L	279	Standard
	Fe	57	83.3	15.1	**0.0189**	0.046	242.5	mg/L	73	Standard
>	**Sc-1**	45	52886.7	13.9				mg/L	44343	Standard
	Cl	35	4077.3	39.7				ug/L	5612	Standard
	Kr	83	191.3	37.2				ug/L	108	Standard
	Br	81	1716.8	43.7				ug/L	3490	Standard
	P	31	231821.9	38.7				ug/L	350479	Standard
	S	34	11576.5	39.3				ug/L	17705	Standard
	Sr	88	40.0	33.1				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	6.2	93.6				mg/L	3	Standard
	Ho-1	165	11.7	89.2				mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		139.779	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		124.494	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	131.003
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	140.329
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311066104
Sample Date/Time: Wednesday, November 13, 2013 20:15:11
Number of Replicates: 3
Autosampler Position: 244
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	164560.8	2.1				ug/L	159627	Standard
	Be	9	31.7	24.1	**-0.0156**	0.003	18.9	ug/L	28	Standard
	Al	27	120331.0	1.3	**0.6406**	0.022	3.4	ug/L	1227	Standard
	Sc	45	41762.5	1.4				ug/L	44343	Standard
	Ti	47	18.3	26.9	**-0.0495**	0.012	24.2	ug/L	21	Standard
	V	51	1513.2	1.2	**0.0226**	0.004	18.8	ug/L	1305	Standard
	Cr	52	5189.9	2.7	**0.1124**	0.022	19.9	ug/L	4727	Standard
	Cr	53	238.3	14.9	**-0.0905**	0.032	35.1	ug/L	288	Standard
	Mn	55	1490.7	1.8	**0.0173**	0.003	18.1	ug/L	1062	Standard
	Co	59	119.7	7.5	**-0.0176**	0.001	6.1	ug/L	99	Standard
	Ni	60	507.0	4.0	**0.0076**	0.008	106.5	ug/L	475	Standard
	Cu	65	1173.7	3.1	**0.4761**	0.013	2.8	ug/L	130	Standard
	Zn	66	1619.4	6.7	**1.2226**	0.101	8.2	ug/L	130	Standard
>	**Ge**	72	330664.7	0.8				ug/L	341919	Standard
	As	75	-285.6	10.3	**-0.0065**	0.022	335.7	ug/L	-350	Standard
	Se	82	-54.7	6.7	**-0.1140**	0.024	21.0	ug/L	-53	Standard
	Se-1	77	76.0	11.7	**-0.0923**	0.106	115.0	ug/L	84	Standard
>	**Ga**	71	40.0	43.3				mg/L	53	Standard
	Rb	85	215.0	12.9				ug/L	13	Standard
	Y	89	332095.5	1.3				ug/L	364126	Standard
>	**Rh**	103	5.0	173.2				ug/L	12	Standard
	Mo	98	84.9	10.3	**0.0107**	0.003	26.9	ug/L	24	Standard
	Ag	107	39.3	12.8	**-0.0121**	0.001	7.3	ug/L	45	Standard
	Cd	111	4.5	12.5	**-0.0106**	0.000	2.9	mg/L	2	Standard
	Cd	114	19.0	105.0	**-0.0081**	0.004	49.6	ug/L	10	Standard
>	**In**	115	361734.0	0.4				ug/L	372170	Standard
	Sn	118	39.0	10.3	**-0.0034**	0.003	101.9	ug/L	45	Standard
	Sb	123	38.5	9.3	**-0.0159**	0.001	8.5	ug/L	116	Standard
	Ba	135	747.4	5.3	**0.4496**	0.024	5.4	ug/L	7	Standard
	Ce	140	40.0	45.1				ug/L	5	Standard
>	**Tb**	159	411495.2	1.3				ug/L	430345	Standard
	Ho	165	6.7	43.3				ug/L	7	Standard
	Tl	203	9.7	15.8	**-0.0023**	0.000	12.9	ug/L	3	Standard
	Tl	205	16.7	34.6	**-0.0097**	0.001	9.7	ug/L	2	Standard
	Pb	206	90.3	12.8	**0.0104**	0.005	50.3	ug/L	69	Standard
	Pb	207	67.3	15.0	**0.0044**	0.005	120.8	ug/L	57	Standard
	Pb	208	198.7	5.6	**-0.0084**	0.002	25.1	ug/L	162	Standard
	U	238	85.0	6.2	**0.0035**	0.002	45.2	ug/L	0	Standard
>	**Bi**	209	205652.6	0.7				ug/L	206180	Standard

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	Na	23	6.7	86.6	**1.6997**	2.808	165.2	mg/L	2	Standard
	Mg	24	245.0	26.8	**0.2308**	0.076	33.1	mg/L	28	Standard
	K	39	8.3	69.3	**0.0340**	0.084	247.3	mg/L	7	Standard
	Ca	43	55.0	39.6	**1.7784**	1.239	69.7	mg/L	25	Standard
	Fe	54	90.7	11.8	**-0.1078**	0.007	6.3	mg/L	279	Standard
	Fe	57	98.3	16.3	**0.0909**	0.040	44.0	mg/L	73	Standard
>	**Sc-1**	45	41762.5	1.4				mg/L	44343	Standard
	Cl	35	6251.3	2.8				ug/L	5612	Standard
	Kr	83	106.7	6.2				ug/L	108	Standard
	Br	81	2776.9	3.2				ug/L	3490	Standard
	P	31	126331.2	1.0				ug/L	350479	Standard
	S	34	19008.6	2.0				ug/L	17705	Standard
	Sr	88	61.7	23.4				ug/L	42	Standard
	C	12	16.7	34.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	173.2				mg/L	0	Standard
	Dy	164	6.7	86.6				mg/L	3	Standard
	Ho-1	165	6.7	43.3				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.091	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.708	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		97.196
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		99.744
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311066104PS WG452664-01
Sample Date/Time: Wednesday, November 13, 2013 20:18:15
Number of Replicates: 3
Autosampler Position: 245
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	182652.7	0.5				ug/L	159627	Standard
	Be	9	129274.2	1.3	**46.3548**	0.624	1.3	ug/L	28	Standard
	Al	27	116785.0	0.6	**0.5567**	0.001	0.1	ug/L	1227	Standard
	Sc	45	47940.7	1.7				ug/L	44343	Standard
	Ti	47	25.3	22.4	**-0.0380**	0.013	33.1	ug/L	21	Standard
	V	51	350466.9	2.1	**44.4054**	0.499	1.1	ug/L	1305	Standard
	Cr	52	327439.8	1.4	**45.1284**	0.358	0.8	ug/L	4727	Standard
	Cr	53	58999.7	1.1	**47.4737**	0.983	2.1	ug/L	288	Standard
	Mn	55	614085.6	0.8	**46.8444**	0.431	0.9	ug/L	1062	Standard
	Co	59	379514.5	0.9	**46.0674**	0.539	1.2	ug/L	99	Standard
	Ni	60	116216.4	1.4	**47.6913**	0.479	1.0	ug/L	475	Standard
	Cu	65	115356.2	1.4	**48.3976**	0.300	0.6	ug/L	130	Standard
	Zn	66	62015.0	1.1	**48.4667**	0.160	0.3	ug/L	130	Standard
>	**Ge**	72	365570.9	1.0				ug/L	341919	Standard
	As	75	65397.5	1.3	**47.3025**	0.144	0.3	ug/L	-350	Standard
	Se	82	6802.3	2.0	**45.9279**	0.476	1.0	ug/L	-53	Standard
	Se-1	77	4661.4	2.6	**48.3448**	1.100	2.3	ug/L	84	Standard
>	**Ga**	71	53.3	30.1				mg/L	53	Standard
	Rb	85	270.0	17.7				ug/L	13	Standard
	Y	89	367846.8	2.5				ug/L	364126	Standard
>	**Rh**	103	23.3	32.7				ug/L	12	Standard
	Mo	98	114.2	13.3	**0.0166**	0.004	24.1	ug/L	24	Standard
	Ag	107	309577.9	2.1	**48.6010**	0.276	0.6	ug/L	45	Standard
	Cd	111	98371.5	0.8	**48.2021**	0.761	1.6	mg/L	2	Standard
	Cd	114	246688.4	2.6	**45.5907**	1.068	2.3	ug/L	10	Standard
>	**In**	115	398304.8	1.9				ug/L	372170	Standard
	Sn	118	106.0	0.9	**0.0480**	0.001	2.9	ug/L	45	Standard
	Sb	123	133441.6	0.6	**45.7749**	0.587	1.3	ug/L	116	Standard
	Ba	135	85565.3	1.5	**47.3758**	0.850	1.8	ug/L	7	Standard
	Ce	140	35.0	42.9				ug/L	5	Standard
>	**Tb**	159	449967.3	2.1				ug/L	430345	Standard
	Ho	165	6.7	43.3				ug/L	7	Standard
	Tl	203	265988.7	1.4	**46.9135**	0.221	0.5	ug/L	3	Standard
	Tl	205	321421.4	2.3	**48.2807**	0.923	1.9	ug/L	2	Standard
	Pb	206	112357.5	1.6	**49.1714**	0.296	0.6	ug/L	69	Standard
	Pb	207	100321.4	0.7	**48.7129**	0.222	0.5	ug/L	57	Standard
	Pb	208	261863.7	0.8	**45.5394**	0.247	0.5	ug/L	162	Standard
	U	238	177851.9	1.3	**45.6351**	0.186	0.4	ug/L	0	Standard
>	**Bi**	209	219797.9	1.1				ug/L	206180	Standard

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	Na	23	11.7	24.7	**3.4294**	1.201	35.0	mg/L	2	Standard
	Mg	24	241.7	8.4	**0.1922**	0.022	11.6	mg/L	28	Standard
	K	39	6.7	114.6	**-0.0017**	0.099	5821.1	mg/L	7	Standard
	Ca	43	56.7	39.8	**1.4502**	1.087	75.0	mg/L	25	Standard
	Fe	54	238.9	22.0	**-0.0362**	0.026	72.4	mg/L	279	Standard
	Fe	57	120.0	29.2	**0.1046**	0.068	65.4	mg/L	73	Standard
>	**Sc-1**	45	47940.7	1.7				mg/L	44343	Standard
	Cl	35	6890.2	2.7				ug/L	5612	Standard
	Kr	83	97.0	4.1				ug/L	108	Standard
	Br	81	3267.0	5.0				ug/L	3490	Standard
	P	31	364446.7	1.6				ug/L	350479	Standard
	S	34	20021.6	1.6				ug/L	17705	Standard
	Sr	88	53.3	23.6				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	0.0					mg/L	3	Standard
	Ho-1	165	6.7	43.3				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.425	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.917	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.022
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.605
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311066104PS WG452664-01
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Method 6020 - Summary Report

Sample ID: L1311066104SDL WG452664-02
Sample Date/Time: Wednesday, November 13, 2013 20:21:20
Number of Replicates: 3
Autosampler Position: 246
Sample Description: 125
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	209449.4	56.2				ug/L	159627	Standard
	Be	9	30.0	57.7	**-0.0189**	0.003	17.0	ug/L	28	Standard
	Al	27	965.0	26.9	**-0.0208**	0.002	8.0	ug/L	1227	Standard
	Sc	45	51843.6	58.3				ug/L	44343	Standard
	Ti	47	12.7	12.1	**-0.0633**	0.017	27.1	ug/L	21	Standard
	V	51	672.6	40.5	**-0.1018**	0.035	34.5	ug/L	1305	Standard
	Cr	52	2456.6	42.4	**-0.3432**	0.127	36.9	ug/L	4727	Standard
	Cr	53	240.0	36.1	**-0.0957**	0.093	96.7	ug/L	288	Standard
	Mn	55	707.0	37.2	**-0.0543**	0.017	30.4	ug/L	1062	Standard
	Co	59	93.0	6.5	**-0.0206**	0.008	38.0	ug/L	99	Standard
	Ni	60	218.7	14.0	**-0.1186**	0.063	53.1	ug/L	475	Standard
	Cu	65	85.7	48.7	**-0.0321**	0.016	51.2	ug/L	130	Standard
	Zn	66	133.0	47.4	**-0.0842**	0.011	12.6	ug/L	130	Standard
>	**Ge**	72	404947.3	56.6				ug/L	341919	Standard
	As	75	-249.9	64.1	**0.0375**	0.102	271.7	ug/L	-350	Standard
	Se	82	-71.1	59.3	**-0.2101**	0.271	129.0	ug/L	-53	Standard
	Se-1	77	64.3	10.6	**-0.1965**	0.460	234.1	ug/L	84	Standard
>	**Ga**	71	25.0	72.1				mg/L	53	Standard
	Rb	85	31.7	39.7				ug/L	13	Standard
	Y	89	433889.8	56.3				ug/L	364126	Standard
>	**Rh**	103	3.3	86.6				ug/L	12	Standard
	Mo	98	11.9	28.8	**-0.0128**	0.002	12.2	ug/L	24	Standard
	Ag	107	52.3	40.9	**-0.0115**	0.001	9.7	ug/L	45	Standard
	Cd	111	4.3	13.1	**-0.0109**	0.001	10.8	mg/L	2	Standard
	Cd	114	25.6	94.7	**-0.0084**	0.002	19.5	ug/L	10	Standard
>	**In**	115	471219.8	54.1				ug/L	372170	Standard
	Sn	118	38.3	49.9	**-0.0117**	0.004	32.1	ug/L	45	Standard
	Sb	123	452.8	28.9	**0.1163**	0.043	37.0	ug/L	116	Standard
	Ba	135	9.0	66.7	**-0.0021**	0.001	40.0	ug/L	7	Standard
	Ce	140	6.7	43.3				ug/L	5	Standard
>	**Tb**	159	565997.1	54.0				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	24.0	25.0	**-0.0002**	0.002	1099.2	ug/L	3	Standard
	Tl	205	33.3	69.3	**-0.0079**	0.003	38.8	ug/L	2	Standard
	Pb	206	87.7	62.8	**-0.0037**	0.005	132.7	ug/L	69	Standard
	Pb	207	83.7	65.1	**-0.0005**	0.004	656.1	ug/L	57	Standard
	Pb	208	210.7	48.8	**-0.0166**	0.002	10.1	ug/L	162	Standard
	U	238	9.0	50.9	**-0.0180**	0.000	0.6	ug/L	0	Standard
>	**Bi**	209	286073.9	53.9				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	38.3	52.7	**-0.0056**	0.010	173.4	mg/L	28	Standard
	K	39	3.3	86.6	**-0.0300**	0.070	232.0	mg/L	7	Standard
	Ca	43	35.0	62.3	**0.3249**	0.463	142.6	mg/L	25	Standard
	Fe	54	108.0	90.0	**-0.1043**	0.048	45.5	mg/L	279	Standard
	Fe	57	110.0	19.8	**0.1383**	0.210	151.8	mg/L	73	Standard
>	**Sc-1**	45	51843.6	58.3				mg/L	44343	Standard
	Cl	35	2634.3	41.1				ug/L	5612	Standard
	Kr	83	135.0	62.6				ug/L	108	Standard
	Br	81	1036.7	46.7				ug/L	3490	Standard
	P	31	148824.4	59.0				ug/L	350479	Standard
	S	34	8112.5	44.6				ug/L	17705	Standard
	Sr	88	60.0	8.3				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	3.0	187.1				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		131.212	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		118.434	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	126.614
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	138.749
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311066106
Sample Date/Time: Wednesday, November 13, 2013 20:24:24
Number of Replicates: 3
Autosampler Position: 247
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	159231.2	3.2				ug/L	159627	Standard
	Be	9	56.7	20.4	**-0.0049**	0.004	91.3	ug/L	28	Standard
	Al	27	4565.7	3.7	**0.0005**	0.000	30.1	ug/L	1227	Standard
	Sc	45	40606.0	0.9				ug/L	44343	Standard
	Ti	47	24.7	2.3	**-0.0323**	0.001	4.0	ug/L	21	Standard
	V	51	2134.6	1.6	**0.1159**	0.006	5.5	ug/L	1305	Standard
	Cr	52	5106.9	0.7	**0.1151**	0.013	11.5	ug/L	4727	Standard
	Cr	53	300.0	14.8	**-0.0302**	0.038	124.9	ug/L	288	Standard
	Mn	55	1548.1	3.0	**0.0248**	0.005	21.5	ug/L	1062	Standard
	Co	59	246.3	6.9	**0.0001**	0.003	2837.4	ug/L	99	Standard
	Ni	60	1020.0	3.0	**0.2507**	0.018	7.0	ug/L	475	Standard
	Cu	65	17186.4	0.6	**8.0713**	0.098	1.2	ug/L	130	Standard
	Zn	66	1990.8	1.2	**1.5782**	0.007	0.4	ug/L	130	Standard
>	**Ge**	72	324305.5	1.0				ug/L	341919	Standard
	As	75	-206.7	33.0	**0.0529**	0.056	106.5	ug/L	-350	Standard
	Se	82	-38.1	43.8	**0.0030**	0.128	4287.1	ug/L	-53	Standard
	Se-1	77	88.7	5.6	**0.0766**	0.069	89.8	ug/L	84	Standard
>	**Ga**	71	61.7	18.7				mg/L	53	Standard
	Rb	85	205.0	23.3				ug/L	13	Standard
	Y	89	323341.0	1.6				ug/L	364126	Standard
>	**Rh**	103	5.0	0.0				ug/L	12	Standard
	Mo	98	1314.2	0.6	**0.4071**	0.003	0.9	ug/L	24	Standard
	Ag	107	48.0	27.3	**-0.0104**	0.002	22.2	ug/L	45	Standard
	Cd	111	4.4	58.4	**-0.0106**	0.001	13.3	mg/L	2	Standard
	Cd	114	21.8	35.3	**-0.0074**	0.002	21.4	ug/L	10	Standard
>	**In**	115	354539.3	0.3				ug/L	372170	Standard
	Sn	118	55.7	5.5	**0.0126**	0.003	23.2	ug/L	45	Standard
	Sb	123	62.5	11.9	**-0.0064**	0.003	45.2	ug/L	116	Standard
	Ba	135	1088.4	1.5	**0.6710**	0.009	1.3	ug/L	7	Standard
	Ce	140	41.7	13.9				ug/L	5	Standard
>	**Tb**	159	397166.8	1.0				ug/L	430345	Standard
	Ho	165	0.0					ug/L	7	Standard
	Tl	203	11.7	55.8	**-0.0018**	0.001	67.7	ug/L	3	Standard
	Tl	205	5.0	0.0	**-0.0116**	0.000	0.0	ug/L	2	Standard
	Pb	206	87.0	11.9	**0.0096**	0.005	50.0	ug/L	69	Standard
	Pb	207	87.3	6.5	**0.0156**	0.003	18.2	ug/L	57	Standard
	Pb	208	231.0	3.3	**-0.0016**	0.002	95.2	ug/L	162	Standard
	U	238	4.0	75.0	**-0.0187**	0.001	4.5	ug/L	0	Standard
>	**Bi**	209	201917.9	0.5				ug/L	206180	Standard

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	Na	23	15.0	33.3	**6.0079**	2.495	41.5	mg/L	2	Standard
	Mg	24	161.7	12.9	**0.1433**	0.025	17.8	mg/L	28	Standard
	K	39	6.7	86.6	**0.0128**	0.087	676.1	mg/L	7	Standard
	Ca	43	143.3	4.0	**7.0228**	0.315	4.5	mg/L	25	Standard
	Fe	54	92.9	26.1	**-0.1048**	0.016	14.8	mg/L	279	Standard
	Fe	57	116.7	8.9	**0.1412**	0.027	19.2	mg/L	73	Standard
>	**Sc-1**	45	40606.0	0.9				mg/L	44343	Standard
	Cl	35	6123.2	4.8				ug/L	5612	Standard
	Kr	83	94.3	8.2				ug/L	108	Standard
	Br	81	2453.5	9.8				ug/L	3490	Standard
	P	31	124472.6	1.3				ug/L	350479	Standard
	S	34	19719.5	3.5				ug/L	17705	Standard
	Sr	88	53.3	28.6				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	9.8	101.7				mg/L	3	Standard
	Ho-1	165	0.0					mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.752	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.849	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.263
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.933
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 20:27:32
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	177431.2	0.7				ug/L	159627	Standard
	Be	9	128788.5	2.2	**47.5413**	1.066	2.2	ug/L	28	Standard
	Al	27	8405205.7	1.6	**43.1168**	0.502	1.2	ug/L	1227	Standard
	Sc	45	47206.8	0.2				ug/L	44343	Standard
	Ti	47	43150.0	1.9	**99.3265**	1.066	1.1	ug/L	21	Standard
	V	51	355938.7	1.9	**45.7771**	0.320	0.7	ug/L	1305	Standard
	Cr	52	327302.3	1.5	**45.7912**	0.280	0.6	ug/L	4727	Standard
	Cr	53	58462.6	0.9	**47.7404**	0.507	1.1	ug/L	288	Standard
	Mn	55	603268.0	1.1	**46.7030**	0.077	0.2	ug/L	1062	Standard
	Co	59	381057.3	1.5	**46.9409**	0.125	0.3	ug/L	99	Standard
	Ni	60	116601.6	0.9	**48.5679**	0.194	0.4	ug/L	475	Standard
	Cu	65	113751.5	1.4	**48.4360**	0.244	0.5	ug/L	130	Standard
	Zn	66	61925.3	1.2	**49.1213**	0.410	0.8	ug/L	130	Standard
>	Ge	72	360205.2	1.3				ug/L	341919	Standard
	As	75	66041.8	0.9	**48.4778**	0.419	0.9	ug/L	-350	Standard
	Se	82	6892.8	0.8	**47.2310**	0.591	1.3	ug/L	-53	Standard
	Se-1	77	4804.4	1.3	**50.6204**	0.663	1.3	ug/L	84	Standard
>	Ga	71	71.7	14.5				mg/L	53	Standard
	Rb	85	1081.7	6.2				ug/L	13	Standard
	Y	89	362894.7	0.9				ug/L	364126	Standard
>	Rh	103	30.0	16.7				ug/L	12	Standard
	Mo	98	346636.1	0.7	**100.0876**	0.197	0.2	ug/L	24	Standard
	Ag	107	309092.5	1.1	**48.8846**	0.223	0.5	ug/L	45	Standard
	Cd	111	99516.2	0.8	**49.1167**	0.353	0.7	mg/L	2	Standard
	Cd	114	258027.7	1.5	**48.0348**	0.331	0.7	ug/L	10	Standard
>	In	115	395375.0	0.8				ug/L	372170	Standard
	Sn	118	60585.6	0.7	**49.6406**	0.177	0.4	ug/L	45	Standard
	Sb	123	134254.8	0.5	**46.3899**	0.397	0.9	ug/L	116	Standard
	Ba	135	85987.6	0.6	**47.9562**	0.199	0.4	ug/L	7	Standard
	Ce	140	41.7	55.4				ug/L	5	Standard
>	Tb	159	440558.4	0.6				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	267073.9	1.3	**48.0987**	0.591	1.2	ug/L	3	Standard
	Tl	205	323374.6	1.0	**49.6000**	0.543	1.1	ug/L	2	Standard
	Pb	206	112697.6	0.9	**50.3623**	0.343	0.7	ug/L	69	Standard
	Pb	207	101240.4	0.1	**50.1952**	0.091	0.2	ug/L	57	Standard
	Pb	208	260009.2	0.4	**46.1700**	0.294	0.6	ug/L	162	Standard
	U	238	178458.9	0.8	**46.7575**	0.403	0.9	ug/L	0	Standard
>	Bi	209	215260.3	0.3				ug/L	206180	Standard

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Sheri L. Pfalzgraf

	Na	23	15.0	57.7	**4.9496**	3.736	75.5	mg/L	2	Standard
	Mg	24	4507.3	2.8	**4.3642**	0.120	2.7	mg/L	28	Standard
	K	39	261.7	16.0	**3.2738**	0.533	16.3	mg/L	7	Standard
	Ca	43	93.3	27.5	**3.3411**	1.279	38.3	mg/L	25	Standard
	Fe	54	9139.2	2.3	**4.7897**	0.115	2.4	mg/L	279	Standard
	Fe	57	2396.9	6.5	**4.8079**	0.334	6.9	mg/L	73	Standard
>	**Sc-1**	45	47206.8	0.2				mg/L	44343	Standard
	Cl	35	6333.3	0.5				ug/L	5612	Standard
	Kr	83	103.3	14.5				ug/L	108	Standard
	Br	81	3110.3	8.0				ug/L	3490	Standard
	P	31	388969.5	0.1				ug/L	350479	Standard
	S	34	21620.4	0.7				ug/L	17705	Standard
	Sr	88	33.3	37.7				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	0.0					mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.154	
	Be	9	95.083		
	Al	27	86.234		
	Sc	45			
	Ti	47	99.326		
	V	51	91.554		
	Cr	52	91.582		
	Cr	53			
	Mn	55	93.406		
	Co	59	93.882		
	Ni	60	97.136		
	Cu	65	96.872		
	Zn	66	98.243		
>	Ge	72		105.348	
	As	75	96.956		
	Se	82	94.462		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	100.088		
|	Ag	107	97.769		
|	Cd	111	98.233		
|	Cd	114			
|>	In	115		106.235	
|	Sn	118	99.281		
|	Sb	123	92.780		
⌊	Ba	135	95.912		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	96.197		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	92.340		
|	U	238	93.515		
⌊>	Bi	209		104.404	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 20:30:38
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	178512.4	2.0				ug/L	159627	Standard
	Be	9	55.0	15.7	**-0.0080**	0.003	36.8	ug/L	28	Standard
	Al	27	1918.5	46.6	**-0.0158**	0.005	29.2	ug/L	1227	Standard
	Sc	45	46690.2	1.5				ug/L	44343	Standard
	Ti	47	21.7	35.3	**-0.0455**	0.017	37.6	ug/L	21	Standard
	V	51	1157.0	5.5	**-0.0405**	0.008	20.1	ug/L	1305	Standard
	Cr	52	4175.6	2.7	**-0.0960**	0.011	11.7	ug/L	4727	Standard
	Cr	53	271.7	23.3	**-0.0801**	0.052	64.8	ug/L	288	Standard
	Mn	55	1038.0	6.3	**-0.0280**	0.004	15.2	ug/L	1062	Standard
	Co	59	102.0	25.5	**-0.0211**	0.003	14.6	ug/L	99	Standard
	Ni	60	311.7	10.8	**-0.0928**	0.013	13.9	ug/L	475	Standard
	Cu	65	135.3	16.6	**-0.0113**	0.009	79.6	ug/L	130	Standard
	Zn	66	160.3	14.4	**-0.0544**	0.017	31.4	ug/L	130	Standard
>	**Ge**	72	359299.2	1.0				ug/L	341919	Standard
	As	75	-296.7	4.5	**0.0034**	0.010	279.9	ug/L	-350	Standard
	Se	82	-46.0	16.8	**-0.0221**	0.049	222.7	ug/L	-53	Standard
	Se-1	77	84.7	8.4	**-0.0694**	0.084	121.6	ug/L	84	Standard
>	**Ga**	71	25.0	40.0				mg/L	53	Standard
	Rb	85	16.7	17.3				ug/L	13	Standard
	Y	89	359918.2	0.8				ug/L	364126	Standard
>	**Rh**	103	5.0	100.0				ug/L	12	Standard
	Mo	98	81.6	44.1	**0.0074**	0.010	133.6	ug/L	24	Standard
	Ag	107	62.3	33.1	**-0.0090**	0.003	34.2	ug/L	45	Standard
	Cd	111	9.5	122.0	**-0.0084**	0.006	67.2	mg/L	2	Standard
	Cd	114	48.8	77.3	**-0.0029**	0.007	233.5	ug/L	10	Standard
>	**In**	115	392830.5	2.1				ug/L	372170	Standard
	Sn	118	106.3	11.7	**0.0494**	0.010	20.4	ug/L	45	Standard
	Sb	123	276.3	34.2	**0.0653**	0.031	47.1	ug/L	116	Standard
	Ba	135	19.7	59.6	**0.0050**	0.006	127.3	ug/L	7	Standard
	Ce	140	8.3	34.6				ug/L	5	Standard
>	**Tb**	159	438616.5	2.1				ug/L	430345	Standard
	Ho	165	3.3	173.2				ug/L	7	Standard
	Tl	203	22.0	111.7	**-0.0002**	0.004	2018.1	ug/L	3	Standard
	Tl	205	20.0	109.0	**-0.0094**	0.003	34.3	ug/L	2	Standard
	Pb	206	82.0	21.7	**0.0042**	0.007	170.2	ug/L	69	Standard
	Pb	207	70.0	19.2	**0.0036**	0.006	166.8	ug/L	57	Standard
	Pb	208	168.3	21.4	**-0.0159**	0.006	36.8	ug/L	162	Standard
	U	238	14.3	119.3	**-0.0161**	0.004	26.8	ug/L	0	Standard
>	**Bi**	209	218068.7	1.6				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	33.3	31.2	**-0.0075**	0.011	145.6	mg/L	28	Standard
	K	39	0.0		**-0.0871**	0.000	0.0	mg/L	7	Standard
	Ca	43	23.3	44.6	**-0.1529**	0.550	360.0	mg/L	25	Standard
	Fe	54	242.3	16.8	**-0.0307**	0.021	68.2	mg/L	279	Standard
	Fe	57	80.0	16.5	**0.0278**	0.025	91.2	mg/L	73	Standard
>	**Sc-1**	45	46690.2	1.5				mg/L	44343	Standard
	Cl	35	6256.0	4.0				ug/L	5612	Standard
	Kr	83	103.3	3.9				ug/L	108	Standard
	Br	81	3017.0	8.6				ug/L	3490	Standard
	P	31	385812.1	0.5				ug/L	350479	Standard
	S	34	22071.1	0.9				ug/L	17705	Standard
	Sr	88	50.0	43.6				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	3	Standard
	Ho-1	165	3.3	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.831	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.083	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	105.551
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	105.766
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: PBS 24 WG452353-02
Sample Date/Time: Wednesday, November 13, 2013 20:33:44
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	180463.5	1.5				ug/L	159627	Standard
	Be	9	40.0	33.1	**-0.0137**	0.005	33.3	ug/L	28	Standard
	Al	27	8270.6	2.0	**0.0161**	0.001	6.8	ug/L	1227	Standard
	Sc	45	46469.5	2.4				ug/L	44343	Standard
	Ti	47	34.3	21.9	**-0.0166**	0.017	104.7	ug/L	21	Standard
	V	51	1218.4	9.2	**-0.0335**	0.013	39.3	ug/L	1305	Standard
	Cr	52	4487.0	2.6	**-0.0553**	0.009	16.4	ug/L	4727	Standard
	Cr	53	263.3	18.0	**-0.0883**	0.037	41.8	ug/L	288	Standard
	Mn	55	2144.5	5.0	**0.0572**	0.010	17.1	ug/L	1062	Standard
	Co	59	113.0	31.9	**-0.0198**	0.004	21.5	ug/L	99	Standard
	Ni	60	420.0	7.8	**-0.0483**	0.012	24.4	ug/L	475	Standard
	Cu	65	284.0	2.8	**0.0516**	0.002	3.8	ug/L	130	Standard
	Zn	66	1766.8	2.5	**1.2199**	0.026	2.1	ug/L	130	Standard
>	**Ge**	72	361343.7	1.1				ug/L	341919	Standard
	As	75	-314.8	8.0	**-0.0086**	0.020	226.0	ug/L	-350	Standard
	Se	82	-49.2	17.1	**-0.0421**	0.054	129.2	ug/L	-53	Standard
	Se-1	77	90.7	10.0	**-0.0114**	0.088	773.9	ug/L	84	Standard
>	**Ga**	71	35.0	0.0				mg/L	53	Standard
	Rb	85	35.0	49.5				ug/L	13	Standard
	Y	89	362660.3	2.3				ug/L	364126	Standard
>	**Rh**	103	11.7	24.7				ug/L	12	Standard
	Mo	98	73.2	35.6	**0.0049**	0.007	151.5	ug/L	24	Standard
	Ag	107	73.0	38.1	**-0.0073**	0.004	59.1	ug/L	45	Standard
	Cd	111	7.6	50.1	**-0.0093**	0.002	19.9	mg/L	2	Standard
	Cd	114	32.7	40.3	**-0.0059**	0.002	41.0	ug/L	10	Standard
>	**In**	115	396556.0	0.3				ug/L	372170	Standard
	Sn	118	85.3	3.4	**0.0314**	0.002	7.0	ug/L	45	Standard
	Sb	123	112.3	9.5	**0.0082**	0.004	43.5	ug/L	116	Standard
	Ba	135	56.0	12.9	**0.0251**	0.004	15.8	ug/L	7	Standard
	Ce	140	40.0	12.5				ug/L	5	Standard
>	**Tb**	159	443919.0	1.9				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	20.7	106.6	**-0.0005**	0.004	838.0	ug/L	3	Standard
	Tl	205	6.7	114.6	**-0.0114**	0.001	9.9	ug/L	2	Standard
	Pb	206	127.0	2.8	**0.0239**	0.001	4.5	ug/L	69	Standard
	Pb	207	97.7	8.3	**0.0170**	0.004	22.6	ug/L	57	Standard
	Pb	208	270.0	4.4	**0.0018**	0.003	147.4	ug/L	162	Standard
	U	238	8.0	140.9	**-0.0178**	0.003	16.0	ug/L	0	Standard
>	**Bi**	209	218997.5	1.4				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	21.7	13.3	**-0.0190**	0.002	12.3	mg/L	28	Standard
	K	39	5.0	100.0	**-0.0211**	0.066	311.2	mg/L	7	Standard
	Ca	43	25.0	34.6	**-0.0657**	0.451	685.9	mg/L	25	Standard
	Fe	54	274.1	19.0	**-0.0123**	0.031	249.8	mg/L	279	Standard
	Fe	57	85.0		**0.0394**	0.004	11.0	mg/L	73	Standard
>	**Sc-1**	45	46469.5	2.4				mg/L	44343	Standard
	Cl	35	6350.0	4.0				ug/L	5612	Standard
	Kr	83	107.0	8.9				ug/L	108	Standard
	Br	81	2960.3	6.2				ug/L	3490	Standard
	P	31	389373.3	1.0				ug/L	350479	Standard
	S	34	21530.3	0.8				ug/L	17705	Standard
	Sr	88	40.0	33.1				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.053	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.681	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.552
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.216
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBS 24 WG452353-02
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Method 6020 - Summary Report

Sample ID: LCSS 24 WG452353-03
Sample Date/Time: Wednesday, November 13, 2013 20:36:48
Number of Replicates: 3
Autosampler Position: 310
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	180052.1	1.8				ug/L	159627	Standard
	Be	9	68010.7	1.5	**24.7361**	0.835	3.4	ug/L	28	Standard
	Al	27	9718.1	1.1	**0.0235**	0.001	2.2	ug/L	1227	Standard
	Sc	45	46773.8	0.6				ug/L	44343	Standard
	Ti	47	60.7	52.1	**0.0439**	0.072	164.2	ug/L	21	Standard
	V	51	189524.0	1.8	**24.2692**	0.702	2.9	ug/L	1305	Standard
	Cr	52	178941.2	0.9	**24.7013**	0.441	1.8	ug/L	4727	Standard
	Cr	53	31450.9	1.1	**25.5211**	0.590	2.3	ug/L	288	Standard
	Mn	55	331945.1	1.2	**25.6262**	0.334	1.3	ug/L	1062	Standard
	Co	59	204206.2	0.5	**25.1191**	0.329	1.3	ug/L	99	Standard
	Ni	60	62767.1	0.5	**26.0192**	0.453	1.7	ug/L	475	Standard
	Cu	65	61472.1	0.8	**26.1231**	0.522	2.0	ug/L	130	Standard
	Zn	66	33282.5	0.7	**26.2938**	0.389	1.5	ug/L	130	Standard
>	Ge	72	360556.6	1.6				ug/L	341919	Standard
	As	75	34630.6	1.1	**25.5021**	0.337	1.3	ug/L	-350	Standard
	Se	82	3557.0	1.9	**24.4889**	0.244	1.0	ug/L	-53	Standard
	Se-1	77	2483.2	1.3	**25.6634**	0.256	1.0	ug/L	84	Standard
>	Ga	71	46.7	22.3				mg/L	53	Standard
	Rb	85	71.7	14.5				ug/L	13	Standard
	Y	89	359532.6	1.0				ug/L	364126	Standard
>	Rh	103	20.0	50.0				ug/L	12	Standard
	Mo	98	41.7	19.0	**-0.0041**	0.002	56.0	ug/L	24	Standard
	Ag	107	165258.1	1.1	**26.2098**	0.363	1.4	ug/L	45	Standard
	Cd	111	52178.0	0.8	**25.8263**	0.265	1.0	mg/L	2	Standard
	Cd	114	132015.5	1.0	**24.6479**	0.294	1.2	ug/L	10	Standard
>	In	115	394153.4	0.4				ug/L	372170	Standard
	Sn	118	142.7	10.2	**0.0790**	0.012	15.4	ug/L	45	Standard
	Sb	123	72124.7	0.4	**24.9840**	0.078	0.3	ug/L	116	Standard
	Ba	135	45768.4	0.9	**25.6013**	0.194	0.8	ug/L	7	Standard
	Ce	140	163.3	1.8				ug/L	5	Standard
>	Tb	159	446553.7	1.0				ug/L	430345	Standard
	Ho	165	3.3	173.2				ug/L	7	Standard
	Tl	203	146950.2	0.2	**25.8821**	0.221	0.9	ug/L	3	Standard
	Tl	205	173554.0	3.3	**26.0362**	1.148	4.4	ug/L	2	Standard
	Pb	206	63423.8	0.5	**27.7064**	0.255	0.9	ug/L	69	Standard
	Pb	207	54482.4	0.2	**26.4054**	0.315	1.2	ug/L	57	Standard
	Pb	208	143458.8	0.3	**24.8942**	0.317	1.3	ug/L	162	Standard
	U	238	95774.8	0.2	**24.5333**	0.236	1.0	ug/L	0	Standard
>	Bi	209	220107.0	1.1				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	46.7	53.9	**0.0054**	0.025	453.2	mg/L	28	Standard
	K	39	0.0		**-0.0871**	0.000	0.0	mg/L	7	Standard
	Ca	43	28.3	20.4	**0.0916**	0.283	308.8	mg/L	25	Standard
	Fe	54	252.1	13.6	**-0.0255**	0.019	72.7	mg/L	279	Standard
	Fe	57	91.7	22.7	**0.0523**	0.045	85.2	mg/L	73	Standard
>	**Sc-1**	45	46773.8	0.6				mg/L	44343	Standard
	Cl	35	6017.2	4.1				ug/L	5612	Standard
	Kr	83	95.0	11.9				ug/L	108	Standard
	Br	81	4310.6	3.0				ug/L	3490	Standard
	P	31	389756.1	0.6				ug/L	350479	Standard
	S	34	20722.5	2.6				ug/L	17705	Standard
	Sr	88	35.0	37.8				ug/L	42	Standard
	C	12	0.0					mg/L	0	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.9	202.3				mg/L	3	Standard
	Ho-1	165	3.3	173.2				mg/L	7	Standard
	Er	166	10.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.796	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.451	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.907
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.755
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSS 24 WG452353-03
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Method 6020 - Summary Report

Sample ID: L1311045206 WG452353-01
Sample Date/Time: Wednesday, November 13, 2013 20:39:54
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	186139.8	1.1				ug/L	159627	Standard
	Be	9	1806.8	3.8	**0.6080**	0.025	4.0	ug/L	28	Standard
	Al	27	11548827.0	2.0	**56.4857**	1.368	2.4	ug/L	1227	Standard
	Sc	45	68563.1	1.1				ug/L	44343	Standard
	Ti	47	253501.5	0.8	**563.7808**	8.482	1.5	ug/L	21	Standard
	V	51	489699.3	0.5	**60.8636**	0.748	1.2	ug/L	1305	Standard
	Cr	52	1134162.4	1.1	**154.7996**	2.511	1.6	ug/L	4727	Standard
	Cr	53	204011.1	1.2	**161.5301**	2.474	1.5	ug/L	288	Standard
	Mn	55	9843266.1	1.0	**737.2485**	12.901	1.7	ug/L	1062	Standard
	Co	59	162263.9	0.7	**19.2771**	0.295	1.5	ug/L	99	Standard
	Ni	60	277857.1	0.9	**112.0054**	0.515	0.5	ug/L	475	Standard
	Cu	65	1208325.2	0.5	**497.3093**	2.695	0.5	ug/L	130	Standard
	Zn	66	3315051.8	0.9	**2547.5766**	23.665	0.9	ug/L	130	Standard
>	Ge	72	373155.4	0.8				ug/L	341919	Standard
	As	75	15868.6	0.4	**11.4133**	0.057	0.5	ug/L	-350	Standard
	Se	82	25.6	83.7	**0.4592**	0.141	30.6	ug/L	-53	Standard
	Se-1	77	225.7	7.6	**1.3574**	0.162	12.0	ug/L	84	Standard
>	Ga	71	50805.0	0.8				mg/L	53	Standard
	Rb	85	300019.7	0.9				ug/L	13	Standard
	Y	89	639852.4	2.3				ug/L	364126	Standard
>	Rh	103	393.3	6.0				ug/L	12	Standard
	Mo	98	20627.5	1.2	**5.8782**	0.082	1.4	ug/L	24	Standard
	Ag	107	435923.7	0.9	**68.2301**	0.959	1.4	ug/L	45	Standard
	Cd	111	92054.6	0.6	**44.9555**	0.489	1.1	mg/L	2	Standard
	Cd	114	234275.4	0.3	**43.1560**	0.388	0.9	ug/L	10	Standard
>	In	115	399592.0	1.1				ug/L	372170	Standard
	Sn	118	4932.1	2.0	**3.9640**	0.120	3.0	ug/L	45	Standard
	Sb	123	2194.8	1.2	**0.7204**	0.014	2.0	ug/L	116	Standard
	Ba	135	1612224.9	0.9	**889.8155**	11.459	1.3	ug/L	7	Standard
	Ce	140	991475.2	0.9				ug/L	5	Standard
>	Tb	159	477955.4	1.1				ug/L	430345	Standard
	Ho	165	13018.9	2.3				ug/L	7	Standard
	Tl	203	999.0	2.7	**0.1579**	0.005	3.1	ug/L	3	Standard
	Tl	205	1223.4	6.4	**0.1566**	0.011	7.2	ug/L	2	Standard
	Pb	206	2836726.9	0.4	**1141.8972**	9.416	0.8	ug/L	69	Standard
	Pb	207	1726496.6	0.5	**771.0321**	6.811	0.9	ug/L	57	Standard
	Pb	208	5541167.2	0.4	**886.5946**	7.636	0.9	ug/L	162	Standard
	U	238	3951.5	4.1	**0.9125**	0.036	3.9	ug/L	0	Standard
>	Bi	209	239125.6	0.7				ug/L	206180	Standard

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	Na	23	43.3	29.0	**11.3689**	3.684	32.4	mg/L	2	Standard
	Mg	24	1290.1	1.3	**0.8276**	0.015	1.8	mg/L	28	Standard
	K	39	140.0	43.9	**1.1519**	0.544	47.3	mg/L	7	Standard
	Ca	43	231.7	6.9	**6.6653**	0.548	8.2	mg/L	25	Standard
	Fe	54	82453.7	0.9	**30.6059**	0.375	1.2	mg/L	279	Standard
	Fe	57	21310.0	0.6	**30.1424**	0.408	1.4	mg/L	73	Standard
>	**Sc-1**	45	68563.1	1.1				mg/L	44343	Standard
	Cl	35	5433.6	2.2				ug/L	5612	Standard
	Kr	83	226.3	5.7				ug/L	108	Standard
	Br	81	5714.4	2.4				ug/L	3490	Standard
	P	31	361731.1	2.9				ug/L	350479	Standard
	S	34	18322.8	4.9				ug/L	17705	Standard
	Sr	88	220.0	2.3				ug/L	42	Standard
	C	12	13.3	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	12758.7	3.9				mg/L	0	Standard
	Dy	164	19867.9	2.6				mg/L	3	Standard
	Ho-1	165	13018.9	2.3				mg/L	7	Standard
	Er	166	12161.6	5.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.609	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.136	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	107.368
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	115.979
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	

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Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135
Pb 206 Upper, S, EEE	Pb	206
Pb 207 Upper, S, EEE	Pb	207
Pb 208 Upper, S, EEE	Pb	208

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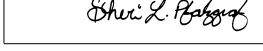

Method 6020 - Summary Report

Sample ID: L1311045207S WG452353-04
Sample Date/Time: Wednesday, November 13, 2013 20:42:59
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	187135.3	1.1				ug/L	159627	Standard
	Be	9	66517.4	2.9	**23.2664**	0.646	2.8	ug/L	28	Standard
	Al	27	8880835.1	0.6	**43.1966**	0.219	0.5	ug/L	1227	Standard
	Sc	45	65650.3	1.7				ug/L	44343	Standard
	Ti	47	115682.7	1.8	**252.2602**	5.405	2.1	ug/L	21	Standard
	V	51	572191.0	0.5	**69.7716**	0.658	0.9	ug/L	1305	Standard
	Cr	52	970761.1	0.7	**129.8286**	1.395	1.1	ug/L	4727	Standard
	Cr	53	176787.2	1.5	**137.2321**	2.544	1.9	ug/L	288	Standard
	Mn	55	10310759.9	0.7	**757.3165**	3.619	0.5	ug/L	1062	Standard
	Co	59	357617.5	1.1	**41.7031**	0.524	1.3	ug/L	99	Standard
	Ni	60	314695.6	1.4	**124.4434**	2.309	1.9	ug/L	475	Standard
	Cu	65	1339127.8	1.3	**540.5505**	9.873	1.8	ug/L	130	Standard
	Zn	66	3137119.8	1.0	**2364.3988**	30.754	1.3	ug/L	130	Standard
>	Ge	72	380486.2	0.5				ug/L	341919	Standard
	As	75	45040.0	0.4	**31.3759**	0.042	0.1	ug/L	-350	Standard
	Se	82	2850.1	1.8	**18.6635**	0.269	1.4	ug/L	-53	Standard
	Se-1	77	2188.2	2.3	**21.2683**	0.623	2.9	ug/L	84	Standard
>	Ga	71	38017.6	1.6				mg/L	53	Standard
	Rb	85	232158.6	1.2				ug/L	13	Standard
	Y	89	629832.4	1.4				ug/L	364126	Standard
>	Rh	103	390.0	11.0				ug/L	12	Standard
	Mo	98	18085.4	1.6	**5.0788**	0.046	0.9	ug/L	24	Standard
	Ag	107	548411.2	1.1	**84.6348**	1.288	1.5	ug/L	45	Standard
	Cd	111	133409.0	0.4	**64.2415**	0.588	0.9	mg/L	2	Standard
	Cd	114	339819.8	1.4	**61.7266**	1.198	1.9	ug/L	10	Standard
>	In	115	405284.8	1.1				ug/L	372170	Standard
	Sn	118	5622.0	1.1	**4.4589**	0.021	0.5	ug/L	45	Standard
	Sb	123	5339.6	2.3	**1.7707**	0.046	2.6	ug/L	116	Standard
	Ba	135	1486395.8	0.4	**808.8350**	6.011	0.7	ug/L	7	Standard
	Ce	140	1085139.7	1.4				ug/L	5	Standard
>	Tb	159	481808.5	1.5				ug/L	430345	Standard
	Ho	165	11767.9	1.1				ug/L	7	Standard
	Tl	203	136085.7	0.2	**22.4063**	0.092	0.4	ug/L	3	Standard
	Tl	205	164712.2	1.4	**23.0931**	0.402	1.7	ug/L	2	Standard
	Pb	206	1848730.5	0.7	**755.8211**	4.807	0.6	ug/L	69	Standard
	Pb	207	1590965.8	0.9	**721.6282**	7.717	1.1	ug/L	57	Standard
	Pb	208	5071271.7	0.7	**824.1200**	8.760	1.1	ug/L	162	Standard
	U	238	92816.1	0.8	**22.2248**	0.257	1.2	ug/L	0	Standard
>	Bi	209	235435.4	0.4				ug/L	206180	Standard

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	Na	23	46.7	24.7	**12.9815**	3.527	27.2	mg/L	2	Standard
	Mg	24	1236.7	0.8	**0.8286**	0.009	1.1	mg/L	28	Standard
	K	39	111.7	11.3	**0.9448**	0.119	12.6	mg/L	7	Standard
	Ca	43	213.3	21.3	**6.3793**	1.785	28.0	mg/L	25	Standard
	Fe	54	52946.1	3.1	**20.4759**	0.821	4.0	mg/L	279	Standard
	Fe	57	13729.6	4.2	**20.2335**	0.733	3.6	mg/L	73	Standard
>	**Sc-1**	45	65650.3	1.7				mg/L	44343	Standard
	Cl	35	5172.2	4.8				ug/L	5612	Standard
	Kr	83	222.7	4.9				ug/L	108	Standard
	Br	81	5044.2	2.2				ug/L	3490	Standard
	P	31	355717.7	2.8				ug/L	350479	Standard
	S	34	16836.0	1.6				ug/L	17705	Standard
	Sr	88	226.7	6.7				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	14890.7	2.8				mg/L	0	Standard
	Dy	164	19335.5	1.1				mg/L	3	Standard
	Ho-1	165	11767.9	1.1				mg/L	7	Standard
	Er	166	11360.9	2.7				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		117.233	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.280	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311045207S WG452353-04
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.898
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	114.189
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	

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Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135
Pb 206 Upper, S, EEE	Pb	206
Pb 207 Upper, S, EEE	Pb	207
Pb 208 Upper, S, EEE	Pb	208

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Method 6020 - Summary Report

Sample ID: L1311045208SD WG452353-05
Sample Date/Time: Wednesday, November 13, 2013 20:46:05
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	189415.1	1.1				ug/L	159627	Standard
	Be	9	66386.8	1.1	**22.9420**	0.315	1.4	ug/L	28	Standard
	Al	27	11819040.6	0.9	**56.8070**	0.797	1.4	ug/L	1227	Standard
	Sc	45	69551.0	1.4				ug/L	44343	Standard
	Ti	47	313650.3	0.6	**692.3606**	8.693	1.3	ug/L	21	Standard
	V	51	694346.7	0.7	**85.7313**	0.953	1.1	ug/L	1305	Standard
	Cr	52	1420631.5	1.4	**192.6012**	0.831	0.4	ug/L	4727	Standard
	Cr	53	253803.2	0.8	**199.5217**	1.654	0.8	ug/L	288	Standard
	Mn	55	11784767.5	0.2	**876.0750**	9.482	1.1	ug/L	1062	Standard
	Co	59	373527.3	0.6	**44.0875**	0.630	1.4	ug/L	99	Standard
	Ni	60	394845.9	0.9	**158.0714**	1.147	0.7	ug/L	475	Standard
	Cu	65	1413640.6	0.9	**577.5194**	9.440	1.6	ug/L	130	Standard
	Zn	66	3709396.6	1.2	**2829.8067**	69.217	2.4	ug/L	130	Standard
>	Ge	72	375968.2	1.2				ug/L	341919	Standard
	As	75	48638.7	0.8	**34.2706**	0.172	0.5	ug/L	-350	Standard
	Se	82	3113.4	1.0	**20.6062**	0.441	2.1	ug/L	-53	Standard
	Se-1	77	2443.9	1.9	**24.1662**	0.481	2.0	ug/L	84	Standard
>	Ga	71	55903.0	2.5				mg/L	53	Standard
	Rb	85	292116.1	1.5				ug/L	13	Standard
	Y	89	639755.6	1.4				ug/L	364126	Standard
>	Rh	103	511.7	7.2				ug/L	12	Standard
	Mo	98	28855.6	0.9	**8.1612**	0.136	1.7	ug/L	24	Standard
	Ag	107	420951.6	2.0	**65.3410**	1.699	2.6	ug/L	45	Standard
	Cd	111	158616.1	0.6	**76.8271**	0.981	1.3	mg/L	2	Standard
	Cd	114	402815.0	1.6	**73.5891**	0.900	1.2	ug/L	10	Standard
>	In	115	402937.1	0.8				ug/L	372170	Standard
	Sn	118	6898.6	1.0	**5.5126**	0.095	1.7	ug/L	45	Standard
	Sb	123	3556.4	1.5	**1.1762**	0.026	2.2	ug/L	116	Standard
	Ba	135	1792538.4	0.5	**981.0756**	4.383	0.4	ug/L	7	Standard
	Ce	140	1015465.3	0.1				ug/L	5	Standard
>	Tb	159	474497.6	1.1				ug/L	430345	Standard
	Ho	165	12705.3	3.1				ug/L	7	Standard
	Tl	203	134950.0	0.4	**22.4767**	0.141	0.6	ug/L	3	Standard
	Tl	205	161125.7	1.6	**22.8503**	0.297	1.3	ug/L	2	Standard
	Pb	206	3413846.5	0.4	**1411.8732**	2.282	0.2	ug/L	69	Standard
	Pb	207	2958064.9	0.9	**1357.3032**	18.369	1.4	ug/L	57	Standard
	Pb	208	6694495.3	0.4	**1100.5089**	8.696	0.8	ug/L	162	Standard
	U	238	94313.6	0.5	**22.8446**	0.029	0.1	ug/L	0	Standard
>	Bi	209	232741.0	0.4				ug/L	206180	Standard

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	Na	23	66.7	49.9	**18.1241**	10.040	55.4	mg/L	2	Standard
	Mg	24	1431.7	11.9	**0.9084**	0.102	11.2	mg/L	28	Standard
	K	39	178.3	16.9	**1.4662**	0.245	16.7	mg/L	7	Standard
	Ca	43	363.3	2.9	**11.0400**	0.394	3.6	mg/L	25	Standard
	Fe	54	71828.7	2.2	**26.2627**	0.734	2.8	mg/L	279	Standard
	Fe	57	19033.6	3.9	**26.5310**	1.309	4.9	mg/L	73	Standard
>	**Sc-1**	45	69551.0	1.4				mg/L	44343	Standard
	Cl	35	5226.9	2.0				ug/L	5612	Standard
	Kr	83	254.7	9.1				ug/L	108	Standard
	Br	81	8342.3	3.6				ug/L	3490	Standard
	P	31	345277.3	1.8				ug/L	350479	Standard
	S	34	16560.7	2.8				ug/L	17705	Standard
	Sr	88	293.3	20.0				ug/L	42	Standard
	C	12	16.7	69.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13969.8	1.4				mg/L	0	Standard
	Dy	164	20319.7	0.7				mg/L	3	Standard
	Ho-1	165	12705.3	3.1				mg/L	7	Standard
	Er	166	11998.1	1.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.661	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.958	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311045208SD WG452353-05
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.267
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	112.882
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	

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Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135
Pb 206 Upper, S, EEE	Pb	206
Pb 207 Upper, S, EEE	Pb	207
Pb 208 Upper, S, EEE	Pb	208

Sample ID: L1311045208SD WG452353-05
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Method 6020 - Summary Report

Sample ID: L1311062201
Sample Date/Time: Wednesday, November 13, 2013 20:49:09
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	200576.8	3.8				ug/L	159627	Standard
	Be	9	5054.2	3.5	**1.6234**	0.019	1.1	ug/L	28	Standard
	Al	27	7810292.5	0.4	**35.4685**	1.201	3.4	ug/L	1227	Standard
	Sc	45	71767.9	1.2				ug/L	44343	Standard
	Ti	47	31239.8	1.6	**69.3032**	0.569	0.8	ug/L	21	Standard
	V	51	283799.3	1.5	**35.1476**	0.169	0.5	ug/L	1305	Standard
	Cr	52	212885.6	1.1	**28.4589**	0.149	0.5	ug/L	4727	Standard
	Cr	53	36921.6	3.4	**28.9428**	0.627	2.2	ug/L	288	Standard
	Mn	55	10540737.3	1.2	**788.4791**	2.468	0.3	ug/L	1062	Standard
	Co	59	214334.3	1.6	**25.4403**	0.088	0.3	ug/L	99	Standard
	Ni	60	91184.3	1.5	**36.5617**	0.136	0.4	ug/L	475	Standard
	Cu	65	73470.7	1.7	**30.1356**	0.248	0.8	ug/L	130	Standard
	Zn	66	225308.7	2.8	**172.7541**	3.597	2.1	ug/L	130	Standard
>	**Ge**	72	373605.6	1.3				ug/L	341919	Standard
	As	75	10701.9	1.9	**7.7594**	0.059	0.8	ug/L	-350	Standard
	Se	82	-113.2	13.5	**-0.4525**	0.109	24.1	ug/L	-53	Standard
	Se-1	77	260.3	3.5	**1.7136**	0.061	3.6	ug/L	84	Standard
>	**Ga**	71	44495.3	1.7				mg/L	53	Standard
	Rb	85	429211.8	1.3				ug/L	13	Standard
	Y	89	967508.1	2.1				ug/L	364126	Standard
>	**Rh**	103	35.0	14.3				ug/L	12	Standard
	Mo	98	2259.4	3.3	**0.6409**	0.015	2.4	ug/L	24	Standard
	Ag	107	1169.0	3.3	**0.1674**	0.006	3.5	ug/L	45	Standard
	Cd	111	717.2	8.3	**0.3433**	0.026	7.6	mg/L	2	Standard
	Cd	114	1801.4	8.0	**0.3259**	0.027	8.3	ug/L	10	Standard
>	**In**	115	392556.0	1.1				ug/L	372170	Standard
	Sn	118	76.3	13.9	**0.0247**	0.009	35.0	ug/L	45	Standard
	Sb	123	51.4	5.2	**-0.0126**	0.001	9.0	ug/L	116	Standard
	Ba	135	412361.2	1.5	**231.6452**	1.720	0.7	ug/L	7	Standard
	Ce	140	1490221.2	2.6				ug/L	5	Standard
>	**Tb**	159	486469.7	1.9				ug/L	430345	Standard
	Ho	165	29996.3	1.0				ug/L	7	Standard
	Tl	203	1473.7	0.5	**0.2582**	0.006	2.2	ug/L	3	Standard
	Tl	205	1895.1	4.6	**0.2748**	0.012	4.3	ug/L	2	Standard
	Pb	206	70363.0	0.9	**31.0588**	0.447	1.4	ug/L	69	Standard
	Pb	207	56920.4	2.1	**27.8682**	0.211	0.8	ug/L	57	Standard
	Pb	208	155158.3	1.2	**27.2041**	0.256	0.9	ug/L	162	Standard
	U	238	7638.6	2.0	**1.9583**	0.012	0.6	ug/L	0	Standard
>	**Bi**	209	217885.2	2.1				ug/L	206180	Standard

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	Na	23	5.0	0.0	**-0.1174**	0.018	14.9	mg/L	2	Standard
	Mg	24	1798.4	5.6	**1.1154**	0.060	5.4	mg/L	28	Standard
	K	39	95.0	36.8	**0.7181**	0.305	42.5	mg/L	7	Standard
	Ca	43	55.0	24.1	**0.4751**	0.446	93.9	mg/L	25	Standard
	Fe	54	83181.9	0.6	**29.4911**	0.179	0.6	mg/L	279	Standard
	Fe	57	21957.6	2.1	**29.6735**	0.944	3.2	mg/L	73	Standard
>	**Sc-1**	45	71767.9	1.2				mg/L	44343	Standard
	Cl	35	5106.9	1.5				ug/L	5612	Standard
	Kr	83	320.0	3.3				ug/L	108	Standard
	Br	81	3760.5	4.5				ug/L	3490	Standard
	P	31	346224.0	2.2				ug/L	350479	Standard
	S	34	15990.1	1.6				ug/L	17705	Standard
	Sr	88	110.0	39.6				ug/L	42	Standard
	C	12	13.3	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	170.0	41.2				mg/L	0	Standard
	Dy	164	47729.2	2.3				mg/L	3	Standard
	Ho-1	165	29996.3	1.0				mg/L	7	Standard
	Er	166	26790.4	3.7				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.654	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.267	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.478
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.677
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	
Se 82 Lower	Se	82	
Ba 135 Upper, S, EEE	Ba	135	

Approved: November 15, 2013

Method 6020 - Summary Report

Sample ID: L1311062201PS WG452574-01
Sample Date/Time: Wednesday, November 13, 2013 20:52:13
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	220198.6	1.0				ug/L	159627	Standard
	Be	9	140545.6	1.5	**41.8002**	0.496	1.2	ug/L	28	Standard
	Al	27	8075484.9	0.5	**33.3758**	0.230	0.7	ug/L	1227	Standard
	Sc	45	76648.5	2.9				ug/L	44343	Standard
	Ti	47	32920.7	1.0	**68.7135**	0.423	0.6	ug/L	21	Standard
	V	51	689714.8	1.9	**80.6065**	0.453	0.6	ug/L	1305	Standard
	Cr	52	587525.7	1.6	**75.0028**	1.494	2.0	ug/L	4727	Standard
	Cr	53	103881.6	0.6	**77.1354**	0.899	1.2	ug/L	288	Standard
	Mn	55	12006390.7	1.6	**844.9931**	10.303	1.2	ug/L	1062	Standard
	Co	59	642161.1	1.7	**71.7741**	0.735	1.0	ug/L	99	Standard
	Ni	60	222503.4	1.3	**84.2286**	0.245	0.3	ug/L	475	Standard
	Cu	65	200235.5	0.7	**77.3862**	0.669	0.9	ug/L	130	Standard
	Zn	66	291541.2	0.6	**210.3842**	2.631	1.3	ug/L	130	Standard
>	**Ge**	72	397111.9	1.6				ug/L	341919	Standard
	As	75	80614.5	1.0	**53.6523**	0.350	0.7	ug/L	-350	Standard
	Se	82	6831.2	0.2	**42.4912**	0.620	1.5	ug/L	-53	Standard
	Se-1	77	5006.8	2.3	**47.7927**	0.700	1.5	ug/L	84	Standard
>	**Ga**	71	47651.5	1.2				mg/L	53	Standard
	Rb	85	455825.8	1.3				ug/L	13	Standard
	Y	89	1029089.6	2.6				ug/L	364126	Standard
>	**Rh**	103	65.0	23.1				ug/L	12	Standard
	Mo	98	2522.8	3.3	**0.6826**	0.027	3.9	ug/L	24	Standard
	Ag	107	331637.2	1.7	**50.2952**	0.187	0.4	ug/L	45	Standard
	Cd	111	105200.9	0.5	**49.7927**	0.469	0.9	mg/L	2	Standard
	Cd	114	266982.9	0.2	**47.6683**	0.707	1.5	ug/L	10	Standard
>	**In**	115	412312.1	1.4				ug/L	372170	Standard
	Sn	118	143.7	6.6	**0.0747**	0.009	11.9	ug/L	45	Standard
	Sb	123	140335.2	0.3	**46.5016**	0.487	1.0	ug/L	116	Standard
	Ba	135	515519.9	0.5	**275.7450**	2.283	0.8	ug/L	7	Standard
	Ce	140	1544159.5	1.6				ug/L	5	Standard
>	**Tb**	159	510799.2	0.4				ug/L	430345	Standard
	Ho	165	30372.1	2.0				ug/L	7	Standard
	Tl	203	290645.3	0.9	**49.8496**	0.358	0.7	ug/L	3	Standard
	Tl	205	346564.4	1.7	**50.6216**	0.640	1.3	ug/L	2	Standard
	Pb	206	192588.6	0.5	**81.9839**	0.444	0.5	ug/L	69	Standard
	Pb	207	167385.9	0.7	**79.0518**	0.072	0.1	ug/L	57	Standard
	Pb	208	435045.0	0.4	**73.5961**	0.205	0.3	ug/L	162	Standard
	U	238	200502.6	0.4	**50.0312**	0.242	0.5	ug/L	0	Standard
>	**Bi**	209	226034.3	0.7				ug/L	206180	Standard

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	Na	23	10.0	100.0	**1.1601**	2.684	231.4	mg/L	2	Standard
	Mg	24	1878.4	5.1	**1.0918**	0.089	8.2	mg/L	28	Standard
	K	39	78.3	13.3	**0.5344**	0.099	18.6	mg/L	7	Standard
	Ca	43	56.7	35.7	**0.3989**	0.568	142.3	mg/L	25	Standard
	Fe	54	87649.2	2.1	**29.1046**	0.853	2.9	mg/L	279	Standard
	Fe	57	22680.3	3.0	**28.7192**	1.663	5.8	mg/L	73	Standard
>	**Sc-1**	45	76648.5	2.9				mg/L	44343	Standard
	Cl	35	5355.6	2.7				ug/L	5612	Standard
	Kr	83	310.3	3.7				ug/L	108	Standard
	Br	81	4007.2	2.1				ug/L	3490	Standard
	P	31	551908.7	4.0				ug/L	350479	Standard
	S	34	16549.0	2.0				ug/L	17705	Standard
	Sr	88	81.7	9.4				ug/L	42	Standard
	C	12	30.0	66.7				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	116.7	4.9				mg/L	0	Standard
	Dy	164	48218.0	2.5				mg/L	3	Standard
	Ho-1	165	30372.1	2.0				mg/L	7	Standard
	Er	166	27408.1	3.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		137.946	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		116.142	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	110.786
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	109.629
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1311062201PS WG452574-01
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Sheri L. Babcock

Method 6020 - Summary Report

Sample ID: L1311062201SDL WG452574-02
Sample Date/Time: Wednesday, November 13, 2013 20:55:19
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 5
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	195074.8	12.1				ug/L	159627	Standard
	Be	9	51.7	59.1	-0.0100	0.012	117.6	ug/L	28	Standard
	Al	27	975.0	33.4	-0.0210	0.002	9.2	ug/L	1227	Standard
	Sc	45	50058.2	11.2				ug/L	44343	Standard
	Ti	47	20.3	19.9	-0.0504	0.013	25.2	ug/L	21	Standard
	V	51	750.5	48.3	-0.0961	0.050	52.5	ug/L	1305	Standard
	Cr	52	2778.6	41.6	-0.3071	0.182	59.2	ug/L	4727	Standard
	Cr	53	165.0	12.1	-0.1746	0.023	13.4	ug/L	288	Standard
	Mn	55	1369.7	44.2	-0.0064	0.050	780.8	ug/L	1062	Standard
	Co	59	115.0	38.8	-0.0201	0.006	28.9	ug/L	99	Standard
	Ni	60	217.3	14.6	-0.1369	0.016	12.0	ug/L	475	Standard
	Cu	65	188.7	40.9	0.0091	0.037	401.0	ug/L	130	Standard
	Zn	66	151.3	14.4	-0.0665	0.027	41.2	ug/L	130	Standard
>	Ge	72	381705.9	11.6				ug/L	341919	Standard
	As	75	-326.7	55.1	-0.0147	0.146	992.8	ug/L	-350	Standard
	Se	82	-71.1	69.6	-0.1862	0.365	196.1	ug/L	-53	Standard
	Se-1	77	65.3	13.0	-0.3126	0.124	39.8	ug/L	84	Standard
>	Ga	71	45.0	22.2				mg/L	53	Standard
	Rb	85	50.0	20.0				ug/L	13	Standard
	Y	89	397684.3	17.3				ug/L	364126	Standard
>	Rh	103	6.7	43.3				ug/L	12	Standard
	Mo	98	11.4	35.3	-0.0130	0.001	11.4	ug/L	24	Standard
	Ag	107	58.3	15.9	-0.0106	0.001	12.4	ug/L	45	Standard
	Cd	111	6.6	8.6	-0.0101	0.001	7.3	mg/L	2	Standard
	Cd	114	20.5	27.5	-0.0084	0.001	17.2	ug/L	10	Standard
>	In	115	445392.0	18.8				ug/L	372170	Standard
	Sn	118	42.0	29.0	-0.0066	0.013	200.1	ug/L	45	Standard
	Sb	123	302.1	36.3	0.0605	0.018	29.3	ug/L	116	Standard
	Ba	135	31.0	61.5	0.0099	0.011	115.6	ug/L	7	Standard
	Ce	140	73.3	58.8				ug/L	5	Standard
>	Tb	159	533845.5	23.9				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	16.0	12.5	-0.0017	0.000	28.4	ug/L	3	Standard
	Tl	205	16.7	91.7	-0.0102	0.002	23.3	ug/L	2	Standard
	Pb	206	93.3	20.6	0.0028	0.006	208.3	ug/L	69	Standard
	Pb	207	91.3	14.3	0.0074	0.007	92.9	ug/L	57	Standard
	Pb	208	226.3	24.5	-0.0123	0.003	25.5	ug/L	162	Standard
	U	238	6.3	39.7	-0.0184	0.001	4.6	ug/L	0	Standard
>	Bi	209	263597.3	25.9				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.8027**	1.280	159.5	mg/L	2	Standard
	Mg	24	28.3	27.0	**-0.0138**	0.009	67.1	mg/L	28	Standard
	K	39	0.0		**-0.0871**	0.000	0.0	mg/L	7	Standard
	Ca	43	36.7	75.1	**0.4965**	1.414	284.7	mg/L	25	Standard
	Fe	54	176.2	51.6	**-0.0693**	0.054	78.1	mg/L	279	Standard
	Fe	57	105.0	14.3	**0.0687**	0.047	68.1	mg/L	73	Standard
>	**Sc-1**	45	50058.2	11.2				mg/L	44343	Standard
	Cl	35	3173.1	48.6				ug/L	5612	Standard
	Kr	83	160.3	63.6				ug/L	108	Standard
	Br	81	1920.1	48.1				ug/L	3490	Standard
	P	31	266258.9	42.6				ug/L	350479	Standard
	S	34	11469.8	39.5				ug/L	17705	Standard
	Sr	88	43.3	6.7				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	36.7	63.0				mg/L	0	Standard
	Dy	164	6.3	179.8				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.207	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.636	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	119.674
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	127.848
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Approved: November 15, 2013

Method 6020 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, November 13, 2013 20:58:25
Number of Replicates: 3
Autosampler Position: 103
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	178356.0	3.2				ug/L	159627	Standard
	Be	9	127242.1	0.8	**46.7496**	1.153	2.5	ug/L	28	Standard
	Al	27	8474559.4	0.6	**43.2734**	1.185	2.7	ug/L	1227	Standard
	Sc	45	47954.1	0.6				ug/L	44343	Standard
	Ti	47	43769.8	0.6	**98.7768**	0.955	1.0	ug/L	21	Standard
	V	51	356372.0	1.0	**44.9311**	0.468	1.0	ug/L	1305	Standard
	Cr	52	330560.5	1.4	**45.3305**	0.454	1.0	ug/L	4727	Standard
	Cr	53	59705.8	1.6	**47.7989**	1.098	2.3	ug/L	288	Standard
	Mn	55	619054.1	1.2	**46.9823**	0.367	0.8	ug/L	1062	Standard
	Co	59	385272.3	1.1	**46.5281**	0.501	1.1	ug/L	99	Standard
	Ni	60	116110.5	0.7	**47.4075**	0.560	1.2	ug/L	475	Standard
	Cu	65	114089.6	0.8	**47.6260**	0.587	1.2	ug/L	130	Standard
	Zn	66	62188.1	2.0	**48.3589**	1.148	2.4	ug/L	130	Standard
>	Ge	72	367429.6	0.6				ug/L	341919	Standard
	As	75	66409.8	0.7	**47.7914**	0.434	0.9	ug/L	-350	Standard
	Se	82	6908.2	0.9	**46.4094**	0.652	1.4	ug/L	-53	Standard
	Se-1	77	4737.4	0.6	**48.8992**	0.535	1.1	ug/L	84	Standard
>	Ga	71	56.7	35.7				mg/L	53	Standard
	Rb	85	976.7	4.4				ug/L	13	Standard
	Y	89	365632.9	1.4				ug/L	364126	Standard
>	Rh	103	38.3	7.5				ug/L	12	Standard
	Mo	98	356071.9	0.5	**102.0433**	0.248	0.2	ug/L	24	Standard
	Ag	107	308552.8	0.5	**48.4348**	0.030	0.1	ug/L	45	Standard
	Cd	111	99613.8	0.7	**48.7962**	0.204	0.4	mg/L	2	Standard
	Cd	114	259245.4	2.6	**47.9014**	1.159	2.4	ug/L	10	Standard
>	In	115	398353.3	0.5				ug/L	372170	Standard
	Sn	118	61162.9	0.6	**49.7393**	0.377	0.8	ug/L	45	Standard
	Sb	123	133242.0	0.4	**45.6942**	0.270	0.6	ug/L	116	Standard
	Ba	135	86955.8	1.3	**48.1320**	0.469	1.0	ug/L	7	Standard
	Ce	140	76.7	63.3				ug/L	5	Standard
>	Tb	159	442748.1	1.4				ug/L	430345	Standard
	Ho	165	5.0	0.0				ug/L	7	Standard
	Tl	203	268203.0	0.4	**47.7321**	0.298	0.6	ug/L	3	Standard
	Tl	205	321506.5	2.3	**48.7254**	0.752	1.5	ug/L	2	Standard
	Pb	206	113544.2	0.5	**50.1428**	0.476	1.0	ug/L	69	Standard
	Pb	207	101195.5	1.4	**49.5777**	0.437	0.9	ug/L	57	Standard
	Pb	208	260720.9	0.6	**45.7487**	0.267	0.6	ug/L	162	Standard
	U	238	179610.4	1.3	**46.5014**	0.334	0.7	ug/L	0	Standard
>	Bi	209	217837.8	0.8				ug/L	206180	Standard

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Sheri L. Pfalzgraf

	Na	23	13.3	78.1	**4.1263**	4.394	106.5	mg/L	2	Standard
	Mg	24	4290.6	0.6	**4.0871**	0.012	0.3	mg/L	28	Standard
	K	39	293.3	9.4	**3.6215**	0.331	9.1	mg/L	7	Standard
	Ca	43	100.0	8.7	**3.5988**	0.416	11.6	mg/L	25	Standard
	Fe	54	8780.0	3.1	**4.5204**	0.119	2.6	mg/L	279	Standard
	Fe	57	2413.5	3.0	**4.7641**	0.138	2.9	mg/L	73	Standard
>	**Sc-1**	45	47954.1	0.6				mg/L	44343	Standard
	Cl	35	5536.3	1.3				ug/L	5612	Standard
	Kr	83	98.0	6.7				ug/L	108	Standard
	Br	81	2933.6	2.9				ug/L	3490	Standard
	P	31	374413.0	0.4				ug/L	350479	Standard
	S	34	20039.9	2.2				ug/L	17705	Standard
	Sr	88	45.0	44.4				ug/L	42	Standard
	C	12	13.3	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	34.6				mg/L	0	Standard
	Dy	164	6.7	86.6				mg/L	3	Standard
	Ho-1	165	5.0	0.0				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.733	
	Be	9	93.499		
	Al	27	86.547		
	Sc	45			
	Ti	47	98.777		
	V	51	89.862		
	Cr	52	90.661		
	Cr	53			
	Mn	55	93.965		
	Co	59	93.056		
	Ni	60	94.815		
	Cu	65	95.252		
	Zn	66	96.718		
>	Ge	72		107.461	
	As	75	95.583		
	Se	82	92.819		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	102.043	
|	Ag	107	96.870	
|	Cd	111	97.592	
|	Cd	114		
⌊>	In	115		107.035
|	Sn	118	99.479	
|	Sb	123	91.388	
⌊	Ba	135	96.264	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	95.464	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	91.497	
|	U	238	93.003	
⌊>	Bi	209		105.654
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 9	Al	27	
QC Std 9	V	51	

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Method 6020 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, November 13, 2013 21:01:31
Number of Replicates: 3
Autosampler Position: 104
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	179004.7	1.5				ug/L	159627	Standard
	Be	9	101.7	54.2	**0.0089**	0.020	220.4	ug/L	28	Standard
	Al	27	3717.5	110.2	**-0.0069**	0.021	299.9	ug/L	1227	Standard
	Sc	45	47310.5	4.3				ug/L	44343	Standard
	Ti	47	47.7	93.3	**0.0132**	0.100	758.9	ug/L	21	Standard
	V	51	1584.8	44.6	**0.0128**	0.088	690.2	ug/L	1305	Standard
	Cr	52	4701.1	24.1	**-0.0271**	0.153	563.6	ug/L	4727	Standard
	Cr	53	238.3	23.0	**-0.1091**	0.043	39.4	ug/L	288	Standard
	Mn	55	9087.8	155.3	**0.5862**	1.077	183.8	ug/L	1062	Standard
	Co	59	516.0	142.8	**0.0291**	0.089	307.2	ug/L	99	Standard
	Ni	60	299.7	25.0	**-0.0989**	0.030	30.2	ug/L	475	Standard
	Cu	65	216.7	94.5	**0.0223**	0.086	383.3	ug/L	130	Standard
	Zn	66	317.3	93.6	**0.0677**	0.232	342.1	ug/L	130	Standard
>	**Ge**	72	361986.4	1.0				ug/L	341919	Standard
	As	75	-292.2	2.0	**0.0083**	0.005	58.1	ug/L	-350	Standard
	Se	82	-42.1	3.7	**0.0059**	0.008	127.1	ug/L	-53	Standard
	Se-1	77	86.7	8.7	**-0.0558**	0.071	126.7	ug/L	84	Standard
>	**Ga**	71	40.0	45.1				mg/L	53	Standard
	Rb	85	30.0	104.1				ug/L	13	Standard
	Y	89	363537.6	2.2				ug/L	364126	Standard
>	**Rh**	103	6.7	43.3				ug/L	12	Standard
	Mo	98	206.3	124.8	**0.0428**	0.073	170.8	ug/L	24	Standard
	Ag	107	534.7	155.2	**0.0647**	0.129	200.0	ug/L	45	Standard
	Cd	111	10.6	76.1	**-0.0079**	0.004	49.7	mg/L	2	Standard
	Cd	114	18.5	71.2	**-0.0086**	0.002	28.0	ug/L	10	Standard
>	**In**	115	395515.4	1.2				ug/L	372170	Standard
	Sn	118	56.7	19.4	**0.0081**	0.009	110.5	ug/L	45	Standard
	Sb	123	340.5	45.8	**0.0868**	0.052	60.1	ug/L	116	Standard
	Ba	135	42.7	130.8	**0.0175**	0.031	174.8	ug/L	7	Standard
	Ce	140	55.0	157.5				ug/L	5	Standard
>	**Tb**	159	441910.9	1.4				ug/L	430345	Standard
	Ho	165	6.7	43.3				ug/L	7	Standard
	Tl	203	96.0	146.9	**0.0127**	0.025	193.5	ug/L	3	Standard
	Tl	205	103.3	152.7	**0.0030**	0.023	787.5	ug/L	2	Standard
	Pb	206	1003.4	160.8	**0.4029**	0.698	173.2	ug/L	69	Standard
	Pb	207	986.1	162.1	**0.4434**	0.768	173.1	ug/L	57	Standard
	Pb	208	915.0	141.1	**0.1125**	0.222	197.2	ug/L	162	Standard
	U	238	58.0	139.6	**-0.0051**	0.021	405.9	ug/L	0	Standard
>	**Bi**	209	219336.0	1.3				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.8536**	1.192	139.7	mg/L	2	Standard
	Mg	24	25.0	20.0	**-0.0160**	0.005	34.2	mg/L	28	Standard
	K	39	3.3	173.2	**-0.0463**	0.071	152.8	mg/L	7	Standard
	Ca	43	26.7	60.3	**0.0104**	0.865	8280.5	mg/L	25	Standard
	Fe	54	284.3	6.4	**-0.0097**	0.005	47.8	mg/L	279	Standard
	Fe	57	63.3	50.8	**-0.0070**	0.072	1030.2	mg/L	73	Standard
>	**Sc-1**	45	47310.5	4.3				mg/L	44343	Standard
	Cl	35	5521.0	1.4				ug/L	5612	Standard
	Kr	83	103.0	2.9				ug/L	108	Standard
	Br	81	3043.6	4.5				ug/L	3490	Standard
	P	31	363185.9	3.2				ug/L	350479	Standard
	S	34	19682.8	1.0				ug/L	17705	Standard
	Sr	88	38.3	39.8				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	3	Standard
	Ho-1	165	6.7	43.3				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.139	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.869	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 10
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.273
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.381
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 10
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Method 6020 - Summary Report

Sample ID: PBW 43 WG452603-02
Sample Date/Time: Wednesday, November 13, 2013 21:04:36
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	158414.0	2.0				ug/L	159627	Standard
	Be	9	55.0		**-0.0054**	0.000	8.5	ug/L	28	Standard
	Al	27	1355.1	28.1	**-0.0179**	0.002	11.8	ug/L	1227	Standard
	Sc	45	41508.5	1.9				ug/L	44343	Standard
	Ti	47	15.3	30.8	**-0.0563**	0.012	21.4	ug/L	21	Standard
	V	51	848.3	16.0	**-0.0689**	0.019	28.0	ug/L	1305	Standard
	Cr	52	3598.1	2.6	**-0.1242**	0.015	12.5	ug/L	4727	Standard
	Cr	53	2145.2	11.6	**1.6496**	0.226	13.7	ug/L	288	Standard
	Mn	55	864.4	1.0	**-0.0344**	0.001	2.4	ug/L	1062	Standard
	Co	59	74.7	17.0	**-0.0234**	0.002	7.4	ug/L	99	Standard
	Ni	60	266.7	10.5	**-0.0998**	0.013	13.0	ug/L	475	Standard
	Cu	65	111.0	14.9	**-0.0166**	0.008	46.9	ug/L	130	Standard
	Zn	66	2313.5	1.4	**1.8589**	0.031	1.6	ug/L	130	Standard
>	Ge	72	325055.8	0.1				ug/L	341919	Standard
	As	75	-240.3	27.8	**0.0261**	0.054	206.8	ug/L	-350	Standard
	Se	82	-46.1	20.8	**-0.0563**	0.072	128.2	ug/L	-53	Standard
	Se-1	77	248.7	1.6	**1.9779**	0.051	2.6	ug/L	84	Standard
>	Ga	71	16.7	34.6				mg/L	53	Standard
	Rb	85	23.3	12.4				ug/L	13	Standard
	Y	89	323507.6	1.2				ug/L	364126	Standard
>	Rh	103	5.0	100.0				ug/L	12	Standard
	Mo	98	15.6	26.4	**-0.0111**	0.001	11.9	ug/L	24	Standard
	Ag	107	41.0	13.6	**-0.0116**	0.001	8.4	ug/L	45	Standard
	Cd	111	3.0	58.2	**-0.0114**	0.001	8.4	mg/L	2	Standard
	Cd	114	15.2	49.9	**-0.0088**	0.002	17.9	ug/L	10	Standard
>	In	115	353913.9	0.1				ug/L	372170	Standard
	Sn	118	56.0	11.7	**0.0130**	0.006	46.3	ug/L	45	Standard
	Sb	123	52.8	26.3	**-0.0101**	0.005	53.6	ug/L	116	Standard
	Ba	135	8.3	13.9	**-0.0008**	0.001	88.2	ug/L	7	Standard
	Ce	140	8.3	34.6				ug/L	5	Standard
>	Tb	159	400330.3	1.3				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	46.3	10.6	**0.0047**	0.001	20.7	ug/L	3	Standard
	Tl	205	45.0	29.4	**-0.0051**	0.002	40.8	ug/L	2	Standard
	Pb	206	125.7	10.4	**0.0275**	0.006	21.5	ug/L	69	Standard
	Pb	207	99.0	7.6	**0.0213**	0.004	17.0	ug/L	57	Standard
	Pb	208	293.7	10.5	**0.0097**	0.005	55.3	ug/L	162	Standard
	U	238	7.0	86.9	**-0.0179**	0.002	9.3	ug/L	0	Standard
>	Bi	209	203754.3	0.7				ug/L	206180	Standard

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Sheri L. Babcock

	Na	23	1.7	173.2	**-0.7327**	1.401	191.3	mg/L	2	Standard
	Mg	24	35.0	24.7	**-0.0017**	0.009	540.2	mg/L	28	Standard
	K	39	5.0	100.0	**-0.0148**	0.073	490.8	mg/L	7	Standard
	Ca	43	21.7	26.6	**-0.1097**	0.310	282.2	mg/L	25	Standard
	Fe	54	84.6	5.8	**-0.1113**	0.002	1.9	mg/L	279	Standard
	Fe	57	86.7	31.8	**0.0650**	0.066	102.1	mg/L	73	Standard
>	**Sc-1**	45	41508.5	1.9				mg/L	44343	Standard
	Cl	35	4972.2	4.4				ug/L	5612	Standard
	Kr	83	96.0	2.1				ug/L	108	Standard
	Br	81	2683.6	3.4				ug/L	3490	Standard
	P	31	123165.5	2.8				ug/L	350479	Standard
	S	34	18371.1	1.0				ug/L	17705	Standard
	Sr	88	53.3	51.6				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	9.7	105.8				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.240	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.068	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	95.095
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	98.823
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 43 WG452603-02
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Approved: November 15, 2013
Sheri L. Pfalzgraf

Method 6020 - Summary Report

Sample ID: F BLANK WG452517-02
Sample Date/Time: Wednesday, November 13, 2013 21:07:41
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	159271.3	2.0				ug/L	159627	Standard
	Be	9	105.0	90.9	**0.0145**	0.038	261.3	ug/L	28	Standard
	Al	27	13143.4	142.3	**0.0481**	0.104	216.7	ug/L	1227	Standard
	Sc	45	42197.0	2.7				ug/L	44343	Standard
	Ti	47	88.3	109.9	**0.1277**	0.242	189.6	ug/L	21	Standard
	V	51	1287.3	18.8	**-0.0060**	0.034	562.1	ug/L	1305	Standard
	Cr	52	4235.9	10.6	**-0.0232**	0.068	291.6	ug/L	4727	Standard
	Cr	53	2726.9	3.9	**2.1823**	0.086	3.9	ug/L	288	Standard
	Mn	55	7337.1	93.1	**0.5173**	0.575	111.2	ug/L	1062	Standard
	Co	59	349.7	75.0	**0.0139**	0.035	253.2	ug/L	99	Standard
	Ni	60	395.7	58.2	**-0.0409**	0.103	251.9	ug/L	475	Standard
	Cu	65	520.4	123.3	**0.1738**	0.297	170.8	ug/L	130	Standard
	Zn	66	1929.5	66.0	**1.5103**	1.086	71.9	ug/L	130	Standard
>	Ge	72	324654.6	1.6				ug/L	341919	Standard
	As	75	-180.5	35.3	**0.0739**	0.053	72.4	ug/L	-350	Standard
	Se	82	-40.6	25.4	**-0.0159**	0.082	513.2	ug/L	-53	Standard
	Se-1	77	286.7	5.1	**2.4344**	0.168	6.9	ug/L	84	Standard
>	Ga	71	40.0	66.1				mg/L	53	Standard
	Rb	85	95.0	141.3				ug/L	13	Standard
	Y	89	327503.5	0.8				ug/L	364126	Standard
>	Rh	103	10.0	50.0				ug/L	12	Standard
	Mo	98	149.2	124.6	**0.0310**	0.058	188.3	ug/L	24	Standard
	Ag	107	361.7	97.8	**0.0439**	0.061	138.4	ug/L	45	Standard
	Cd	111	74.9	161.7	**0.0273**	0.065	238.8	mg/L	2	Standard
	Cd	114	248.0	158.2	**0.0384**	0.079	207.1	ug/L	10	Standard
>	In	115	357583.5	1.3				ug/L	372170	Standard
	Sn	118	74.3	91.7	**0.0285**	0.060	212.0	ug/L	45	Standard
	Sb	123	69.9	57.5	**-0.0039**	0.015	387.0	ug/L	116	Standard
	Ba	135	531.7	162.3	**0.3173**	0.524	165.2	ug/L	7	Standard
	Ce	140	508.4	166.4				ug/L	5	Standard
>	Tb	159	406263.5	2.5				ug/L	430345	Standard
	Ho	165	18.3	150.2				ug/L	7	Standard
	Tl	203	262.0	139.9	**0.0455**	0.069	151.9	ug/L	3	Standard
	Tl	205	140.0	55.4	**0.0103**	0.012	120.5	ug/L	2	Standard
	Pb	206	704.4	88.5	**0.3002**	0.291	97.0	ug/L	69	Standard
	Pb	207	593.4	82.9	**0.2801**	0.255	91.2	ug/L	57	Standard
	Pb	208	705.3	49.5	**0.0873**	0.065	74.9	ug/L	162	Standard
	U	238	45.3	108.1	**-0.0073**	0.013	184.1	ug/L	0	Standard
>	Bi	209	203283.4	1.0				ug/L	206180	Standard

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Sheri L. Babcock

	Na	23	1.7	173.2	**-0.7506**	1.370	182.6	mg/L	2	Standard
	Mg	24	35.0	28.6	**-0.0024**	0.010	430.4	mg/L	28	Standard
	K	39	5.0	100.0	**-0.0162**	0.071	438.0	mg/L	7	Standard
	Ca	43	31.7	18.2	**0.4387**	0.343	78.3	mg/L	25	Standard
	Fe	54	97.8	36.9	**-0.1043**	0.021	20.3	mg/L	279	Standard
	Fe	57	100.0	5.0	**0.0923**	0.017	18.5	mg/L	73	Standard
>	**Sc-1**	45	42197.0	2.7				mg/L	44343	Standard
	Cl	35	5078.2	2.5				ug/L	5612	Standard
	Kr	83	94.7	6.8				ug/L	108	Standard
	Br	81	2626.9	4.8				ug/L	3490	Standard
	P	31	120388.2	1.8				ug/L	350479	Standard
	S	34	18484.6	1.4				ug/L	17705	Standard
	Sr	88	46.7	24.7				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	20.0	50.0				mg/L	0	Standard
	Dy	164	19.0	132.3				mg/L	3	Standard
	Ho-1	165	18.3	150.2				mg/L	7	Standard
	Er	166	20.0	132.3				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.777	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.951	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	96.081
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	98.595
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG452517-02
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Approved: November 15, 2013
Sheri L. Pfalzgraf

Method 6020 - Summary Report

Sample ID: LCSW 43 WG452603-03
Sample Date/Time: Wednesday, November 13, 2013 21:10:47
Number of Replicates: 3
Autosampler Position: 319
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	193074.1	0.8				ug/L	159627	Standard
	Be	9	1285.1	10.1	**0.4078**	0.041	10.0	ug/L	28	Standard
	Al	27	160706.3	2.0	**0.7324**	0.010	1.4	ug/L	1227	Standard
	Sc	45	48848.6	0.2				ug/L	44343	Standard
	Ti	47	4264.6	0.8	**9.5117**	0.088	0.9	ug/L	21	Standard
	V	51	70537.5	3.0	**8.7146**	0.140	1.6	ug/L	1305	Standard
	Cr	52	37202.3	1.9	**4.4747**	0.067	1.5	ug/L	4727	Standard
	Cr	53	17845.5	2.8	**14.0375**	0.576	4.1	ug/L	288	Standard
	Mn	55	64203.1	1.5	**4.7618**	0.042	0.9	ug/L	1062	Standard
	Co	59	15363.1	1.9	**1.8178**	0.015	0.8	ug/L	99	Standard
	Ni	60	11801.3	2.6	**4.6036**	0.063	1.4	ug/L	475	Standard
	Cu	65	11543.4	1.3	**4.7438**	0.102	2.1	ug/L	130	Standard
	Zn	66	14020.8	2.3	**10.7303**	0.151	1.4	ug/L	130	Standard
>	Ge	72	368448.6	1.4				ug/L	341919	Standard
	As	75	4780.8	2.1	**3.6357**	0.038	1.0	ug/L	-350	Standard
	Se	82	494.4	6.0	**3.5812**	0.150	4.2	ug/L	-53	Standard
	Se-1	77	1451.1	2.8	**14.2521**	0.221	1.6	ug/L	84	Standard
>	Ga	71	48.3	36.3				mg/L	53	Standard
	Rb	85	140.0	25.8				ug/L	13	Standard
	Y	89	373091.7	1.6				ug/L	364126	Standard
>	Rh	103	15.0	57.7				ug/L	12	Standard
	Mo	98	35117.1	1.5	**9.9794**	0.063	0.6	ug/L	24	Standard
	Ag	107	24527.5	0.7	**3.8063**	0.031	0.8	ug/L	45	Standard
	Cd	111	961.2	0.9	**0.4547**	0.003	0.6	mg/L	2	Standard
	Cd	114	2393.3	4.6	**0.4272**	0.016	3.8	ug/L	10	Standard
>	In	115	401134.0	1.2				ug/L	372170	Standard
	Sn	118	133.0	6.8	**0.0691**	0.006	8.8	ug/L	45	Standard
	Sb	123	31973.2	1.1	**10.8659**	0.083	0.8	ug/L	116	Standard
	Ba	135	17056.9	1.4	**9.3712**	0.052	0.6	ug/L	7	Standard
	Ce	140	35.0	14.3				ug/L	5	Standard
>	Tb	159	444791.8	2.5				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	26284.8	1.9	**4.6062**	0.031	0.7	ug/L	3	Standard
	Tl	205	31108.6	3.4	**4.6355**	0.140	3.0	ug/L	2	Standard
	Pb	206	11159.1	1.5	**4.8277**	0.012	0.2	ug/L	69	Standard
	Pb	207	9850.2	2.6	**4.7281**	0.077	1.6	ug/L	57	Standard
	Pb	208	25890.0	1.6	**4.4361**	0.017	0.4	ug/L	162	Standard
	U	238	0.7	86.6	**-0.0196**	0.000	0.8	ug/L	0	Standard
>	Bi	209	221031.7	1.3				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.8431**	1.210	143.5	mg/L	2	Standard
	Mg	24	505.0	6.5	**0.4364**	0.031	7.2	mg/L	28	Standard
	K	39	20.0	25.0	**0.1613**	0.063	38.8	mg/L	7	Standard
	Ca	43	26.7	39.0	**-0.0484**	0.507	1047.6	mg/L	25	Standard
	Fe	54	311.3	12.9	**-0.0004**	0.021	5451.4	mg/L	279	Standard
	Fe	57	95.0	10.5	**0.0506**	0.020	39.2	mg/L	73	Standard
>	**Sc-1**	45	48848.6	0.2				mg/L	44343	Standard
	Cl	35	5987.8	0.8				ug/L	5612	Standard
	Kr	83	100.0	14.1				ug/L	108	Standard
	Br	81	3320.4	5.0				ug/L	3490	Standard
	P	31	361254.7	1.2				ug/L	350479	Standard
	S	34	18427.9	2.6				ug/L	17705	Standard
	Sr	88	80.0	10.8				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.9	202.3				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	10.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		120.953	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.759	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	107.782
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.203
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: LCSW 43 WG452603-03
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Method 6020 - Summary Report

Sample ID: L1311067601 WG452603-01
Sample Date/Time: Wednesday, November 13, 2013 21:13:52
Number of Replicates: 3
Autosampler Position: 320
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	183914.7	1.9				ug/L	159627	Standard
	Be	9	50.0	26.5	**-0.0103**	0.005	46.4	ug/L	28	Standard
	Al	27	2128.5	7.3	**-0.0151**	0.001	5.7	ug/L	1227	Standard
	Sc	45	46509.6	1.7				ug/L	44343	Standard
	Ti	47	45.0	10.2	**0.0067**	0.011	166.1	ug/L	21	Standard
	V	51	1099.3	23.9	**-0.0505**	0.033	66.2	ug/L	1305	Standard
	Cr	52	4878.1	3.5	**-0.0088**	0.023	264.5	ug/L	4727	Standard
	Cr	53	3978.9	2.1	**2.9135**	0.066	2.3	ug/L	288	Standard
	Mn	55	1670.4	2.5	**0.0189**	0.004	20.7	ug/L	1062	Standard
	Co	59	226.0	8.8	**-0.0062**	0.002	37.1	ug/L	99	Standard
	Ni	60	973.4	7.3	**0.1773**	0.029	16.5	ug/L	475	Standard
	Cu	65	207.3	6.1	**0.0179**	0.006	34.2	ug/L	130	Standard
	Zn	66	1608.8	2.7	**1.0783**	0.045	4.1	ug/L	130	Standard
>	Ge	72	366069.3	0.9				ug/L	341919	Standard
	As	75	-101.8	44.4	**0.1477**	0.032	21.7	ug/L	-350	Standard
	Se	82	846.1	2.3	**5.9611**	0.169	2.8	ug/L	-53	Standard
	Se-1	77	1106.4	2.7	**10.7105**	0.303	2.8	ug/L	84	Standard
>	Ga	71	35.0	42.9				mg/L	53	Standard
	Rb	85	12164.9	1.3				ug/L	13	Standard
	Y	89	372900.5	1.7				ug/L	364126	Standard
>	Rh	103	10.0	100.0				ug/L	12	Standard
	Mo	98	307.7	8.0	**0.0725**	0.007	9.8	ug/L	24	Standard
	Ag	107	43.3	12.7	**-0.0120**	0.001	7.5	ug/L	45	Standard
	Cd	111	2.6	38.5	**-0.0118**	0.000	4.2	mg/L	2	Standard
	Cd	114	13.7	33.7	**-0.0094**	0.001	9.1	ug/L	10	Standard
>	In	115	396269.5	0.5				ug/L	372170	Standard
	Sn	118	49.3	36.3	**0.0021**	0.015	718.7	ug/L	45	Standard
	Sb	123	51.5	31.5	**-0.0127**	0.006	44.4	ug/L	116	Standard
	Ba	135	2884.9	1.5	**1.5996**	0.032	2.0	ug/L	7	Standard
	Ce	140	46.7	24.7				ug/L	5	Standard
>	Tb	159	451018.7	1.5				ug/L	430345	Standard
	Ho	165	6.7	43.3				ug/L	7	Standard
	Tl	203	70.3	10.5	**0.0085**	0.001	15.0	ug/L	3	Standard
	Tl	205	96.7	19.6	**0.0023**	0.003	120.5	ug/L	2	Standard
	Pb	206	254.3	4.9	**0.0811**	0.005	6.1	ug/L	69	Standard
	Pb	207	216.0	4.1	**0.0759**	0.004	4.7	ug/L	57	Standard
	Pb	208	534.3	7.0	**0.0490**	0.007	14.3	ug/L	162	Standard
	U	238	0.0		**-0.0198**			ug/L	0	Standard
>	Bi	209	216658.8	0.8				ug/L	206180	Standard

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	Na	23	16.7	62.4	**5.8350**	4.659	79.8	mg/L	2	Standard
	Mg	24	5852.8	1.7	**5.7658**	0.129	2.2	mg/L	28	Standard
	K	39	285.0	18.5	**3.6310**	0.707	19.5	mg/L	7	Standard
	Ca	43	150.0	12.0	**6.3123**	1.036	16.4	mg/L	25	Standard
	Fe	54	266.2	5.8	**-0.0168**	0.011	63.8	mg/L	279	Standard
	Fe	57	121.7	26.1	**0.1156**	0.065	55.9	mg/L	73	Standard
>	**Sc-1**	45	46509.6	1.7				mg/L	44343	Standard
	Cl	35	5896.5	2.6				ug/L	5612	Standard
	Kr	83	102.7	13.8				ug/L	108	Standard
	Br	81	3743.8	6.5				ug/L	3490	Standard
	P	31	365371.6	2.7				ug/L	350479	Standard
	S	34	19619.4	1.2				ug/L	17705	Standard
	Sr	88	58.3	24.7				ug/L	42	Standard
	C	12	10.0	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	43.3				mg/L	0	Standard
	Dy	164	6.2	180.0				mg/L	3	Standard
	Ho-1	165	6.7	43.3				mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.215	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.063	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.475
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.082
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311067601S WG452603-04
Sample Date/Time: Wednesday, November 13, 2013 21:16:56
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	193896.1	0.5				ug/L	159627	Standard
	Be	9	1268.4	2.6	**0.4006**	0.013	3.2	ug/L	28	Standard
	Al	27	158808.0	0.9	**0.7203**	0.003	0.4	ug/L	1227	Standard
	Sc	45	49183.0	0.9				ug/L	44343	Standard
	Ti	47	4264.9	1.3	**9.4813**	0.165	1.7	ug/L	21	Standard
	V	51	72641.6	0.8	**8.9527**	0.152	1.7	ug/L	1305	Standard
	Cr	52	37253.1	1.2	**4.4651**	0.067	1.5	ug/L	4727	Standard
	Cr	53	13994.8	3.5	**10.9077**	0.555	5.1	ug/L	288	Standard
	Mn	55	61837.6	1.8	**4.5669**	0.047	1.0	ug/L	1062	Standard
	Co	59	15343.1	1.4	**1.8095**	0.010	0.6	ug/L	99	Standard
	Ni	60	12458.5	1.4	**4.8579**	0.159	3.3	ug/L	475	Standard
	Cu	65	11397.6	2.2	**4.6665**	0.052	1.1	ug/L	130	Standard
	Zn	66	14724.2	2.5	**11.2395**	0.127	1.1	ug/L	130	Standard
>	Ge	72	369671.9	1.7				ug/L	341919	Standard
	As	75	4897.2	1.8	**3.7076**	0.051	1.4	ug/L	-350	Standard
	Se	82	1368.3	1.2	**9.3709**	0.075	0.8	ug/L	-53	Standard
	Se-1	77	1793.8	0.2	**17.7939**	0.340	1.9	ug/L	84	Standard
>	Ga	71	35.0	24.7				mg/L	53	Standard
	Rb	85	12356.7	1.2				ug/L	13	Standard
	Y	89	366175.9	1.4				ug/L	364126	Standard
>	Rh	103	28.3	44.4				ug/L	12	Standard
	Mo	98	35657.1	1.2	**10.2566**	0.233	2.3	ug/L	24	Standard
	Ag	107	23896.2	1.4	**3.7523**	0.022	0.6	ug/L	45	Standard
	Cd	111	933.0	6.0	**0.4462**	0.021	4.8	mg/L	2	Standard
	Cd	114	2571.4	3.7	**0.4657**	0.017	3.8	ug/L	10	Standard
>	In	115	396404.3	1.7				ug/L	372170	Standard
	Sn	118	140.7	12.5	**0.0766**	0.013	16.5	ug/L	45	Standard
	Sb	123	31908.0	0.8	**10.9742**	0.102	0.9	ug/L	116	Standard
	Ba	135	19478.8	1.4	**10.8315**	0.145	1.3	ug/L	7	Standard
	Ce	140	25.0	60.0				ug/L	5	Standard
>	Tb	159	449450.5	0.3				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	25997.3	1.0	**4.6230**	0.030	0.6	ug/L	3	Standard
	Tl	205	31736.5	2.4	**4.7992**	0.115	2.4	ug/L	2	Standard
	Pb	206	11222.2	2.1	**4.9265**	0.039	0.8	ug/L	69	Standard
	Pb	207	10040.3	1.7	**4.8913**	0.017	0.4	ug/L	57	Standard
	Pb	208	25918.3	1.5	**4.5068**	0.016	0.3	ug/L	162	Standard
	U	238	0.0		**-0.0198**			ug/L	0	Standard
>	Bi	209	217841.7	1.4				ug/L	206180	Standard

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	Na	23	28.3	36.7	**10.2538**	4.425	43.2	mg/L	2	Standard
	Mg	24	6089.6	1.3	**5.6721**	0.121	2.1	mg/L	28	Standard
	K	39	285.0	17.3	**3.4298**	0.633	18.5	mg/L	7	Standard
	Ca	43	143.3	16.5	**5.5711**	1.201	21.6	mg/L	25	Standard
	Fe	54	341.6	16.4	**0.0143**	0.029	203.2	mg/L	279	Standard
	Fe	57	141.7	7.3	**0.1419**	0.023	16.2	mg/L	73	Standard
>	**Sc-1**	45	49183.0	0.9				mg/L	44343	Standard
	Cl	35	6050.5	0.2				ug/L	5612	Standard
	Kr	83	95.3	10.5				ug/L	108	Standard
	Br	81	3757.1	3.3				ug/L	3490	Standard
	P	31	367811.9	1.8				ug/L	350479	Standard
	S	34	19330.7	1.2				ug/L	17705	Standard
	Sr	88	88.3	25.5				ug/L	42	Standard
	C	12	16.7	34.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	10.0	173.2				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		121.468	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.117	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.512
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.656
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311067601SD WG452603-05
Sample Date/Time: Wednesday, November 13, 2013 21:20:02
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	195363.6	2.5				ug/L	159627	Standard
	Be	9	1291.7	4.9	**0.4056**	0.030	7.4	ug/L	28	Standard
	Al	27	169493.7	12.2	**0.7656**	0.108	14.1	ug/L	1227	Standard
	Sc	45	49360.3	0.8				ug/L	44343	Standard
	Ti	47	4310.9	1.4	**9.5687**	0.078	0.8	ug/L	21	Standard
	V	51	71937.7	1.1	**8.8492**	0.059	0.7	ug/L	1305	Standard
	Cr	52	37632.7	2.6	**4.5090**	0.105	2.3	ug/L	4727	Standard
	Cr	53	14495.3	0.6	**11.2860**	0.140	1.2	ug/L	288	Standard
	Mn	55	61388.8	1.9	**4.5258**	0.063	1.4	ug/L	1062	Standard
	Co	59	15204.6	3.1	**1.7899**	0.045	2.5	ug/L	99	Standard
	Ni	60	12637.9	1.1	**4.9217**	0.052	1.1	ug/L	475	Standard
	Cu	65	11673.8	3.5	**4.7745**	0.180	3.8	ug/L	130	Standard
	Zn	66	13883.4	3.2	**10.5729**	0.375	3.5	ug/L	130	Standard
>	Ge	72	370215.5	0.6				ug/L	341919	Standard
	As	75	5058.6	2.6	**3.8167**	0.071	1.9	ug/L	-350	Standard
	Se	82	1357.3	1.6	**9.2835**	0.119	1.3	ug/L	-53	Standard
	Se-1	77	1855.8	3.1	**18.4135**	0.725	3.9	ug/L	84	Standard
>	Ga	71	66.7	30.3				mg/L	53	Standard
	Rb	85	12054.8	1.0				ug/L	13	Standard
	Y	89	368180.5	1.7				ug/L	364126	Standard
>	Rh	103	13.3	21.7				ug/L	12	Standard
	Mo	98	34930.6	2.6	**9.9653**	0.223	2.2	ug/L	24	Standard
	Ag	107	23667.8	0.8	**3.6868**	0.044	1.2	ug/L	45	Standard
	Cd	111	941.7	2.7	**0.4471**	0.017	3.8	mg/L	2	Standard
	Cd	114	2485.6	8.3	**0.4457**	0.030	6.7	ug/L	10	Standard
>	In	115	399586.0	1.7				ug/L	372170	Standard
	Sn	118	111.3	18.2	**0.0520**	0.016	31.3	ug/L	45	Standard
	Sb	123	31305.5	1.8	**10.6797**	0.119	1.1	ug/L	116	Standard
	Ba	135	19295.9	2.1	**10.6429**	0.057	0.5	ug/L	7	Standard
	Ce	140	98.3	65.6				ug/L	5	Standard
>	Tb	159	449147.7	1.6				ug/L	430345	Standard
	Ho	165	5.0	0.0				ug/L	7	Standard
	Tl	203	25711.5	2.3	**4.5493**	0.010	0.2	ug/L	3	Standard
	Tl	205	31111.9	1.6	**4.6813**	0.030	0.6	ug/L	2	Standard
	Pb	206	11333.2	2.9	**4.9507**	0.037	0.7	ug/L	69	Standard
	Pb	207	10097.7	2.7	**4.8949**	0.051	1.0	ug/L	57	Standard
	Pb	208	25985.7	2.1	**4.4962**	0.020	0.4	ug/L	162	Standard
	U	238	4.0	109.0	**-0.0188**	0.001	6.1	ug/L	0	Standard
>	Bi	209	218923.8	2.2				ug/L	206180	Standard

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	Na	23	21.7	35.3	**7.4468**	3.229	43.4	mg/L	2	Standard
	Mg	24	5991.2	3.7	**5.5599**	0.240	4.3	mg/L	28	Standard
	K	39	281.7	8.4	**3.3730**	0.280	8.3	mg/L	7	Standard
	Ca	43	133.3	39.4	**5.0510**	2.482	49.1	mg/L	25	Standard
	Fe	54	308.8	6.7	**-0.0033**	0.012	354.9	mg/L	279	Standard
	Fe	57	148.3	22.4	**0.1537**	0.064	41.7	mg/L	73	Standard
>	**Sc-1**	45	49360.3	0.8				mg/L	44343	Standard
	Cl	35	6304.0	2.2				ug/L	5612	Standard
	Kr	83	101.7	10.6				ug/L	108	Standard
	Br	81	3683.8	3.6				ug/L	3490	Standard
	P	31	358459.4	2.7				ug/L	350479	Standard
	S	34	19385.7	1.8				ug/L	17705	Standard
	Sr	88	70.0	31.1				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	2.5	255.2				mg/L	3	Standard
	Ho-1	165	5.0	0.0				mg/L	7	Standard
	Er	166	16.7	91.7				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.388	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.276	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	107.367
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.181
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311067301
Sample Date/Time: Wednesday, November 13, 2013 21:23:06
Number of Replicates: 3
Autosampler Position: 323
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	183486.2	1.9				ug/L	159627	Standard
	Be	9	46.7	65.5	**-0.0114**	0.011	96.9	ug/L	28	Standard
	Al	27	4270.6	28.2	**-0.0044**	0.006	138.3	ug/L	1227	Standard
	Sc	45	49395.4	2.2				ug/L	44343	Standard
	Ti	47	36.3	25.0	**-0.0129**	0.022	167.1	ug/L	21	Standard
	V	51	1578.1	20.8	**0.0104**	0.044	423.3	ug/L	1305	Standard
	Cr	52	5668.7	4.6	**0.1011**	0.044	43.1	ug/L	4727	Standard
	Cr	53	4905.8	4.8	**3.6609**	0.238	6.5	ug/L	288	Standard
	Mn	55	4475.5	105.7	**0.2345**	0.365	155.5	ug/L	1062	Standard
	Co	59	342.0	72.7	**0.0079**	0.031	385.4	ug/L	99	Standard
	Ni	60	986.4	1.8	**0.1823**	0.010	5.2	ug/L	475	Standard
	Cu	65	263.7	23.6	**0.0415**	0.027	64.4	ug/L	130	Standard
	Zn	66	1632.4	6.2	**1.0957**	0.088	8.0	ug/L	130	Standard
>	**Ge**	72	366450.5	1.5				ug/L	341919	Standard
	As	75	-328.3	15.2	**-0.0154**	0.039	253.2	ug/L	-350	Standard
	Se	82	8.0	36.7	**0.3450**	0.020	5.7	ug/L	-53	Standard
	Se-1	77	568.0	4.3	**5.0132**	0.165	3.3	ug/L	84	Standard
>	**Ga**	71	796.7	4.2				mg/L	53	Standard
	Rb	85	17470.1	2.1				ug/L	13	Standard
	Y	89	366721.9	1.0				ug/L	364126	Standard
>	**Rh**	103	6.7	114.6				ug/L	12	Standard
	Mo	98	698.5	11.4	**0.1865**	0.025	13.2	ug/L	24	Standard
	Ag	107	185.7	126.6	**0.0109**	0.038	348.0	ug/L	45	Standard
	Cd	111	3.1	115.1	**-0.0115**	0.002	15.6	mg/L	2	Standard
	Cd	114	15.0	69.4	**-0.0091**	0.002	21.7	ug/L	10	Standard
>	**In**	115	393738.5	1.7				ug/L	372170	Standard
	Sn	118	60.3	3.5	**0.0113**	0.001	10.9	ug/L	45	Standard
	Sb	123	86.6	40.2	**-0.0003**	0.012	3714.6	ug/L	116	Standard
	Ba	135	8546.4	1.8	**4.7810**	0.065	1.4	ug/L	7	Standard
	Ce	140	35.0	62.3				ug/L	5	Standard
>	**Tb**	159	444769.6	2.5				ug/L	430345	Standard
	Ho	165	6.7	86.6				ug/L	7	Standard
	Tl	203	113.7	5.7	**0.0162**	0.001	8.0	ug/L	3	Standard
	Tl	205	168.3	55.2	**0.0132**	0.014	107.3	ug/L	2	Standard
	Pb	206	399.3	105.2	**0.1454**	0.187	128.3	ug/L	69	Standard
	Pb	207	396.0	116.8	**0.1643**	0.228	138.8	ug/L	57	Standard
	Pb	208	603.0	74.7	**0.0610**	0.080	130.6	ug/L	162	Standard
	U	238	11.7	158.4	**-0.0168**	0.005	28.7	ug/L	0	Standard
>	**Bi**	209	217178.3	1.3				ug/L	206180	Standard

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Sheri L. Pfalzgraf

	Na	23	28.3	27.0	**10.1801**	3.167	31.1	mg/L	2	Standard
	Mg	24	6701.5	3.6	**6.2172**	0.107	1.7	mg/L	28	Standard
	K	39	268.3	9.2	**3.2127**	0.370	11.5	mg/L	7	Standard
	Ca	43	140.0	12.9	**5.3794**	0.917	17.0	mg/L	25	Standard
	Fe	54	270.9	5.8	**-0.0230**	0.010	44.8	mg/L	279	Standard
	Fe	57	103.3	30.7	**0.0641**	0.057	89.6	mg/L	73	Standard
>	**Sc-1**	45	49395.4	2.2				mg/L	44343	Standard
	Cl	35	6221.3	0.7				ug/L	5612	Standard
	Kr	83	104.3	2.8				ug/L	108	Standard
	Br	81	4117.2	1.9				ug/L	3490	Standard
	P	31	354131.1	1.2				ug/L	350479	Standard
	S	34	19484.2	2.2				ug/L	17705	Standard
	Sr	88	63.3	32.9				ug/L	42	Standard
	C	12	13.3	43.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.7	86.6				mg/L	3	Standard
	Ho-1	165	6.7	86.6				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.947	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.175	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.795
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.334
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311067301
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Method 6020 - Summary Report

Sample ID: L1311067401
Sample Date/Time: Wednesday, November 13, 2013 21:26:12
Number of Replicates: 3
Autosampler Position: 324
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	186246.5	2.6				ug/L	159627	Standard
	Be	9	51.7	5.6	**-0.0100**	0.001	5.7	ug/L	28	Standard
	Al	27	61854.4	2.1	**0.2768**	0.002	0.7	ug/L	1227	Standard
	Sc	45	48898.8	1.8				ug/L	44343	Standard
	Ti	47	277.0	29.9	**0.5378**	0.184	34.2	ug/L	21	Standard
	V	51	1487.2	14.0	**0.0004**	0.025	6312.7	ug/L	1305	Standard
	Cr	52	5961.2	1.1	**0.1507**	0.011	7.5	ug/L	4727	Standard
	Cr	53	5137.5	1.0	**3.8913**	0.083	2.1	ug/L	288	Standard
	Mn	55	8488.7	1.7	**0.5459**	0.016	3.0	ug/L	1062	Standard
	Co	59	213.0	5.7	**-0.0076**	0.001	17.4	ug/L	99	Standard
	Ni	60	930.7	0.2	**0.1635**	0.004	2.7	ug/L	475	Standard
	Cu	65	6440.4	2.6	**2.6593**	0.047	1.8	ug/L	130	Standard
	Zn	66	20953.8	3.3	**16.3907**	0.401	2.4	ug/L	130	Standard
>	**Ge**	72	362536.6	0.9				ug/L	341919	Standard
	As	75	-344.1	29.0	**-0.0286**	0.070	245.4	ug/L	-350	Standard
	Se	82	17.5	38.9	**0.4104**	0.047	11.6	ug/L	-53	Standard
	Se-1	77	586.3	4.0	**5.2757**	0.262	5.0	ug/L	84	Standard
>	**Ga**	71	165.0	21.0				mg/L	53	Standard
	Rb	85	16921.1	3.5				ug/L	13	Standard
	Y	89	362812.7	0.9				ug/L	364126	Standard
>	**Rh**	103	6.7	43.3				ug/L	12	Standard
	Mo	98	8253.9	0.4	**2.3936**	0.025	1.0	ug/L	24	Standard
	Ag	107	43.0	14.1	**-0.0120**	0.001	8.6	ug/L	45	Standard
	Cd	111	20.7	28.0	**-0.0027**	0.003	99.4	mg/L	2	Standard
	Cd	114	57.7	45.0	**-0.0011**	0.005	463.8	ug/L	10	Standard
>	**In**	115	391117.3	1.5				ug/L	372170	Standard
	Sn	118	84.0	1.2	**0.0313**	0.001	1.8	ug/L	45	Standard
	Sb	123	64.0	6.9	**-0.0081**	0.001	14.8	ug/L	116	Standard
	Ba	135	3937.2	2.0	**2.2138**	0.016	0.7	ug/L	7	Standard
	Ce	140	355.0	2.8				ug/L	5	Standard
>	**Tb**	159	442907.8	1.5				ug/L	430345	Standard
	Ho	165	6.7	43.3				ug/L	7	Standard
	Tl	203	75.7	8.8	**0.0085**	0.001	11.8	ug/L	3	Standard
	Tl	205	115.0	37.1	**0.0039**	0.006	159.3	ug/L	2	Standard
	Pb	206	1447.7	3.8	**0.5644**	0.016	2.9	ug/L	69	Standard
	Pb	207	1192.7	2.7	**0.5145**	0.012	2.4	ug/L	57	Standard
	Pb	208	3163.5	2.9	**0.4725**	0.009	2.0	ug/L	162	Standard
	U	238	13.7	21.1	**-0.0165**	0.001	4.2	ug/L	0	Standard
>	**Bi**	209	233681.8	1.2				ug/L	206180	Standard

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	Na	23	23.3	24.7	**8.2438**	2.613	31.7	mg/L	2	Standard
	Mg	24	6079.6	3.2	**5.6946**	0.108	1.9	mg/L	28	Standard
	K	39	256.7	18.9	**3.0935**	0.572	18.5	mg/L	7	Standard
	Ca	43	116.7	10.8	**4.3190**	0.701	16.2	mg/L	25	Standard
	Fe	54	317.3	5.4	**0.0028**	0.012	426.5	mg/L	279	Standard
	Fe	57	121.7	19.4	**0.1039**	0.049	47.3	mg/L	73	Standard
>	**Sc-1**	45	48898.8	1.8				mg/L	44343	Standard
	Cl	35	6158.6	1.4				ug/L	5612	Standard
	Kr	83	101.0	4.0				ug/L	108	Standard
	Br	81	3900.5	4.2				ug/L	3490	Standard
	P	31	346224.5	0.5				ug/L	350479	Standard
	S	34	19449.1	1.7				ug/L	17705	Standard
	Sr	88	55.0	27.3				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	16.0	133.2				mg/L	3	Standard
	Ho-1	165	6.7	43.3				mg/L	7	Standard
	Er	166	13.3	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.676	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.030	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.091
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	113.338
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311067401PS WG452649-01
Sample Date/Time: Wednesday, November 13, 2013 21:29:16
Number of Replicates: 3
Autosampler Position: 325
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	232642.6	4.0				ug/L	159627	Standard
	Be	9	10.0	50.0	**-0.0254**	0.001	5.1	ug/L	28	Standard
	Al	27	740.0	8.0	**-0.0227**	0.000	1.5	ug/L	1227	Standard
	Sc	45	54819.0	2.4				ug/L	44343	Standard
	Ti	47	11.7	32.5	**-0.0730**	0.008	10.6	ug/L	21	Standard
	V	51	427.0	3.3	**-0.1445**	0.002	1.2	ug/L	1305	Standard
	Cr	52	1762.4	11.0	**-0.4812**	0.036	7.4	ug/L	4727	Standard
	Cr	53	445.0	8.9	**0.0001**	0.026	43315.7	ug/L	288	Standard
	Mn	55	840.0	4.7	**-0.0543**	0.006	11.1	ug/L	1062	Standard
	Co	59	112.3	10.3	**-0.0221**	0.001	5.4	ug/L	99	Standard
	Ni	60	223.0	15.7	**-0.1453**	0.016	11.2	ug/L	475	Standard
	Cu	65	53.3	22.6	**-0.0500**	0.005	10.9	ug/L	130	Standard
	Zn	66	137.3	3.0	**-0.0913**	0.003	3.6	ug/L	130	Standard
>	Ge	72	434026.4	6.8				ug/L	341919	Standard
	As	75	-546.2	9.8	**-0.1101**	0.016	14.9	ug/L	-350	Standard
	Se	82	-164.5	14.4	**-0.6357**	0.085	13.4	ug/L	-53	Standard
	Se-1	77	73.3	2.1	**-0.3256**	0.052	15.9	ug/L	84	Standard
>	Ga	71	13.3	78.1				mg/L	53	Standard
	Rb	85	28.3	62.0				ug/L	13	Standard
	Y	89	444646.3	2.6				ug/L	364126	Standard
>	Rh	103	3.3	173.2				ug/L	12	Standard
	Mo	98	4.8	39.4	**-0.0150**	0.001	3.3	ug/L	24	Standard
	Ag	107	41.0	11.2	**-0.0135**	0.001	5.8	ug/L	45	Standard
	Cd	111	2.0	0.3	**-0.0123**	0.000	0.3	mg/L	2	Standard
	Cd	114	10.6	55.2	**-0.0104**	0.001	8.7	ug/L	10	Standard
>	In	115	485230.5	3.9				ug/L	372170	Standard
	Sn	118	39.3	10.3	**-0.0120**	0.003	27.2	ug/L	45	Standard
	Sb	123	13.0	13.3	**-0.0268**	0.000	1.4	ug/L	116	Standard
	Ba	135	9.0	29.4	**-0.0019**	0.001	54.1	ug/L	7	Standard
	Ce	140	10.0					ug/L	5	Standard
>	Tb	159	615130.2	5.3				ug/L	430345	Standard
	Ho	165	8.3	124.9				ug/L	7	Standard
	Tl	203	86.7	7.9	**0.0067**	0.001	18.3	ug/L	3	Standard
	Tl	205	135.0	6.4	**0.0019**	0.002	79.3	ug/L	2	Standard
	Pb	206	107.0	11.0	**0.0013**	0.005	417.1	ug/L	69	Standard
	Pb	207	89.0	9.6	**-0.0001**	0.002	1636.4	ug/L	57	Standard
	Pb	208	230.0	13.0	**-0.0170**	0.005	29.5	ug/L	162	Standard
	U	238	0.3	173.2	**-0.0198**	0.000	0.5	ug/L	0	Standard
>	Bi	209	312143.0	5.2				ug/L	206180	Standard

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	Na	23	1.7	173.2	**-0.9115**	1.092	119.8	mg/L	2	Standard
	Mg	24	15.0	66.7	**-0.0278**	0.009	31.0	mg/L	28	Standard
	K	39	3.3	86.6	**-0.0505**	0.032	62.9	mg/L	7	Standard
	Ca	43	38.3	19.9	**0.3200**	0.364	113.8	mg/L	25	Standard
	Fe	54	184.5	19.0	**-0.0773**	0.016	20.5	mg/L	279	Standard
	Fe	57	95.0	38.0	**0.0308**	0.067	217.6	mg/L	73	Standard
>	**Sc-1**	45	54819.0	2.4				mg/L	44343	Standard
	Cl	35	1718.1	10.4				ug/L	5612	Standard
	Kr	83	340.0	11.5				ug/L	108	Standard
	Br	81	923.4	18.0				ug/L	3490	Standard
	P	31	176718.0	0.8				ug/L	350479	Standard
	S	34	5754.4	10.3				ug/L	17705	Standard
	Sr	88	53.3	23.6				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.7	181.8				mg/L	3	Standard
	Ho-1	165	8.3	124.9				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		145.741	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		126.938	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	130.379
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	151.393
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 52 Lower	Cr	52	
Ge 72 Int Std for sample	Ge	72	Rerun sample
Se 82 Lower	Se	82	
In 115 Int Std for sample	In	115	Rerun sample

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Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311067401SDL WG452649-02
Sample Date/Time: Wednesday, November 13, 2013 21:32:21
Number of Replicates: 3
Autosampler Position: 326
Sample Description: 250
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	167305.5	2.0				ug/L	159627	Standard
	Be	9	31.7	36.5	**-0.0158**	0.004	26.7	ug/L	28	Standard
	Al	27	12635.3	6.4	**0.0431**	0.003	7.3	ug/L	1227	Standard
	Sc	45	42840.5	3.1				ug/L	44343	Standard
	Ti	47	59.7	9.8	**0.0531**	0.015	28.5	ug/L	21	Standard
	V	51	1036.5	11.8	**-0.0457**	0.016	35.7	ug/L	1305	Standard
	Cr	52	4258.9	2.7	**-0.0370**	0.018	48.0	ug/L	4727	Standard
	Cr	53	1661.8	1.5	**1.1714**	0.016	1.3	ug/L	288	Standard
	Mn	55	2196.8	4.3	**0.0754**	0.007	9.2	ug/L	1062	Standard
	Co	59	88.3	4.3	**-0.0219**	0.001	2.6	ug/L	99	Standard
	Ni	60	364.3	3.0	**-0.0588**	0.004	6.8	ug/L	475	Standard
	Cu	65	1250.1	5.9	**0.5068**	0.033	6.6	ug/L	130	Standard
	Zn	66	5478.0	5.4	**4.5284**	0.222	4.9	ug/L	130	Standard
>	Ge	72	333418.8	0.8				ug/L	341919	Standard
	As	75	-252.6	14.0	**0.0213**	0.029	134.1	ug/L	-350	Standard
	Se	82	-25.1	49.9	**0.1069**	0.092	86.3	ug/L	-53	Standard
	Se-1	77	183.7	6.4	**1.1489**	0.121	10.6	ug/L	84	Standard
>	Ga	71	45.0	19.2				mg/L	53	Standard
	Rb	85	3083.6	2.6				ug/L	13	Standard
	Y	89	332654.1	1.2				ug/L	364126	Standard
>	Rh	103	6.7	43.3				ug/L	12	Standard
	Mo	98	1497.6	1.1	**0.4545**	0.004	0.9	ug/L	24	Standard
	Ag	107	40.0	17.5	**-0.0120**	0.001	10.1	ug/L	45	Standard
	Cd	111	6.2	24.1	**-0.0097**	0.001	8.1	mg/L	2	Standard
	Cd	114	32.3	32.5	**-0.0054**	0.002	39.4	ug/L	10	Standard
>	In	115	363306.3	0.4				ug/L	372170	Standard
	Sn	118	38.0	9.5	**-0.0044**	0.003	69.8	ug/L	45	Standard
	Sb	123	31.0	36.6	**-0.0188**	0.004	22.6	ug/L	116	Standard
	Ba	135	754.0	2.6	**0.4517**	0.014	3.0	ug/L	7	Standard
	Ce	140	115.0	7.5				ug/L	5	Standard
>	Tb	159	415093.5	1.6				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	95.0	9.5	**0.0134**	0.002	13.6	ug/L	3	Standard
	Tl	205	126.7	2.3	**0.0075**	0.000	5.5	ug/L	2	Standard
	Pb	206	362.3	4.7	**0.1336**	0.006	4.9	ug/L	69	Standard
	Pb	207	285.3	4.4	**0.1140**	0.006	5.5	ug/L	57	Standard
	Pb	208	786.0	5.8	**0.0973**	0.008	7.8	ug/L	162	Standard
	U	238	8.0	62.5	**-0.0177**	0.001	7.5	ug/L	0	Standard
>	Bi	209	210706.8	1.0				ug/L	206180	Standard

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	Na	23	3.3	86.6	**0.0772**	1.402	1816.2	mg/L	2	Standard
	Mg	24	1196.7	7.4	**1.2509**	0.132	10.5	mg/L	28	Standard
	K	39	50.0	10.0	**0.6214**	0.079	12.8	mg/L	7	Standard
	Ca	43	35.0	62.3	**0.5995**	1.230	205.2	mg/L	25	Standard
	Fe	54	119.5	12.4	**-0.0919**	0.010	10.6	mg/L	279	Standard
	Fe	57	93.3	26.4	**0.0727**	0.052	71.7	mg/L	73	Standard
>	**Sc-1**	45	42840.5	3.1				mg/L	44343	Standard
	Cl	35	5355.6	1.3				ug/L	5612	Standard
	Kr	83	93.0	10.6				ug/L	108	Standard
	Br	81	2636.9	5.0				ug/L	3490	Standard
	P	31	156558.1	0.8				ug/L	350479	Standard
	S	34	18029.1	1.7				ug/L	17705	Standard
	Sr	88	50.0	26.5				ug/L	42	Standard
	C	12	10.0					mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	10.0	173.2				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.810	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.514	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.618
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.195
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, November 13, 2013 21:35:27
Number of Replicates: 3
Autosampler Position: 103
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	181490.8	2.0				ug/L	159627	Standard
	Be	9	130629.1	1.5	**47.1438**	0.345	0.7	ug/L	28	Standard
	Al	27	8505102.9	1.9	**42.6636**	1.091	2.6	ug/L	1227	Standard
	Sc	45	48900.5	2.5				ug/L	44343	Standard
	Ti	47	44101.1	1.1	**99.3497**	1.164	1.2	ug/L	21	Standard
	V	51	357343.2	0.4	**44.9749**	0.126	0.3	ug/L	1305	Standard
	Cr	52	329840.6	1.3	**45.1552**	0.899	2.0	ug/L	4727	Standard
	Cr	53	59540.1	1.2	**47.5768**	0.428	0.9	ug/L	288	Standard
	Mn	55	613598.0	1.9	**46.4910**	1.141	2.5	ug/L	1062	Standard
	Co	59	381687.1	1.0	**46.0163**	0.692	1.5	ug/L	99	Standard
	Ni	60	118009.1	0.6	**48.1024**	0.607	1.3	ug/L	475	Standard
	Cu	65	115660.8	1.2	**48.1975**	0.622	1.3	ug/L	130	Standard
	Zn	66	62096.3	0.6	**48.2000**	0.282	0.6	ug/L	130	Standard
>	Ge	72	368073.3	0.7				ug/L	341919	Standard
	As	75	66264.9	1.2	**47.6042**	0.565	1.2	ug/L	-350	Standard
	Se	82	6922.9	1.6	**46.4240**	0.617	1.3	ug/L	-53	Standard
	Se-1	77	4924.1	0.4	**50.7740**	0.352	0.7	ug/L	84	Standard
>	Ga	71	53.3	10.8				mg/L	53	Standard
	Rb	85	1000.0	1.3				ug/L	13	Standard
	Y	89	364547.6	1.7				ug/L	364126	Standard
>	Rh	103	36.7	15.7				ug/L	12	Standard
	Mo	98	353549.6	1.1	**100.7478**	1.758	1.7	ug/L	24	Standard
	Ag	107	310509.1	0.2	**48.4649**	0.414	0.9	ug/L	45	Standard
	Cd	111	100644.8	0.7	**49.0204**	0.420	0.9	mg/L	2	Standard
	Cd	114	264175.1	1.7	**48.5386**	1.118	2.3	ug/L	10	Standard
>	In	115	400649.3	0.8				ug/L	372170	Standard
	Sn	118	61330.6	1.7	**49.5950**	1.190	2.4	ug/L	45	Standard
	Sb	123	131938.1	0.6	**44.9876**	0.265	0.6	ug/L	116	Standard
	Ba	135	86778.5	1.2	**47.7647**	0.960	2.0	ug/L	7	Standard
	Ce	140	31.7	55.5				ug/L	5	Standard
>	Tb	159	447196.9	0.4				ug/L	430345	Standard
	Ho	165	1.7	173.2				ug/L	7	Standard
	Tl	203	268833.8	1.1	**47.5847**	0.351	0.7	ug/L	3	Standard
	Tl	205	326902.4	0.8	**49.2803**	0.321	0.7	ug/L	2	Standard
	Pb	206	114018.7	0.6	**50.0788**	0.201	0.4	ug/L	69	Standard
	Pb	207	102039.8	1.4	**49.7222**	0.517	1.0	ug/L	57	Standard
	Pb	208	260531.9	0.7	**45.4680**	0.233	0.5	ug/L	162	Standard
	U	238	178992.5	1.2	**46.0916**	0.390	0.8	ug/L	0	Standard
>	Bi	209	219017.3	0.3				ug/L	206180	Standard

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	Na	23	11.7	24.7	**3.3557**	1.335	39.8	mg/L	2	Standard
	Mg	24	4322.3	4.1	**4.0371**	0.133	3.3	mg/L	28	Standard
	K	39	255.0	12.2	**3.0789**	0.425	13.8	mg/L	7	Standard
	Ca	43	121.7	6.3	**4.5609**	0.494	10.8	mg/L	25	Standard
	Fe	54	9088.0	2.7	**4.5950**	0.235	5.1	mg/L	279	Standard
	Fe	57	2370.2	2.3	**4.5856**	0.189	4.1	mg/L	73	Standard
>	**Sc-1**	45	48900.5	2.5				mg/L	44343	Standard
	Cl	35	5928.5	2.4				ug/L	5612	Standard
	Kr	83	109.7	7.0				ug/L	108	Standard
	Br	81	2973.6	1.9				ug/L	3490	Standard
	P	31	376617.5	1.8				ug/L	350479	Standard
	S	34	20831.0	1.1				ug/L	17705	Standard
	Sr	88	51.7	22.3				ug/L	42	Standard
	C	12	3.3	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	6.5	86.7				mg/L	3	Standard
	Ho-1	165	1.7	173.2				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.697	
	Be	9	94.288		
	Al	27	85.327		
	Sc	45			
	Ti	47	99.350		
	V	51	89.950		
	Cr	52	90.310		
	Cr	53			
	Mn	55	92.982		
	Co	59	92.033		
	Ni	60	96.205		
	Cu	65	96.395		
	Zn	66	96.400		
>	Ge	72		107.649	
	As	75	95.208		
	Se	82	92.848		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	100.748	
|	Ag	107	96.930	
|	Cd	111	98.041	
|	Cd	114		
|>	In	115		107.652
|	Sn	118	99.190	
|	Sb	123	89.975	
⌊	Ba	135	95.529	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	95.169	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	90.936	
|	U	238	92.183	
⌊>	Bi	209		106.226
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 9	Al	27	
QC Std 9	V	51	

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Method 6020 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, November 13, 2013 21:38:33
Number of Replicates: 3
Autosampler Position: 104
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	179937.3	1.5				ug/L	159627	Standard
	Be	9	48.3	6.0	**-0.0105**	0.001	12.4	ug/L	28	Standard
	Al	27	1623.4	8.2	**-0.0174**	0.001	4.2	ug/L	1227	Standard
	Sc	45	47939.1	1.9				ug/L	44343	Standard
	Ti	47	23.7	9.8	**-0.0417**	0.006	13.7	ug/L	21	Standard
	V	51	1230.8	3.9	**-0.0337**	0.007	21.6	ug/L	1305	Standard
	Cr	52	4270.6	1.7	**-0.0932**	0.011	11.4	ug/L	4727	Standard
	Cr	53	360.0	9.7	**-0.0125**	0.028	224.8	ug/L	288	Standard
	Mn	55	991.7	16.0	**-0.0329**	0.012	36.9	ug/L	1062	Standard
	Co	59	139.7	42.4	**-0.0167**	0.007	42.9	ug/L	99	Standard
	Ni	60	274.3	2.2	**-0.1104**	0.003	2.9	ug/L	475	Standard
	Cu	65	91.3	12.7	**-0.0308**	0.005	15.1	ug/L	130	Standard
	Zn	66	132.7	5.3	**-0.0782**	0.007	8.5	ug/L	130	Standard
>	Ge	72	365768.6	1.1				ug/L	341919	Standard
	As	75	-296.4	10.9	**0.0075**	0.022	296.4	ug/L	-350	Standard
	Se	82	-47.6	16.7	**-0.0277**	0.051	184.1	ug/L	-53	Standard
	Se-1	77	91.0	11.0	**-0.0194**	0.101	522.5	ug/L	84	Standard
>	Ga	71	30.0	60.1				mg/L	53	Standard
	Rb	85	10.0	50.0				ug/L	13	Standard
	Y	89	366244.1	1.3				ug/L	364126	Standard
>	Rh	103	0.0					ug/L	12	Standard
	Mo	98	125.0	62.8	**0.0199**	0.023	113.9	ug/L	24	Standard
	Ag	107	85.0	64.5	**-0.0054**	0.009	161.1	ug/L	45	Standard
	Cd	111	11.9	124.2	**-0.0072**	0.007	101.3	mg/L	2	Standard
	Cd	114	33.2	104.1	**-0.0058**	0.006	111.8	ug/L	10	Standard
>	In	115	394986.5	1.2				ug/L	372170	Standard
	Sn	118	66.0	24.2	**0.0158**	0.013	82.0	ug/L	45	Standard
	Sb	123	300.2	26.9	**0.0732**	0.027	36.5	ug/L	116	Standard
	Ba	135	23.0	116.9	**0.0068**	0.015	220.0	ug/L	7	Standard
	Ce	140	11.7	49.5				ug/L	5	Standard
>	Tb	159	443944.3	2.5				ug/L	430345	Standard
	Ho	165	8.3	34.6				ug/L	7	Standard
	Tl	203	57.3	77.2	**0.0061**	0.008	131.0	ug/L	3	Standard
	Tl	205	56.7	83.4	**-0.0039**	0.007	186.4	ug/L	2	Standard
	Pb	206	77.7	24.1	**0.0021**	0.009	401.1	ug/L	69	Standard
	Pb	207	78.7	38.0	**0.0076**	0.015	194.4	ug/L	57	Standard
	Pb	208	188.0	22.8	**-0.0127**	0.008	61.3	ug/L	162	Standard
	U	238	19.0	101.5	**-0.0149**	0.005	33.6	ug/L	0	Standard
>	Bi	209	220200.9	1.7				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	26.7	57.3	**-0.0149**	0.015	97.6	mg/L	28	Standard
	K	39	5.0	173.2	**-0.0241**	0.109	453.4	mg/L	7	Standard
	Ca	43	18.3	68.6	**-0.4289**	0.638	148.8	mg/L	25	Standard
	Fe	54	237.4	3.2	**-0.0367**	0.003	7.5	mg/L	279	Standard
	Fe	57	50.0	10.0	**-0.0371**	0.012	31.2	mg/L	73	Standard
>	**Sc-1**	45	47939.1	1.9				mg/L	44343	Standard
	Cl	35	5780.4	3.5				ug/L	5612	Standard
	Kr	83	101.3	10.8				ug/L	108	Standard
	Br	81	2910.3	1.5				ug/L	3490	Standard
	P	31	357273.2	0.3				ug/L	350479	Standard
	S	34	20752.5	0.7				ug/L	17705	Standard
	Sr	88	45.0	11.1				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	6.2	180.0				mg/L	3	Standard
	Ho-1	165	8.3	34.6				mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.724	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.975	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.131
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.800
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311067501
Sample Date/Time: Wednesday, November 13, 2013 21:41:39
Number of Replicates: 3
Autosampler Position: 327
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	181642.4	1.1				ug/L	159627	Standard
	Be	9	40.0	37.5	**-0.0137**	0.006	40.7	ug/L	28	Standard
	Al	27	2495.2	3.3	**-0.0131**	0.000	2.9	ug/L	1227	Standard
	Sc	45	47761.8	1.0				ug/L	44343	Standard
	Ti	47	33.0	13.9	**-0.0199**	0.010	49.3	ug/L	21	Standard
	V	51	1112.4	15.6	**-0.0474**	0.023	48.5	ug/L	1305	Standard
	Cr	52	4929.1	5.4	**0.0054**	0.044	808.6	ug/L	4727	Standard
	Cr	53	3593.8	3.4	**2.6317**	0.130	4.9	ug/L	288	Standard
	Mn	55	3644.4	1.4	**0.1723**	0.003	1.6	ug/L	1062	Standard
	Co	59	182.3	6.0	**-0.0113**	0.001	10.6	ug/L	99	Standard
	Ni	60	840.0	4.6	**0.1258**	0.014	11.1	ug/L	475	Standard
	Cu	65	217.3	1.2	**0.0230**	0.001	5.2	ug/L	130	Standard
	Zn	66	1759.1	0.7	**1.2097**	0.024	2.0	ug/L	130	Standard
>	**Ge**	72	362480.0	1.0				ug/L	341919	Standard
	As	75	-267.5	22.4	**0.0265**	0.043	162.5	ug/L	-350	Standard
	Se	82	30.4	16.7	**0.4971**	0.036	7.3	ug/L	-53	Standard
	Se-1	77	456.3	1.0	**3.8888**	0.037	1.0	ug/L	84	Standard
>	**Ga**	71	53.3	27.1				mg/L	53	Standard
	Rb	85	17763.7	2.2				ug/L	13	Standard
	Y	89	360964.2	2.5				ug/L	364126	Standard
>	**Rh**	103	6.7	43.3				ug/L	12	Standard
	Mo	98	240.9	7.0	**0.0538**	0.006	10.6	ug/L	24	Standard
	Ag	107	41.3	5.0	**-0.0123**	0.000	2.8	ug/L	45	Standard
	Cd	111	2.6	100.1	**-0.0118**	0.001	10.9	mg/L	2	Standard
	Cd	114	15.1	19.3	**-0.0091**	0.001	5.9	ug/L	10	Standard
>	**In**	115	393703.9	1.9				ug/L	372170	Standard
	Sn	118	57.3	5.6	**0.0089**	0.002	21.8	ug/L	45	Standard
	Sb	123	101.2	4.1	**0.0047**	0.001	30.9	ug/L	116	Standard
	Ba	135	20110.3	1.2	**11.2601**	0.154	1.4	ug/L	7	Standard
	Ce	140	98.3	21.2				ug/L	5	Standard
>	**Tb**	159	442313.6	0.9				ug/L	430345	Standard
	Ho	165	6.7	114.6				ug/L	7	Standard
	Tl	203	89.7	3.2	**0.0120**	0.001	5.3	ug/L	3	Standard
	Tl	205	121.7	10.3	**0.0062**	0.002	31.3	ug/L	2	Standard
	Pb	206	159.0	2.9	**0.0391**	0.003	7.1	ug/L	69	Standard
	Pb	207	133.3	3.7	**0.0354**	0.002	4.9	ug/L	57	Standard
	Pb	208	336.3	2.9	**0.0143**	0.001	8.0	ug/L	162	Standard
	U	238	1.0	100.0	**-0.0195**	0.000	1.3	ug/L	0	Standard
>	**Bi**	209	215687.8	1.1				ug/L	206180	Standard

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	Na	23	16.7	45.8	**5.5945**	3.262	58.3	mg/L	2	Standard
	Mg	24	6209.6	1.2	**5.9573**	0.040	0.7	mg/L	28	Standard
	K	39	225.0	18.2	**2.7731**	0.546	19.7	mg/L	7	Standard
	Ca	43	111.7	22.5	**4.1903**	1.196	28.5	mg/L	25	Standard
	Fe	54	237.6	10.4	**-0.0361**	0.014	39.5	mg/L	279	Standard
	Fe	57	111.7	23.0	**0.0888**	0.051	57.8	mg/L	73	Standard
>	**Sc-1**	45	47761.8	1.0				mg/L	44343	Standard
	Cl	35	6025.9	1.3				ug/L	5612	Standard
	Kr	83	101.7	5.9				ug/L	108	Standard
	Br	81	4003.9	5.3				ug/L	3490	Standard
	P	31	363786.8	2.2				ug/L	350479	Standard
	S	34	20635.7	0.8				ug/L	17705	Standard
	Sr	88	58.3	26.2				ug/L	42	Standard
	C	12	6.7	86.6				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	43.3				mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	3	Standard
	Ho-1	165	6.7	114.6				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.792	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.013	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.786
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.611
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311067701
Sample Date/Time: Wednesday, November 13, 2013 21:44:43
Number of Replicates: 3
Autosampler Position: 328
Sample Description: 50
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	185166.7	2.4				ug/L	159627	Standard
	Be	9	85.0	107.3	**0.0015**	0.031	2154.5	ug/L	28	Standard
	Al	27	7771.7	100.3	**0.0120**	0.037	308.1	ug/L	1227	Standard
	Sc	45	48258.4	0.9				ug/L	44343	Standard
	Ti	47	78.7	90.7	**0.0809**	0.158	194.8	ug/L	21	Standard
	V	51	1278.6	3.7	**-0.0281**	0.009	30.4	ug/L	1305	Standard
	Cr	52	5609.4	3.0	**0.0915**	0.022	24.2	ug/L	4727	Standard
	Cr	53	4167.2	6.3	**3.0571**	0.196	6.4	ug/L	288	Standard
	Mn	55	1952.5	21.8	**0.0397**	0.030	75.7	ug/L	1062	Standard
	Co	59	206.7	14.8	**-0.0087**	0.003	37.6	ug/L	99	Standard
	Ni	60	1017.7	12.3	**0.1941**	0.045	23.1	ug/L	475	Standard
	Cu	65	451.7	74.1	**0.1187**	0.136	114.8	ug/L	130	Standard
	Zn	66	2776.3	18.7	**1.9837**	0.372	18.7	ug/L	130	Standard
>	**Ge**	72	366988.5	1.8				ug/L	341919	Standard
	As	75	-246.6	35.8	**0.0434**	0.066	151.0	ug/L	-350	Standard
	Se	82	120.4	12.2	**1.0966**	0.102	9.3	ug/L	-53	Standard
	Se-1	77	586.0	2.1	**5.1985**	0.234	4.5	ug/L	84	Standard
>	**Ga**	71	41.7	50.0				mg/L	53	Standard
	Rb	85	11816.3	2.3				ug/L	13	Standard
	Y	89	365504.4	0.4				ug/L	364126	Standard
>	**Rh**	103	8.3	91.7				ug/L	12	Standard
	Mo	98	503.3	7.7	**0.1291**	0.011	8.4	ug/L	24	Standard
	Ag	107	70.0	61.9	**-0.0078**	0.007	88.1	ug/L	45	Standard
	Cd	111	14.6	158.3	**-0.0059**	0.011	193.9	mg/L	2	Standard
	Cd	114	48.5	115.5	**-0.0029**	0.010	353.8	ug/L	10	Standard
>	**In**	115	395648.7	1.6				ug/L	372170	Standard
	Sn	118	55.0	21.4	**0.0067**	0.010	141.9	ug/L	45	Standard
	Sb	123	71.5	24.3	**-0.0058**	0.006	102.6	ug/L	116	Standard
	Ba	135	13914.7	2.1	**7.7502**	0.133	1.7	ug/L	7	Standard
	Ce	140	80.0	146.2				ug/L	5	Standard
>	**Tb**	159	443781.2	1.5				ug/L	430345	Standard
	Ho	165	3.3	173.2				ug/L	7	Standard
	Tl	203	95.0	30.7	**0.0127**	0.005	41.1	ug/L	3	Standard
	Tl	205	161.7	87.6	**0.0120**	0.022	179.1	ug/L	2	Standard
	Pb	206	653.7	16.7	**0.2552**	0.050	19.5	ug/L	69	Standard
	Pb	207	505.3	7.7	**0.2156**	0.021	9.7	ug/L	57	Standard
	Pb	208	1973.1	63.7	**0.2999**	0.222	74.2	ug/L	162	Standard
	U	238	82.7	172.2	**0.0016**	0.037	2265.8	ug/L	0	Standard
>	**Bi**	209	219347.4	1.9				ug/L	206180	Standard

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	Na	23	21.7	81.0	**7.6472**	7.422	97.1	mg/L	2	Standard
	Mg	24	4929.1	4.0	**4.6713**	0.173	3.7	mg/L	28	Standard
	K	39	236.7	16.9	**2.8849**	0.486	16.9	mg/L	7	Standard
	Ca	43	138.3	5.5	**5.4495**	0.328	6.0	mg/L	25	Standard
	Fe	54	281.2	7.5	**-0.0143**	0.013	88.6	mg/L	279	Standard
	Fe	57	130.0	11.5	**0.1235**	0.029	23.3	mg/L	73	Standard
>	**Sc-1**	45	48258.4	0.9				mg/L	44343	Standard
	Cl	35	6436.7	1.8				ug/L	5612	Standard
	Kr	83	97.7	6.3				ug/L	108	Standard
	Br	81	3483.7	1.9				ug/L	3490	Standard
	P	31	361171.1	2.8				ug/L	350479	Standard
	S	34	19896.4	1.8				ug/L	17705	Standard
	Sr	88	35.0	14.3				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	6.3	186.3				mg/L	3	Standard
	Ho-1	165	3.3	173.2				mg/L	7	Standard
	Er	166	6.7	86.6				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.000	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.332	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.309
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.386
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, November 13, 2013 21:47:50
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	172982.1	2.1				ug/L	159627	Standard
	Be	9	30.0	28.9	**-0.0168**	0.003	20.7	ug/L	28	Standard
	Al	27	7345844.5	0.8	**38.6627**	0.975	2.5	ug/L	1227	Standard
	Sc	45	44132.5	2.2				ug/L	44343	Standard
	Ti	47	42015.8	0.9	**101.1156**	1.429	1.4	ug/L	21	Standard
	V	51	1196.9	5.8	**-0.0287**	0.009	32.1	ug/L	1305	Standard
	Cr	52	4870.8	0.2	**0.0327**	0.011	33.0	ug/L	4727	Standard
	Cr	53	2156.8	2.9	**1.5488**	0.040	2.6	ug/L	288	Standard
	Mn	55	2371.5	1.6	**0.0837**	0.003	3.6	ug/L	1062	Standard
	Co	59	295.0	8.3	**0.0044**	0.003	67.9	ug/L	99	Standard
	Ni	60	1421.4	3.1	**0.3982**	0.009	2.2	ug/L	475	Standard
	Cu	65	624.3	1.1	**0.2092**	0.004	2.0	ug/L	130	Standard
	Zn	66	1851.1	0.5	**1.3585**	0.019	1.4	ug/L	130	Standard
>	Ge	72	344591.2	1.7				ug/L	341919	Standard
	As	75	-325.6	5.8	**-0.0279**	0.011	38.2	ug/L	-350	Standard
	Se	82	-54.8	24.6	**-0.0988**	0.096	97.5	ug/L	-53	Standard
	Se-1	77	271.7	1.8	**2.0684**	0.036	1.8	ug/L	84	Standard
>	Ga	71	160.0	13.6				mg/L	53	Standard
	Rb	85	3108.7	1.8				ug/L	13	Standard
	Y	89	343920.0	1.4				ug/L	364126	Standard
>	Rh	103	3.3	86.6				ug/L	12	Standard
	Mo	98	306716.9	1.8	**94.3432**	0.910	1.0	ug/L	24	Standard
	Ag	107	61.7	3.4	**-0.0085**	0.000	5.2	ug/L	45	Standard
	Cd	111	-17.1	95.6	**-0.0221**	0.009	39.4	mg/L	2	Standard
	Cd	114	810.0	3.4	**0.1487**	0.006	4.1	ug/L	10	Standard
>	In	115	371119.1	0.8				ug/L	372170	Standard
	Sn	118	61.7	3.4	**0.0155**	0.002	12.4	ug/L	45	Standard
	Sb	123	115.0	6.1	**0.0119**	0.003	24.5	ug/L	116	Standard
	Ba	135	54.3	1.1	**0.0263**	0.000	0.8	ug/L	7	Standard
	Ce	140	806.7	6.0				ug/L	5	Standard
>	Tb	159	425183.7	1.1				ug/L	430345	Standard
	Ho	165	6.7	114.6				ug/L	7	Standard
	Tl	203	74.7	22.5	**0.0098**	0.003	31.3	ug/L	3	Standard
	Tl	205	103.3	10.1	**0.0039**	0.002	39.0	ug/L	2	Standard
	Pb	206	140.7	5.0	**0.0330**	0.003	7.8	ug/L	69	Standard
	Pb	207	128.0	7.9	**0.0349**	0.005	13.1	ug/L	57	Standard
	Pb	208	308.3	7.7	**0.0111**	0.004	33.8	ug/L	162	Standard
	U	238	1.7	124.9	**-0.0194**	0.001	2.9	ug/L	0	Standard
>	Bi	209	208773.0	1.1				ug/L	206180	Standard

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	Na	23	26.7	10.8	**10.8314**	1.594	14.7	mg/L	2	Standard
	Mg	24	9643.1	1.0	**10.0439**	0.302	3.0	mg/L	28	Standard
	K	39	246.7	15.5	**3.3083**	0.567	17.2	mg/L	7	Standard
	Ca	43	268.3	13.1	**13.0575**	1.717	13.1	mg/L	25	Standard
	Fe	54	17926.4	3.2	**10.2279**	0.175	1.7	mg/L	279	Standard
	Fe	57	4867.4	2.7	**10.6055**	0.163	1.5	mg/L	73	Standard
>	**Sc-1**	45	44132.5	2.2				mg/L	44343	Standard
	Cl	35	5533.0	2.1				ug/L	5612	Standard
	Kr	83	105.7	10.4				ug/L	108	Standard
	Br	81	2693.6	7.2				ug/L	3490	Standard
	P	31	226490.9	2.5				ug/L	350479	Standard
	S	34	18199.3	2.0				ug/L	17705	Standard
	Sr	88	33.3	22.9				ug/L	42	Standard
	C	12	23.3	49.5				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	173.2				mg/L	3	Standard
	Ho-1	165	6.7	114.6				mg/L	7	Standard
	Er	166	6.7	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.367	
	Be	9			
	Al	27	0.773		
	Sc	45			
	Ti	47	101.116		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.782	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	94.343	
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.718
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		101.257
⌈	Na	23	86.651	
|	Mg	24	200.878	
|	K	39	66.165	
|	Ca	43	87.050	
|	Fe	54	81.823	
|	Fe	57	84.844	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Al	27	
QC Std 4	Mg	24	
QC Std 4	K	39	

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Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, November 13, 2013 21:50:55
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	181671.0	0.8				ug/L	159627	Standard
	Be	9	257079.4	0.7	**92.7111**	0.898	1.0	ug/L	28	Standard
	Al	27	6782650.4	1.5	**33.9756**	0.254	0.7	ug/L	1227	Standard
	Sc	45	48423.9	0.6				ug/L	44343	Standard
	Ti	47	40323.6	1.1	**89.9585**	0.740	0.8	ug/L	21	Standard
	V	51	710561.2	0.2	**88.7590**	0.470	0.5	ug/L	1305	Standard
	Cr	52	650404.6	1.4	**88.8367**	1.095	1.2	ug/L	4727	Standard
	Cr	53	118184.3	2.4	**93.8290**	2.298	2.4	ug/L	288	Standard
	Mn	55	1211484.8	1.0	**91.0076**	0.834	0.9	ug/L	1062	Standard
	Co	59	761365.7	1.6	**90.9383**	1.336	1.5	ug/L	99	Standard
	Ni	60	231713.7	2.4	**93.7489**	2.009	2.1	ug/L	475	Standard
	Cu	65	226053.2	0.6	**93.3602**	0.403	0.4	ug/L	130	Standard
	Zn	66	127214.8	0.7	**97.9862**	0.426	0.4	ug/L	130	Standard
>	Ge	72	371629.4	0.3				ug/L	341919	Standard
	As	75	134258.0	0.8	**95.3028**	0.615	0.6	ug/L	-350	Standard
	Se	82	13864.0	1.6	**91.7924**	1.227	1.3	ug/L	-53	Standard
	Se-1	77	9736.8	1.4	**100.3771**	1.538	1.5	ug/L	84	Standard
>	Ga	71	176.7	10.7				mg/L	53	Standard
	Rb	85	2746.9	3.4				ug/L	13	Standard
	Y	89	366766.1	0.6				ug/L	364126	Standard
>	Rh	103	53.3	23.6				ug/L	12	Standard
	Mo	98	292035.9	0.7	**83.7040**	0.635	0.8	ug/L	24	Standard
	Ag	107	602899.0	0.5	**94.6755**	0.686	0.7	ug/L	45	Standard
	Cd	111	198884.1	1.2	**97.4517**	0.650	0.7	mg/L	2	Standard
	Cd	114	500576.7	1.1	**92.5203**	0.659	0.7	ug/L	10	Standard
>	In	115	398298.5	1.1				ug/L	372170	Standard
	Sn	118	138.3	9.4	**0.0742**	0.010	13.6	ug/L	45	Standard
	Sb	123	267273.9	0.7	**91.7061**	0.799	0.9	ug/L	116	Standard
	Ba	135	170738.4	1.1	**94.5283**	0.303	0.3	ug/L	7	Standard
	Ce	140	741.7	8.4				ug/L	5	Standard
>	Tb	159	451741.2	1.4				ug/L	430345	Standard
	Ho	165	8.3	91.7				ug/L	7	Standard
	Tl	203	533422.4	0.8	**94.2154**	0.770	0.8	ug/L	3	Standard
	Tl	205	650177.4	0.6	**97.8107**	0.740	0.8	ug/L	2	Standard
	Pb	206	230217.2	0.5	**100.9240**	0.144	0.1	ug/L	69	Standard
	Pb	207	205180.4	1.3	**99.7903**	0.937	0.9	ug/L	57	Standard
	Pb	208	518253.7	0.6	**90.2900**	0.181	0.2	ug/L	162	Standard
	U	238	361189.3	0.9	**92.8249**	0.873	0.9	ug/L	0	Standard
>	Bi	209	219503.3	0.5				ug/L	206180	Standard

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	Na	23	46.7	34.4	**18.1578**	6.789	37.4	mg/L	2	Standard
	Mg	24	8502.4	1.4	**8.0599**	0.137	1.7	mg/L	28	Standard
	K	39	231.7	13.0	**2.8158**	0.395	14.0	mg/L	7	Standard
	Ca	43	196.7	25.5	**8.2801**	2.432	29.4	mg/L	25	Standard
	Fe	54	17974.7	2.1	**9.3328**	0.149	1.6	mg/L	279	Standard
	Fe	57	4620.7	2.8	**9.1562**	0.202	2.2	mg/L	73	Standard
>	**Sc-1**	45	48423.9	0.6				mg/L	44343	Standard
	Cl	35	5507.7	1.4				ug/L	5612	Standard
	Kr	83	119.7	5.4				ug/L	108	Standard
	Br	81	3180.3	6.1				ug/L	3490	Standard
	P	31	338700.4	3.7				ug/L	350479	Standard
	S	34	18272.7	1.0				ug/L	17705	Standard
	Sr	88	41.7	30.2				ug/L	42	Standard
	C	12	16.7	69.3				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	13.3	43.3				mg/L	3	Standard
	Ho-1	165	8.3	91.7				mg/L	7	Standard
	Er	166	0.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.810	
	Be	9	92.711		
	Al	27	0.680		
	Sc	45			
	Ti	47	89.959		
	V	51	88.759		
	Cr	52	88.837		
	Cr	53			
	Mn	55	91.008		
	Co	59	90.938		
	Ni	60	93.749		
	Cu	65	93.360		
	Zn	66	97.986		
>	Ge	72		108.689	
	As	75	95.303		
	Se	82	91.792		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	83.704	
|	Ag	107	94.676	
|	Cd	111	97.452	
|	Cd	114		
|>	In	115		107.021
|	Sn	118		
|	Sb	123	91.706	
⌊	Ba	135	94.528	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	94.215	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	90.290	
|	U	238	92.825	
⌊>	Bi	209		106.462
⌈	Na	23	145.263	
|	Mg	24	161.198	
|	K	39	56.317	
|	Ca	43	55.200	
|	Fe	54	74.662	
|	Fe	57	73.250	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Al	27	
QC Std 5	Na	23	
QC Std 5	Mg	24	
QC Std 5	K	39	
QC Std 5	Ca	43	

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QC Std 5	Fe	54
QC Std 5	Fe	57

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, November 13, 2013 21:54:03
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	181102.8	1.9				ug/L	159627	Standard
	Be	9	130817.4	1.5	**47.3125**	0.344	0.7	ug/L	28	Standard
	Al	27	8503817.0	0.6	**42.7525**	1.079	2.5	ug/L	1227	Standard
	Sc	45	48383.8	1.6				ug/L	44343	Standard
	Ti	47	44541.7	1.5	**100.1499**	1.232	1.2	ug/L	21	Standard
	V	51	362587.0	0.3	**45.5512**	0.249	0.5	ug/L	1305	Standard
	Cr	52	336817.9	0.4	**46.0335**	0.416	0.9	ug/L	4727	Standard
	Cr	53	60259.6	1.1	**48.0666**	0.787	1.6	ug/L	288	Standard
	Mn	55	630987.8	0.2	**47.7168**	0.192	0.4	ug/L	1062	Standard
	Co	59	391488.4	1.3	**47.1080**	0.694	1.5	ug/L	99	Standard
	Ni	60	118863.8	0.9	**48.3571**	0.280	0.6	ug/L	475	Standard
	Cu	65	115567.8	1.1	**48.0664**	0.508	1.1	ug/L	130	Standard
	Zn	66	63566.1	1.0	**49.2501**	0.308	0.6	ug/L	130	Standard
>	Ge	72	368770.9	0.6				ug/L	341919	Standard
	As	75	67342.3	0.8	**48.2823**	0.108	0.2	ug/L	-350	Standard
	Se	82	7002.7	0.3	**46.8685**	0.240	0.5	ug/L	-53	Standard
	Se-1	77	4933.1	1.5	**50.7702**	0.838	1.7	ug/L	84	Standard
>	Ga	71	80.0	18.8				mg/L	53	Standard
	Rb	85	1116.7	7.1				ug/L	13	Standard
	Y	89	366761.4	1.3				ug/L	364126	Standard
>	Rh	103	26.7	10.8				ug/L	12	Standard
	Mo	98	367000.1	1.2	**103.9710**	1.063	1.0	ug/L	24	Standard
	Ag	107	313641.8	0.7	**48.6700**	0.113	0.2	ug/L	45	Standard
	Cd	111	101335.1	0.8	**49.0715**	0.345	0.7	mg/L	2	Standard
	Cd	114	263447.2	0.2	**48.1237**	0.488	1.0	ug/L	10	Standard
>	In	115	402972.3	0.9				ug/L	372170	Standard
	Sn	118	62715.2	0.8	**50.4189**	0.530	1.1	ug/L	45	Standard
	Sb	123	133530.9	0.1	**45.2694**	0.351	0.8	ug/L	116	Standard
	Ba	135	87322.6	0.8	**47.7823**	0.213	0.4	ug/L	7	Standard
	Ce	140	36.7	39.4				ug/L	5	Standard
>	Tb	159	453233.0	1.3				ug/L	430345	Standard
	Ho	165	5.0	0.0				ug/L	7	Standard
	Tl	203	275747.5	1.3	**48.2223**	0.539	1.1	ug/L	3	Standard
	Tl	205	330329.4	1.7	**49.1999**	0.890	1.8	ug/L	2	Standard
	Pb	206	117020.9	1.2	**50.7792**	0.285	0.6	ug/L	69	Standard
	Pb	207	104308.2	1.3	**50.2193**	0.710	1.4	ug/L	57	Standard
	Pb	208	265346.7	1.0	**45.7519**	0.306	0.7	ug/L	162	Standard
	U	238	184570.8	1.2	**46.9586**	0.553	1.2	ug/L	0	Standard
>	Bi	209	221684.0	0.8				ug/L	206180	Standard

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	Na	23	11.7	24.7	**3.3972**	1.283	37.8	mg/L	2	Standard
	Mg	24	4260.6	5.4	**4.0203**	0.155	3.9	mg/L	28	Standard
	K	39	300.0	17.3	**3.6806**	0.705	19.1	mg/L	7	Standard
	Ca	43	93.3	13.5	**3.2255**	0.569	17.6	mg/L	25	Standard
	Fe	54	8746.8	4.0	**4.4628**	0.209	4.7	mg/L	279	Standard
	Fe	57	2396.9	5.6	**4.6903**	0.339	7.2	mg/L	73	Standard
>	**Sc-1**	45	48383.8	1.6				mg/L	44343	Standard
	Cl	35	5791.8	1.9				ug/L	5612	Standard
	Kr	83	103.0	13.7				ug/L	108	Standard
	Br	81	3017.0	7.8				ug/L	3490	Standard
	P	31	360655.5	0.9				ug/L	350479	Standard
	S	34	19889.7	2.7				ug/L	17705	Standard
	Sr	88	40.0	43.3				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	3	Standard
	Ho-1	165	5.0	0.0				mg/L	7	Standard
	Er	166	10.0	100.0				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.454	
	Be	9	94.625		
	Al	27	85.505		
	Sc	45			
	Ti	47	100.150		
	V	51	91.102		
	Cr	52	92.067		
	Cr	53			
	Mn	55	95.434		
	Co	59	94.216		
	Ni	60	96.714		
	Cu	65	96.133		
	Zn	66	98.500		
>	Ge	72		107.853	
	As	75	96.565		
	Se	82	93.737		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	103.971	
|	Ag	107	97.340	
|	Cd	111	98.143	
|	Cd	114		
|>	In	115		108.276
|	Sn	118	100.838	
|	Sb	123	90.539	
⌊	Ba	135	95.565	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	96.445	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	91.504	
|	U	238	93.917	
⌊>	Bi	209		107.519
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, November 13, 2013 21:57:07
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	179729.7	0.5				ug/L	159627	Standard
	Be	9	61.7	33.8	**-0.0057**	0.008	135.1	ug/L	28	Standard
	Al	27	1835.1	65.8	**-0.0163**	0.006	37.6	ug/L	1227	Standard
	Sc	45	47599.7	3.2				ug/L	44343	Standard
	Ti	47	26.3	35.3	**-0.0357**	0.021	58.9	ug/L	21	Standard
	V	51	1172.7	4.0	**-0.0411**	0.006	14.5	ug/L	1305	Standard
	Cr	52	4415.0	2.1	**-0.0728**	0.010	13.6	ug/L	4727	Standard
	Cr	53	328.3	5.3	**-0.0380**	0.015	38.7	ug/L	288	Standard
	Mn	55	1040.4	2.7	**-0.0292**	0.002	6.8	ug/L	1062	Standard
	Co	59	90.3	21.0	**-0.0227**	0.002	10.1	ug/L	99	Standard
	Ni	60	298.0	11.9	**-0.1006**	0.015	14.4	ug/L	475	Standard
	Cu	65	119.3	16.4	**-0.0190**	0.008	43.1	ug/L	130	Standard
	Zn	66	153.3	7.6	**-0.0620**	0.009	13.9	ug/L	130	Standard
>	**Ge**	72	365628.7	0.5				ug/L	341919	Standard
	As	75	-319.3	11.2	**-0.0090**	0.025	273.7	ug/L	-350	Standard
	Se	82	-55.2	3.6	**-0.0788**	0.013	15.9	ug/L	-53	Standard
	Se-1	77	96.3	9.1	**0.0376**	0.090	238.8	ug/L	84	Standard
>	**Ga**	71	21.7	87.4				mg/L	53	Standard
	Rb	85	20.0	25.0				ug/L	13	Standard
	Y	89	367726.0	1.3				ug/L	364126	Standard
>	**Rh**	103	3.3	86.6				ug/L	12	Standard
	Mo	98	87.6	37.7	**0.0088**	0.009	102.6	ug/L	24	Standard
	Ag	107	44.3	15.8	**-0.0119**	0.001	8.7	ug/L	45	Standard
	Cd	111	7.5	87.5	**-0.0094**	0.003	33.5	mg/L	2	Standard
	Cd	114	45.4	50.5	**-0.0036**	0.004	111.5	ug/L	10	Standard
>	**In**	115	399304.0	1.7				ug/L	372170	Standard
	Sn	118	109.3	5.4	**0.0504**	0.004	7.2	ug/L	45	Standard
	Sb	123	377.3	26.5	**0.0985**	0.033	33.1	ug/L	116	Standard
	Ba	135	12.7	19.9	**0.0010**	0.001	145.9	ug/L	7	Standard
	Ce	140	18.3	15.7				ug/L	5	Standard
>	**Tb**	159	448695.4	0.7				ug/L	430345	Standard
	Ho	165	3.3	86.6				ug/L	7	Standard
	Tl	203	32.7	52.7	**0.0016**	0.003	181.3	ug/L	3	Standard
	Tl	205	30.0	60.1	**-0.0079**	0.003	33.3	ug/L	2	Standard
	Pb	206	83.0	11.5	**0.0042**	0.004	90.9	ug/L	69	Standard
	Pb	207	66.3	15.2	**0.0014**	0.005	335.8	ug/L	57	Standard
	Pb	208	194.7	23.8	**-0.0118**	0.008	65.3	ug/L	162	Standard
	U	238	26.0	147.0	**-0.0132**	0.010	72.9	ug/L	0	Standard
>	**Bi**	209	221223.1	0.9				ug/L	206180	Standard

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	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	23.3	24.7	**-0.0179**	0.005	30.7	mg/L	28	Standard
	K	39	1.7	173.2	**-0.0660**	0.037	55.4	mg/L	7	Standard
	Ca	43	15.0	33.3	**-0.5937**	0.254	42.8	mg/L	25	Standard
	Fe	54	259.2	8.7	**-0.0242**	0.009	39.0	mg/L	279	Standard
	Fe	57	71.7	40.9	**0.0068**	0.055	811.1	mg/L	73	Standard
>	**Sc-1**	45	47599.7	3.2				mg/L	44343	Standard
	Cl	35	5897.8	0.9				ug/L	5612	Standard
	Kr	83	108.3	8.6				ug/L	108	Standard
	Br	81	2896.9	2.7				ug/L	3490	Standard
	P	31	354468.5	3.6				ug/L	350479	Standard
	S	34	20131.7	2.2				ug/L	17705	Standard
	Sr	88	51.7	27.9				ug/L	42	Standard
	C	12	10.0	100.0				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.5	105.0				mg/L	3	Standard
	Ho-1	165	3.3	86.6				mg/L	7	Standard
	Er	166	10.0					mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.594	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.934	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.291
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.296
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, November 13, 2013 22:00:13
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	184543.7	0.3				ug/L	159627	Standard
	Be	9	575.0	6.3	**0.1761**	0.013	7.6	ug/L	28	Standard
	Al	27	1360.1	18.8	**-0.0189**	0.001	6.8	ug/L	1227	Standard
	Sc	45	48579.4	0.8				ug/L	44343	Standard
	Ti	47	18.0	48.1	**-0.0549**	0.020	35.7	ug/L	21	Standard
	V	51	4083.7	1.7	**0.3245**	0.014	4.3	ug/L	1305	Standard
	Cr	52	9476.3	3.2	**0.6224**	0.009	1.5	ug/L	4727	Standard
	Cr	53	1196.7	5.0	**0.6553**	0.025	3.8	ug/L	288	Standard
	Mn	55	7542.5	1.7	**0.4625**	0.013	2.7	ug/L	1062	Standard
	Co	59	3143.7	0.7	**0.3446**	0.009	2.6	ug/L	99	Standard
	Ni	60	3999.5	1.9	**1.4096**	0.009	0.6	ug/L	475	Standard
	Cu	65	1909.8	3.9	**0.7254**	0.021	3.0	ug/L	130	Standard
	Zn	66	8108.8	2.1	**6.1179**	0.120	2.0	ug/L	130	Standard
>	**Ge**	72	369175.9	2.5				ug/L	341919	Standard
	As	75	191.9	27.9	**0.3570**	0.035	9.9	ug/L	-350	Standard
	Se	82	-2.2	343.0	**0.2764**	0.050	18.2	ug/L	-53	Standard
	Se-1	77	136.7	2.2	**0.4513**	0.053	11.7	ug/L	84	Standard
>	**Ga**	71	21.7	26.6				mg/L	53	Standard
	Rb	85	16.7	62.4				ug/L	13	Standard
	Y	89	363736.4	1.4				ug/L	364126	Standard
>	**Rh**	103	3.3	86.6				ug/L	12	Standard
	Mo	98	97.3	56.5	**0.0115**	0.015	132.9	ug/L	24	Standard
	Ag	107	2565.6	3.0	**0.3825**	0.008	2.1	ug/L	45	Standard
	Cd	111	489.1	12.4	**0.2256**	0.027	12.0	mg/L	2	Standard
	Cd	114	1236.8	10.1	**0.2157**	0.021	9.6	ug/L	10	Standard
>	**In**	115	399799.1	1.3				ug/L	372170	Standard
	Sn	118	58.3	45.7	**0.0088**	0.021	237.5	ug/L	45	Standard
	Sb	123	1176.0	2.2	**0.3717**	0.014	3.8	ug/L	116	Standard
	Ba	135	1309.1	6.7	**0.7158**	0.041	5.7	ug/L	7	Standard
	Ce	140	3.3	86.6				ug/L	5	Standard
>	**Tb**	159	452752.4	1.4				ug/L	430345	Standard
	Ho	165	5.0	100.0				ug/L	7	Standard
	Tl	203	518.3	16.5	**0.0861**	0.014	16.0	ug/L	3	Standard
	Tl	205	608.3	12.6	**0.0779**	0.011	14.7	ug/L	2	Standard
	Pb	206	552.7	10.0	**0.2070**	0.021	10.0	ug/L	69	Standard
	Pb	207	461.7	2.9	**0.1909**	0.004	2.1	ug/L	57	Standard
	Pb	208	1189.7	1.8	**0.1591**	0.002	1.0	ug/L	162	Standard
	U	238	1459.1	1.8	**0.3501**	0.007	2.0	ug/L	0	Standard
>	**Bi**	209	222554.1	1.4				ug/L	206180	Standard

Sample ID: QC Std 8
Report Date/Time: Wednesday, November 13, 2013 22:02:26
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Sheri L. Babcock

	Na	23	0.0		**-1.5418**	0.000	0.0	mg/L	2	Standard
	Mg	24	30.0	28.9	**-0.0121**	0.008	66.7	mg/L	28	Standard
	K	39	3.3	173.2	**-0.0457**	0.072	156.8	mg/L	7	Standard
	Ca	43	20.0	50.0	**-0.3651**	0.495	135.7	mg/L	25	Standard
	Fe	54	260.4	19.6	**-0.0261**	0.028	107.4	mg/L	279	Standard
	Fe	57	60.0	28.9	**-0.0183**	0.036	195.4	mg/L	73	Standard
>	**Sc-1**	45	48579.4	0.8				mg/L	44343	Standard
	Cl	35	5932.5	1.3				ug/L	5612	Standard
	Kr	83	106.0	7.5				ug/L	108	Standard
	Br	81	3120.3	11.1				ug/L	3490	Standard
	P	31	369611.1	3.7				ug/L	350479	Standard
	S	34	19602.7	0.5				ug/L	17705	Standard
	Sr	88	43.3	24.0				ug/L	42	Standard
	C	12	6.7	173.2				mg/L	0	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	93.0				mg/L	3	Standard
	Ho-1	165	5.0	100.0				mg/L	7	Standard
	Er	166	3.3	173.2				mg/L	0	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.609	
	Be	9	88.027		
	Al	27			
	Sc	45			
	Ti	47			
	V	51	81.121		
	Cr	52	77.806		
	Cr	53			
	Mn	55	92.502		
	Co	59	86.154		
	Ni	60	88.097		
	Cu	65	90.680		
	Zn	66	97.886		
>	Ge	72		107.972	
	As	75	89.257		
	Se	82	69.109		
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89			
> Rh	103			
Mo	98			
Ag	107	95.633		
Cd	111	93.990		
Cd	114			
> In	115			107.424
Sn	118			
Sb	123	92.933		
Ba	135	95.441		
Ce	140			
> Tb	159			
Ho	165			
Tl	203	107.645		
Tl	205			
Pb	206			
Pb	207			
Pb	208	79.569		
U	238	87.533		
> Bi	209			107.941
Na	23			
Mg	24			
K	39			
Ca	43			
Fe	54			
Fe	57			
> Sc-1	45			
Cl	35			
Kr	83			
Br	81			
P	31			
S	34			
Sr	88			
C	12			
N	14			
Hg	202			
Dy	164			
Ho-1	165			
Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Se	82	

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MassCal File Name

Mass Calibration File Name Default.tun
MassCal File Path C:\NexION Data\MassCal\Default.tun
Peak Search Window: 1.00

Sample Information

Sample Date/Time: Monday, November 18, 2013 08:45:21

Mass Calibration and Resolution

Analyte	E Mass	Meas Mass	Mass C DAC Val	Res DAC Value	Meas Peak WCustom Res
Li	7.016	6.975	1323	2025	0.708
Mg	23.985	23.975	4501	2021	0.681
Co	58.933	58.925	11685	2020	0.707
In	114.904	114.925	22869	2026	0.693
U	238.050	238.025	47457	2040	0.702

Relative Std. Dev.

Mass	Meas. Intens. RSD
5.525	2.974
5.575	1.087
5.625	1.347
5.675	2.194
5.725	1.409
5.775	1.286
5.825	1.576
5.875	1.593
5.925	1.101
5.975	1.372
6.025	0.848
6.075	2.730
6.125	1.659
6.175	2.090
6.225	6.697
6.275	47.140
6.325	149.071
6.375	55.902
6.425	58.330
6.475	14.582
6.525	7.792
6.575	2.894
6.625	1.965
6.675	2.449
6.725	1.821
6.775	1.964
6.825	1.370

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6.875	2.586
6.925	1.809
6.975	1.782
7.025	1.392
7.075	0.836
7.125	1.304
7.175	1.681
7.225	0.137
7.275	2.719
7.325	17.303
7.375	79.756
7.425	70.711
7.475	70.711
7.525	37.268
7.575	71.261
7.625	91.287
7.675	86.603
7.725	108.653
7.775	69.722
7.825	70.711
7.875	100.000
7.925	70.711
7.975	104.583
8.025	136.931
8.075	70.711
8.125	223.607
8.175	223.607
8.225	223.607
8.275	149.071
8.325	81.441
8.375	122.475
8.425	113.855
8.475	108.327
22.525	136.931
22.575	37.268
22.625	39.033
22.675	21.123
22.725	10.012
22.775	7.655
22.825	40.074
22.875	28.895
22.925	28.579
22.975	14.697
23.025	17.642
23.075	20.758
23.125	17.678
23.175	32.168

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23.225	38.662
23.275	16.458
23.325	21.066
23.375	15.247
23.425	31.553
23.475	18.006
23.525	2.566
23.575	0.909
23.625	1.044
23.675	1.152
23.725	0.964
23.775	0.989
23.825	0.788
23.875	0.850
23.925	0.762
23.975	0.898
24.025	0.883
24.075	1.016
24.125	0.930
24.175	1.296
24.225	1.518
24.275	1.118
24.325	11.777
24.375	86.715
24.425	34.468
24.475	5.974
24.525	5.036
24.575	1.647
24.625	1.298
24.675	1.630
24.725	1.399
24.775	1.734
24.825	1.379
24.875	1.239
24.925	0.322
24.975	0.962
25.025	0.874
25.075	1.041
25.125	1.244
25.175	1.369
25.225	1.203
25.275	10.323
25.325	59.265
25.375	66.069
25.425	46.566
25.475	12.192
57.525	9.085

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57.575	5.707
57.625	3.807
57.675	2.861
57.725	1.132
57.775	2.446
57.825	0.850
57.875	2.587
57.925	2.139
57.975	0.903
58.025	1.360
58.075	1.526
58.125	1.527
58.175	2.367
58.225	3.315
58.275	9.897
58.325	35.614
58.375	34.401
58.425	40.000
58.475	20.467
58.525	8.839
58.575	3.574
58.625	2.477
58.675	1.209
58.725	2.149
58.775	2.053
58.825	1.551
58.875	1.586
58.925	2.661
58.975	1.922
59.025	2.528
59.075	1.822
59.125	2.770
59.175	1.712
59.225	1.904
59.275	11.112
59.325	43.853
59.375	55.902
59.425	51.349
59.475	31.022
59.525	6.456
59.575	7.364
59.625	4.661
59.675	3.822
59.725	5.288
59.775	3.414
59.825	2.523
59.875	4.321

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59.925	2.980
59.975	1.470
60.025	4.642
60.075	3.213
60.125	2.182
60.175	3.400
60.225	4.366
60.275	17.000
60.325	46.481
60.375	162.980
60.425	70.711
60.475	94.786
113.525	6.201
113.575	5.581
113.625	7.027
113.675	2.408
113.725	2.438
113.775	3.232
113.825	2.981
113.875	2.254
113.925	2.548
113.975	1.862
114.025	2.036
114.075	2.318
114.125	1.076
114.175	4.091
114.225	6.809
114.275	16.037
114.325	74.689
114.375	15.798
114.425	13.572
114.475	5.678
114.525	2.850
114.575	1.193
114.625	1.893
114.675	0.913
114.725	1.176
114.775	1.161
114.825	1.069
114.875	1.005
114.925	1.681
114.975	1.524
115.025	1.606
115.075	1.288
115.125	0.784
115.175	1.833
115.225	2.502

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115.275	9.876
115.325	30.234
115.375	43.301
115.425	24.164
115.475	28.674
115.525	7.403
115.575	3.888
115.625	10.953
115.675	2.856
115.725	3.184
115.775	2.829
115.825	2.483
115.875	2.164
115.925	4.710
115.975	3.829
116.025	5.054
116.075	2.786
116.125	4.214
116.175	9.345
116.225	7.650
116.275	26.791
116.325	52.973
116.375	57.051
116.425	25.000
116.475	41.110
236.525	
236.575	48.290
236.625	50.990
236.675	15.811
236.725	31.419
236.775	33.333
236.825	41.110
236.875	40.406
236.925	48.922
236.975	40.745
237.025	31.181
237.075	29.881
237.125	41.211
237.175	32.401
237.225	26.503
237.275	60.028
237.325	52.705
237.375	24.786
237.425	47.574
237.475	34.583
237.525	26.394
237.575	15.674

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237.625	11.379
237.675	2.123
237.725	4.223
237.775	1.012
237.825	1.998
237.875	1.084
237.925	0.730
237.975	1.188
238.025	0.469
238.075	0.862
238.125	0.878
238.175	1.099
238.225	1.500
238.275	1.147
238.325	1.713
238.375	2.317
238.425	6.895
238.475	8.078
238.525	8.862
238.575	24.686
238.625	5.734
238.675	52.915
238.725	25.650
238.775	35.355
238.825	33.159
238.875	30.292
238.925	28.284
238.975	36.780
239.025	36.991
239.075	30.292
239.125	17.815
239.175	52.759
239.225	24.164
239.275	35.951
239.325	35.110
239.375	41.110
239.425	12.087
239.475	39.510

Approved: November 19, 2013

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, November 18, 2013 08:50:44
Sample Description:
Method File: C:\NexION Data\Method\ESI Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\110713\Daily Performance Check.666
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 33
Current Dead Time (ns): 33

Torch Z position (mm): 0.50

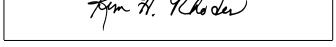
Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	7497.7	7497.721	32.868	0.4	Standard
	Mg	24.0	914415.3	914415.309	3904.680	0.4	Standard
	In	114.9	82093.3	82093.337	512.733	0.6	Standard
	U	238.1	52431.2	52431.232	398.701	0.8	Standard
⌈	CeO	155.9	1807.8	0.021	0.000	2.2	Standard
| >	Ce	139.9	84694.5	84694.523	257.764	0.3	Standard
⌊	Ce++	70.0	1267.9	0.015	0.000	0.9	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.40	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-8.25	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
5.00	Discriminator Threshold
-2.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.01	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.70	Cell Gas A
200.00	Axial Field Voltage
-17.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-23.00	KED Mode Cell Exit Voltage
3.00	KED Cell Gas A
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Approved: November 19, 2013



SmartTune Wizard - Summary

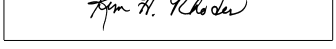
Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Start Time: 11/18/2013 8:50:43 AM
End Time: 11/18/2013 8:52:47 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 7497.72
Obtained Intensity (Mg 23.985): 914415.31
Obtained Intensity (In 114.904): 82093.34
Obtained Intensity (U 238.05): 52431.23
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=1807.84 / 84694.52)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.015 (=1267.85 / 84694.52)

Approved: November 19, 2013



SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Optimization Status

Start Time: 11/18/2013 8:50:43 AM

Daily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\ESI Daily Performance.mth.
                Intensity Criterion: Be 9.0122 > 2000
                Intensity Criterion: Mg 23.985 > 15000
                Intensity Criterion: In 114.904 > 40000
                Intensity Criterion: U 238.05 > 30000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 7497.72
                Obtained Intensity (Mg 23.985): 914415.31
                Obtained Intensity (In 114.904): 82093.34
                Obtained Intensity (U 238.05): 52431.23
                Obtained Intensity (Bkgd 220): 0.00
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=1807.84 / 84694.52)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.015 (=1267.85 / 84694.52)
[Passed]  Optimum value(s): N/A

End Time: 11/18/2013 8:52:47 AM
```


Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, November 18, 2013 09:43:19
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	269614.4	0.3				ug/L		Standard
	Be	9	23.3	65.5				ug/L		Standard
	Al	27	1170.0	3.5				ug/L		Standard
	Sc	45	26873.8	1.3				ug/L		Standard
	Ti	47	25.0	35.6				ug/L		Standard
	V	51	1685.5	1.5				ug/L		Standard
	Cr	52	6097.6	1.7				ug/L		Standard
	Cr	53	193.3	14.2				ug/L		Standard
	Mn	55	1232.4	2.7				ug/L		Standard
	Co	59	105.7	6.1				ug/L		Standard
	Ni	60	556.0	1.0				ug/L		Standard
	Cu	65	124.3	5.1				ug/L		Standard
	Zn	66	195.7	2.8				ug/L		Standard
>	Ge	72	473313.2	1.2				ug/L		Standard
	As	75	-286.0	11.2				ug/L		Standard
	Se	82	-33.1	19.9				ug/L		Standard
	Se-1	77	85.7	8.8				ug/L		Standard
>	Ga	71	35.0	24.7				mg/L		Standard
	Rb	85	13.3	57.3				ug/L		Standard
	Y	89	439493.1	0.7				ug/L		Standard
>	Rh	103	5.0	0.0				ug/L		Standard
	Mo	98	9.6	6.4				ug/L		Standard
	Ag	107	53.0	5.0				ug/L		Standard
	Cd	111	1.0	101.1				mg/L		Standard
	Cd	114	31.9	88.0				ug/L		Standard
>	In	115	494305.4	0.9				ug/L		Standard
	Sn	118	53.3	25.3				ug/L		Standard
	Sb	123	6.8	16.6				ug/L		Standard
	Ba	135	10.7	5.4				ug/L		Standard
	Ce	140	10.0	50.0				ug/L		Standard
>	Tb	159	538218.8	1.4				ug/L		Standard
	Ho	165	8.3	91.7				ug/L		Standard
	Tl	203	1.3	43.3				ug/L		Standard
	Tl	205	3.3	173.2				ug/L		Standard
	Pb	206	79.7	8.9				ug/L		Standard
	Pb	207	73.0	4.1				ug/L		Standard
	Pb	208	190.0	6.9				ug/L		Standard
	U	238	0.0					ug/L		Standard
>	Bi	209	276439.2	0.9				ug/L		Standard

Sample ID: Blank
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Na	23	1.7	173.2	mg/L	Standard
Mg	24	36.7	7.9	mg/L	Standard
K	39	3.3	173.2	mg/L	Standard
Ca	43	43.3	17.6	mg/L	Standard
Fe	54	262.4	4.3	mg/L	Standard
Fe	57	65.0	13.3	mg/L	Standard
Sc-1	45	26873.8	1.3	mg/L	Standard
Cl	35	141022.1	1.9	ug/L	Standard
Kr	83	75.0	3.5	ug/L	Standard
Br	81	2810.3	4.9	ug/L	Standard
P	31	458975.8	3.7	ug/L	Standard
S	34	103378.1	0.6	ug/L	Standard
Sr	88	30.0	57.7	ug/L	Standard
C	12	3.3	173.2	mg/L	Standard
N	14	0.0		mg/L	Standard
Hg	202	0.0		mg/L	Standard
Dy	164	9.5	107.6	mg/L	Standard
Ho-1	165	8.3	91.7	mg/L	Standard
Er	166	10.0	100.0	mg/L	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Blank
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Method 6020 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, November 18, 2013 09:46:25
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	263021.5	3.2				ug/L	269614	Standard
	Be	9	23.3	24.7				ug/L	23	Standard
	Al	27	1076.7	7.0				ug/L	1170	Standard
	Sc	45	27828.9	0.7				ug/L	26874	Standard
	Ti	47	22.0	4.5				ug/L	25	Standard
	V	51	1370.0	4.5				ug/L	1686	Standard
	Cr	52	4880.8	0.4				ug/L	6098	Standard
	Cr	53	181.7	20.3				ug/L	193	Standard
	Mn	55	1174.7	1.2				ug/L	1232	Standard
	Co	59	92.0	9.7				ug/L	106	Standard
	Ni	60	534.0	4.3				ug/L	556	Standard
	Cu	65	152.0	9.6				ug/L	124	Standard
	Zn	66	188.7	9.0				ug/L	196	Standard
>	Ge	72	478011.8	0.7				ug/L	473313	Standard
	As	75	-287.3	9.7				ug/L	-286	Standard
	Se	82	-26.9	11.6				ug/L	-33	Standard
	Se-1	77	78.3	11.9				ug/L	86	Standard
>	Ga	71	23.3	81.1				mg/L	35	Standard
	Rb	85	21.7	35.3				ug/L	13	Standard
	Y	89	443327.9	2.3				ug/L	439493	Standard
>	Rh	103	5.0	100.0				ug/L	5	Standard
	Mo	98	6.6	8.8				ug/L	10	Standard
	Ag	107	46.3	18.1				ug/L	53	Standard
	Cd	111	1.3	115.8				mg/L	1	Standard
	Cd	114	17.1	42.7				ug/L	32	Standard
>	In	115	493911.3	0.4				ug/L	494305	Standard
	Sn	118	47.7	27.4				ug/L	53	Standard
	Sb	123	6.2	19.1				ug/L	7	Standard
	Ba	135	8.3	25.0				ug/L	11	Standard
	Ce	140	8.3	91.7				ug/L	10	Standard
>	Tb	159	540879.9	1.7				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	2.0	0.0				ug/L	1	Standard
	Tl	205	5.0	173.2				ug/L	3	Standard
	Pb	206	93.0	12.4				ug/L	80	Standard
	Pb	207	60.3	18.8				ug/L	73	Standard
	Pb	208	196.7	2.3				ug/L	190	Standard
	U	238	0.3	173.2				ug/L	0	Standard
>	Bi	209	279567.5	1.1				ug/L	276439	Standard

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	Na	23	0.0		mg/L	2	Standard
	Mg	24	40.0	12.5	mg/L	37	Standard
	K	39	0.0		mg/L	3	Standard
	Ca	43	28.3	53.9	mg/L	43	Standard
	Fe	54	261.2	6.8	mg/L	262	Standard
	Fe	57	51.7	24.4	mg/L	65	Standard
>	**Sc-1**	45	27828.9	0.7	mg/L	26874	Standard
	Cl	35	141838.9	1.3	ug/L	141022	Standard
	Kr	83	68.0	11.1	ug/L	75	Standard
	Br	81	3090.3	2.3	ug/L	2810	Standard
	P	31	456192.7	4.4	ug/L	458976	Standard
	S	34	103057.7	1.1	ug/L	103378	Standard
	Sr	88	30.0	44.1	ug/L	30	Standard
	C	12	3.3	173.2	mg/L	3	Standard
	N	14	0.0		mg/L	0	Standard
	Hg	202	0.0		mg/L	0	Standard
	Dy	164	6.3	86.9	mg/L	10	Standard
	Ho-1	165	1.7	173.2	mg/L	8	Standard
	Er	166	6.7	173.2	mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, November 18, 2013 09:49:29
Number of Replicates: 3
Autosampler Position: 2
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	275038.0	2.2				ug/L	269614	Standard
	Be	9	200.0	32.5				ug/L	23	Standard
	Al	27	12221.6	0.3				ug/L	1170	Standard
	Sc	45	27391.4	2.4				ug/L	26874	Standard
	Ti	47	51.0	8.5				ug/L	25	Standard
	V	51	1664.0	3.7				ug/L	1686	Standard
	Cr	52	5149.5	2.0				ug/L	6098	Standard
	Cr	53	241.7	20.7				ug/L	193	Standard
	Mn	55	2588.6	2.6				ug/L	1232	Standard
	Co	59	621.7	4.8				ug/L	106	Standard
	Ni	60	702.0	0.9				ug/L	556	Standard
	Cu	65	294.0	0.9				ug/L	124	Standard
	Zn	66	362.0	3.4				ug/L	196	Standard
>	Ge	72	484398.7	1.2				ug/L	473313	Standard
	As	75	-240.0	14.8				ug/L	-286	Standard
	Se	82	-38.1	29.7				ug/L	-33	Standard
	Se-1	77	89.3	12.0				ug/L	86	Standard
>	Ga	71	25.0	20.0				mg/L	35	Standard
	Rb	85	20.0	0.0				ug/L	13	Standard
	Y	89	455488.2	1.8				ug/L	439493	Standard
>	Rh	103	3.3	86.6				ug/L	5	Standard
	Mo	98	460.5	4.4				ug/L	10	Standard
	Ag	107	439.7	2.9				ug/L	53	Standard
	Cd	111	118.8	3.2				mg/L	1	Standard
	Cd	114	337.8	10.6				ug/L	32	Standard
>	In	115	506419.1	0.1				ug/L	494305	Standard
	Sn	118	142.7	6.3				ug/L	53	Standard
	Sb	123	139.9	4.5				ug/L	7	Standard
	Ba	135	117.3	17.1				ug/L	11	Standard
	Ce	140	15.0	57.7				ug/L	10	Standard
>	Tb	159	548880.7	1.9				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	320.7	8.4				ug/L	1	Standard
	Tl	205	385.0	19.2				ug/L	3	Standard
	Pb	206	242.3	5.6				ug/L	80	Standard
	Pb	207	195.0	8.1				ug/L	73	Standard
	Pb	208	514.0	1.9				ug/L	190	Standard
	U	238	196.7	11.4				ug/L	0	Standard
>	Bi	209	283612.4	0.2				ug/L	276439	Standard

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Na	23	1.7	173.2	mg/L	2	Standard
Mg	24	36.7	39.4	mg/L	37	Standard
K	39	6.7	114.6	mg/L	3	Standard
Ca	43	36.7	67.3	mg/L	43	Standard
Fe	54	275.7	8.2	mg/L	262	Standard
Fe	57	60.0	28.9	mg/L	65	Standard
Sc-1	45	27391.4	2.4	mg/L	26874	Standard
Cl	35	140758.2	1.2	ug/L	141022	Standard
Kr	83	81.3	13.6	ug/L	75	Standard
Br	81	3333.7	8.0	ug/L	2810	Standard
P	31	453327.2	2.2	ug/L	458976	Standard
S	34	103819.6	2.0	ug/L	103378	Standard
Sr	88	25.0	20.0	ug/L	30	Standard
C	12	3.3	173.2	mg/L	3	Standard
N	14	0.0		mg/L	0	Standard
Hg	202	3.3	173.2	mg/L	0	Standard
Dy	164	9.7	100.8	mg/L	10	Standard
Ho-1	165	1.7	173.2	mg/L	8	Standard
Er	166	6.7	86.6	mg/L	10	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 2
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Method 6020 - Summary Report

Sample ID: Standard 3
Sample Date/Time: Monday, November 18, 2013 09:52:35
Number of Replicates: 3
Autosampler Position: 3
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	270234.3	2.2				ug/L	269614	Standard
	Be	9	146329.9	0.9	50.0000	0.963	1.9	ug/L	23	Standard
	Al	27	10548066.7	1.1	50.0000	1.032	2.1	ug/L	1170	Standard
	Sc	45	27319.6	1.7				ug/L	26874	Standard
	Ti	47	26205.3	2.0	100.0000	1.519	1.5	ug/L	25	Standard
	V	51	365561.0	1.0	50.0000	0.790	1.6	ug/L	1686	Standard
	Cr	52	357670.1	2.3	50.0000	1.048	2.1	ug/L	6098	Standard
	Cr	53	65123.0	2.1	50.0000	0.972	1.9	ug/L	193	Standard
	Mn	55	703193.3	1.2	50.0000	0.720	1.4	ug/L	1232	Standard
	Co	59	484183.0	0.8	50.0000	0.575	1.1	ug/L	106	Standard
	Ni	60	142770.3	1.9	50.0000	1.023	2.0	ug/L	556	Standard
	Cu	65	136307.7	0.6	50.0000	0.278	0.6	ug/L	124	Standard
	Zn	66	74613.6	1.7	50.0000	0.800	1.6	ug/L	196	Standard
>	Ge	72	489228.3	0.9				ug/L	473313	Standard
	As	75	74659.7	1.5	50.0000	0.908	1.8	ug/L	-286	Standard
	Se	82	7604.9	1.7	50.0000	0.997	2.0	ug/L	-33	Standard
	Se-1	77	5684.4	1.2	50.0000	0.894	1.8	ug/L	86	Standard
>	Ga	71	58.3	34.6				mg/L	35	Standard
	Rb	85	1173.4	5.4				ug/L	13	Standard
	Y	89	448825.8	0.6				ug/L	439493	Standard
>	Rh	103	38.3	49.4				ug/L	5	Standard
	Mo	98	402585.9	1.0	100.0000	1.420	1.4	ug/L	10	Standard
	Ag	107	347059.0	0.7	50.0000	0.502	1.0	ug/L	53	Standard
	Cd	111	113380.5	1.6	50.0000	0.849	1.7	mg/L	1	Standard
	Cd	114	289635.8	1.0	50.0000	0.708	1.4	ug/L	32	Standard
>	In	115	509156.9	0.6				ug/L	494305	Standard
	Sn	118	68385.4	2.2	50.0000	1.290	2.6	ug/L	53	Standard
	Sb	123	137304.8	0.8	50.0000	0.535	1.1	ug/L	7	Standard
	Ba	135	94659.8	0.9	50.0000	0.487	1.0	ug/L	11	Standard
	Ce	140	50.0	20.0				ug/L	10	Standard
>	Tb	159	555799.0	0.4				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	311133.8	0.4	50.0000	0.312	0.6	ug/L	1	Standard
	Tl	205	382062.1	0.5	50.0000	0.176	0.4	ug/L	3	Standard
	Pb	206	133016.0	0.4	50.0000	0.301	0.6	ug/L	80	Standard
	Pb	207	119655.0	0.7	50.0000	0.466	0.9	ug/L	73	Standard
	Pb	208	293195.2	0.6	50.0000	0.344	0.7	ug/L	190	Standard
	U	238	189950.3	1.0	50.0000	0.596	1.2	ug/L	0	Standard
>	Bi	209	285077.2	0.2				ug/L	276439	Standard

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	Na	23	25.0	20.0	**5.0000**	0.994	19.9	mg/L	2	Standard
	Mg	24	4992.5	1.9	**5.0000**	0.090	1.8	mg/L	37	Standard
	K	39	88.3	19.9	**5.0000**	0.998	20.0	mg/L	3	Standard
	Ca	43	56.7	44.4	**5.0000**	6.040	120.8	mg/L	43	Standard
	Fe	54	10810.1	3.2	**5.0000**	0.236	4.7	mg/L	262	Standard
	Fe	57	3048.6	3.9	**5.0000**	0.207	4.1	mg/L	65	Standard
>	**Sc-1**	45	27319.6	1.7				mg/L	26874	Standard
	Cl	35	141727.1	0.4				ug/L	141022	Standard
	Kr	83	90.7	5.2				ug/L	75	Standard
	Br	81	3163.7	5.1				ug/L	2810	Standard
	P	31	485838.2	2.7				ug/L	458976	Standard
	S	34	120912.2	0.6				ug/L	103378	Standard
	Sr	88	31.7	39.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.7	221.0				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	13.3	114.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: Standard 4
Sample Date/Time: Monday, November 18, 2013 09:55:40
Number of Replicates: 3
Autosampler Position: 4
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	259985.7	2.3				ug/L	269614	Standard
	Be	9	290828.4	1.6	**101.6242**	1.735	1.7	ug/L	23	Standard
	Al	27	20155480.5	1.8	**99.6468**	0.469	0.5	ug/L	1170	Standard
	Sc	45	26725.2	1.5				ug/L	26874	Standard
	Ti	47	50064.6	0.1	**197.8870**	1.342	0.7	ug/L	25	Standard
	V	51	704099.8	2.2	**99.4106**	2.327	2.3	ug/L	1686	Standard
	Cr	52	685475.3	3.4	**99.4086**	3.225	3.2	ug/L	6098	Standard
	Cr	53	124996.8	0.2	**99.2185**	0.476	0.5	ug/L	193	Standard
	Mn	55	1331577.2	1.7	**98.5387**	1.720	1.7	ug/L	1232	Standard
	Co	59	930613.7	3.1	**99.2216**	2.874	2.9	ug/L	106	Standard
	Ni	60	273144.5	1.7	**99.0817**	1.274	1.3	ug/L	556	Standard
	Cu	65	261819.9	1.0	**99.2135**	0.524	0.5	ug/L	124	Standard
	Zn	66	143851.3	0.5	**99.4683**	0.277	0.3	ug/L	196	Standard
>	Ge	72	477565.7	0.6				ug/L	473313	Standard
	As	75	145574.7	1.8	**99.8273**	1.555	1.6	ug/L	-286	Standard
	Se	82	14991.0	1.3	**100.3257**	1.121	1.1	ug/L	-33	Standard
	Se-1	77	11017.7	0.1	**100.0083**	0.545	0.5	ug/L	86	Standard
>	Ga	71	106.7	31.2				mg/L	35	Standard
	Rb	85	2210.2	4.3				ug/L	13	Standard
	Y	89	435741.6	1.9				ug/L	439493	Standard
>	Rh	103	40.0	25.0				ug/L	5	Standard
	Mo	98	785048.6	2.3	**199.6886**	5.479	2.7	ug/L	10	Standard
	Ag	107	652195.3	1.6	**98.0005**	2.222	2.3	ug/L	53	Standard
	Cd	111	219878.1	1.1	**99.5686**	2.049	2.1	mg/L	1	Standard
	Cd	114	551289.9	1.3	**98.6367**	2.161	2.2	ug/L	32	Standard
>	In	115	498047.6	1.0				ug/L	494305	Standard
	Sn	118	130113.2	2.5	**98.6417**	3.303	3.3	ug/L	53	Standard
	Sb	123	265721.6	0.9	**99.4615**	1.511	1.5	ug/L	7	Standard
	Ba	135	184063.8	1.5	**99.7051**	1.919	1.9	ug/L	11	Standard
	Ce	140	70.0	14.3				ug/L	10	Standard
>	Tb	159	546812.7	1.8				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	599261.6	0.1	**99.3534**	0.391	0.4	ug/L	1	Standard
	Tl	205	744090.2	0.5	**99.9091**	0.966	1.0	ug/L	3	Standard
	Pb	206	257990.3	0.7	**99.7223**	0.962	1.0	ug/L	80	Standard
	Pb	207	232763.0	0.8	**99.8658**	1.242	1.2	ug/L	73	Standard
	Pb	208	568931.7	1.4	**99.7456**	1.756	1.8	ug/L	190	Standard
	U	238	373160.1	1.6	**100.3434**	2.049	2.0	ug/L	0	Standard
>	Bi	209	278118.7	0.5				ug/L	276439	Standard

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	Na	23	33.3	8.7	**8.2074**	0.741	9.0	mg/L	2	Standard
	Mg	24	9819.8	0.8	**10.0427**	0.101	1.0	mg/L	37	Standard
	K	39	185.0	20.4	**10.5491**	2.062	19.5	mg/L	3	Standard
	Ca	43	65.0	27.7	**8.5281**	4.931	57.8	mg/L	43	Standard
	Fe	54	20499.7	2.8	**9.9012**	0.142	1.4	mg/L	262	Standard
	Fe	57	5699.4	4.9	**9.8203**	0.636	6.5	mg/L	65	Standard
>	**Sc-1**	45	26725.2	1.5				mg/L	26874	Standard
	Cl	35	136606.3	3.8				ug/L	141022	Standard
	Kr	83	84.0	4.3				ug/L	75	Standard
	Br	81	2906.9	10.0				ug/L	2810	Standard
	P	31	475983.5	4.0				ug/L	458976	Standard
	S	34	112548.7	4.6				ug/L	103378	Standard
	Sr	88	30.0	16.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	-0.5	173.2				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	10.0	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
| >	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Corr. Coef.	Na	23	Correlation coefficient < 0.998
Corr. Coef.	Ca	43	Correlation coefficient < 0.998

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Method 6020 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, November 18, 2013 09:58:47
Number of Replicates: 3
Autosampler Position: 201
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	267397.3	0.8				ug/L	269614	Standard
	Be	9	150103.2	0.4	**50.9821**	0.583	1.1	ug/L	23	Standard
	Al	27	10488424.7	0.4	**50.4120**	0.499	1.0	ug/L	1170	Standard
	Sc	45	27344.7	1.0				ug/L	26874	Standard
	Ti	47	25897.5	2.0	**100.2102**	1.057	1.1	ug/L	25	Standard
	V	51	362288.8	2.4	**50.0080**	0.781	1.6	ug/L	1686	Standard
	Cr	52	355266.7	2.4	**50.1237**	0.740	1.5	ug/L	6098	Standard
	Cr	53	64853.5	1.3	**50.3548**	0.202	0.4	ug/L	193	Standard
	Mn	55	703342.3	1.6	**50.9136**	0.318	0.6	ug/L	1232	Standard
	Co	59	482902.0	2.5	**50.4226**	0.741	1.5	ug/L	106	Standard
	Ni	60	142913.5	0.3	**50.6858**	0.349	0.7	ug/L	556	Standard
	Cu	65	136560.7	1.6	**50.6587**	0.302	0.6	ug/L	124	Standard
	Zn	66	75912.4	0.9	**51.3227**	0.432	0.8	ug/L	196	Standard
>	Ge	72	487542.6	1.0				ug/L	473313	Standard
	As	75	75721.4	1.7	**50.9658**	0.432	0.8	ug/L	-286	Standard
	Se	82	7832.9	2.3	**51.4911**	0.753	1.5	ug/L	-33	Standard
	Se-1	77	5673.1	1.3	**50.0659**	0.501	1.0	ug/L	86	Standard
>	Ga	71	66.7	30.3				mg/L	35	Standard
	Rb	85	1215.0	5.4				ug/L	13	Standard
	Y	89	444111.7	0.9				ug/L	439493	Standard
>	Rh	103	25.0	52.9				ug/L	5	Standard
	Mo	98	404663.2	2.0	**100.6127**	1.483	1.5	ug/L	10	Standard
	Ag	107	347041.9	0.7	**50.9711**	0.267	0.5	ug/L	53	Standard
	Cd	111	114341.4	1.4	**50.6138**	0.533	1.1	mg/L	1	Standard
	Cd	114	292502.4	1.8	**51.1536**	0.663	1.3	ug/L	32	Standard
>	In	115	509411.2	0.6				ug/L	494305	Standard
	Sn	118	68958.3	1.4	**51.0786**	0.956	1.9	ug/L	53	Standard
	Sb	123	138608.9	1.0	**50.7200**	0.411	0.8	ug/L	7	Standard
	Ba	135	95751.3	0.4	**50.7010**	0.361	0.7	ug/L	11	Standard
	Ce	140	46.7	16.4				ug/L	10	Standard
>	Tb	159	552371.1	1.2				ug/L	538219	Standard
	Ho	165	8.3	34.6				ug/L	8	Standard
	Tl	203	311104.9	0.7	**50.3664**	0.310	0.6	ug/L	1	Standard
	Tl	205	394450.2	0.4	**51.7178**	0.234	0.5	ug/L	3	Standard
	Pb	206	134038.7	1.5	**50.5731**	0.810	1.6	ug/L	80	Standard
	Pb	207	120808.4	0.8	**50.5974**	0.357	0.7	ug/L	73	Standard
	Pb	208	296472.1	0.6	**50.7361**	0.280	0.6	ug/L	190	Standard
	U	238	190614.6	0.8	**50.0493**	0.386	0.8	ug/L	0	Standard
>	Bi	209	284804.8	0.1				ug/L	276439	Standard

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	Na	23	16.7	75.5	**3.8117**	3.237	84.9	mg/L	2	Standard
	Mg	24	5200.9	2.8	**5.1839**	0.199	3.8	mg/L	37	Standard
	K	39	83.3	9.2	**4.4376**	0.399	9.0	mg/L	3	Standard
	Ca	43	45.0	22.2	**2.4824**	2.962	119.3	mg/L	43	Standard
	Fe	54	10890.2	2.1	**5.0811**	0.135	2.6	mg/L	262	Standard
	Fe	57	2992.0	4.6	**4.9875**	0.209	4.2	mg/L	65	Standard
>	**Sc-1**	45	27344.7	1.0				mg/L	26874	Standard
	Cl	35	143060.3	1.2				ug/L	141022	Standard
	Kr	83	84.0	8.6				ug/L	75	Standard
	Br	81	2947.0	9.0				ug/L	2810	Standard
	P	31	483770.7	1.1				ug/L	458976	Standard
	S	34	117216.7	1.3				ug/L	103378	Standard
	Sr	88	26.7	10.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	10	Standard
	Ho-1	165	8.3	34.6				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.178	
	Be	9	101.964		
	Al	27	100.824		
	Sc	45			
	Ti	47	100.210		
	V	51	100.016		
	Cr	52	100.247		
	Cr	53			
	Mn	55	101.827		
	Co	59	100.845		
	Ni	60	101.372		
	Cu	65	101.317		
	Zn	66	102.645		
>	Ge	72		103.006	
	As	75	101.932		
	Se	82	102.982		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	100.613	
|	Ag	107	101.942	
|	Cd	111	101.228	
|	Cd	114		
|>	In	115		103.056
|	Sn	118	102.157	
|	Sb	123	101.440	
⌊	Ba	135	101.402	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	100.733	
|	Tl	205		
|	Pb	206	101.146	
|	Pb	207	101.195	
|	Pb	208	101.472	
|	U	238	100.099	
⌊>	Bi	209		103.026
⌈	Na	23	76.234	
|	Mg	24	103.678	
|	K	39	88.752	
|	Ca	43	49.648	
|	Fe	54	101.622	
|	Fe	57	99.751	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	
QC Std 1	K	39	
QC Std 1	Ca	43	

Sample ID: QC Std 1
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Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, November 18, 2013 10:01:54
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	272907.7	1.1				ug/L	269614	Standard
	Be	9	90.0	34.7	**0.0138**	0.010	73.2	ug/L	23	Standard
	Al	27	1708.4	35.6	**0.0009**	0.003	309.9	ug/L	1170	Standard
	Sc	45	27296.2	1.8				ug/L	26874	Standard
	Ti	47	26.7	21.3	**0.0047**	0.022	472.3	ug/L	25	Standard
	V	51	1304.2	9.6	**-0.0009**	0.018	1982.5	ug/L	1686	Standard
	Cr	52	4473.3	2.0	**-0.0504**	0.015	30.0	ug/L	6098	Standard
	Cr	53	193.3	8.3	**0.0117**	0.013	113.7	ug/L	193	Standard
	Mn	55	1199.7	18.8	**-0.0519**	0.017	32.3	ug/L	1232	Standard
	Co	59	206.3	65.8	**0.0063**	0.014	228.9	ug/L	106	Standard
	Ni	60	507.0	6.9	**-0.0207**	0.013	64.7	ug/L	556	Standard
	Cu	65	162.3	3.8	**0.0005**	0.002	402.3	ug/L	124	Standard
	Zn	66	175.7	5.5	**-0.0778**	0.006	7.6	ug/L	196	Standard
>	Ge	72	486647.9	0.5				ug/L	473313	Standard
	As	75	-261.1	16.9	**0.0366**	0.029	78.3	ug/L	-286	Standard
	Se	82	-34.9	25.9	**0.0723**	0.058	80.0	ug/L	-33	Standard
	Se-1	77	91.3	23.0	**0.0639**	0.185	289.2	ug/L	86	Standard
>	Ga	71	31.7	24.1				mg/L	35	Standard
	Rb	85	18.3	41.7				ug/L	13	Standard
	Y	89	444301.1	2.5				ug/L	439493	Standard
>	Rh	103	1.7	173.2				ug/L	5	Standard
	Mo	98	181.9	80.5	**0.0301**	0.036	120.7	ug/L	10	Standard
	Ag	107	152.3	92.0	**0.0074**	0.021	277.4	ug/L	53	Standard
	Cd	111	6.5	46.7	**0.0000**	0.001	16808.9	mg/L	1	Standard
	Cd	114	14.7	70.6	**-0.0069**	0.002	26.4	ug/L	32	Standard
>	In	115	507827.7	1.3				ug/L	494305	Standard
	Sn	118	72.7	13.8	**-0.0023**	0.008	358.6	ug/L	53	Standard
	Sb	123	346.6	27.1	**0.1260**	0.036	28.5	ug/L	7	Standard
	Ba	135	12.0	50.0	**-0.0062**	0.003	51.1	ug/L	11	Standard
	Ce	140	13.3	21.7				ug/L	10	Standard
>	Tb	159	547203.2	1.0				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	52.0	95.0	**0.0063**	0.008	128.3	ug/L	1	Standard
	Tl	205	63.3	106.0	**0.0076**	0.009	116.4	ug/L	3	Standard
	Pb	206	118.0	38.1	**0.0026**	0.017	664.2	ug/L	80	Standard
	Pb	207	109.3	49.1	**0.0137**	0.023	166.6	ug/L	73	Standard
	Pb	208	231.0	12.9	**0.0011**	0.005	501.4	ug/L	190	Standard
	U	238	22.0	46.1	**0.0039**	0.003	69.2	ug/L	0	Standard
>	Bi	209	285620.9	1.2				ug/L	276439	Standard

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	Na	23	3.3	173.2	**0.4066**	1.445	355.4	mg/L	2	Standard
	Mg	24	35.0	51.5	**0.0033**	0.018	550.9	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2853**	0.166	58.2	mg/L	3	Standard
	Ca	43	48.3	6.0	**3.4301**	0.584	17.0	mg/L	43	Standard
	Fe	54	281.3	11.6	**0.0082**	0.014	171.6	mg/L	262	Standard
	Fe	57	66.7	18.9	**0.0165**	0.020	118.6	mg/L	65	Standard
>	**Sc-1**	45	27296.2	1.8				mg/L	26874	Standard
	Cl	35	142266.9	1.5				ug/L	141022	Standard
	Kr	83	76.0	11.4				ug/L	75	Standard
	Br	81	3303.7	4.3				ug/L	2810	Standard
	P	31	489915.2	1.1				ug/L	458976	Standard
	S	34	113555.6	1.2				ug/L	103378	Standard
	Sr	88	36.7	7.9				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.5	93.0				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.222	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.817	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	102.736
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.321
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	Na	23	
QC Std 2	K	39	
QC Std 2	Ca	43	

Sample ID: QC Std 2
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Method 6020 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, November 18, 2013 10:05:00
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	271421.4	1.2				ug/L	269614	Standard
	Be	9	676.7	3.7	**0.2104**	0.009	4.2	ug/L	23	Standard
	Al	27	1190.0	1.5	**-0.0015**	0.000	9.3	ug/L	1170	Standard
	Sc	45	27358.0	1.9				ug/L	26874	Standard
	Ti	47	19.0	19.0	**-0.0249**	0.014	55.9	ug/L	25	Standard
	V	51	3953.3	2.8	**0.3675**	0.012	3.4	ug/L	1686	Standard
	Cr	52	10040.7	1.4	**0.7497**	0.018	2.4	ug/L	6098	Standard
	Cr	53	1148.4	3.5	**0.7580**	0.029	3.8	ug/L	193	Standard
	Mn	55	8116.8	1.0	**0.4521**	0.006	1.3	ug/L	1232	Standard
	Co	59	3796.8	3.1	**0.3826**	0.010	2.7	ug/L	106	Standard
	Ni	60	4922.8	1.8	**1.5573**	0.036	2.3	ug/L	556	Standard
	Cu	65	2294.8	0.8	**0.7954**	0.006	0.8	ug/L	124	Standard
	Zn	66	9988.0	2.0	**6.6044**	0.128	1.9	ug/L	196	Standard
>	**Ge**	72	485871.9	0.5				ug/L	473313	Standard
	As	75	270.2	5.0	**0.3936**	0.008	2.1	ug/L	-286	Standard
	Se	82	24.9	28.4	**0.4642**	0.047	10.0	ug/L	-33	Standard
	Se-1	77	129.7	3.1	**0.4104**	0.039	9.5	ug/L	86	Standard
>	**Ga**	71	18.3	15.7				mg/L	35	Standard
	Rb	85	18.3	103.3				ug/L	13	Standard
	Y	89	452399.1	2.6				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	45.9	33.7	**-0.0039**	0.004	98.2	ug/L	10	Standard
	Ag	107	2826.6	3.3	**0.3988**	0.012	3.1	ug/L	53	Standard
	Cd	111	525.0	2.5	**0.2287**	0.006	2.5	mg/L	1	Standard
	Cd	114	1256.7	4.4	**0.2096**	0.009	4.2	ug/L	32	Standard
>	**In**	115	511245.5	0.5				ug/L	494305	Standard
	Sn	118	61.3	5.7	**-0.0111**	0.003	24.6	ug/L	53	Standard
	Sb	123	1208.3	1.4	**0.4391**	0.006	1.4	ug/L	7	Standard
	Ba	135	1346.4	2.9	**0.6980**	0.019	2.8	ug/L	11	Standard
	Ce	140	6.7	114.6				ug/L	10	Standard
>	**Tb**	159	551840.4	1.0				ug/L	538219	Standard
	Ho	165	8.3	91.7				ug/L	8	Standard
	Tl	203	492.7	7.2	**0.0775**	0.007	8.6	ug/L	1	Standard
	Tl	205	578.3	10.1	**0.0750**	0.009	11.4	ug/L	3	Standard
	Pb	206	625.3	3.6	**0.1936**	0.007	3.4	ug/L	80	Standard
	Pb	207	536.7	4.0	**0.1924**	0.011	5.7	ug/L	73	Standard
	Pb	208	1325.4	4.0	**0.1880**	0.008	4.1	ug/L	190	Standard
	U	238	1514.4	3.9	**0.3947**	0.012	3.0	ug/L	0	Standard
>	**Bi**	209	285521.0	1.1				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	30.0	44.1	**-0.0018**	0.013	754.6	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2831**	0.170	60.0	mg/L	3	Standard
	Ca	43	28.3	36.7	**-2.2616**	2.998	132.6	mg/L	43	Standard
	Fe	54	255.0	13.1	**-0.0045**	0.017	373.2	mg/L	262	Standard
	Fe	57	66.7	33.8	**0.0164**	0.038	232.0	mg/L	65	Standard
>	**Sc-1**	45	27358.0	1.9				mg/L	26874	Standard
	Cl	35	139591.5	0.9				ug/L	141022	Standard
	Kr	83	76.0	4.7				ug/L	75	Standard
	Br	81	3173.7	6.4				ug/L	2810	Standard
	P	31	484202.1	2.7				ug/L	458976	Standard
	S	34	107755.2	1.1				ug/L	103378	Standard
	Sr	88	28.3	36.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.7	221.0				mg/L	10	Standard
	Ho-1	165	8.3	91.7				mg/L	8	Standard
	Er	166	13.3	114.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.670	
	Be	9	105.220		
	Al	27	-0.149		
	Sc	45			
	Ti	47			
	V	51	91.887		
	Cr	52	93.718		
	Cr	53			
	Mn	55	90.414		
	Co	59	95.640		
	Ni	60	97.330		
	Cu	65	99.420		
	Zn	66	105.671		
>	Ge	72		102.653	
	As	75	98.407		
	Se	82	116.062		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107	99.695	
|	Cd	111	95.279	
|	Cd	114		
|>	In	115		103.427
|	Sn	118		
|	Sb	123	109.767	
⌊	Ba	135	93.066	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	96.841	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	93.996	
|	U	238	98.680	
⌊>	Bi	209		103.285
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	

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Method 6020 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, November 18, 2013 10:08:05
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	254303.8	4.2				ug/L	269614	Standard
	Be	9	40.0	33.1	**-0.0019**	0.004	214.7	ug/L	23	Standard
	Al	27	8940832.2	1.1	**45.2212**	1.357	3.0	ug/L	1170	Standard
	Sc	45	25650.0	1.9				ug/L	26874	Standard
	Ti	47	24682.8	0.6	**101.5957**	1.237	1.2	ug/L	25	Standard
	V	51	672.1	18.7	**-0.0829**	0.019	22.7	ug/L	1686	Standard
	Cr	52	4870.1	0.6	**0.0495**	0.008	17.1	ug/L	6098	Standard
	Cr	53	2141.8	5.3	**1.6349**	0.104	6.4	ug/L	193	Standard
	Mn	55	2291.8	2.9	**0.0378**	0.005	13.0	ug/L	1232	Standard
	Co	59	349.0	3.7	**0.0234**	0.002	6.6	ug/L	106	Standard
	Ni	60	2022.5	3.7	**0.5644**	0.033	5.8	ug/L	556	Standard
	Cu	65	829.0	5.2	**0.2676**	0.019	7.1	ug/L	124	Standard
	Zn	66	1665.8	2.8	**1.0053**	0.040	4.0	ug/L	196	Standard
>	**Ge**	72	458398.1	0.6				ug/L	473313	Standard
	As	75	-307.7	22.4	**-0.0075**	0.049	655.5	ug/L	-286	Standard
	Se	82	-49.1	23.8	**-0.0403**	0.080	197.9	ug/L	-33	Standard
	Se-1	77	292.0	10.0	**2.0281**	0.296	14.6	ug/L	86	Standard
>	**Ga**	71	181.7	17.9				mg/L	35	Standard
	Rb	85	3332.0	1.9				ug/L	13	Standard
	Y	89	419602.7	0.7				ug/L	439493	Standard
>	**Rh**	103	0.0					ug/L	5	Standard
	Mo	98	345829.5	1.1	**92.7361**	1.196	1.3	ug/L	10	Standard
	Ag	107	86.7	21.6	**-0.0012**	0.003	240.6	ug/L	53	Standard
	Cd	111	75.1	23.3	**0.0330**	0.008	25.6	mg/L	1	Standard
	Cd	114	889.7	7.7	**0.1584**	0.014	8.6	ug/L	32	Standard
>	**In**	115	472358.9	0.7				ug/L	494305	Standard
	Sn	118	74.3	10.9	**0.0030**	0.006	204.0	ug/L	53	Standard
	Sb	123	132.4	4.4	**0.0508**	0.003	5.0	ug/L	7	Standard
	Ba	135	111.3	11.2	**0.0510**	0.007	13.2	ug/L	11	Standard
	Ce	140	900.0	8.9				ug/L	10	Standard
>	**Tb**	159	528643.3	1.2				ug/L	538219	Standard
	Ho	165	8.3	34.6				ug/L	8	Standard
	Tl	203	71.7	17.3	**0.0101**	0.002	22.1	ug/L	1	Standard
	Tl	205	100.0	8.7	**0.0131**	0.001	10.0	ug/L	3	Standard
	Pb	206	172.7	10.2	**0.0267**	0.007	25.4	ug/L	80	Standard
	Pb	207	134.7	7.0	**0.0273**	0.004	13.7	ug/L	73	Standard
	Pb	208	362.7	7.2	**0.0270**	0.005	19.3	ug/L	190	Standard
	U	238	1.3	43.3	**-0.0015**	0.000	10.9	ug/L	0	Standard
>	**Bi**	209	270585.2	0.8				ug/L	276439	Standard

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	Na	23	66.7	11.5	**17.5550**	1.887	10.8	mg/L	2	Standard
	Mg	24	10959.0	1.9	**11.6850**	0.340	2.9	mg/L	37	Standard
	K	39	70.0	7.1	**3.9410**	0.389	9.9	mg/L	3	Standard
	Ca	43	101.7	27.1	**20.5273**	8.579	41.8	mg/L	43	Standard
	Fe	54	22070.6	1.2	**11.1279**	0.345	3.1	mg/L	262	Standard
	Fe	57	6136.2	1.2	**11.0243**	0.297	2.7	mg/L	65	Standard
>	**Sc-1**	45	25650.0	1.9				mg/L	26874	Standard
	Cl	35	136599.7	0.4				ug/L	141022	Standard
	Kr	83	98.0	9.7				ug/L	75	Standard
	Br	81	2927.0	6.4				ug/L	2810	Standard
	P	31	280222.1	2.6				ug/L	458976	Standard
	S	34	99051.1	2.0				ug/L	103378	Standard
	Sr	88	36.7	67.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.6	43.3				mg/L	10	Standard
	Ho-1	165	8.3	34.6				mg/L	8	Standard
	Er	166	13.3	43.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		94.321	
	Be	9			
	Al	27	0.904		
	Sc	45			
	Ti	47	101.596		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.849	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	92.736	
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		95.560
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.882
⌈	Na	23	140.440	
|	Mg	24	233.700	
|	K	39	78.819	
|	Ca	43	136.849	
|	Fe	54	89.023	
|	Fe	57	88.195	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Al	27	
QC Std 4	Na	23	
QC Std 4	Mg	24	
QC Std 4	K	39	
QC Std 4	Ca	43	

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Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, November 18, 2013 10:11:10
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	274898.8	2.2				ug/L	269614	Standard
	Be	9	292620.5	1.1	**96.7020**	1.359	1.4	ug/L	23	Standard
	Al	27	8346923.2	1.7	**39.0239**	0.323	0.8	ug/L	1170	Standard
	Sc	45	27346.3	1.9				ug/L	26874	Standard
	Ti	47	23478.8	2.2	**89.0929**	1.865	2.1	ug/L	25	Standard
	V	51	672437.7	2.0	**91.1839**	1.716	1.9	ug/L	1686	Standard
	Cr	52	670252.2	1.4	**93.3393**	1.621	1.7	ug/L	6098	Standard
	Cr	53	122810.8	1.7	**93.6365**	1.592	1.7	ug/L	193	Standard
	Mn	55	1334151.7	1.3	**94.8416**	1.708	1.8	ug/L	1232	Standard
	Co	59	920678.0	0.7	**94.3027**	0.932	1.0	ug/L	106	Standard
	Ni	60	271676.0	1.4	**94.6662**	1.586	1.7	ug/L	556	Standard
	Cu	65	260821.7	1.3	**94.9467**	1.533	1.6	ug/L	124	Standard
	Zn	66	145317.9	1.1	**96.5232**	1.332	1.4	ug/L	196	Standard
>	Ge	72	497139.4	0.6				ug/L	473313	Standard
	As	75	146206.4	0.7	**96.3238**	0.897	0.9	ug/L	-286	Standard
	Se	82	14782.5	0.9	**95.0549**	1.255	1.3	ug/L	-33	Standard
	Se-1	77	10944.3	0.8	**95.3956**	0.862	0.9	ug/L	86	Standard
>	Ga	71	268.3	15.6				mg/L	35	Standard
	Rb	85	3332.0	2.7				ug/L	13	Standard
	Y	89	451646.0	0.4				ug/L	439493	Standard
>	Rh	103	51.7	20.1				ug/L	5	Standard
	Mo	98	332865.8	1.3	**83.1642**	0.798	1.0	ug/L	10	Standard
	Ag	107	616965.8	2.2	**91.0629**	1.598	1.8	ug/L	53	Standard
	Cd	111	215895.0	0.8	**96.0351**	0.370	0.4	mg/L	1	Standard
	Cd	114	534231.0	2.2	**93.8891**	1.629	1.7	ug/L	32	Standard
>	In	115	506947.3	0.5				ug/L	494305	Standard
	Sn	118	330.3	4.8	**0.1897**	0.011	5.7	ug/L	53	Standard
	Sb	123	262099.7	0.8	**96.3748**	0.339	0.4	ug/L	7	Standard
	Ba	135	182761.8	1.3	**97.2514**	0.928	1.0	ug/L	11	Standard
	Ce	140	776.7	1.6				ug/L	10	Standard
>	Tb	159	553963.1	1.4				ug/L	538219	Standard
	Ho	165	10.0	100.0				ug/L	8	Standard
	Tl	203	590871.0	0.3	**95.5849**	0.767	0.8	ug/L	1	Standard
	Tl	205	731727.5	0.3	**95.8615**	0.339	0.4	ug/L	3	Standard
	Pb	206	258783.3	0.6	**97.5986**	0.775	0.8	ug/L	80	Standard
	Pb	207	231257.5	0.8	**96.8049**	0.247	0.3	ug/L	73	Standard
	Pb	208	555798.4	0.6	**95.0720**	0.700	0.7	ug/L	190	Standard
	U	238	365571.4	1.2	**95.9109**	1.169	1.2	ug/L	0	Standard
>	Bi	209	285041.3	0.6				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	45.0	11.1	**10.9589**	1.156	10.5	mg/L	2	Standard
	Mg	24	10225.1	3.2	**10.2180**	0.168	1.6	mg/L	37	Standard
	K	39	53.3	19.5	**2.7100**	0.650	24.0	mg/L	3	Standard
	Ca	43	103.3	35.0	**19.0643**	10.342	54.3	mg/L	43	Standard
	Fe	54	21349.8	1.7	**10.0814**	0.021	0.2	mg/L	262	Standard
	Fe	57	5741.1	4.0	**9.6611**	0.394	4.1	mg/L	65	Standard
>	**Sc-1**	45	27346.3	1.9				mg/L	26874	Standard
	Cl	35	140508.6	1.6				ug/L	141022	Standard
	Kr	83	106.3	7.3				ug/L	75	Standard
	Br	81	3017.0	6.7				ug/L	2810	Standard
	P	31	442930.8	2.8				ug/L	458976	Standard
	S	34	98972.3	1.7				ug/L	103378	Standard
	Sr	88	23.3	24.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	99.7				mg/L	10	Standard
	Ho-1	165	10.0	100.0				mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.960	
	Be	9	96.702		
	Al	27	0.780		
	Sc	45			
	Ti	47	89.093		
	V	51	91.184		
	Cr	52	93.339		
	Cr	53			
	Mn	55	94.842		
	Co	59	94.303		
	Ni	60	94.666		
	Cu	65	94.947		
	Zn	66	96.523		
>	Ge	72		105.034	
	As	75	96.324		
	Se	82	95.055		
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89		
>	Rh	103		
	Mo	98	83.164	
	Ag	107	91.063	
	Cd	111	96.035	
	Cd	114		
>	In	115		102.558
	Sn	118		
	Sb	123	96.375	
	Ba	135	97.251	
	Ce	140		
>	Tb	159		
	Ho	165		
	Tl	203	95.585	
	Tl	205		
	Pb	206		
	Pb	207		
	Pb	208	95.072	
	U	238	95.911	
>	Bi	209		103.112
	Na	23	87.671	
	Mg	24	204.360	
	K	39	54.201	
	Ca	43	127.095	
	Fe	54	80.651	
	Fe	57	77.288	
>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Al	27	
QC Std 5	Mg	24	
QC Std 5	K	39	
QC Std 5	Ca	43	
QC Std 5	Fe	57	

Sample ID: QC Std 5
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 10:14:17
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	274945.7	1.0				ug/L	269614	Standard
	Be	9	149864.2	1.0	**49.5000**	0.208	0.4	ug/L	23	Standard
	Al	27	10478566.0	1.3	**48.9789**	0.399	0.8	ug/L	1170	Standard
	Sc	45	26892.2	1.7				ug/L	26874	Standard
	Ti	47	25901.5	1.3	**99.3709**	0.791	0.8	ug/L	25	Standard
	V	51	357122.6	2.6	**48.8675**	0.847	1.7	ug/L	1686	Standard
	Cr	52	357863.3	2.0	**50.0570**	0.563	1.1	ug/L	6098	Standard
	Cr	53	64093.6	0.7	**49.3379**	0.441	0.9	ug/L	193	Standard
	Mn	55	708741.8	1.8	**50.8633**	0.424	0.8	ug/L	1232	Standard
	Co	59	485963.7	0.9	**50.3129**	0.415	0.8	ug/L	106	Standard
	Ni	60	141969.1	1.3	**49.9125**	0.314	0.6	ug/L	556	Standard
	Cu	65	138094.2	1.5	**50.7884**	0.359	0.7	ug/L	124	Standard
	Zn	66	74741.9	1.2	**50.0913**	0.321	0.6	ug/L	196	Standard
>	Ge	72	491762.8	0.9				ug/L	473313	Standard
	As	75	75036.6	1.3	**50.0757**	0.209	0.4	ug/L	-286	Standard
	Se	82	7805.9	0.9	**50.8810**	0.054	0.1	ug/L	-33	Standard
	Se-1	77	5698.4	1.5	**49.8527**	0.302	0.6	ug/L	86	Standard
>	Ga	71	65.0	33.5				mg/L	35	Standard
	Rb	85	1256.7	5.3				ug/L	13	Standard
	Y	89	453874.9	1.0				ug/L	439493	Standard
>	Rh	103	18.3	41.7				ug/L	5	Standard
	Mo	98	406964.3	1.7	**100.3045**	1.633	1.6	ug/L	10	Standard
	Ag	107	351754.1	0.7	**51.2106**	0.157	0.3	ug/L	53	Standard
	Cd	111	114678.9	1.6	**50.3204**	0.774	1.5	mg/L	1	Standard
	Cd	114	290510.0	0.7	**50.3623**	0.193	0.4	ug/L	32	Standard
>	In	115	513907.6	0.5				ug/L	494305	Standard
	Sn	118	69169.5	1.1	**50.7825**	0.328	0.6	ug/L	53	Standard
	Sb	123	137688.6	1.0	**49.9432**	0.557	1.1	ug/L	7	Standard
	Ba	135	95613.1	1.3	**50.1834**	0.572	1.1	ug/L	11	Standard
	Ce	140	48.3	58.8				ug/L	10	Standard
>	Tb	159	556627.1	1.8				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	314561.8	0.5	**50.1720**	0.355	0.7	ug/L	1	Standard
	Tl	205	393061.7	0.9	**50.7709**	0.220	0.4	ug/L	3	Standard
	Pb	206	137005.0	0.4	**50.9269**	0.392	0.8	ug/L	80	Standard
	Pb	207	123658.9	1.0	**51.0229**	0.143	0.3	ug/L	73	Standard
	Pb	208	293870.9	0.8	**49.5438**	0.108	0.2	ug/L	190	Standard
	U	238	191309.6	0.7	**49.4871**	0.236	0.5	ug/L	0	Standard
>	Bi	209	289096.5	0.9				ug/L	276439	Standard

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	Na	23	23.3	44.6	**5.6110**	2.802	49.9	mg/L	2	Standard
	Mg	24	5172.6	6.8	**5.2425**	0.366	7.0	mg/L	37	Standard
	K	39	75.0	0.0	**4.0317**	0.076	1.9	mg/L	3	Standard
	Ca	43	46.7	27.0	**3.1478**	3.514	111.6	mg/L	43	Standard
	Fe	54	10564.5	1.6	**5.0117**	0.169	3.4	mg/L	262	Standard
	Fe	57	3128.7	3.7	**5.3087**	0.107	2.0	mg/L	65	Standard
>	**Sc-1**	45	26892.2	1.7				mg/L	26874	Standard
	Cl	35	133439.0	0.6				ug/L	141022	Standard
	Kr	83	82.7	15.6				ug/L	75	Standard
	Br	81	3180.3	8.1				ug/L	2810	Standard
	P	31	451468.2	1.3				ug/L	458976	Standard
	S	34	107724.9	0.9				ug/L	103378	Standard
	Sr	88	30.0	33.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	0.0					mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	0.0					mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.977	
	Be	9	99.000		
	Al	27	97.958		
	Sc	45			
	Ti	47	99.371		
	V	51	97.735		
	Cr	52	100.114		
	Cr	53			
	Mn	55	101.727		
	Co	59	100.626		
	Ni	60	99.825		
	Cu	65	101.577		
	Zn	66	100.183		
>	Ge	72		103.898	
	As	75	100.151		
	Se	82	101.762		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	100.305	
|	Ag	107	102.421	
|	Cd	111	100.641	
|	Cd	114		
|>	In	115		103.966
|	Sn	118	101.565	
|	Sb	123	99.886	
⌊	Ba	135	100.367	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	100.344	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	99.088	
|	U	238	98.974	
⌊>	Bi	209		104.579
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 10:17:21
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	278075.6	1.5				ug/L	269614	Standard
	Be	9	233.3	57.2	**0.0598**	0.043	71.5	ug/L	23	Standard
	Al	27	8627.2	91.8	**0.0324**	0.036	111.7	ug/L	1170	Standard
	Sc	45	27356.3	1.6				ug/L	26874	Standard
	Ti	47	37.3	46.6	**0.0453**	0.068	150.7	ug/L	25	Standard
	V	51	1374.7	7.7	**0.0074**	0.014	189.2	ug/L	1686	Standard
	Cr	52	4839.1	0.3	**-0.0030**	0.008	278.3	ug/L	6098	Standard
	Cr	53	278.3	24.5	**0.0766**	0.054	71.1	ug/L	193	Standard
	Mn	55	1389.7	4.7	**-0.0388**	0.004	10.9	ug/L	1232	Standard
	Co	59	133.0	27.9	**-0.0015**	0.004	255.3	ug/L	106	Standard
	Ni	60	581.7	26.6	**0.0046**	0.056	1227.7	ug/L	556	Standard
	Cu	65	256.0	54.6	**0.0348**	0.052	150.6	ug/L	124	Standard
	Zn	66	280.3	20.6	**-0.0078**	0.041	522.9	ug/L	196	Standard
>	**Ge**	72	490250.7	1.0				ug/L	473313	Standard
	As	75	-267.2	18.6	**0.0340**	0.032	93.2	ug/L	-286	Standard
	Se	82	-38.7	13.0	**0.0492**	0.034	68.8	ug/L	-33	Standard
	Se-1	77	99.0	7.1	**0.1268**	0.063	49.9	ug/L	86	Standard
>	**Ga**	71	16.7	45.8				mg/L	35	Standard
	Rb	85	16.7	17.3				ug/L	13	Standard
	Y	89	455337.2	1.9				ug/L	439493	Standard
>	**Rh**	103	3.3	86.6				ug/L	5	Standard
	Mo	98	119.7	24.4	**0.0142**	0.007	49.6	ug/L	10	Standard
	Ag	107	104.0	51.0	**0.0001**	0.008	11985.8	ug/L	53	Standard
	Cd	111	28.1	111.0	**0.0093**	0.013	144.8	mg/L	1	Standard
	Cd	114	81.5	113.4	**0.0045**	0.016	348.0	ug/L	32	Standard
>	**In**	115	515842.0	1.0				ug/L	494305	Standard
	Sn	118	70.0	17.3	**-0.0052**	0.009	165.4	ug/L	53	Standard
	Sb	123	407.9	38.4	**0.1460**	0.057	39.2	ug/L	7	Standard
	Ba	135	112.0	19.7	**0.0460**	0.011	23.8	ug/L	11	Standard
	Ce	140	8.3	34.6				ug/L	10	Standard
>	**Tb**	159	549480.6	1.3				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	61.0	72.1	**0.0076**	0.007	92.5	ug/L	1	Standard
	Tl	205	203.3	134.4	**0.0256**	0.035	138.1	ug/L	3	Standard
	Pb	206	110.0	8.1	**-0.0011**	0.003	299.8	ug/L	80	Standard
	Pb	207	94.3	9.6	**0.0068**	0.004	54.4	ug/L	73	Standard
	Pb	208	326.0	64.5	**0.0166**	0.036	215.1	ug/L	190	Standard
	U	238	107.3	90.6	**0.0259**	0.025	97.2	ug/L	0	Standard
>	**Bi**	209	289688.5	0.4				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	46.7	37.6	**0.0149**	0.018	117.5	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2855**	0.166	58.1	mg/L	3	Standard
	Ca	43	21.7	81.0	**-4.1227**	5.110	124.0	mg/L	43	Standard
	Fe	54	285.9	8.9	**0.0101**	0.010	103.7	mg/L	262	Standard
	Fe	57	73.3	7.9	**0.0278**	0.009	33.2	mg/L	65	Standard
>	**Sc-1**	45	27356.3	1.6				mg/L	26874	Standard
	Cl	35	141191.5	1.1				ug/L	141022	Standard
	Kr	83	88.7	3.6				ug/L	75	Standard
	Br	81	3053.6	8.6				ug/L	2810	Standard
	P	31	466347.5	3.7				ug/L	458976	Standard
	S	34	107751.8	1.0				ug/L	103378	Standard
	Sr	88	21.7	13.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.6	86.6				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	13.3	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.138	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.578	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.357
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.793
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: PBW 87 WG452233-03
Sample Date/Time: Monday, November 18, 2013 10:20:49
Number of Replicates: 3
Autosampler Position: 301
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	250407.3	0.7				ug/L	269614	Standard
	Be	9	83.3	40.0	**0.0141**	0.012	85.0	ug/L	23	Standard
	Al	27	2233.5	60.2	**0.0043**	0.007	159.2	ug/L	1170	Standard
	Sc	45	24830.3	2.8				ug/L	26874	Standard
	Ti	47	18.7	8.2	**-0.0180**	0.007	37.2	ug/L	25	Standard
	V	51	1272.2	11.9	**0.0147**	0.022	149.4	ug/L	1686	Standard
	Cr	52	4342.6	2.5	**0.0021**	0.015	683.9	ug/L	6098	Standard
	Cr	53	210.0	27.0	**0.0433**	0.049	112.9	ug/L	193	Standard
	Mn	55	945.7	67.3	**-0.0627**	0.051	81.0	ug/L	1232	Standard
	Co	59	294.3	116.4	**0.0188**	0.040	210.8	ug/L	106	Standard
	Ni	60	491.0	2.1	**-0.0064**	0.005	82.0	ug/L	556	Standard
	Cu	65	90.7	21.1	**-0.0223**	0.008	34.3	ug/L	124	Standard
	Zn	66	670.7	86.3	**0.3112**	0.440	141.3	ug/L	196	Standard
>	**Ge**	72	436637.0	0.7				ug/L	473313	Standard
	As	75	-239.8	17.8	**0.0325**	0.031	96.2	ug/L	-286	Standard
	Se	82	-30.2	40.9	**0.0807**	0.089	109.7	ug/L	-33	Standard
	Se-1	77	73.3	3.9	**-0.0218**	0.025	115.9	ug/L	86	Standard
>	**Ga**	71	26.7	21.7				mg/L	35	Standard
	Rb	85	25.0	121.7				ug/L	13	Standard
	Y	89	398830.2	1.6				ug/L	439493	Standard
>	**Rh**	103	3.3	86.6				ug/L	5	Standard
	Mo	98	258.6	150.1	**0.0564**	0.107	190.7	ug/L	10	Standard
	Ag	107	286.0	130.3	**0.0318**	0.061	191.8	ug/L	53	Standard
	Cd	111	9.3	32.8	**0.0017**	0.002	89.9	mg/L	1	Standard
	Cd	114	28.7	107.1	**-0.0039**	0.006	154.3	ug/L	32	Standard
>	**In**	115	458455.3	0.1				ug/L	494305	Standard
	Sn	118	50.0	41.8	**-0.0152**	0.017	113.7	ug/L	53	Standard
	Sb	123	110.2	62.7	**0.0433**	0.028	65.0	ug/L	7	Standard
	Ba	135	52.3	141.8	**0.0183**	0.044	238.7	ug/L	11	Standard
	Ce	140	15.0	66.7				ug/L	10	Standard
>	**Tb**	159	499557.1	0.7				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	230.7	160.1	**0.0372**	0.063	169.2	ug/L	1	Standard
	Tl	205	90.0	111.0	**0.0118**	0.014	117.0	ug/L	3	Standard
	Pb	206	189.0	88.1	**0.0335**	0.066	197.1	ug/L	80	Standard
	Pb	207	168.0	90.7	**0.0423**	0.067	158.7	ug/L	73	Standard
	Pb	208	227.3	34.7	**0.0028**	0.014	503.6	ug/L	190	Standard
	U	238	33.7	139.8	**0.0075**	0.013	174.4	ug/L	0	Standard
>	**Bi**	209	268907.4	0.8				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	50.0	26.5	**0.0231**	0.013	56.3	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0570**	0.325	571.3	mg/L	3	Standard
	Ca	43	46.7	16.4	**4.2890**	2.450	57.1	mg/L	43	Standard
	Fe	54	94.1	43.8	**-0.0765**	0.023	29.9	mg/L	262	Standard
	Fe	57	68.3	22.4	**0.0315**	0.031	97.3	mg/L	65	Standard
>	**Sc-1**	45	24830.3	2.8				mg/L	26874	Standard
	Cl	35	129948.9	4.2				ug/L	141022	Standard
	Kr	83	72.0	14.5				ug/L	75	Standard
	Br	81	2586.9	8.0				ug/L	2810	Standard
	P	31	140130.1	1.2				ug/L	458976	Standard
	S	34	104798.0	2.7				ug/L	103378	Standard
	Sr	88	26.7	75.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	13.0	89.8				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.876	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.251	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.747
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.275
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 87 WG452233-03
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Method 6020 - Summary Report

Sample ID: LCSW 87 WG452233-04
Sample Date/Time: Monday, November 18, 2013 10:23:54
Number of Replicates: 3
Autosampler Position: 302
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	283694.2	2.7				ug/L	269614	Standard
	Be	9	79313.9	3.3	**25.3818**	0.517	2.0	ug/L	23	Standard
	Al	27	6014.5	2.5	**0.0201**	0.001	5.4	ug/L	1170	Standard
	Sc	45	28346.5	3.1				ug/L	26874	Standard
	Ti	47	24.3	19.0	**-0.0085**	0.017	200.0	ug/L	25	Standard
	V	51	190714.2	0.8	**25.1417**	0.272	1.1	ug/L	1686	Standard
	Cr	52	190116.2	1.7	**25.3705**	0.256	1.0	ug/L	6098	Standard
	Cr	53	34218.7	5.5	**25.3900**	1.283	5.1	ug/L	193	Standard
	Mn	55	373981.6	1.2	**25.8774**	0.244	0.9	ug/L	1232	Standard
	Co	59	260090.5	2.3	**26.0198**	0.398	1.5	ug/L	106	Standard
	Ni	60	76689.3	2.0	**25.9663**	0.412	1.6	ug/L	556	Standard
	Cu	65	74063.0	2.5	**26.3005**	0.476	1.8	ug/L	124	Standard
	Zn	66	40200.6	1.9	**25.9482**	0.353	1.4	ug/L	196	Standard
>	Ge	72	508726.9	0.9				ug/L	473313	Standard
	As	75	39039.0	1.9	**25.2899**	0.428	1.7	ug/L	-286	Standard
	Se	82	4022.6	1.1	**25.4974**	0.279	1.1	ug/L	-33	Standard
	Se-1	77	3015.0	5.0	**25.1230**	1.090	4.3	ug/L	86	Standard
>	Ga	71	41.7	36.7				mg/L	35	Standard
	Rb	85	61.7	49.5				ug/L	13	Standard
	Y	89	471837.0	1.6				ug/L	439493	Standard
>	Rh	103	20.0	25.0				ug/L	5	Standard
	Mo	98	58.6	16.7	**-0.0011**	0.002	204.1	ug/L	10	Standard
	Ag	107	186027.1	1.0	**26.3950**	0.247	0.9	ug/L	53	Standard
	Cd	111	58659.9	1.1	**25.0908**	0.257	1.0	mg/L	1	Standard
	Cd	114	144331.1	1.0	**24.3875**	0.278	1.1	ug/L	32	Standard
>	In	115	527159.9	0.2				ug/L	494305	Standard
	Sn	118	117.0	6.8	**0.0274**	0.006	20.3	ug/L	53	Standard
	Sb	123	70377.3	1.1	**24.8849**	0.262	1.1	ug/L	7	Standard
	Ba	135	49699.7	1.5	**25.4232**	0.332	1.3	ug/L	11	Standard
	Ce	140	50.0	17.3				ug/L	10	Standard
>	Tb	159	564358.4	0.1				ug/L	538219	Standard
	Ho	165	13.3	21.7				ug/L	8	Standard
	Tl	203	162250.5	0.6	**25.2908**	0.091	0.4	ug/L	1	Standard
	Tl	205	205455.6	2.0	**25.9369**	0.495	1.9	ug/L	3	Standard
	Pb	206	72253.2	1.0	**26.2284**	0.260	1.0	ug/L	80	Standard
	Pb	207	61248.2	0.9	**24.6832**	0.220	0.9	ug/L	73	Standard
	Pb	208	151048.3	1.3	**24.8698**	0.320	1.3	ug/L	190	Standard
	U	238	93974.9	1.5	**23.7576**	0.375	1.6	ug/L	0	Standard
>	Bi	209	295791.0	0.2				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	66.7	38.5	**0.0331**	0.027	81.9	mg/L	37	Standard
	K	39	5.0	0.0	**-0.1020**	0.009	8.5	mg/L	3	Standard
	Ca	43	21.7	48.0	**-4.3400**	2.987	68.8	mg/L	43	Standard
	Fe	54	301.9	18.6	**0.0133**	0.030	222.4	mg/L	262	Standard
	Fe	57	46.7	32.7	**-0.0201**	0.025	125.4	mg/L	65	Standard
>	**Sc-1**	45	28346.5	3.1				mg/L	26874	Standard
	Cl	35	149309.8	2.7				ug/L	141022	Standard
	Kr	83	83.3	6.0				ug/L	75	Standard
	Br	81	3303.7	8.5				ug/L	2810	Standard
	P	31	500865.5	2.5				ug/L	458976	Standard
	S	34	107809.1	2.8				ug/L	103378	Standard
	Sr	88	25.0	0.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	9.8	104.1				mg/L	10	Standard
	Ho-1	165	13.3	21.7				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.222	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.482	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	106.647
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.000
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311036803 WG452233-01
Sample Date/Time: Monday, November 18, 2013 10:26:59
Number of Replicates: 3
Autosampler Position: 303
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	403360.3	0.5				ug/L	269614	Standard
	Be	9	71.7	17.6	**0.0001**	0.003	4041.6	ug/L	23	Standard
	Al	27	308544204.9	1.9	**983.2085**	18.610	1.9	ug/L	1170	Standard
	Sc	45	23743.6	0.4				ug/L	26874	Standard
	Ti	47	423.7	13.1	**1.8726**	0.281	15.0	ug/L	25	Standard
	V	51	3066.6	2.4	**0.3278**	0.007	2.1	ug/L	1686	Standard
	Cr	52	6179.3	4.6	**0.3689**	0.037	10.1	ug/L	6098	Standard
	Cr	53	1041.7	10.8	**0.8336**	0.098	11.7	ug/L	193	Standard
	Mn	55	57726760.2	1.3	**5028.0658**	18.977	0.4	ug/L	1232	Standard
	Co	59	10988.3	1.1	**1.3620**	0.010	0.7	ug/L	106	Standard
	Ni	60	31767.3	2.5	**13.3697**	0.177	1.3	ug/L	556	Standard
	Cu	65	10092.1	11.5	**4.4345**	0.469	10.6	ug/L	124	Standard
	Zn	66	11972.4	11.5	**9.5451**	1.014	10.6	ug/L	196	Standard
>	Ge	72	406296.6	1.2				ug/L	473313	Standard
	As	75	1931.1	26.1	**1.7623**	0.391	22.2	ug/L	-286	Standard
	Se	82	654.0	33.9	**5.4176**	1.688	31.2	ug/L	-33	Standard
	Se-1	77	210.3	5.9	**1.5049**	0.108	7.1	ug/L	86	Standard
>	Ga	71	570.0	21.3				mg/L	35	Standard
	Rb	85	44137.5	1.1				ug/L	13	Standard
	Y	89	381838.9	1.5				ug/L	439493	Standard
>	Rh	103	1666.8	4.5				ug/L	5	Standard
	Mo	98	3295.4	2.7	**1.0198**	0.018	1.8	ug/L	10	Standard
	Ag	107	84.3	22.0	**0.0007**	0.003	504.1	ug/L	53	Standard
	Cd	111	25.2	12.6	**0.0112**	0.002	15.4	mg/L	1	Standard
	Cd	114	46.7	19.2	**0.0009**	0.002	239.3	ug/L	32	Standard
>	In	115	403317.8	1.5				ug/L	494305	Standard
	Sn	118	122.0	9.7	**0.0578**	0.010	17.0	ug/L	53	Standard
	Sb	123	180.8	5.4	**0.0821**	0.004	5.3	ug/L	7	Standard
	Ba	135	10065.7	0.9	**6.7212**	0.044	0.6	ug/L	11	Standard
	Ce	140	2406.9	2.2				ug/L	10	Standard
>	Tb	159	471001.0	1.1				ug/L	538219	Standard
	Ho	165	105.0	36.0				ug/L	8	Standard
	Tl	203	206.7	7.8	**0.0421**	0.004	8.7	ug/L	1	Standard
	Tl	205	270.0	14.0	**0.0461**	0.006	13.0	ug/L	3	Standard
	Pb	206	127.0	3.1	**0.0216**	0.002	10.5	ug/L	80	Standard
	Pb	207	109.7	13.7	**0.0287**	0.008	28.4	ug/L	73	Standard
	Pb	208	272.0	6.3	**0.0232**	0.004	18.2	ug/L	190	Standard
	U	238	97812.1	1.4	**33.9772**	0.427	1.3	ug/L	0	Standard
>	Bi	209	215279.8	1.2				ug/L	276439	Standard

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	Na	23	395.0	11.6	**114.7737**	13.667	11.9	mg/L	2	Standard
	Mg	24	533156.7	0.4	**615.6058**	4.998	0.8	mg/L	37	Standard
	K	39	86.7	12.0	**5.3919**	0.677	12.6	mg/L	3	Standard
	Ca	43	415.0	11.5	**125.4823**	15.148	12.1	mg/L	43	Standard
	Fe	54	442.5	10.7	**0.1173**	0.027	22.9	mg/L	262	Standard
	Fe	57	1016.7	3.5	**1.8931**	0.064	3.4	mg/L	65	Standard
>	**Sc-1**	45	23743.6	0.4				mg/L	26874	Standard
	Cl	35	1784814.2	1.1				ug/L	141022	Standard
	Kr	83	383.3	18.2				ug/L	75	Standard
	Br	81	60182.7	2.7				ug/L	2810	Standard
	P	31	404357.4	1.8				ug/L	458976	Standard
	S	34	95003.7	2.7				ug/L	103378	Standard
	Sr	88	10016.6	1.3				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	68.2	25.2				mg/L	10	Standard
	Ho-1	165	105.0	36.0				mg/L	8	Standard
	Er	166	36.7	15.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		149.606	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.841	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	81.593
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	77.876
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1311036806S WG452233-05
Sample Date/Time: Monday, November 18, 2013 10:30:04
Number of Replicates: 3
Autosampler Position: 304
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	353106.5	1.9				ug/L	269614	Standard
	Be	9	67583.7	1.2	**17.3771**	0.488	2.8	ug/L	23	Standard
	Al	27	167101504.8	1.6	**608.2902**	3.188	0.5	ug/L	1170	Standard
	Sc	45	24940.5	1.9				ug/L	26874	Standard
	Ti	47	895.0	5.9	**3.7903**	0.221	5.8	ug/L	25	Standard
	V	51	175644.3	2.1	**27.1174**	0.513	1.9	ug/L	1686	Standard
	Cr	52	166475.3	0.9	**26.0236**	0.170	0.7	ug/L	6098	Standard
	Cr	53	30213.4	2.9	**26.2500**	0.682	2.6	ug/L	193	Standard
	Mn	55	44325272.1	1.6	**3609.3187**	49.093	1.4	ug/L	1232	Standard
	Co	59	232572.5	1.2	**27.2383**	0.240	0.9	ug/L	106	Standard
	Ni	60	81535.8	0.7	**32.3667**	0.127	0.4	ug/L	556	Standard
	Cu	65	65102.2	1.3	**27.0655**	0.274	1.0	ug/L	124	Standard
	Zn	66	42584.1	2.3	**32.2233**	0.675	2.1	ug/L	196	Standard
>	**Ge**	72	434590.2	0.3				ug/L	473313	Standard
	As	75	41955.4	1.7	**31.7602**	0.471	1.5	ug/L	-286	Standard
	Se	82	5074.3	3.3	**37.5050**	1.154	3.1	ug/L	-33	Standard
	Se-1	77	3193.0	2.4	**31.3325**	0.674	2.2	ug/L	86	Standard
>	**Ga**	71	646.7	16.1				mg/L	35	Standard
	Rb	85	27511.6	1.7				ug/L	13	Standard
	Y	89	407146.9	1.4				ug/L	439493	Standard
>	**Rh**	103	980.0	3.2				ug/L	5	Standard
	Mo	98	17327.3	1.8	**5.0185**	0.105	2.1	ug/L	10	Standard
	Ag	107	130887.9	0.5	**22.4477**	0.151	0.7	ug/L	53	Standard
	Cd	111	46387.1	0.7	**23.9846**	0.136	0.6	mg/L	1	Standard
	Cd	114	113902.6	1.6	**23.2637**	0.282	1.2	ug/L	32	Standard
>	**In**	115	436094.4	0.4				ug/L	494305	Standard
	Sn	118	86.7	9.3	**0.0186**	0.007	35.9	ug/L	53	Standard
	Sb	123	59329.4	0.7	**25.3589**	0.074	0.3	ug/L	7	Standard
	Ba	135	55173.3	1.0	**34.1215**	0.345	1.0	ug/L	11	Standard
	Ce	140	480.0	13.3				ug/L	10	Standard
>	**Tb**	159	500542.1	0.7				ug/L	538219	Standard
	Ho	165	45.0	0.0				ug/L	8	Standard
	Tl	203	133795.8	0.6	**25.7853**	0.163	0.6	ug/L	1	Standard
	Tl	205	167652.5	0.7	**26.1686**	0.325	1.2	ug/L	3	Standard
	Pb	206	60240.2	0.6	**27.0385**	0.279	1.0	ug/L	80	Standard
	Pb	207	51959.6	1.2	**25.8914**	0.359	1.4	ug/L	73	Standard
	Pb	208	123972.2	0.2	**25.2373**	0.128	0.5	ug/L	190	Standard
	U	238	137350.1	0.9	**42.9339**	0.625	1.5	ug/L	0	Standard
>	**Bi**	209	239242.7	0.6				ug/L	276439	Standard

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	Na	23	346.7	6.0	**95.7737**	4.647	4.9	mg/L	2	Standard
	Mg	24	297618.0	0.6	**327.1947**	5.403	1.7	mg/L	37	Standard
	K	39	80.0	6.3	**4.6981**	0.407	8.7	mg/L	3	Standard
	Ca	43	351.7	11.6	**99.3558**	13.595	13.7	mg/L	43	Standard
	Fe	54	1072.2	6.8	**0.4360**	0.045	10.2	mg/L	262	Standard
	Fe	57	876.7	2.8	**1.5370**	0.043	2.8	mg/L	65	Standard
>	**Sc-1**	45	24940.5	1.9				mg/L	26874	Standard
	Cl	35	1095337.5	0.7				ug/L	141022	Standard
	Kr	83	322.0	7.3				ug/L	75	Standard
	Br	81	72908.7	6.0				ug/L	2810	Standard
	P	31	491537.4	3.1				ug/L	458976	Standard
	S	34	85500.6	0.6				ug/L	103378	Standard
	Sr	88	4794.1	1.2				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	11.7	54.1				mg/L	10	Standard
	Ho-1	165	45.0	0.0				mg/L	8	Standard
	Er	166	33.3	45.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		130.967	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.819	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.224
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	86.544
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1311036807SD WG452233-06
Sample Date/Time: Monday, November 18, 2013 10:33:09
Number of Replicates: 3
Autosampler Position: 305
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	324894.9	0.7				ug/L	269614	Standard
	Be	9	73499.5	0.4	**20.5358**	0.168	0.8	ug/L	23	Standard
	Al	27	98108406.1	0.7	**388.1286**	0.886	0.2	ug/L	1170	Standard
	Sc	45	26032.3	1.6				ug/L	26874	Standard
	Ti	47	1353.7	4.2	**5.5096**	0.228	4.1	ug/L	25	Standard
	V	51	184822.4	0.6	**27.2061**	0.141	0.5	ug/L	1686	Standard
	Cr	52	178671.0	0.3	**26.6452**	0.158	0.6	ug/L	6098	Standard
	Cr	53	31713.2	1.2	**26.2712**	0.396	1.5	ug/L	193	Standard
	Mn	55	36788803.0	0.4	**2856.1088**	14.952	0.5	ug/L	1232	Standard
	Co	59	251894.7	0.6	**28.1278**	0.225	0.8	ug/L	106	Standard
	Ni	60	82138.1	1.5	**31.0795**	0.533	1.7	ug/L	556	Standard
	Cu	65	68180.4	2.1	**27.0257**	0.610	2.3	ug/L	124	Standard
	Zn	66	43090.2	2.2	**31.0815**	0.739	2.4	ug/L	196	Standard
>	Ge	72	455830.9	0.3				ug/L	473313	Standard
	As	75	45575.2	1.1	**32.8867**	0.431	1.3	ug/L	-286	Standard
	Se	82	4850.0	0.5	**34.2048**	0.200	0.6	ug/L	-33	Standard
	Se-1	77	3150.3	1.1	**29.4295**	0.292	1.0	ug/L	86	Standard
>	Ga	71	725.0	13.8				mg/L	35	Standard
	Rb	85	18516.3	2.1				ug/L	13	Standard
	Y	89	419741.7	1.1				ug/L	439493	Standard
>	Rh	103	591.7	8.5				ug/L	5	Standard
	Mo	98	25989.3	1.1	**7.1851**	0.084	1.2	ug/L	10	Standard
	Ag	107	145846.3	0.5	**23.8571**	0.303	1.3	ug/L	53	Standard
	Cd	111	50808.0	1.0	**25.0538**	0.055	0.2	mg/L	1	Standard
	Cd	114	123850.6	2.1	**24.1245**	0.405	1.7	ug/L	32	Standard
>	In	115	457267.8	0.8				ug/L	494305	Standard
	Sn	118	73.7	6.4	**0.0044**	0.003	77.0	ug/L	53	Standard
	Sb	123	63404.9	1.1	**25.8462**	0.176	0.7	ug/L	7	Standard
	Ba	135	59390.8	0.8	**35.0293**	0.009	0.0	ug/L	11	Standard
	Ce	140	148.3	19.8				ug/L	10	Standard
>	Tb	159	522805.6	1.0				ug/L	538219	Standard
	Ho	165	11.7	107.9				ug/L	8	Standard
	Tl	203	144429.4	0.2	**26.6009**	0.098	0.4	ug/L	1	Standard
	Tl	205	181556.9	2.8	**27.0832**	0.846	3.1	ug/L	3	Standard
	Pb	206	65184.9	0.6	**27.9624**	0.301	1.1	ug/L	80	Standard
	Pb	207	55531.6	0.4	**26.4455**	0.241	0.9	ug/L	73	Standard
	Pb	208	132759.0	0.7	**25.8293**	0.288	1.1	ug/L	190	Standard
	U	238	114174.9	1.1	**34.1071**	0.533	1.6	ug/L	0	Standard
>	Bi	209	250339.9	0.5				ug/L	276439	Standard

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	Na	23	265.0	11.8	**70.0803**	8.581	12.2	mg/L	2	Standard
	Mg	24	194701.5	1.4	**205.0552**	4.310	2.1	mg/L	37	Standard
	K	39	40.0	12.5	**2.0531**	0.342	16.6	mg/L	3	Standard
	Ca	43	271.7	16.1	**70.6985**	12.169	17.2	mg/L	43	Standard
	Fe	54	1632.3	3.2	**0.6937**	0.035	5.1	mg/L	262	Standard
	Fe	57	946.7	4.4	**1.5933**	0.068	4.3	mg/L	65	Standard
>	**Sc-1**	45	26032.3	1.6				mg/L	26874	Standard
	Cl	35	756661.1	0.6				ug/L	141022	Standard
	Kr	83	306.3	11.4				ug/L	75	Standard
	Br	81	55481.4	2.8				ug/L	2810	Standard
	P	31	563899.9	2.2				ug/L	458976	Standard
	S	34	86186.1	1.1				ug/L	103378	Standard
	Sr	88	2695.2	2.9				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	19.0	91.0				mg/L	10	Standard
	Ho-1	165	11.7	107.9				mg/L	8	Standard
	Er	166	20.0	0.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		120.504	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.306	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.507
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.559
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1311036801
Sample Date/Time: Monday, November 18, 2013 10:36:13
Number of Replicates: 3
Autosampler Position: 306
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	418498.0	2.4				ug/L	269614	Standard
	Be	9	146.7	90.6	**0.0159**	0.029	183.6	ug/L	23	Standard
	Al	27	282143696.7	1.1	**866.7346**	12.397	1.4	ug/L	1170	Standard
	Sc	45	23623.4	0.8				ug/L	26874	Standard
	Ti	47	163.0	6.4	**0.6416**	0.046	7.1	ug/L	25	Standard
	V	51	3996.8	1.8	**0.4674**	0.009	2.0	ug/L	1686	Standard
	Cr	52	9372.2	0.4	**0.8809**	0.016	1.8	ug/L	6098	Standard
	Cr	53	1383.4	11.2	**1.1237**	0.137	12.2	ug/L	193	Standard
	Mn	55	2726835.6	1.5	**231.9822**	2.394	1.0	ug/L	1232	Standard
	Co	59	4511.0	3.6	**0.5372**	0.016	3.0	ug/L	106	Standard
	Ni	60	33489.6	1.9	**13.7830**	0.304	2.2	ug/L	556	Standard
	Cu	65	14509.9	0.9	**6.2601**	0.017	0.3	ug/L	124	Standard
	Zn	66	12102.5	0.6	**9.4352**	0.093	1.0	ug/L	196	Standard
>	Ge	72	415732.5	0.7				ug/L	473313	Standard
	As	75	1458.3	14.3	**1.3581**	0.162	11.9	ug/L	-286	Standard
	Se	82	1271.0	5.0	**10.0433**	0.488	4.9	ug/L	-33	Standard
	Se-1	77	685.7	7.8	**6.4507**	0.609	9.4	ug/L	86	Standard
>	Ga	71	115.0	17.4				mg/L	35	Standard
	Rb	85	60656.2	1.1				ug/L	13	Standard
	Y	89	388578.9	1.7				ug/L	439493	Standard
>	Rh	103	2203.5	4.8				ug/L	5	Standard
	Mo	98	2543.4	1.9	**0.7664**	0.012	1.6	ug/L	10	Standard
	Ag	107	92.3	47.7	**0.0018**	0.008	448.9	ug/L	53	Standard
	Cd	111	162.5	12.6	**0.0860**	0.011	12.7	mg/L	1	Standard
	Cd	114	415.5	11.1	**0.0803**	0.010	12.0	ug/L	32	Standard
>	In	115	412230.5	0.4				ug/L	494305	Standard
	Sn	118	105.0	10.0	**0.0398**	0.009	23.3	ug/L	53	Standard
	Sb	123	241.6	32.0	**0.1077**	0.035	32.1	ug/L	7	Standard
	Ba	135	9979.0	2.1	**6.5189**	0.161	2.5	ug/L	11	Standard
	Ce	140	3933.8	7.5				ug/L	10	Standard
>	Tb	159	477282.7	0.8				ug/L	538219	Standard
	Ho	165	110.0	24.1				ug/L	8	Standard
	Tl	203	351.3	8.0	**0.0710**	0.005	7.4	ug/L	1	Standard
	Tl	205	506.7	52.7	**0.0845**	0.044	52.4	ug/L	3	Standard
	Pb	206	373.3	2.5	**0.1394**	0.003	2.2	ug/L	80	Standard
	Pb	207	268.3	5.1	**0.1125**	0.006	5.7	ug/L	73	Standard
	Pb	208	829.0	23.9	**0.1440**	0.042	29.4	ug/L	190	Standard
	U	238	157578.7	1.6	**53.2158**	1.166	2.2	ug/L	0	Standard
>	Bi	209	221457.4	0.8				ug/L	276439	Standard

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	Na	23	476.7	4.0	**139.2584**	5.149	3.7	mg/L	2	Standard
	Mg	24	429429.9	1.6	**498.4006**	11.620	2.3	mg/L	37	Standard
	K	39	43.3	81.0	**2.5317**	2.369	93.6	mg/L	3	Standard
	Ca	43	436.7	7.0	**133.3814**	10.852	8.1	mg/L	43	Standard
	Fe	54	210.4	5.3	**-0.0100**	0.007	65.6	mg/L	262	Standard
	Fe	57	920.0	0.9	**1.7132**	0.015	0.9	mg/L	65	Standard
>	**Sc-1**	45	23623.4	0.8				mg/L	26874	Standard
	Cl	35	1742388.5	0.5				ug/L	141022	Standard
	Kr	83	282.7	5.9				ug/L	75	Standard
	Br	81	35541.6	0.4				ug/L	2810	Standard
	P	31	409359.6	0.1				ug/L	458976	Standard
	S	34	108320.8	0.6				ug/L	103378	Standard
	Sr	88	10515.3	4.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	60.1	42.0				mg/L	10	Standard
	Ho-1	165	110.0	24.1				mg/L	8	Standard
	Er	166	66.7	17.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		155.221	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		87.835	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.396
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	80.111
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1311036801PS WG452303-01
Sample Date/Time: Monday, November 18, 2013 10:39:18
Number of Replicates: 3
Autosampler Position: 307
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	441787.0	3.6				ug/L	269614	Standard
	Be	9	130276.2	2.1	**26.7855**	0.672	2.5	ug/L	23	Standard
	Al	27	298033870.6	1.0	**867.6323**	22.124	2.5	ug/L	1170	Standard
	Sc	45	24611.6	1.5				ug/L	26874	Standard
	Ti	47	184.3	17.1	**0.7017**	0.133	19.0	ug/L	25	Standard
	V	51	375755.7	2.2	**58.2108**	1.387	2.4	ug/L	1686	Standard
	Cr	52	361390.5	2.0	**57.2948**	1.367	2.4	ug/L	6098	Standard
	Cr	53	58917.7	1.7	**51.3137**	0.897	1.7	ug/L	193	Standard
	Mn	55	3665652.9	1.0	**298.3148**	4.057	1.4	ug/L	1232	Standard
	Co	59	471900.4	1.4	**55.2741**	0.862	1.6	ug/L	106	Standard
	Ni	60	154995.7	2.5	**61.6951**	1.432	2.3	ug/L	556	Standard
	Cu	65	127432.7	1.3	**53.0254**	0.519	1.0	ug/L	124	Standard
	Zn	66	74477.6	0.6	**56.4944**	0.291	0.5	ug/L	196	Standard
>	Ge	72	434679.5	0.4				ug/L	473313	Standard
	As	75	73063.0	1.1	**55.1415**	0.522	0.9	ug/L	-286	Standard
	Se	82	10114.2	0.5	**74.4456**	0.538	0.7	ug/L	-33	Standard
	Se-1	77	6931.9	1.1	**68.8979**	1.077	1.6	ug/L	86	Standard
>	Ga	71	173.3	1.7				mg/L	35	Standard
	Rb	85	65685.5	2.4				ug/L	13	Standard
	Y	89	411530.8	0.8				ug/L	439493	Standard
>	Rh	103	2360.2	1.9				ug/L	5	Standard
	Mo	98	2846.5	0.3	**0.8299**	0.001	0.2	ug/L	10	Standard
	Ag	107	258404.6	0.7	**45.3091**	0.412	0.9	ug/L	53	Standard
	Cd	111	90519.6	0.8	**47.8377**	0.326	0.7	mg/L	1	Standard
	Cd	114	219279.1	1.0	**45.7835**	0.466	1.0	ug/L	32	Standard
>	In	115	426691.3	0.3				ug/L	494305	Standard
	Sn	118	178.7	4.0	**0.1017**	0.006	5.8	ug/L	53	Standard
	Sb	123	115144.8	0.6	**50.3027**	0.368	0.7	ug/L	7	Standard
	Ba	135	89904.3	0.6	**56.8342**	0.333	0.6	ug/L	11	Standard
	Ce	140	4474.0	4.3				ug/L	10	Standard
>	Tb	159	492966.2	0.2				ug/L	538219	Standard
	Ho	165	118.3	4.9				ug/L	8	Standard
	Tl	203	262892.8	0.3	**53.7271**	0.051	0.1	ug/L	1	Standard
	Tl	205	331228.1	0.4	**54.8216**	0.083	0.2	ug/L	3	Standard
	Pb	206	115688.3	0.8	**55.1038**	0.361	0.7	ug/L	80	Standard
	Pb	207	104092.7	0.1	**55.0372**	0.137	0.2	ug/L	73	Standard
	Pb	208	243208.5	0.7	**52.5415**	0.316	0.6	ug/L	190	Standard
	U	238	339894.1	0.1	**112.6619**	0.385	0.3	ug/L	0	Standard
>	Bi	209	225615.4	0.3				ug/L	276439	Standard

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	Na	23	560.0	25.5	**156.7096**	38.016	24.3	mg/L	2	Standard
	Mg	24	446151.7	2.0	**496.9588**	5.823	1.2	mg/L	37	Standard
	K	39	53.3	28.6	**3.0426**	0.961	31.6	mg/L	3	Standard
	Ca	43	438.3	2.9	**128.1093**	4.044	3.2	mg/L	43	Standard
	Fe	54	289.7	9.6	**0.0275**	0.015	53.8	mg/L	262	Standard
	Fe	57	1053.4	1.7	**1.8923**	0.025	1.3	mg/L	65	Standard
>	**Sc-1**	45	24611.6	1.5				mg/L	26874	Standard
	Cl	35	1787937.3	0.2				ug/L	141022	Standard
	Kr	83	324.0	4.1				ug/L	75	Standard
	Br	81	36253.3	2.7				ug/L	2810	Standard
	P	31	559378.9	1.7				ug/L	458976	Standard
	S	34	109522.8	0.3				ug/L	103378	Standard
	Sr	88	11829.6	0.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	74.8	39.2				mg/L	10	Standard
	Ho-1	165	118.3	4.9				mg/L	8	Standard
	Er	166	40.0	43.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		163.859	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.838	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	86.321
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	81.615
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
U 238 Upper, S, EEE	U	238	

Sample ID: L1311036801PS WG452303-01
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Method 6020 - Summary Report

Sample ID: L1311036801SDL WG452303-02
Sample Date/Time: Monday, November 18, 2013 10:44:13
Number of Replicates: 3
Autosampler Position: 308
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	300523.3	3.4				ug/L	269614	Standard
	Be	9	76.7	19.9	**0.0072**	0.005	74.0	ug/L	23	Standard
	Al	27	62413929.0	0.8	**267.0995**	7.091	2.7	ug/L	1170	Standard
	Sc	45	24271.1	2.4				ug/L	26874	Standard
	Ti	47	46.0	4.3	**0.0966**	0.009	9.8	ug/L	25	Standard
	V	51	2287.7	3.1	**0.1656**	0.011	6.9	ug/L	1686	Standard
	Cr	52	7413.8	2.9	**0.4714**	0.030	6.3	ug/L	6098	Standard
	Cr	53	593.3	4.6	**0.3674**	0.022	6.0	ug/L	193	Standard
	Mn	55	494958.5	1.1	**39.2585**	0.248	0.6	ug/L	1232	Standard
	Co	59	974.7	3.8	**0.0963**	0.004	3.8	ug/L	106	Standard
	Ni	60	7830.7	1.2	**2.8558**	0.023	0.8	ug/L	556	Standard
	Cu	65	4638.0	1.1	**1.8291**	0.017	0.9	ug/L	124	Standard
	Zn	66	4854.1	1.5	**3.4154**	0.069	2.0	ug/L	196	Standard
>	Ge	72	444601.2	0.5				ug/L	473313	Standard
	As	75	131.9	37.9	**0.3089**	0.037	11.9	ug/L	-286	Standard
	Se	82	242.3	6.0	**2.0375**	0.110	5.4	ug/L	-33	Standard
	Se-1	77	208.0	5.5	**1.2881**	0.115	8.9	ug/L	86	Standard
>	Ga	71	23.3	49.5				mg/L	35	Standard
	Rb	85	13070.6	3.3				ug/L	13	Standard
	Y	89	407670.0	0.3				ug/L	439493	Standard
>	Rh	103	476.7	10.7				ug/L	5	Standard
	Mo	98	546.8	2.9	**0.1382**	0.004	3.0	ug/L	10	Standard
	Ag	107	74.0	44.7	**-0.0027**	0.006	203.8	ug/L	53	Standard
	Cd	111	41.0	20.3	**0.0176**	0.004	23.5	mg/L	1	Standard
	Cd	114	78.5	11.1	**0.0060**	0.002	28.1	ug/L	32	Standard
>	In	115	451447.1	0.2				ug/L	494305	Standard
	Sn	118	54.7	4.6	**-0.0107**	0.002	20.6	ug/L	53	Standard
	Sb	123	106.3	13.5	**0.0424**	0.006	13.8	ug/L	7	Standard
	Ba	135	2199.2	2.7	**1.3018**	0.035	2.7	ug/L	11	Standard
	Ce	140	911.7	3.0				ug/L	10	Standard
>	Tb	159	507594.7	2.1				ug/L	538219	Standard
	Ho	165	26.7	28.6				ug/L	8	Standard
	Tl	203	109.7	9.5	**0.0179**	0.002	10.5	ug/L	1	Standard
	Tl	205	180.0	23.7	**0.0259**	0.006	24.1	ug/L	3	Standard
	Pb	206	146.3	5.1	**0.0205**	0.003	13.8	ug/L	80	Standard
	Pb	207	130.3	8.8	**0.0296**	0.006	19.1	ug/L	73	Standard
	Pb	208	314.3	5.7	**0.0224**	0.004	17.0	ug/L	190	Standard
	U	238	33217.7	0.5	**9.8424**	0.105	1.1	ug/L	0	Standard
>	Bi	209	252354.6	0.6				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	126.7	12.7	**35.6870**	4.303	12.1	mg/L	2	Standard
	Mg	24	96261.5	1.3	**108.7621**	3.784	3.5	mg/L	37	Standard
	K	39	13.3	114.6	**0.4738**	0.975	205.9	mg/L	3	Standard
	Ca	43	160.0	10.8	**40.9928**	6.436	15.7	mg/L	43	Standard
	Fe	54	124.0	30.6	**-0.0599**	0.019	31.7	mg/L	262	Standard
	Fe	57	280.0	10.7	**0.4405**	0.070	16.0	mg/L	65	Standard
>	**Sc-1**	45	24271.1	2.4				mg/L	26874	Standard
	Cl	35	565570.3	1.0				ug/L	141022	Standard
	Kr	83	135.3	10.0				ug/L	75	Standard
	Br	81	9206.1	3.2				ug/L	2810	Standard
	P	31	208015.2	1.8				ug/L	458976	Standard
	S	34	106555.1	1.0				ug/L	103378	Standard
	Sr	88	1608.4	4.2				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	28.4	35.3				mg/L	10	Standard
	Ho-1	165	26.7	28.6				mg/L	8	Standard
	Er	166	33.3	34.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.464	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.934	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		91.330
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		91.288
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	

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Method 6020 - Summary Report

Sample ID: L1311036801SDL WG452303-02
Sample Date/Time: Monday, November 18, 2013 10:47:18
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	347245.7	17.7				ug/L	269614	Standard
	Be	9	55.0	27.3	**-0.0011**	0.006	511.9	ug/L	23	Standard
	Al	27	4630.8	49.0	**0.0095**	0.005	55.9	ug/L	1170	Standard
	Sc	45	31349.5	14.5				ug/L	26874	Standard
	Ti	47	16.0	22.5	**-0.0464**	0.005	10.6	ug/L	25	Standard
	V	51	1921.5	31.9	**0.0534**	0.098	183.5	ug/L	1686	Standard
	Cr	52	6851.0	31.2	**0.1746**	0.352	201.9	ug/L	6098	Standard
	Cr	53	233.3	11.8	**0.0186**	0.036	194.2	ug/L	193	Standard
	Mn	55	1627.1	26.0	**-0.0352**	0.038	107.2	ug/L	1232	Standard
	Co	59	104.0	21.7	**-0.0059**	0.003	51.6	ug/L	106	Standard
	Ni	60	649.3	15.0	**0.0001**	0.053	88082.4	ug/L	556	Standard
	Cu	65	673.3	24.4	**0.1599**	0.076	47.7	ug/L	124	Standard
	Zn	66	595.0	7.8	**0.1522**	0.063	41.1	ug/L	196	Standard
>	Ge	72	571962.6	13.1				ug/L	473313	Standard
	As	75	-303.6	36.0	**0.0326**	0.077	236.1	ug/L	-286	Standard
	Se	82	-54.7	48.2	**-0.0089**	0.161	1813.2	ug/L	-33	Standard
	Se-1	77	78.7	19.7	**-0.1384**	0.191	137.6	ug/L	86	Standard
>	Ga	71	20.0	50.0				mg/L	35	Standard
	Rb	85	26.7	39.0				ug/L	13	Standard
	Y	89	512436.4	12.7				ug/L	439493	Standard
>	Rh	103	10.0	50.0				ug/L	5	Standard
	Mo	98	13.2	8.5	**-0.0123**	0.001	4.6	ug/L	10	Standard
	Ag	107	51.0	7.8	**-0.0085**	0.001	7.0	ug/L	53	Standard
	Cd	111	0.7	177.7	**-0.0026**	0.000	17.6	mg/L	1	Standard
	Cd	114	10.7	147.8	**-0.0080**	0.002	26.4	ug/L	32	Standard
>	In	115	593816.8	13.0				ug/L	494305	Standard
	Sn	118	96.3	23.9	**0.0067**	0.022	326.4	ug/L	53	Standard
	Sb	123	78.0	14.8	**0.0231**	0.004	17.5	ug/L	7	Standard
	Ba	135	7.7	19.9	**-0.0090**	0.001	7.6	ug/L	11	Standard
	Ce	140	8.3	91.7				ug/L	10	Standard
>	Tb	159	662647.1	19.9				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	8.7	46.6	**-0.0010**	0.001	57.5	ug/L	1	Standard
	Tl	205	18.3	78.7	**0.0014**	0.002	135.9	ug/L	3	Standard
	Pb	206	114.0	18.1	**-0.0071**	0.001	18.8	ug/L	80	Standard
	Pb	207	89.3	25.6	**-0.0019**	0.004	197.5	ug/L	73	Standard
	Pb	208	251.3	15.2	**-0.0034**	0.002	50.4	ug/L	190	Standard
	U	238	49.3	50.7	**0.0095**	0.007	76.6	ug/L	0	Standard
>	Bi	209	352926.7	20.1				ug/L	276439	Standard

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	Na	23	1.7	173.2	**-0.1108**	0.549	495.1	mg/L	2	Standard
	Mg	24	113.3	70.4	**0.0729**	0.085	116.7	mg/L	37	Standard
	K	39	3.3	173.2	**-0.2364**	0.251	106.1	mg/L	3	Standard
	Ca	43	21.7	66.6	**-5.1275**	3.358	65.5	mg/L	43	Standard
	Fe	54	229.3	48.1	**-0.0253**	0.057	225.8	mg/L	262	Standard
	Fe	57	73.3	20.8	**0.0132**	0.026	200.6	mg/L	65	Standard
>	**Sc-1**	45	31349.5	14.5				mg/L	26874	Standard
	Cl	35	150164.3	34.6				ug/L	141022	Standard
	Kr	83	134.7	31.8				ug/L	75	Standard
	Br	81	2736.9	38.3				ug/L	2810	Standard
	P	31	352934.5	40.4				ug/L	458976	Standard
	S	34	86669.7	31.1				ug/L	103378	Standard
	Sr	88	33.3	37.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	12.7	50.0				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	13.3	114.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		128.793	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		120.842	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	120.132
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	127.669
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 10:50:25
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	287169.8	1.9				ug/L	269614	Standard
	Be	9	155495.7	2.0	**49.1780**	0.845	1.7	ug/L	23	Standard
	Al	27	10252979.8	0.7	**45.8920**	0.639	1.4	ug/L	1170	Standard
	Sc	45	26715.2	1.7				ug/L	26874	Standard
	Ti	47	26540.6	1.5	**100.0775**	1.437	1.4	ug/L	25	Standard
	V	51	367259.5	1.1	**49.3991**	0.481	1.0	ug/L	1686	Standard
	Cr	52	360453.3	2.3	**49.5510**	1.136	2.3	ug/L	6098	Standard
	Cr	53	63705.3	1.2	**48.1932**	0.596	1.2	ug/L	193	Standard
	Mn	55	721854.0	1.9	**50.9186**	0.965	1.9	ug/L	1232	Standard
	Co	59	499240.5	1.5	**50.7995**	0.692	1.4	ug/L	106	Standard
	Ni	60	145696.9	1.1	**50.3476**	0.534	1.1	ug/L	556	Standard
	Cu	65	140378.0	0.8	**50.7449**	0.427	0.8	ug/L	124	Standard
	Zn	66	76929.5	1.0	**50.6757**	0.464	0.9	ug/L	196	Standard
>	Ge	72	500341.1	0.2				ug/L	473313	Standard
	As	75	75750.9	0.9	**49.6886**	0.463	0.9	ug/L	-286	Standard
	Se	82	7894.8	0.1	**50.5798**	0.125	0.2	ug/L	-33	Standard
	Se-1	77	5747.4	0.5	**49.4153**	0.370	0.7	ug/L	86	Standard
>	Ga	71	83.3	18.3				mg/L	35	Standard
	Rb	85	1103.4	9.2				ug/L	13	Standard
	Y	89	464956.6	0.9				ug/L	439493	Standard
>	Rh	103	36.7	51.6				ug/L	5	Standard
	Mo	98	423865.3	2.0	**103.2375**	2.145	2.1	ug/L	10	Standard
	Ag	107	358896.2	0.4	**51.6338**	0.267	0.5	ug/L	53	Standard
	Cd	111	115184.9	0.5	**49.9452**	0.309	0.6	mg/L	1	Standard
	Cd	114	289331.8	0.9	**49.5660**	0.521	1.1	ug/L	32	Standard
>	In	115	520052.1	0.2				ug/L	494305	Standard
	Sn	118	69964.8	0.6	**50.7605**	0.310	0.6	ug/L	53	Standard
	Sb	123	135873.0	0.9	**48.7018**	0.447	0.9	ug/L	7	Standard
	Ba	135	95893.8	0.3	**49.7363**	0.205	0.4	ug/L	11	Standard
	Ce	140	41.7	13.9				ug/L	10	Standard
>	Tb	159	560257.6	1.0				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	316235.1	0.5	**49.8042**	0.461	0.9	ug/L	1	Standard
	Tl	205	408622.1	1.0	**52.1185**	0.679	1.3	ug/L	3	Standard
	Pb	206	141934.4	0.6	**52.0951**	0.351	0.7	ug/L	80	Standard
	Pb	207	127604.4	0.6	**51.9893**	0.007	0.0	ug/L	73	Standard
	Pb	208	292752.2	0.8	**48.7333**	0.166	0.3	ug/L	190	Standard
	U	238	193471.4	0.7	**49.4158**	0.074	0.1	ug/L	0	Standard
>	Bi	209	292778.7	0.6				ug/L	276439	Standard

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	Na	23	18.3	68.6	**4.3175**	3.280	76.0	mg/L	2	Standard
	Mg	24	4930.8	4.4	**5.0299**	0.259	5.2	mg/L	37	Standard
	K	39	68.3	8.4	**3.6679**	0.379	10.3	mg/L	3	Standard
	Ca	43	46.7	34.4	**3.2700**	4.782	146.2	mg/L	43	Standard
	Fe	54	10953.2	1.0	**5.2351**	0.103	2.0	mg/L	262	Standard
	Fe	57	3095.3	2.0	**5.2899**	0.194	3.7	mg/L	65	Standard
>	**Sc-1**	45	26715.2	1.7				mg/L	26874	Standard
	Cl	35	157068.6	0.6				ug/L	141022	Standard
	Kr	83	106.7	6.8				ug/L	75	Standard
	Br	81	3233.7	5.9				ug/L	2810	Standard
	P	31	506192.6	2.2				ug/L	458976	Standard
	S	34	120890.5	2.3				ug/L	103378	Standard
	Sr	88	28.3	10.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.7	2.9				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.511	
	Be	9	98.356		
	Al	27	91.784		
	Sc	45			
	Ti	47	100.078		
	V	51	98.798		
	Cr	52	99.102		
	Cr	53			
	Mn	55	101.837		
	Co	59	101.599		
	Ni	60	100.695		
	Cu	65	101.490		
	Zn	66	101.351		
>	Ge	72		105.710	
	As	75	99.377		
	Se	82	101.160		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.237		
|	Ag	107	103.268		
|	Cd	111	99.890		
|	Cd	114			
|>	In	115			105.209
|	Sn	118	101.521		
|	Sb	123	97.404		
⌊	Ba	135	99.473		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	99.608		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.467		
|	U	238	98.832		
⌊>	Bi	209			105.911
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 10:53:30
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	283107.7	1.8				ug/L	269614	Standard
	Be	9	96.7	18.2	**0.0150**	0.006	38.0	ug/L	23	Standard
	Al	27	19515.9	126.3	**0.0812**	0.111	136.6	ug/L	1170	Standard
	Sc	45	26486.5	0.3				ug/L	26874	Standard
	Ti	47	22.3	11.3	**-0.0130**	0.010	77.6	ug/L	25	Standard
	V	51	1265.0	10.1	**-0.0082**	0.017	209.5	ug/L	1686	Standard
	Cr	52	4619.4	1.3	**-0.0361**	0.009	24.5	ug/L	6098	Standard
	Cr	53	221.7	17.5	**0.0320**	0.030	92.5	ug/L	193	Standard
	Mn	55	4861.8	116.9	**0.2101**	0.407	194.0	ug/L	1232	Standard
	Co	59	209.3	58.1	**0.0063**	0.013	199.1	ug/L	106	Standard
	Ni	60	770.0	4.0	**0.0703**	0.011	15.6	ug/L	556	Standard
	Cu	65	833.7	4.9	**0.2472**	0.015	6.3	ug/L	124	Standard
	Zn	66	554.3	6.8	**0.1760**	0.027	15.1	ug/L	196	Standard
>	**Ge**	72	491561.4	0.4				ug/L	473313	Standard
	As	75	-280.2	17.9	**0.0255**	0.034	132.7	ug/L	-286	Standard
	Se	82	-31.3	39.0	**0.0978**	0.080	82.0	ug/L	-33	Standard
	Se-1	77	94.0	8.5	**0.0798**	0.069	85.9	ug/L	86	Standard
>	**Ga**	71	40.0	12.5				mg/L	35	Standard
	Rb	85	66.7	89.5				ug/L	13	Standard
	Y	89	459160.2	0.3				ug/L	439493	Standard
>	**Rh**	103	6.7	43.3				ug/L	5	Standard
	Mo	98	163.4	39.1	**0.0247**	0.016	63.4	ug/L	10	Standard
	Ag	107	184.0	74.3	**0.0115**	0.020	171.3	ug/L	53	Standard
	Cd	111	73.7	134.8	**0.0291**	0.043	148.6	mg/L	1	Standard
	Cd	114	205.8	125.2	**0.0259**	0.044	171.3	ug/L	32	Standard
>	**In**	115	519218.3	1.1				ug/L	494305	Standard
	Sn	118	94.0	18.5	**0.0120**	0.013	106.9	ug/L	53	Standard
	Sb	123	307.9	23.1	**0.1091**	0.026	23.9	ug/L	7	Standard
	Ba	135	148.7	52.3	**0.0647**	0.040	62.5	ug/L	11	Standard
	Ce	140	3.3	86.6				ug/L	10	Standard
>	**Tb**	159	557141.9	0.3				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	155.3	118.0	**0.0221**	0.029	129.3	ug/L	1	Standard
	Tl	205	68.3	92.1	**0.0080**	0.008	99.9	ug/L	3	Standard
	Pb	206	145.3	41.1	**0.0111**	0.022	194.5	ug/L	80	Standard
	Pb	207	129.0	34.5	**0.0202**	0.018	88.6	ug/L	73	Standard
	Pb	208	233.3	12.1	**0.0002**	0.005	1862.4	ug/L	190	Standard
	U	238	43.0	76.2	**0.0090**	0.008	91.8	ug/L	0	Standard
>	**Bi**	209	294453.7	0.5				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	85.0	66.8	**0.0560**	0.058	104.4	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1822**	0.172	94.6	mg/L	3	Standard
	Ca	43	21.7	48.0	**-3.9618**	3.066	77.4	mg/L	43	Standard
	Fe	54	304.3	15.9	**0.0237**	0.024	102.3	mg/L	262	Standard
	Fe	57	81.7	9.4	**0.0465**	0.013	28.7	mg/L	65	Standard
>	**Sc-1**	45	26486.5	0.3				mg/L	26874	Standard
	Cl	35	155490.5	1.1				ug/L	141022	Standard
	Kr	83	100.3	11.1				ug/L	75	Standard
	Br	81	3003.6	8.4				ug/L	2810	Standard
	P	31	508525.8	2.3				ug/L	458976	Standard
	S	34	119123.2	1.4				ug/L	103378	Standard
	Sr	88	35.0	37.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.5	182.0				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.005	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.855	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	105.040
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	106.517
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1311050501
Sample Date/Time: Monday, November 18, 2013 10:56:37
Number of Replicates: 3
Autosampler Position: 310
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	454960.7	1.6				ug/L	269614	Standard
	Be	9	90.0	9.6	**0.0019**	0.001	78.6	ug/L	23	Standard
	Al	27	198938334.9	0.9	**562.1761**	14.071	2.5	ug/L	1170	Standard
	Sc	45	24149.2	2.1				ug/L	26874	Standard
	Ti	47	165.3	7.2	**0.6336**	0.050	8.0	ug/L	25	Standard
	V	51	3425.9	1.5	**0.3609**	0.006	1.7	ug/L	1686	Standard
	Cr	52	11194.1	1.3	**1.1400**	0.017	1.5	ug/L	6098	Standard
	Cr	53	1096.7	5.3	**0.8376**	0.055	6.5	ug/L	193	Standard
	Mn	55	363743.5	1.2	**30.0597**	0.250	0.8	ug/L	1232	Standard
	Co	59	3838.5	3.0	**0.4432**	0.012	2.7	ug/L	106	Standard
	Ni	60	29866.1	1.9	**11.9606**	0.182	1.5	ug/L	556	Standard
	Cu	65	11223.2	1.2	**4.7079**	0.071	1.5	ug/L	124	Standard
	Zn	66	22412.2	1.2	**17.2001**	0.265	1.5	ug/L	196	Standard
>	Ge	72	426263.0	0.4				ug/L	473313	Standard
	As	75	1978.2	4.5	**1.7283**	0.063	3.7	ug/L	-286	Standard
	Se	82	916.6	3.8	**7.1518**	0.237	3.3	ug/L	-33	Standard
	Se-1	77	190.0	4.0	**1.1914**	0.074	6.2	ug/L	86	Standard
>	Ga	71	38.3	49.4				mg/L	35	Standard
	Rb	85	24027.4	2.3				ug/L	13	Standard
	Y	89	403653.1	0.8				ug/L	439493	Standard
>	Rh	103	1990.1	6.3				ug/L	5	Standard
	Mo	98	5004.8	1.8	**1.4757**	0.030	2.0	ug/L	10	Standard
	Ag	107	64.3	1.8	**-0.0037**	0.000	6.1	ug/L	53	Standard
	Cd	111	50.3	9.0	**0.0238**	0.002	9.9	mg/L	1	Standard
	Cd	114	147.1	5.8	**0.0214**	0.002	8.2	ug/L	32	Standard
>	In	115	425282.8	0.3				ug/L	494305	Standard
	Sn	118	108.7	4.7	**0.0401**	0.004	10.8	ug/L	53	Standard
	Sb	123	172.6	8.8	**0.0742**	0.007	8.8	ug/L	7	Standard
	Ba	135	8231.6	1.0	**5.2097**	0.065	1.3	ug/L	11	Standard
	Ce	140	1063.4	6.4				ug/L	10	Standard
>	Tb	159	484128.1	0.5				ug/L	538219	Standard
	Ho	165	151.7	6.9				ug/L	8	Standard
	Tl	203	144.3	8.3	**0.0276**	0.002	8.6	ug/L	1	Standard
	Tl	205	156.7	6.6	**0.0254**	0.002	7.1	ug/L	3	Standard
	Pb	206	208.7	3.2	**0.0583**	0.004	6.1	ug/L	80	Standard
	Pb	207	182.0	6.0	**0.0649**	0.006	8.9	ug/L	73	Standard
	Pb	208	449.0	2.3	**0.0593**	0.002	3.3	ug/L	190	Standard
	U	238	185420.0	0.6	**61.8758**	0.331	0.5	ug/L	0	Standard
>	Bi	209	224094.1	0.5				ug/L	276439	Standard

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	Na	23	435.0	5.3	**124.2656**	5.539	4.5	mg/L	2	Standard
	Mg	24	361775.0	0.8	**410.7672**	6.330	1.5	mg/L	37	Standard
	K	39	31.7	24.1	**1.6952**	0.506	29.8	mg/L	3	Standard
	Ca	43	481.7	9.4	**144.6394**	13.174	9.1	mg/L	43	Standard
	Fe	54	235.5	21.9	**0.0011**	0.028	2553.5	mg/L	262	Standard
	Fe	57	1003.4	11.4	**1.8374**	0.259	14.1	mg/L	65	Standard
>	**Sc-1**	45	24149.2	2.1				mg/L	26874	Standard
	Cl	35	1467490.9	1.2				ug/L	141022	Standard
	Kr	83	232.7	1.1				ug/L	75	Standard
	Br	81	93293.8	6.4				ug/L	2810	Standard
	P	31	473011.1	1.6				ug/L	458976	Standard
	S	34	109202.2	1.3				ug/L	103378	Standard
	Sr	88	9442.9	3.1				ug/L	30	Standard
	C	12	6.7	173.2				mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	140.3	13.7				mg/L	10	Standard
	Ho-1	165	151.7	6.9				mg/L	8	Standard
	Er	166	133.3	33.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		168.745	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.059	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	86.036
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	81.065
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

Sample ID: L1311050501
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Method 6020 - Summary Report

Sample ID: L1311050502
Sample Date/Time: Monday, November 18, 2013 10:59:42
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	525378.5	1.7				ug/L	269614	Standard
	Be	9	98.3	2.9	**0.0009**	0.001	77.7	ug/L	23	Standard
	Al	27	203676772.4	1.7	**498.2896**	0.300	0.1	ug/L	1170	Standard
	Sc	45	23608.4	2.2				ug/L	26874	Standard
	Ti	47	157.7	3.9	**0.6117**	0.029	4.8	ug/L	25	Standard
	V	51	3672.2	6.1	**0.4098**	0.036	8.8	ug/L	1686	Standard
	Cr	52	10657.1	2.2	**1.0819**	0.041	3.8	ug/L	6098	Standard
	Cr	53	1261.7	7.4	**1.0034**	0.081	8.1	ug/L	193	Standard
	Mn	55	1930243.0	0.4	**162.8459**	0.454	0.3	ug/L	1232	Standard
	Co	59	6565.4	0.1	**0.7824**	0.002	0.2	ug/L	106	Standard
	Ni	60	54526.3	1.3	**22.3815**	0.238	1.1	ug/L	556	Standard
	Cu	65	14593.4	0.7	**6.2451**	0.057	0.9	ug/L	124	Standard
	Zn	66	11804.6	2.3	**9.1221**	0.236	2.6	ug/L	196	Standard
>	Ge	72	419126.6	0.2				ug/L	473313	Standard
	As	75	14428.3	16.3	**11.4602**	1.815	15.8	ug/L	-286	Standard
	Se	82	77629.3	0.6	**590.4985**	4.767	0.8	ug/L	-33	Standard
	Se-1	77	54645.0	1.4	**568.6922**	9.267	1.6	ug/L	86	Standard
>	Ga	71	105.0	0.0				mg/L	35	Standard
	Rb	85	45797.5	1.8				ug/L	13	Standard
	Y	89	404151.4	1.2				ug/L	439493	Standard
>	Rh	103	2121.8	2.2				ug/L	5	Standard
	Mo	98	2839.8	1.4	**0.8489**	0.019	2.3	ug/L	10	Standard
	Ag	107	136.0	21.8	**0.0094**	0.005	53.8	ug/L	53	Standard
	Cd	111	102.6	15.9	**0.0526**	0.008	15.8	mg/L	1	Standard
	Cd	114	254.4	13.1	**0.0451**	0.008	17.1	ug/L	32	Standard
>	In	115	416380.4	1.1				ug/L	494305	Standard
	Sn	118	83.3	2.8	**0.0192**	0.001	7.5	ug/L	53	Standard
	Sb	123	123.2	16.0	**0.0536**	0.008	15.4	ug/L	7	Standard
	Ba	135	16450.9	1.0	**10.6486**	0.220	2.1	ug/L	11	Standard
	Ce	140	4018.9	1.8				ug/L	10	Standard
>	Tb	159	474093.4	1.0				ug/L	538219	Standard
	Ho	165	300.0	19.6				ug/L	8	Standard
	Tl	203	396.7	9.4	**0.0801**	0.007	8.7	ug/L	1	Standard
	Tl	205	445.0	14.1	**0.0740**	0.010	13.0	ug/L	3	Standard
	Pb	206	130.0	9.3	**0.0209**	0.005	26.2	ug/L	80	Standard
	Pb	207	102.3	23.9	**0.0228**	0.013	55.1	ug/L	73	Standard
	Pb	208	247.7	10.5	**0.0159**	0.005	31.8	ug/L	190	Standard
	U	238	111893.3	0.5	**37.6269**	0.613	1.6	ug/L	0	Standard
>	Bi	209	222405.6	1.2				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	613.3	15.2	**179.1303**	23.772	13.3	mg/L	2	Standard
	Mg	24	375195.6	1.0	**435.7859**	8.226	1.9	mg/L	37	Standard
	K	39	66.7	8.7	**4.0839**	0.334	8.2	mg/L	3	Standard
	Ca	43	605.0	4.4	**188.9294**	10.275	5.4	mg/L	43	Standard
	Fe	54	194.0	22.3	**-0.0187**	0.026	139.4	mg/L	262	Standard
	Fe	57	1055.0	4.5	**1.9809**	0.110	5.5	mg/L	65	Standard
>	**Sc-1**	45	23608.4	2.2				mg/L	26874	Standard
	Cl	35	1381726.1	0.5				ug/L	141022	Standard
	Kr	83	259.0	1.8				ug/L	75	Standard
	Br	81	107094.8	6.2				ug/L	2810	Standard
	P	31	454538.4	1.6				ug/L	458976	Standard
	S	34	108332.6	1.1				ug/L	103378	Standard
	Sr	88	9498.0	3.4				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	402.0	7.9				mg/L	10	Standard
	Ho-1	165	300.0	19.6				mg/L	8	Standard
	Er	166	306.7	10.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		194.863	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		88.552	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311050502
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.235
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	80.454
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Se 82 Upper, S, EEE	Se	82	
Se-1 77 Upper, S, EEE	Se-1	77	

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Method 6020 - Summary Report

Sample ID: L1311050503
Sample Date/Time: Monday, November 18, 2013 11:02:46
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	407958.3	2.6				ug/L	269614	Standard
	Be	9	73.3	20.8	**0.0003**	0.004	1170.9	ug/L	23	Standard
	Al	27	97162193.1	0.3	**306.2751**	8.857	2.9	ug/L	1170	Standard
	Sc	45	24201.0	2.9				ug/L	26874	Standard
	Ti	47	172.0	3.2	**0.6562**	0.023	3.5	ug/L	25	Standard
	V	51	5995.1	1.4	**0.7593**	0.013	1.7	ug/L	1686	Standard
	Cr	52	12794.4	1.4	**1.3826**	0.023	1.7	ug/L	6098	Standard
	Cr	53	3940.5	2.3	**3.3377**	0.074	2.2	ug/L	193	Standard
	Mn	55	833021.8	0.8	**68.3871**	0.407	0.6	ug/L	1232	Standard
	Co	59	4789.1	1.8	**0.5515**	0.009	1.6	ug/L	106	Standard
	Ni	60	37088.0	1.6	**14.7634**	0.200	1.4	ug/L	556	Standard
	Cu	65	10859.6	1.1	**4.5110**	0.037	0.8	ug/L	124	Standard
	Zn	66	12339.4	1.1	**9.2930**	0.097	1.0	ug/L	196	Standard
>	Ge	72	430206.4	0.3				ug/L	473313	Standard
	As	75	12686.9	8.9	**9.8486**	0.848	8.6	ug/L	-286	Standard
	Se	82	68767.3	0.9	**509.6455**	3.599	0.7	ug/L	-33	Standard
	Se-1	77	48545.0	0.7	**492.0807**	2.305	0.5	ug/L	86	Standard
>	Ga	71	71.7	33.0				mg/L	35	Standard
	Rb	85	20337.0	2.3				ug/L	13	Standard
	Y	89	403916.7	0.8				ug/L	439493	Standard
>	Rh	103	1180.0	10.6				ug/L	5	Standard
	Mo	98	2108.9	1.5	**0.6051**	0.007	1.2	ug/L	10	Standard
	Ag	107	50.0	16.4	**-0.0063**	0.001	22.1	ug/L	53	Standard
	Cd	111	102.8	24.0	**0.0509**	0.013	24.9	mg/L	1	Standard
	Cd	114	274.9	17.3	**0.0474**	0.010	20.3	ug/L	32	Standard
>	In	115	430704.6	0.6				ug/L	494305	Standard
	Sn	118	129.7	13.3	**0.0573**	0.014	25.3	ug/L	53	Standard
	Sb	123	156.7	3.2	**0.0663**	0.003	3.9	ug/L	7	Standard
	Ba	135	17868.9	0.9	**11.1806**	0.057	0.5	ug/L	11	Standard
	Ce	140	628.3	9.0				ug/L	10	Standard
>	Tb	159	494405.6	0.8				ug/L	538219	Standard
	Ho	165	56.7	48.6				ug/L	8	Standard
	Tl	203	324.3	3.1	**0.0623**	0.002	3.4	ug/L	1	Standard
	Tl	205	408.3	21.1	**0.0650**	0.014	21.3	ug/L	3	Standard
	Pb	206	131.3	4.5	**0.0189**	0.002	13.1	ug/L	80	Standard
	Pb	207	112.7	6.7	**0.0259**	0.004	15.7	ug/L	73	Standard
	Pb	208	266.7	1.8	**0.0176**	0.001	5.0	ug/L	190	Standard
	U	238	39636.1	1.4	**12.7654**	0.147	1.2	ug/L	0	Standard
>	Bi	209	232162.8	0.4				ug/L	276439	Standard

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	Na	23	588.3	17.0	**168.4546**	33.291	19.8	mg/L	2	Standard
	Mg	24	314619.6	0.2	**356.5887**	10.658	3.0	mg/L	37	Standard
	K	39	70.0	7.1	**4.1973**	0.350	8.3	mg/L	3	Standard
	Ca	43	525.0	1.6	**158.3182**	2.069	1.3	mg/L	43	Standard
	Fe	54	261.4	18.9	**0.0146**	0.024	168.2	mg/L	262	Standard
	Fe	57	958.4	11.0	**1.7482**	0.255	14.6	mg/L	65	Standard
>	**Sc-1**	45	24201.0	2.9				mg/L	26874	Standard
	Cl	35	858602.1	0.4				ug/L	141022	Standard
	Kr	83	224.3	2.2				ug/L	75	Standard
	Br	81	95437.2	6.9				ug/L	2810	Standard
	P	31	493120.3	2.2				ug/L	458976	Standard
	S	34	91901.2	1.4				ug/L	103378	Standard
	Sr	88	5497.7	3.8				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	34.6				mg/L	0	Standard
	Dy	164	31.4	81.6				mg/L	10	Standard
	Ho-1	165	56.7	48.6				mg/L	8	Standard
	Er	166	40.0	25.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		151.312	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.893	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	87.133
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	83.983
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Se 82 Upper, S, EEE	Se	82	
Se-1 77 Upper, S, EEE	Se-1	77	

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Method 6020 - Summary Report

Sample ID: L1311050504
Sample Date/Time: Monday, November 18, 2013 11:05:51
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	666741.3	2.5				ug/L	269614	Standard
	Be	9	123.3	75.0	**0.0005**	0.012	2228.8	ug/L	23	Standard
	Al	27	340340694.0	2.5	**656.1150**	6.495	1.0	ug/L	1170	Standard
	Sc	45	21076.3	2.0				ug/L	26874	Standard
	Ti	47	229.3	17.7	**1.0628**	0.201	18.9	ug/L	25	Standard
	V	51	4036.5	3.3	**0.5496**	0.026	4.8	ug/L	1686	Standard
	Cr	52	8959.6	0.9	**0.9850**	0.012	1.2	ug/L	6098	Standard
	Cr	53	1438.4	11.0	**1.3259**	0.163	12.3	ug/L	193	Standard
	Mn	55	6779872.1	0.9	**643.6179**	4.166	0.6	ug/L	1232	Standard
	Co	59	9070.4	1.4	**1.2240**	0.018	1.5	ug/L	106	Standard
	Ni	60	65811.0	1.7	**30.4490**	0.408	1.3	ug/L	556	Standard
	Cu	65	18926.2	2.4	**9.1356**	0.247	2.7	ug/L	124	Standard
	Zn	66	12141.9	5.9	**10.5830**	0.671	6.3	ug/L	196	Standard
>	**Ge**	72	372714.2	0.3				ug/L	473313	Standard
	As	75	14981.8	3.2	**13.3477**	0.406	3.0	ug/L	-286	Standard
	Se	82	67985.3	1.0	**581.5263**	3.859	0.7	ug/L	-33	Standard
	Se-1	77	47263.6	0.7	**553.0887**	2.890	0.5	ug/L	86	Standard
>	**Ga**	71	233.3	8.9				mg/L	35	Standard
	Rb	85	12808.7	0.9				ug/L	13	Standard
	Y	89	355784.2	1.3				ug/L	439493	Standard
>	**Rh**	103	2585.2	9.2				ug/L	5	Standard
	Mo	98	3932.5	2.9	**1.3691**	0.037	2.7	ug/L	10	Standard
	Ag	107	86.7	15.2	**0.0030**	0.003	87.7	ug/L	53	Standard
	Cd	111	206.6	5.2	**0.1265**	0.006	5.0	mg/L	1	Standard
	Cd	114	532.0	10.7	**0.1222**	0.014	11.1	ug/L	32	Standard
>	**In**	115	359862.2	0.4				ug/L	494305	Standard
	Sn	118	113.3	4.2	**0.0625**	0.005	7.4	ug/L	53	Standard
	Sb	123	117.4	7.5	**0.0593**	0.005	7.8	ug/L	7	Standard
	Ba	135	8368.3	1.6	**6.2612**	0.076	1.2	ug/L	11	Standard
	Ce	140	3088.6	3.4				ug/L	10	Standard
>	**Tb**	159	424593.7	0.3				ug/L	538219	Standard
	Ho	165	241.7	13.1				ug/L	8	Standard
	Tl	203	294.0	8.2	**0.0688**	0.006	8.5	ug/L	1	Standard
	Tl	205	331.7	21.1	**0.0641**	0.014	21.5	ug/L	3	Standard
	Pb	206	123.7	11.0	**0.0277**	0.008	28.2	ug/L	80	Standard
	Pb	207	101.7	5.8	**0.0314**	0.004	12.0	ug/L	73	Standard
	Pb	208	241.3	10.2	**0.0232**	0.006	26.8	ug/L	190	Standard
	U	238	230794.3	1.0	**90.2591**	1.098	1.2	ug/L	0	Standard
>	**Bi**	209	191222.1	0.2				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	428.3	2.4	**140.3536**	6.179	4.4	mg/L	2	Standard
	Mg	24	751835.4	2.1	**978.1559**	24.713	2.5	mg/L	37	Standard
	K	39	46.7	12.4	**3.1280**	0.495	15.8	mg/L	3	Standard
	Ca	43	433.3	7.4	**149.6588**	14.893	10.0	mg/L	43	Standard
	Fe	54	177.2	6.2	**-0.0166**	0.005	32.6	mg/L	262	Standard
	Fe	57	1028.4	5.0	**2.1702**	0.082	3.8	mg/L	65	Standard
>	**Sc-1**	45	21076.3	2.0				mg/L	26874	Standard
	Cl	35	2846439.2	1.7				ug/L	141022	Standard
	Kr	83	355.7	13.9				ug/L	75	Standard
	Br	81	51825.2	2.7				ug/L	2810	Standard
	P	31	371171.7	1.1				ug/L	458976	Standard
	S	34	99587.9	1.4				ug/L	103378	Standard
	Sr	88	15533.0	3.6				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	184.6	6.0				mg/L	10	Standard
	Ho-1	165	241.7	13.1				mg/L	8	Standard
	Er	166	183.3	6.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		247.294	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		78.746	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		72.802
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		69.173
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Se 82 Upper, S, EEE	Se	82	
Se-1 77 Upper, S, EEE	Se-1	77	

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Method 6020 - Summary Report

Sample ID: L1311050505
Sample Date/Time: Monday, November 18, 2013 11:08:56
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	351491.0	3.0				ug/L	269614	Standard
	Be	9	48.3	36.3	**-0.0035**	0.005	140.2	ug/L	23	Standard
	Al	27	92688690.8	0.8	**339.1599**	11.247	3.3	ug/L	1170	Standard
	Sc	45	24778.6	1.6				ug/L	26874	Standard
	Ti	47	149.0	8.1	**0.5344**	0.054	10.2	ug/L	25	Standard
	V	51	2308.8	3.9	**0.1688**	0.012	6.9	ug/L	1686	Standard
	Cr	52	8415.7	1.5	**0.6290**	0.025	4.0	ug/L	6098	Standard
	Cr	53	2303.5	7.2	**1.8285**	0.152	8.3	ug/L	193	Standard
	Mn	55	3008712.5	0.4	**239.4061**	2.261	0.9	ug/L	1232	Standard
	Co	59	4766.1	2.9	**0.5307**	0.018	3.5	ug/L	106	Standard
	Ni	60	15801.2	1.6	**5.9695**	0.130	2.2	ug/L	556	Standard
	Cu	65	6994.0	9.0	**2.7901**	0.271	9.7	ug/L	124	Standard
	Zn	66	9197.1	7.0	**6.6502**	0.514	7.7	ug/L	196	Standard
>	**Ge**	72	444517.2	0.6				ug/L	473313	Standard
	As	75	1937.1	3.7	**1.6361**	0.058	3.6	ug/L	-286	Standard
	Se	82	1169.0	3.8	**8.6820**	0.362	4.2	ug/L	-33	Standard
	Se-1	77	621.0	4.3	**5.3473**	0.290	5.4	ug/L	86	Standard
>	**Ga**	71	86.7	20.3				mg/L	35	Standard
	Rb	85	11706.2	1.9				ug/L	13	Standard
	Y	89	416112.5	1.6				ug/L	439493	Standard
>	**Rh**	103	738.4	8.5				ug/L	5	Standard
	Mo	98	6991.0	2.9	**1.9634**	0.074	3.8	ug/L	10	Standard
	Ag	107	53.7	12.4	**-0.0060**	0.001	19.0	ug/L	53	Standard
	Cd	111	26.6	22.3	**0.0105**	0.003	29.4	mg/L	1	Standard
	Cd	114	76.8	23.4	**0.0058**	0.004	61.1	ug/L	32	Standard
>	**In**	115	447706.3	1.0				ug/L	494305	Standard
	Sn	118	119.7	2.1	**0.0446**	0.002	5.0	ug/L	53	Standard
	Sb	123	345.8	5.4	**0.1425**	0.007	4.8	ug/L	7	Standard
	Ba	135	23324.3	0.1	**14.0440**	0.129	0.9	ug/L	11	Standard
	Ce	140	2421.9	8.3				ug/L	10	Standard
>	**Tb**	159	500435.8	1.2				ug/L	538219	Standard
	Ho	165	58.3	27.6				ug/L	8	Standard
	Tl	203	99.7	5.8	**0.0168**	0.001	6.6	ug/L	1	Standard
	Tl	205	123.3	35.0	**0.0183**	0.007	36.3	ug/L	3	Standard
	Pb	206	144.7	14.6	**0.0221**	0.009	42.2	ug/L	80	Standard
	Pb	207	129.0	6.1	**0.0313**	0.004	12.3	ug/L	73	Standard
	Pb	208	292.0	3.9	**0.0202**	0.002	11.5	ug/L	190	Standard
	U	238	30676.4	0.8	**9.4317**	0.075	0.8	ug/L	0	Standard
>	**Bi**	209	243182.3	0.0				ug/L	276439	Standard

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	Na	23	300.0	16.1	**83.5381**	14.593	17.5	mg/L	2	Standard
	Mg	24	233318.0	1.6	**258.1449**	4.398	1.7	mg/L	37	Standard
	K	39	30.0	28.9	**1.5308**	0.538	35.1	mg/L	3	Standard
	Ca	43	266.7	6.0	**73.2822**	3.792	5.2	mg/L	43	Standard
	Fe	54	759.4	1.7	**0.2742**	0.007	2.4	mg/L	262	Standard
	Fe	57	670.0	11.8	**1.1613**	0.165	14.2	mg/L	65	Standard
>	**Sc-1**	45	24778.6	1.6				mg/L	26874	Standard
	Cl	35	804460.1	0.4				ug/L	141022	Standard
	Kr	83	220.7	24.2				ug/L	75	Standard
	Br	81	59382.8	1.6				ug/L	2810	Standard
	P	31	509770.4	0.2				ug/L	458976	Standard
	S	34	95062.3	0.6				ug/L	103378	Standard
	Sr	88	3453.7	5.4				ug/L	30	Standard
	C	12	13.3	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	63.2	43.3				mg/L	10	Standard
	Ho-1	165	58.3	27.6				mg/L	8	Standard
	Er	166	73.3	47.9				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		130.368	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.916	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		90.573
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		87.970
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1311050506
Sample Date/Time: Monday, November 18, 2013 11:12:02
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	454145.8	0.6				ug/L	269614	Standard
	Be	9	73.3	32.2	**-0.0014**	0.005	348.2	ug/L	23	Standard
	Al	27	257114965.8	1.0	**727.6809**	3.512	0.5	ug/L	1170	Standard
	Sc	45	22989.1	2.7				ug/L	26874	Standard
	Ti	47	155.7	5.2	**0.6190**	0.040	6.4	ug/L	25	Standard
	V	51	3030.3	6.8	**0.3178**	0.036	11.4	ug/L	1686	Standard
	Cr	52	15182.9	0.4	**1.8935**	0.010	0.5	ug/L	6098	Standard
	Cr	53	3583.8	3.3	**3.1824**	0.129	4.1	ug/L	193	Standard
	Mn	55	865657.0	1.1	**74.6532**	1.238	1.7	ug/L	1232	Standard
	Co	59	4022.2	2.3	**0.4847**	0.013	2.6	ug/L	106	Standard
	Ni	60	27315.6	1.3	**11.3749**	0.225	2.0	ug/L	556	Standard
	Cu	65	11237.5	1.2	**4.9080**	0.084	1.7	ug/L	124	Standard
	Zn	66	10580.0	1.3	**8.3484**	0.074	0.9	ug/L	196	Standard
>	Ge	72	409635.4	0.6				ug/L	473313	Standard
	As	75	3609.1	17.5	**3.0923**	0.513	16.6	ug/L	-286	Standard
	Se	82	13295.1	1.2	**103.7264**	1.658	1.6	ug/L	-33	Standard
	Se-1	77	9138.8	0.2	**96.6847**	0.500	0.5	ug/L	86	Standard
>	Ga	71	91.7	19.2				mg/L	35	Standard
	Rb	85	18873.4	1.9				ug/L	13	Standard
	Y	89	386311.2	0.4				ug/L	439493	Standard
>	Rh	103	1520.1	4.3				ug/L	5	Standard
	Mo	98	9235.2	0.9	**2.8626**	0.036	1.2	ug/L	10	Standard
	Ag	107	49.3	8.4	**-0.0059**	0.001	13.7	ug/L	53	Standard
	Cd	111	51.9	15.0	**0.0259**	0.004	17.3	mg/L	1	Standard
	Cd	114	194.7	7.8	**0.0332**	0.003	9.6	ug/L	32	Standard
>	In	115	406551.1	0.6				ug/L	494305	Standard
	Sn	118	258.3	1.9	**0.1836**	0.003	1.7	ug/L	53	Standard
	Sb	123	104.8	6.1	**0.0466**	0.003	6.8	ug/L	7	Standard
	Ba	135	14461.2	0.7	**9.5849**	0.130	1.4	ug/L	11	Standard
	Ce	140	770.0	2.8				ug/L	10	Standard
>	Tb	159	466770.8	0.1				ug/L	538219	Standard
	Ho	165	110.0	32.8				ug/L	8	Standard
	Tl	203	253.3	5.0	**0.0520**	0.003	5.3	ug/L	1	Standard
	Tl	205	251.7	22.2	**0.0428**	0.009	21.4	ug/L	3	Standard
	Pb	206	118.0	4.5	**0.0169**	0.002	13.2	ug/L	80	Standard
	Pb	207	93.0	7.8	**0.0193**	0.004	18.1	ug/L	73	Standard
	Pb	208	234.3	6.6	**0.0146**	0.004	26.9	ug/L	190	Standard
	U	238	49190.4	1.3	**17.0356**	0.340	2.0	ug/L	0	Standard
>	Bi	209	215938.0	1.0				ug/L	276439	Standard

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	Na	23	371.7	4.7	**111.6418**	8.180	7.3	mg/L	2	Standard
	Mg	24	461883.9	1.6	**550.8989**	5.806	1.1	mg/L	37	Standard
	K	39	45.0	33.3	**2.7283**	1.073	39.3	mg/L	3	Standard
	Ca	43	315.0	3.2	**96.2776**	6.158	6.4	mg/L	43	Standard
	Fe	54	195.0	7.6	**-0.0156**	0.006	41.0	mg/L	262	Standard
	Fe	57	791.7	4.5	**1.5056**	0.113	7.5	mg/L	65	Standard
>	**Sc-1**	45	22989.1	2.7				mg/L	26874	Standard
	Cl	35	1712561.8	1.7				ug/L	141022	Standard
	Kr	83	271.7	1.4				ug/L	75	Standard
	Br	81	50350.2	2.5				ug/L	2810	Standard
	P	31	445814.3	2.3				ug/L	458976	Standard
	S	34	109128.3	0.9				ug/L	103378	Standard
	Sr	88	7960.4	3.6				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	46.0	44.0				mg/L	10	Standard
	Ho-1	165	110.0	32.8				mg/L	8	Standard
	Er	166	83.3	18.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		168.443	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		86.546	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	82.247
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	78.114
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Se 82 Upper, S, EEE	Se	82	

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311051401
Sample Date/Time: Monday, November 18, 2013 11:15:06
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	502668.5	2.9				ug/L	269614	Standard
	Be	9	106.7	35.2	**0.0031**	0.006	198.3	ug/L	23	Standard
	Al	27	246216603.7	0.9	**629.8553**	14.677	2.3	ug/L	1170	Standard
	Sc	45	22002.6	3.1				ug/L	26874	Standard
	Ti	47	233.3	8.4	**1.0259**	0.086	8.4	ug/L	25	Standard
	V	51	4944.0	3.2	**0.6706**	0.024	3.6	ug/L	1686	Standard
	Cr	52	18780.3	2.9	**2.6524**	0.077	2.9	ug/L	6098	Standard
	Cr	53	5047.5	3.8	**4.7522**	0.152	3.2	ug/L	193	Standard
	Mn	55	3287280.8	0.9	**296.8923**	0.524	0.2	ug/L	1232	Standard
	Co	59	8190.9	1.0	**1.0497**	0.012	1.1	ug/L	106	Standard
	Ni	60	31621.6	2.2	**13.8129**	0.232	1.7	ug/L	556	Standard
	Cu	65	12773.0	2.0	**5.8463**	0.157	2.7	ug/L	124	Standard
	Zn	66	14858.3	1.6	**12.3564**	0.300	2.4	ug/L	196	Standard
>	**Ge**	72	391663.1	0.8				ug/L	473313	Standard
	As	75	6063.4	8.5	**5.2730**	0.458	8.7	ug/L	-286	Standard
	Se	82	18230.6	0.2	**148.6276**	1.415	1.0	ug/L	-33	Standard
	Se-1	77	12470.1	1.3	**138.3021**	1.356	1.0	ug/L	86	Standard
>	**Ga**	71	128.3	21.5				mg/L	35	Standard
	Rb	85	21912.5	0.6				ug/L	13	Standard
	Y	89	373600.1	0.7				ug/L	439493	Standard
>	**Rh**	103	1841.8	2.6				ug/L	5	Standard
	Mo	98	4477.5	3.4	**1.4563**	0.048	3.3	ug/L	10	Standard
	Ag	107	394.3	6.7	**0.0616**	0.005	8.1	ug/L	53	Standard
	Cd	111	85.0	3.8	**0.0468**	0.002	3.6	mg/L	1	Standard
	Cd	114	215.6	20.2	**0.0404**	0.010	24.6	ug/L	32	Standard
>	**In**	115	385469.1	0.6				ug/L	494305	Standard
	Sn	118	350.7	8.7	**0.2873**	0.031	10.8	ug/L	53	Standard
	Sb	123	663.0	3.8	**0.3191**	0.012	3.7	ug/L	7	Standard
	Ba	135	10293.2	1.7	**7.1916**	0.091	1.3	ug/L	11	Standard
	Ce	140	980.0	4.5				ug/L	10	Standard
>	**Tb**	159	446730.1	0.2				ug/L	538219	Standard
	Ho	165	83.3	48.1				ug/L	8	Standard
	Tl	203	609.0	5.4	**0.1350**	0.007	5.3	ug/L	1	Standard
	Tl	205	723.4	10.7	**0.1312**	0.014	10.4	ug/L	3	Standard
	Pb	206	397.3	10.6	**0.1667**	0.022	13.0	ug/L	80	Standard
	Pb	207	354.7	2.6	**0.1746**	0.006	3.6	ug/L	73	Standard
	Pb	208	813.0	3.7	**0.1552**	0.008	5.2	ug/L	190	Standard
	U	238	83055.4	0.3	**30.3224**	0.207	0.7	ug/L	0	Standard
>	**Bi**	209	204829.2	0.5				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	423.3	8.0	**132.7832**	10.089	7.6	mg/L	2	Standard
	Mg	24	637542.3	1.6	**794.6164**	12.408	1.6	mg/L	37	Standard
	K	39	33.3	22.9	**2.0120**	0.517	25.7	mg/L	3	Standard
	Ca	43	368.3	8.7	**119.6679**	8.053	6.7	mg/L	43	Standard
	Fe	54	180.2	3.3	**-0.0194**	0.002	11.4	mg/L	262	Standard
	Fe	57	893.4	7.0	**1.7886**	0.075	4.2	mg/L	65	Standard
>	**Sc-1**	45	22002.6	3.1				mg/L	26874	Standard
	Cl	35	1939133.6	0.4				ug/L	141022	Standard
	Kr	83	361.7	8.5				ug/L	75	Standard
	Br	81	86559.9	0.6				ug/L	2810	Standard
	P	31	390321.7	2.1				ug/L	458976	Standard
	S	34	103534.2	1.4				ug/L	103378	Standard
	Sr	88	10465.3	2.0				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	9.0	10.6				mg/L	10	Standard
	Ho-1	165	83.3	48.1				mg/L	8	Standard
	Er	166	20.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		186.440	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		82.749	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		77.982
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		74.096
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Se 82 Upper, S, EEE	Se	82	
Se-1 77 Upper, S, EEE	Se-1	77	

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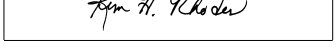

Method 6020 - Summary Report

Sample ID: L1311051803
Sample Date/Time: Monday, November 18, 2013 11:18:11
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	291646.6	2.9				ug/L	269614	Standard
	Be	9	40.0	37.5	**-0.0036**	0.005	139.1	ug/L	23	Standard
	Al	27	65619.2	20.8	**0.2811**	0.052	18.5	ug/L	1170	Standard
	Sc	45	26972.3	2.3				ug/L	26874	Standard
	Ti	47	392.0	1.9	**1.3737**	0.015	1.1	ug/L	25	Standard
	V	51	1872.6	10.1	**0.0694**	0.023	32.5	ug/L	1686	Standard
	Cr	52	11587.8	6.3	**0.9154**	0.084	9.1	ug/L	6098	Standard
	Cr	53	1268.4	4.8	**0.8183**	0.038	4.7	ug/L	193	Standard
	Mn	55	5594.4	4.5	**0.2546**	0.014	5.6	ug/L	1232	Standard
	Co	59	204.0	7.4	**0.0053**	0.001	24.9	ug/L	106	Standard
	Ni	60	971.4	6.4	**0.1337**	0.019	13.9	ug/L	556	Standard
	Cu	65	2890.3	16.3	**0.9800**	0.158	16.2	ug/L	124	Standard
	Zn	66	4506.3	14.5	**2.7659**	0.399	14.4	ug/L	196	Standard
>	**Ge**	72	502755.3	1.1				ug/L	473313	Standard
	As	75	-134.3	62.3	**0.1242**	0.055	44.3	ug/L	-286	Standard
	Se	82	1.0	5027.4	**0.3049**	0.309	101.2	ug/L	-33	Standard
	Se-1	77	109.0	4.2	**0.1914**	0.030	15.8	ug/L	86	Standard
>	**Ga**	71	101.7	18.6				mg/L	35	Standard
	Rb	85	3570.4	6.1				ug/L	13	Standard
	Y	89	463798.3	2.0				ug/L	439493	Standard
>	**Rh**	103	6.7	86.6				ug/L	5	Standard
	Mo	98	40.8	2.5	**-0.0054**	0.000	5.7	ug/L	10	Standard
	Ag	107	77.7	8.4	**-0.0040**	0.001	22.4	ug/L	53	Standard
	Cd	111	4.3	26.9	**-0.0011**	0.000	45.2	mg/L	1	Standard
	Cd	114	73.9	15.3	**0.0030**	0.002	60.8	ug/L	32	Standard
>	**In**	115	529510.0	1.3				ug/L	494305	Standard
	Sn	118	785.4	14.6	**0.5032**	0.074	14.8	ug/L	53	Standard
	Sb	123	205.5	8.9	**0.0708**	0.007	9.2	ug/L	7	Standard
	Ba	135	2551.2	6.9	**1.2868**	0.074	5.7	ug/L	11	Standard
	Ce	140	1383.4	4.5				ug/L	10	Standard
>	**Tb**	159	569830.9	1.6				ug/L	538219	Standard
	Ho	165	16.7	69.3				ug/L	8	Standard
	Tl	203	15.0	6.7	**0.0001**	0.000	95.3	ug/L	1	Standard
	Tl	205	23.3	44.6	**0.0022**	0.001	56.8	ug/L	3	Standard
	Pb	206	652.3	4.3	**0.1883**	0.007	3.6	ug/L	80	Standard
	Pb	207	528.0	3.3	**0.1748**	0.007	4.0	ug/L	73	Standard
	Pb	208	1203.7	1.7	**0.1543**	0.004	2.4	ug/L	190	Standard
	U	238	69.0	27.1	**0.0151**	0.005	31.7	ug/L	0	Standard
>	**Bi**	209	304647.0	1.4				ug/L	276439	Standard

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	Na	23	1.7	173.2	**-0.0007**	0.740106	535.2	mg/L	2	Standard
	Mg	24	736.7	16.8	**0.7153**	0.111	15.5	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0859**	0.293	340.7	mg/L	3	Standard
	Ca	43	30.0	16.7	**-1.6682**	1.518	91.0	mg/L	43	Standard
	Fe	54	334.9	31.8	**0.0364**	0.053	146.1	mg/L	262	Standard
	Fe	57	95.0	5.3	**0.0671**	0.011	15.9	mg/L	65	Standard
>	**Sc-1**	45	26972.3	2.3				mg/L	26874	Standard
	Cl	35	159429.5	4.4				ug/L	141022	Standard
	Kr	83	131.0	6.2				ug/L	75	Standard
	Br	81	3780.5	7.6				ug/L	2810	Standard
	P	31	511433.6	0.7				ug/L	458976	Standard
	S	34	88346.8	0.9				ug/L	103378	Standard
	Sr	88	43.3	24.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	18.4	58.5				mg/L	10	Standard
	Ho-1	165	16.7	69.3				mg/L	8	Standard
	Er	166	33.3	75.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.172	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.220	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	107.122
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	110.204
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311036803 WG452233-01
Sample Date/Time: Monday, November 18, 2013 11:22:42
Number of Replicates: 3
Autosampler Position: 303
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	260502.7	2.1				ug/L	269614	Standard
	Be	9	48.3	21.5	**0.0008**	0.004	471.8	ug/L	23	Standard
	Al	27	3477995.9	1.9	**17.1624**	0.647	3.8	ug/L	1170	Standard
	Sc	45	23329.6	2.7				ug/L	26874	Standard
	Ti	47	17.3	12.0	**-0.0262**	0.009	34.8	ug/L	25	Standard
	V	51	1592.0	8.2	**0.0563**	0.017	30.8	ug/L	1686	Standard
	Cr	52	6039.9	5.4	**0.2422**	0.039	16.2	ug/L	6098	Standard
	Cr	53	308.3	6.8	**0.1204**	0.019	15.8	ug/L	193	Standard
	Mn	55	544497.9	2.9	**42.5834**	0.830	1.9	ug/L	1232	Standard
	Co	59	204.3	8.2	**0.0077**	0.002	25.6	ug/L	106	Standard
	Ni	60	1186.4	4.1	**0.2549**	0.014	5.3	ug/L	556	Standard
	Cu	65	1198.0	5.1	**0.4213**	0.030	7.1	ug/L	124	Standard
	Zn	66	3102.7	3.6	**2.0789**	0.070	3.4	ug/L	196	Standard
>	Ge	72	450998.0	1.2				ug/L	473313	Standard
	As	75	-222.0	18.8	**0.0512**	0.029	56.4	ug/L	-286	Standard
	Se	82	-14.1	79.6	**0.2011**	0.079	39.4	ug/L	-33	Standard
	Se-1	77	84.0	14.9	**0.0579**	0.117	201.8	ug/L	86	Standard
>	Ga	71	40.0	25.0				mg/L	35	Standard
	Rb	85	523.3	3.4				ug/L	13	Standard
	Y	89	398015.3	1.0				ug/L	439493	Standard
>	Rh	103	28.3	20.4				ug/L	5	Standard
	Mo	98	46.9	5.5	**-0.0025**	0.001	26.9	ug/L	10	Standard
	Ag	107	51.3	3.0	**-0.0068**	0.000	2.9	ug/L	53	Standard
	Cd	111	3.3	17.6	**-0.0013**	0.000	20.5	mg/L	1	Standard
	Cd	114	16.8	44.0	**-0.0062**	0.001	22.3	ug/L	32	Standard
>	In	115	468427.8	0.6				ug/L	494305	Standard
	Sn	118	55.3	15.4	**-0.0118**	0.007	55.9	ug/L	53	Standard
	Sb	123	83.3	4.5	**0.0317**	0.001	4.2	ug/L	7	Standard
	Ba	135	141.3	14.5	**0.0689**	0.012	17.0	ug/L	11	Standard
	Ce	140	45.0	22.2				ug/L	10	Standard
>	Tb	159	501735.6	0.6				ug/L	538219	Standard
	Ho	165	8.3	34.6				ug/L	8	Standard
	Tl	203	17.7	25.5	**0.0008**	0.001	88.7	ug/L	1	Standard
	Tl	205	18.3	56.8	**0.0018**	0.001	79.2	ug/L	3	Standard
	Pb	206	93.3	3.8	**-0.0054**	0.002	32.5	ug/L	80	Standard
	Pb	207	78.3	8.5	**0.0019**	0.003	135.4	ug/L	73	Standard
	Pb	208	197.7	7.7	**-0.0033**	0.003	87.5	ug/L	190	Standard
	U	238	860.0	5.3	**0.2322**	0.015	6.4	ug/L	0	Standard
>	Bi	209	274868.7	1.2				ug/L	276439	Standard

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	Na	23	6.7	86.6	**1.5396**	1.705	110.8	mg/L	2	Standard
	Mg	24	5799.4	4.6	**6.7854**	0.328	4.8	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2667**	0.198	74.3	mg/L	3	Standard
	Ca	43	46.7	6.2	**5.2121**	0.535	10.3	mg/L	43	Standard
	Fe	54	97.3	20.6	**-0.0717**	0.013	17.5	mg/L	262	Standard
	Fe	57	78.3	32.8	**0.0602**	0.054	90.2	mg/L	65	Standard
>	**Sc-1**	45	23329.6	2.7				mg/L	26874	Standard
	Cl	35	190245.2	4.6				ug/L	141022	Standard
	Kr	83	99.3	6.5				ug/L	75	Standard
	Br	81	3500.4	16.2				ug/L	2810	Standard
	P	31	156003.0	3.4				ug/L	458976	Standard
	S	34	104994.6	4.1				ug/L	103378	Standard
	Sr	88	93.3	25.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	179.8				mg/L	10	Standard
	Ho-1	165	8.3	34.6				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.620	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.285	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	94.765
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	99.432
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311036806S WG452233-05
Sample Date/Time: Monday, November 18, 2013 11:25:47
Number of Replicates: 3
Autosampler Position: 304
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	257297.9	3.4				ug/L	269614	Standard
	Be	9	823.4	1.9	**0.2749**	0.012	4.5	ug/L	23	Standard
	Al	27	1595350.2	2.9	**7.9655**	0.231	2.9	ug/L	1170	Standard
	Sc	45	23585.0	1.8				ug/L	26874	Standard
	Ti	47	24.0	8.3	**0.0010**	0.008	830.5	ug/L	25	Standard
	V	51	3292.2	1.0	**0.3075**	0.002	0.6	ug/L	1686	Standard
	Cr	52	7813.0	1.4	**0.5080**	0.014	2.8	ug/L	6098	Standard
	Cr	53	630.0	8.6	**0.3871**	0.042	10.8	ug/L	193	Standard
	Mn	55	397957.2	2.5	**30.8636**	0.758	2.5	ug/L	1232	Standard
	Co	59	2327.5	3.4	**0.2456**	0.009	3.6	ug/L	106	Standard
	Ni	60	1586.1	2.1	**0.4045**	0.016	4.1	ug/L	556	Standard
	Cu	65	1455.1	1.0	**0.5201**	0.002	0.3	ug/L	124	Standard
	Zn	66	3300.4	0.8	**2.2068**	0.038	1.7	ug/L	196	Standard
>	Ge	72	454282.0	0.8				ug/L	473313	Standard
	As	75	196.6	24.2	**0.3532**	0.033	9.5	ug/L	-286	Standard
	Se	82	17.6	71.7	**0.4243**	0.088	20.7	ug/L	-33	Standard
	Se-1	77	118.0	6.6	**0.3795**	0.081	21.3	ug/L	86	Standard
>	Ga	71	30.0	50.0				mg/L	35	Standard
	Rb	85	281.7	12.6				ug/L	13	Standard
	Y	89	407280.3	1.4				ug/L	439493	Standard
>	Rh	103	16.7	17.3				ug/L	5	Standard
	Mo	98	182.5	4.7	**0.0336**	0.003	7.7	ug/L	10	Standard
	Ag	107	1683.8	2.2	**0.2511**	0.006	2.5	ug/L	53	Standard
	Cd	111	549.1	3.2	**0.2586**	0.010	3.8	mg/L	1	Standard
	Cd	114	1383.8	8.8	**0.2510**	0.024	9.8	ug/L	32	Standard
>	In	115	473555.4	0.7				ug/L	494305	Standard
	Sn	118	47.7	7.9	**-0.0184**	0.003	17.5	ug/L	53	Standard
	Sb	123	715.1	3.4	**0.2801**	0.011	4.0	ug/L	7	Standard
	Ba	135	592.3	3.2	**0.3250**	0.013	3.9	ug/L	11	Standard
	Ce	140	8.3	124.9				ug/L	10	Standard
>	Tb	159	499719.1	0.9				ug/L	538219	Standard
	Ho	165	10.0	50.0				ug/L	8	Standard
	Tl	203	1476.4	1.1	**0.2442**	0.005	2.1	ug/L	1	Standard
	Tl	205	1910.1	6.4	**0.2573**	0.014	5.5	ug/L	3	Standard
	Pb	206	761.0	5.7	**0.2542**	0.015	6.0	ug/L	80	Standard
	Pb	207	654.3	3.2	**0.2505**	0.006	2.5	ug/L	73	Standard
	Pb	208	1523.7	0.5	**0.2305**	0.002	0.7	ug/L	190	Standard
	U	238	1181.4	6.2	**0.3179**	0.023	7.2	ug/L	0	Standard
>	Bi	209	276387.6	1.0				ug/L	276439	Standard

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	Na	23	6.7	86.6	**1.5458**	1.709	110.6	mg/L	2	Standard
	Mg	24	3198.7	3.1	**3.6881**	0.168	4.6	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0417**	0.342	820.0	mg/L	3	Standard
	Ca	43	31.7	9.1	**0.1108**	0.939	847.1	mg/L	43	Standard
	Fe	54	103.7	13.2	**-0.0691**	0.007	9.8	mg/L	262	Standard
	Fe	57	86.7	8.8	**0.0740**	0.014	18.8	mg/L	65	Standard
>	**Sc-1**	45	23585.0	1.8				mg/L	26874	Standard
	Cl	35	186482.0	0.9				ug/L	141022	Standard
	Kr	83	93.0	15.1				ug/L	75	Standard
	Br	81	3500.4	13.4				ug/L	2810	Standard
	P	31	164472.1	4.0				ug/L	458976	Standard
	S	34	111947.1	1.7				ug/L	103378	Standard
	Sr	88	65.0	7.7				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	10.0	100.0				mg/L	10	Standard
	Ho-1	165	10.0	50.0				mg/L	8	Standard
	Er	166	0.0					mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		95.432	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.979	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		95.802
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		99.981
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 11:28:53
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	277818.8	3.1				ug/L	269614	Standard
	Be	9	152298.4	1.6	**49.8089**	1.410	2.8	ug/L	23	Standard
	Al	27	9977769.5	2.7	**46.1594**	0.193	0.4	ug/L	1170	Standard
	Sc	45	24641.7	4.2				ug/L	26874	Standard
	Ti	47	24816.6	1.1	**97.0405**	1.779	1.8	ug/L	25	Standard
	V	51	349996.1	2.4	**48.8192**	1.399	2.9	ug/L	1686	Standard
	Cr	52	346524.7	1.5	**49.3993**	1.076	2.2	ug/L	6098	Standard
	Cr	53	61277.0	1.8	**48.0727**	1.120	2.3	ug/L	193	Standard
	Mn	55	706586.9	2.8	**51.6935**	1.814	3.5	ug/L	1232	Standard
	Co	59	483639.4	0.3	**51.0333**	0.521	1.0	ug/L	106	Standard
	Ni	60	137362.9	1.5	**49.2220**	1.095	2.2	ug/L	556	Standard
	Cu	65	134021.5	0.7	**50.2380**	0.527	1.0	ug/L	124	Standard
	Zn	66	73088.9	0.5	**49.9242**	0.567	1.1	ug/L	196	Standard
>	Ge	72	482515.6	0.7				ug/L	473313	Standard
	As	75	72843.4	0.7	**49.5503**	0.671	1.4	ug/L	-286	Standard
	Se	82	7639.1	0.7	**50.7509**	0.600	1.2	ug/L	-33	Standard
	Se-1	77	5594.0	1.3	**49.8846**	1.030	2.1	ug/L	86	Standard
>	Ga	71	48.3	23.9				mg/L	35	Standard
	Rb	85	1130.0	8.8				ug/L	13	Standard
	Y	89	443263.5	1.8				ug/L	439493	Standard
>	Rh	103	16.7	17.3				ug/L	5	Standard
	Mo	98	410942.6	1.3	**103.3788**	1.726	1.7	ug/L	10	Standard
	Ag	107	348665.5	0.5	**51.8104**	0.608	1.2	ug/L	53	Standard
	Cd	111	112233.5	0.8	**50.2644**	0.655	1.3	mg/L	1	Standard
	Cd	114	284332.5	0.9	**50.3088**	0.516	1.0	ug/L	32	Standard
>	In	115	503548.6	1.2				ug/L	494305	Standard
	Sn	118	68711.8	0.8	**51.4892**	0.496	1.0	ug/L	53	Standard
	Sb	123	129910.7	0.5	**48.0958**	0.676	1.4	ug/L	7	Standard
	Ba	135	93721.6	0.5	**50.2080**	0.673	1.3	ug/L	11	Standard
	Ce	140	38.3	32.8				ug/L	10	Standard
>	Tb	159	536211.2	1.4				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	308499.7	0.2	**49.9024**	0.237	0.5	ug/L	1	Standard
	Tl	205	401206.2	1.1	**52.5611**	0.848	1.6	ug/L	3	Standard
	Pb	206	141721.1	0.7	**53.4283**	0.451	0.8	ug/L	80	Standard
	Pb	207	128454.9	0.7	**53.7577**	0.604	1.1	ug/L	73	Standard
	Pb	208	281972.0	0.4	**48.2120**	0.314	0.7	ug/L	190	Standard
	U	238	187745.8	1.2	**49.2540**	0.597	1.2	ug/L	0	Standard
>	Bi	209	285052.5	0.7				ug/L	276439	Standard

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	Na	23	18.3	68.6	**4.7958**	3.609	75.2	mg/L	2	Standard
	Mg	24	4935.8	10.3	**5.4510**	0.339	6.2	mg/L	37	Standard
	K	39	63.3	31.9	**3.7247**	1.469	39.4	mg/L	3	Standard
	Ca	43	45.0	29.4	**3.9901**	4.771	119.6	mg/L	43	Standard
	Fe	54	10505.7	3.2	**5.4518**	0.212	3.9	mg/L	262	Standard
	Fe	57	2891.9	4.3	**5.3679**	0.424	7.9	mg/L	65	Standard
>	**Sc-1**	45	24641.7	4.2				mg/L	26874	Standard
	Cl	35	158246.1	4.9				ug/L	141022	Standard
	Kr	83	116.0	8.2				ug/L	75	Standard
	Br	81	2977.0	8.1				ug/L	2810	Standard
	P	31	496885.7	1.6				ug/L	458976	Standard
	S	34	121767.4	1.4				ug/L	103378	Standard
	Sr	88	38.3	27.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	13.2	116.4				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.043	
	Be	9	99.618		
	Al	27	92.319		
	Sc	45			
	Ti	47	97.041		
	V	51	97.638		
	Cr	52	98.799		
	Cr	53			
	Mn	55	103.387		
	Co	59	102.067		
	Ni	60	98.444		
	Cu	65	100.476		
	Zn	66	99.848		
>	Ge	72		101.944	
	As	75	99.101		
	Se	82	101.502		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.379		
|	Ag	107	103.621		
|	Cd	111	100.529		
|	Cd	114			
|>	In	115			101.870
|	Sn	118	102.978		
|	Sb	123	96.192		
⌊	Ba	135	100.416		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	99.805		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.424		
|	U	238	98.508		
⌊>	Bi	209			103.116
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 11:31:58
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	282348.9	2.1				ug/L	269614	Standard
	Be	9	55.0	9.1	**0.0016**	0.002	115.7	ug/L	23	Standard
	Al	27	2960.3	22.7	**0.0063**	0.003	46.9	ug/L	1170	Standard
	Sc	45	25802.0	2.9				ug/L	26874	Standard
	Ti	47	16.0	21.7	**-0.0359**	0.014	37.9	ug/L	25	Standard
	V	51	1144.2	5.3	**-0.0213**	0.008	37.8	ug/L	1686	Standard
	Cr	52	4332.3	3.0	**-0.0632**	0.017	27.1	ug/L	6098	Standard
	Cr	53	235.0	5.6	**0.0463**	0.011	22.9	ug/L	193	Standard
	Mn	55	1496.7	6.2	**-0.0290**	0.007	23.0	ug/L	1232	Standard
	Co	59	110.3	40.6	**-0.0037**	0.005	128.8	ug/L	106	Standard
	Ni	60	694.7	5.5	**0.0492**	0.014	28.2	ug/L	556	Standard
	Cu	65	758.7	7.1	**0.2258**	0.021	9.4	ug/L	124	Standard
	Zn	66	507.7	2.8	**0.1521**	0.011	7.3	ug/L	196	Standard
>	Ge	72	480863.1	0.4				ug/L	473313	Standard
	As	75	-283.1	13.9	**0.0195**	0.026	133.8	ug/L	-286	Standard
	Se	82	-25.2	26.0	**0.1335**	0.044	32.9	ug/L	-33	Standard
	Se-1	77	84.3	4.8	**0.0106**	0.035	330.6	ug/L	86	Standard
>	Ga	71	23.3	32.7				mg/L	35	Standard
	Rb	85	23.3	32.7				ug/L	13	Standard
	Y	89	444928.4	0.7				ug/L	439493	Standard
>	Rh	103	3.3	173.2				ug/L	5	Standard
	Mo	98	95.1	35.4	**0.0086**	0.008	96.8	ug/L	10	Standard
	Ag	107	82.0	37.6	**-0.0029**	0.004	152.9	ug/L	53	Standard
	Cd	111	8.9	97.8	**0.0010**	0.004	367.0	mg/L	1	Standard
	Cd	114	34.6	79.5	**-0.0034**	0.005	140.4	ug/L	32	Standard
>	In	115	506355.3	1.1				ug/L	494305	Standard
	Sn	118	77.3	16.1	**0.0013**	0.009	721.3	ug/L	53	Standard
	Sb	123	286.5	26.7	**0.1041**	0.029	27.7	ug/L	7	Standard
	Ba	135	97.7	0.6	**0.0395**	0.001	1.5	ug/L	11	Standard
	Ce	140	16.7	105.4				ug/L	10	Standard
>	Tb	159	541505.3	0.8				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	26.3	110.7	**0.0021**	0.005	224.7	ug/L	1	Standard
	Tl	205	26.7	108.3	**0.0028**	0.004	135.3	ug/L	3	Standard
	Pb	206	109.3	17.0	**-0.0010**	0.007	688.9	ug/L	80	Standard
	Pb	207	91.7	18.8	**0.0060**	0.007	120.7	ug/L	73	Standard
	Pb	208	211.3	8.1	**-0.0026**	0.003	116.5	ug/L	190	Standard
	U	238	23.3	69.8	**0.0042**	0.004	101.2	ug/L	0	Standard
>	Bi	209	287768.7	0.3				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0345**	0.801	2319.5	mg/L	2	Standard
	Mg	24	71.7	38.4	**0.0438**	0.028	63.2	mg/L	37	Standard
	K	39	3.3	173.2	**-0.1816**	0.346	190.4	mg/L	3	Standard
	Ca	43	13.3	43.3	**-6.2733**	1.883	30.0	mg/L	43	Standard
	Fe	54	255.9	22.2	**0.0030**	0.027	907.4	mg/L	262	Standard
	Fe	57	70.0	18.9	**0.0296**	0.026	87.1	mg/L	65	Standard
>	**Sc-1**	45	25802.0	2.9				mg/L	26874	Standard
	Cl	35	156312.9	1.1				ug/L	141022	Standard
	Kr	83	94.3	11.3				ug/L	75	Standard
	Br	81	2856.9	7.1				ug/L	2810	Standard
	P	31	490014.0	3.0				ug/L	458976	Standard
	S	34	121819.5	1.0				ug/L	103378	Standard
	Sr	88	40.0	33.1				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.0	93.6				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	13.3	43.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.723	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.595	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	102.438
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.098
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311033701
Sample Date/Time: Monday, November 18, 2013 11:35:04
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	278263.7	3.3				ug/L	269614	Standard
	Be	9	66.7	35.4	**0.0056**	0.007	132.7	ug/L	23	Standard
	Al	27	9295573.3	1.0	**42.9521**	0.986	2.3	ug/L	1170	Standard
	Sc	45	25927.2	2.9				ug/L	26874	Standard
	Ti	47	380.3	8.9	**1.4279**	0.121	8.5	ug/L	25	Standard
	V	51	14983.9	3.1	**1.9700**	0.041	2.1	ug/L	1686	Standard
	Cr	52	14392.8	0.8	**1.4432**	0.015	1.1	ug/L	6098	Standard
	Cr	53	3838.8	9.7	**2.9613**	0.323	10.9	ug/L	193	Standard
	Mn	55	16943.1	0.8	**1.1360**	0.013	1.2	ug/L	1232	Standard
	Co	59	1031.0	0.3	**0.0963**	0.002	1.9	ug/L	106	Standard
	Ni	60	5638.4	0.4	**1.8801**	0.036	1.9	ug/L	556	Standard
	Cu	65	2349.5	3.6	**0.8447**	0.025	3.0	ug/L	124	Standard
	Zn	66	5632.7	2.8	**3.7660**	0.097	2.6	ug/L	196	Standard
>	Ge	72	470255.3	1.3				ug/L	473313	Standard
	As	75	3980.8	0.8	**2.9784**	0.016	0.5	ug/L	-286	Standard
	Se	82	1539.0	0.1	**10.7301**	0.130	1.2	ug/L	-33	Standard
	Se-1	77	272.0	8.0	**1.7718**	0.213	12.0	ug/L	86	Standard
>	Ga	71	83.3	15.1				mg/L	35	Standard
	Rb	85	15431.2	0.7				ug/L	13	Standard
	Y	89	429448.0	0.9				ug/L	439493	Standard
>	Rh	103	166.7	1.7				ug/L	5	Standard
	Mo	98	4215.4	2.0	**1.0824**	0.017	1.6	ug/L	10	Standard
	Ag	107	65.0	4.1	**-0.0050**	0.000	7.1	ug/L	53	Standard
	Cd	111	22.6	2.7	**0.0076**	0.000	3.9	mg/L	1	Standard
	Cd	114	82.9	21.4	**0.0057**	0.003	55.9	ug/L	32	Standard
>	In	115	486524.0	0.7				ug/L	494305	Standard
	Sn	118	204.3	7.1	**0.1023**	0.012	12.2	ug/L	53	Standard
	Sb	123	275.5	8.2	**0.1041**	0.009	8.6	ug/L	7	Standard
	Ba	135	70275.6	0.9	**38.9580**	0.104	0.3	ug/L	11	Standard
	Ce	140	2428.5	3.3				ug/L	10	Standard
>	Tb	159	526451.6	0.4				ug/L	538219	Standard
	Ho	165	30.0	0.0				ug/L	8	Standard
	Tl	203	118.0	7.8	**0.0176**	0.002	8.8	ug/L	1	Standard
	Tl	205	108.3	7.1	**0.0140**	0.001	7.5	ug/L	3	Standard
	Pb	206	324.3	6.0	**0.0849**	0.007	8.8	ug/L	80	Standard
	Pb	207	269.3	7.0	**0.0848**	0.008	9.6	ug/L	73	Standard
	Pb	208	662.3	3.6	**0.0790**	0.004	5.2	ug/L	190	Standard
	U	238	2627.2	1.5	**0.7121**	0.010	1.4	ug/L	0	Standard
>	Bi	209	275172.6	0.2				ug/L	276439	Standard

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	Na	23	106.7	19.5	**28.0956**	5.877	20.9	mg/L	2	Standard
	Mg	24	11259.2	1.6	**11.8785**	0.279	2.3	mg/L	37	Standard
	K	39	16.7	105.4	**0.6371**	1.091	171.2	mg/L	3	Standard
	Ca	43	180.0	9.6	**43.6094**	4.616	10.6	mg/L	43	Standard
	Fe	54	382.9	14.4	**0.0666**	0.028	41.8	mg/L	262	Standard
	Fe	57	270.0	25.9	**0.3855**	0.113	29.3	mg/L	65	Standard
>	**Sc-1**	45	25927.2	2.9				mg/L	26874	Standard
	Cl	35	190255.3	1.8				ug/L	141022	Standard
	Kr	83	101.7	4.4				ug/L	75	Standard
	Br	81	205588.8	1.1				ug/L	2810	Standard
	P	31	673306.4	1.2				ug/L	458976	Standard
	S	34	98906.8	0.9				ug/L	103378	Standard
	Sr	88	710.0	6.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	316.7	10.2				mg/L	0	Standard
	Dy	164	50.8	63.8				mg/L	10	Standard
	Ho-1	165	30.0	0.0				mg/L	8	Standard
	Er	166	53.3	28.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.208	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.354	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.426
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.542
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311036807SD WG452233-06
Sample Date/Time: Monday, November 18, 2013 11:39:04
Number of Replicates: 3
Autosampler Position: 326
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	253167.9	1.6				ug/L	269614	Standard
	Be	9	758.4	7.7	**0.2563**	0.025	9.6	ug/L	23	Standard
	Al	27	868512.6	1.9	**4.4037**	0.142	3.2	ug/L	1170	Standard
	Sc	45	21867.4	1.5				ug/L	26874	Standard
	Ti	47	26.0	13.3	**0.0140**	0.015	106.8	ug/L	25	Standard
	V	51	2822.8	2.7	**0.2561**	0.011	4.1	ug/L	1686	Standard
	Cr	52	6373.3	2.2	**0.3300**	0.025	7.7	ug/L	6098	Standard
	Cr	53	481.7	13.7	**0.2808**	0.056	19.9	ug/L	193	Standard
	Mn	55	290888.1	3.0	**23.5176**	0.721	3.1	ug/L	1232	Standard
	Co	59	2200.5	2.6	**0.2421**	0.007	2.8	ug/L	106	Standard
	Ni	60	1348.1	2.2	**0.3361**	0.011	3.2	ug/L	556	Standard
	Cu	65	1080.7	1.2	**0.3898**	0.004	1.0	ug/L	124	Standard
	Zn	66	2440.2	2.8	**1.6582**	0.056	3.4	ug/L	196	Standard
>	Ge	72	435169.6	0.4				ug/L	473313	Standard
	As	75	184.2	9.8	**0.3502**	0.014	4.0	ug/L	-286	Standard
	Se	82	19.3	37.6	**0.4426**	0.054	12.2	ug/L	-33	Standard
	Se-1	77	109.3	9.8	**0.3423**	0.111	32.4	ug/L	86	Standard
>	Ga	71	21.7	13.3				mg/L	35	Standard
	Rb	85	210.0	10.9				ug/L	13	Standard
	Y	89	392514.3	0.4				ug/L	439493	Standard
>	Rh	103	6.7	43.3				ug/L	5	Standard
	Mo	98	241.4	4.6	**0.0522**	0.003	6.2	ug/L	10	Standard
	Ag	107	1577.4	1.7	**0.2451**	0.003	1.3	ug/L	53	Standard
	Cd	111	532.7	8.3	**0.2617**	0.021	7.9	mg/L	1	Standard
	Cd	114	1245.4	3.5	**0.2351**	0.009	3.6	ug/L	32	Standard
>	In	115	453884.8	0.5				ug/L	494305	Standard
	Sn	118	48.7	18.5	**-0.0159**	0.007	46.3	ug/L	53	Standard
	Sb	123	770.5	1.2	**0.3150**	0.005	1.7	ug/L	7	Standard
	Ba	135	584.3	3.7	**0.3348**	0.012	3.4	ug/L	11	Standard
	Ce	140	5.0	173.2				ug/L	10	Standard
>	Tb	159	484257.4	1.0				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	1431.4	4.5	**0.2433**	0.011	4.5	ug/L	1	Standard
	Tl	205	1793.4	5.8	**0.2484**	0.014	5.6	ug/L	3	Standard
	Pb	206	732.4	5.7	**0.2510**	0.016	6.5	ug/L	80	Standard
	Pb	207	624.3	5.2	**0.2451**	0.014	5.8	ug/L	73	Standard
	Pb	208	1458.7	4.6	**0.2262**	0.012	5.2	ug/L	190	Standard
	U	238	959.0	2.4	**0.2649**	0.006	2.4	ug/L	0	Standard
>	Bi	209	268893.0	0.2				ug/L	276439	Standard

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	Na	23	8.3	34.6	**2.2091**	0.909	41.1	mg/L	2	Standard
	Mg	24	1881.8	7.1	**2.3262**	0.136	5.9	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	30.0	66.7	**0.3176**	7.120	2242.0	mg/L	43	Standard
	Fe	54	103.9	21.0	**-0.0645**	0.012	18.8	mg/L	262	Standard
	Fe	57	65.0	7.7	**0.0413**	0.009	20.9	mg/L	65	Standard
>	**Sc-1**	45	21867.4	1.5				mg/L	26874	Standard
	Cl	35	158539.5	2.7				ug/L	141022	Standard
	Kr	83	83.7	9.0				ug/L	75	Standard
	Br	81	3303.7	0.9				ug/L	2810	Standard
	P	31	156206.9	4.0				ug/L	458976	Standard
	S	34	109840.1	2.1				ug/L	103378	Standard
	Sr	88	43.3	29.0				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.900	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.941	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311036807SD WG452233-06
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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		91.823
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.270
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311050502
Sample Date/Time: Monday, November 18, 2013 11:44:34
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	254294.8	1.4				ug/L	269614	Standard
	Be	9	33.3	82.6	**-0.0041**	0.010	243.9	ug/L	23	Standard
	Al	27	1672587.3	5.0	**8.4507**	0.512	6.1	ug/L	1170	Standard
	Sc	45	22004.3	2.6				ug/L	26874	Standard
	Ti	47	17.3	33.3	**-0.0241**	0.024	101.3	ug/L	25	Standard
	V	51	1483.1	7.1	**0.0466**	0.015	32.2	ug/L	1686	Standard
	Cr	52	5101.2	4.7	**0.1205**	0.036	29.6	ug/L	6098	Standard
	Cr	53	215.0	12.1	**0.0471**	0.022	47.3	ug/L	193	Standard
	Mn	55	16958.8	4.2	**1.2305**	0.051	4.2	ug/L	1232	Standard
	Co	59	142.7	20.8	**0.0012**	0.003	281.7	ug/L	106	Standard
	Ni	60	1031.0	5.8	**0.2068**	0.022	10.5	ug/L	556	Standard
	Cu	65	560.7	4.3	**0.1718**	0.009	5.2	ug/L	124	Standard
	Zn	66	1745.1	1.8	**1.1206**	0.018	1.6	ug/L	196	Standard
>	**Ge**	72	438131.1	0.5				ug/L	473313	Standard
	As	75	-159.4	31.9	**0.0930**	0.038	40.5	ug/L	-286	Standard
	Se	82	580.3	4.6	**4.5217**	0.211	4.7	ug/L	-33	Standard
	Se-1	77	531.0	0.8	**4.5382**	0.051	1.1	ug/L	86	Standard
>	**Ga**	71	28.3	27.0				mg/L	35	Standard
	Rb	85	428.3	1.8				ug/L	13	Standard
	Y	89	387820.0	1.8				ug/L	439493	Standard
>	**Rh**	103	16.7	45.8				ug/L	5	Standard
	Mo	98	29.2	24.6	**-0.0071**	0.002	28.0	ug/L	10	Standard
	Ag	107	53.3	28.6	**-0.0062**	0.003	40.3	ug/L	53	Standard
	Cd	111	5.3	85.2	**-0.0003**	0.002	795.2	mg/L	1	Standard
	Cd	114	20.6	100.7	**-0.0054**	0.004	74.7	ug/L	32	Standard
>	**In**	115	456786.5	0.3				ug/L	494305	Standard
	Sn	118	40.3	8.0	**-0.0231**	0.003	11.9	ug/L	53	Standard
	Sb	123	70.2	29.6	**0.0271**	0.009	31.3	ug/L	7	Standard
	Ba	135	150.0	6.1	**0.0761**	0.005	6.8	ug/L	11	Standard
	Ce	140	38.3	7.5				ug/L	10	Standard
>	**Tb**	159	487374.2	1.6				ug/L	538219	Standard
	Ho	165	3.3	173.2				ug/L	8	Standard
	Tl	203	11.7	30.1	**-0.0001**	0.001	518.9	ug/L	1	Standard
	Tl	205	68.3	128.9	**0.0089**	0.012	139.0	ug/L	3	Standard
	Pb	206	97.3	12.8	**-0.0026**	0.005	189.8	ug/L	80	Standard
	Pb	207	74.7	13.1	**0.0014**	0.005	322.6	ug/L	73	Standard
	Pb	208	215.3	29.8	**0.0011**	0.012	1118.0	ug/L	190	Standard
	U	238	849.0	10.7	**0.2366**	0.026	11.1	ug/L	0	Standard
>	**Bi**	209	266365.0	0.6				ug/L	276439	Standard

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	Na	23	11.7	24.7	**3.2539**	0.975	30.0	mg/L	2	Standard
	Mg	24	3557.1	7.2	**4.4067**	0.421	9.6	mg/L	37	Standard
	K	39	6.7	43.3	**0.0948**	0.192	203.0	mg/L	3	Standard
	Ca	43	41.7	59.2	**4.4754**	9.010	201.3	mg/L	43	Standard
	Fe	54	87.7	14.7	**-0.0744**	0.008	10.6	mg/L	262	Standard
	Fe	57	51.7	43.6	**0.0131**	0.050	379.9	mg/L	65	Standard
>	**Sc-1**	45	22004.3	2.6				mg/L	26874	Standard
	Cl	35	168871.5	4.1				ug/L	141022	Standard
	Kr	83	93.7	6.8				ug/L	75	Standard
	Br	81	3423.7	4.1				ug/L	2810	Standard
	P	31	160780.4	1.7				ug/L	458976	Standard
	S	34	112113.4	1.8				ug/L	103378	Standard
	Sr	88	106.7	15.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.7	221.0				mg/L	10	Standard
	Ho-1	165	3.3	173.2				mg/L	8	Standard
	Er	166	13.3	114.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		94.318	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.567	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.410
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.356
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311050503
Sample Date/Time: Monday, November 18, 2013 11:47:39
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	251641.1	1.4				ug/L	269614	Standard
	Be	9	28.3	27.0	**-0.0059**	0.003	45.2	ug/L	23	Standard
	Al	27	945304.7	1.9	**4.8212**	0.023	0.5	ug/L	1170	Standard
	Sc	45	22855.6	0.6				ug/L	26874	Standard
	Ti	47	15.3	24.7	**-0.0327**	0.016	48.4	ug/L	25	Standard
	V	51	1480.5	1.8	**0.0465**	0.006	12.7	ug/L	1686	Standard
	Cr	52	5349.9	1.5	**0.1610**	0.016	10.1	ug/L	6098	Standard
	Cr	53	303.3	11.2	**0.1240**	0.031	25.0	ug/L	193	Standard
	Mn	55	16988.5	3.4	**1.2343**	0.036	2.9	ug/L	1232	Standard
	Co	59	122.3	7.6	**-0.0011**	0.001	89.9	ug/L	106	Standard
	Ni	60	901.7	0.5	**0.1560**	0.003	1.7	ug/L	556	Standard
	Cu	65	481.0	1.9	**0.1391**	0.004	2.5	ug/L	124	Standard
	Zn	66	1777.1	3.0	**1.1460**	0.030	2.6	ug/L	196	Standard
>	Ge	72	437702.3	1.0				ug/L	473313	Standard
	As	75	-132.8	23.5	**0.1128**	0.022	19.9	ug/L	-286	Standard
	Se	82	671.7	5.5	**5.1923**	0.304	5.9	ug/L	-33	Standard
	Se-1	77	582.0	4.1	**5.0523**	0.234	4.6	ug/L	86	Standard
>	Ga	71	21.7	26.6				mg/L	35	Standard
	Rb	85	200.0	6.6				ug/L	13	Standard
	Y	89	394917.2	0.5				ug/L	439493	Standard
>	Rh	103	11.7	65.5				ug/L	5	Standard
	Mo	98	45.2	22.3	**-0.0028**	0.003	99.2	ug/L	10	Standard
	Ag	107	48.7	13.4	**-0.0071**	0.001	14.4	ug/L	53	Standard
	Cd	111	8.6	48.3	**0.0013**	0.002	152.4	mg/L	1	Standard
	Cd	114	20.4	37.5	**-0.0055**	0.002	27.4	ug/L	32	Standard
>	In	115	459418.1	0.7				ug/L	494305	Standard
	Sn	118	45.7	13.4	**-0.0188**	0.005	27.8	ug/L	53	Standard
	Sb	123	77.2	15.8	**0.0298**	0.005	16.4	ug/L	7	Standard
	Ba	135	204.7	10.2	**0.1077**	0.012	11.5	ug/L	11	Standard
	Ce	140	20.0	43.3				ug/L	10	Standard
>	Tb	159	485400.1	1.2				ug/L	538219	Standard
	Ho	165	5.0	0.0				ug/L	8	Standard
	Tl	203	23.3	31.0	**0.0019**	0.001	66.2	ug/L	1	Standard
	Tl	205	31.7	32.9	**0.0037**	0.001	38.6	ug/L	3	Standard
	Pb	206	84.7	14.2	**-0.0080**	0.005	58.3	ug/L	80	Standard
	Pb	207	82.7	6.9	**0.0047**	0.002	49.8	ug/L	73	Standard
	Pb	208	193.3	4.4	**-0.0033**	0.001	42.0	ug/L	190	Standard
	U	238	349.3	6.0	**0.0955**	0.006	6.6	ug/L	0	Standard
>	Bi	209	268325.5	0.5				ug/L	276439	Standard

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	Na	23	8.3	34.6	**2.0942**	0.866	41.4	mg/L	2	Standard
	Mg	24	3282.0	1.1	**3.9050**	0.025	0.6	mg/L	37	Standard
	K	39	5.0	173.2	**-0.0335**	0.602	1800.4	mg/L	3	Standard
	Ca	43	30.0	33.3	**-0.1108**	3.454	3116.1	mg/L	43	Standard
	Fe	54	115.9	24.9	**-0.0602**	0.017	27.5	mg/L	262	Standard
	Fe	57	68.3	36.1	**0.0421**	0.050	118.4	mg/L	65	Standard
>	**Sc-1**	45	22855.6	0.6				mg/L	26874	Standard
	Cl	35	166565.0	2.8				ug/L	141022	Standard
	Kr	83	84.0	2.1				ug/L	75	Standard
	Br	81	3133.7	4.1				ug/L	2810	Standard
	P	31	154660.4	0.7				ug/L	458976	Standard
	S	34	112726.1	0.7				ug/L	103378	Standard
	Sr	88	88.3	22.9				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-1.0	86.6				mg/L	10	Standard
	Ho-1	165	5.0	0.0				mg/L	8	Standard
	Er	166	20.0	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.334	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.476	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.942
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.065
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311050504
Sample Date/Time: Monday, November 18, 2013 11:50:43
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	259627.2	0.6				ug/L	269614	Standard
	Be	9	45.0	67.6	**-0.0003**	0.011	3043.1	ug/L	23	Standard
	Al	27	4091328.3	2.2	**20.2480**	0.426	2.1	ug/L	1170	Standard
	Sc	45	22463.3	2.5				ug/L	26874	Standard
	Ti	47	15.3	16.4	**-0.0330**	0.011	33.3	ug/L	25	Standard
	V	51	1564.1	5.2	**0.0577**	0.012	20.1	ug/L	1686	Standard
	Cr	52	5482.3	3.5	**0.1762**	0.029	16.7	ug/L	6098	Standard
	Cr	53	220.0	20.5	**0.0504**	0.039	77.9	ug/L	193	Standard
	Mn	55	65785.5	1.9	**5.1442**	0.084	1.6	ug/L	1232	Standard
	Co	59	254.3	52.1	**0.0140**	0.015	108.8	ug/L	106	Standard
	Ni	60	1306.7	1.1	**0.3132**	0.007	2.3	ug/L	556	Standard
	Cu	65	755.4	7.0	**0.2505**	0.022	8.9	ug/L	124	Standard
	Zn	66	1681.1	2.2	**1.0651**	0.031	2.9	ug/L	196	Standard
>	**Ge**	72	440644.7	0.3				ug/L	473313	Standard
	As	75	-145.2	41.7	**0.1041**	0.045	43.5	ug/L	-286	Standard
	Se	82	615.1	1.6	**4.7485**	0.065	1.4	ug/L	-33	Standard
	Se-1	77	551.0	4.5	**4.7060**	0.238	5.0	ug/L	86	Standard
>	**Ga**	71	18.3	15.7				mg/L	35	Standard
	Rb	85	176.7	4.3				ug/L	13	Standard
	Y	89	391676.7	1.1				ug/L	439493	Standard
>	**Rh**	103	28.3	36.7				ug/L	5	Standard
	Mo	98	124.1	99.5	**0.0193**	0.035	178.7	ug/L	10	Standard
	Ag	107	106.7	80.7	**0.0025**	0.014	560.8	ug/L	53	Standard
	Cd	111	4.6	33.1	**-0.0006**	0.001	125.5	mg/L	1	Standard
	Cd	114	28.7	62.6	**-0.0039**	0.004	91.0	ug/L	32	Standard
>	**In**	115	457122.9	1.2				ug/L	494305	Standard
	Sn	118	48.3	8.6	**-0.0164**	0.004	23.1	ug/L	53	Standard
	Sb	123	73.6	24.6	**0.0285**	0.007	26.3	ug/L	7	Standard
	Ba	135	107.7	8.9	**0.0511**	0.006	12.2	ug/L	11	Standard
	Ce	140	38.3	15.1				ug/L	10	Standard
>	**Tb**	159	485117.2	0.2				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	15.7	32.1	**0.0006**	0.001	151.8	ug/L	1	Standard
	Tl	205	46.7	99.0	**0.0059**	0.007	110.6	ug/L	3	Standard
	Pb	206	95.3	25.2	**-0.0033**	0.010	289.8	ug/L	80	Standard
	Pb	207	87.0	26.7	**0.0070**	0.010	147.5	ug/L	73	Standard
	Pb	208	191.0	26.3	**-0.0033**	0.009	279.9	ug/L	190	Standard
	U	238	2236.8	2.6	**0.6279**	0.011	1.7	ug/L	0	Standard
>	**Bi**	209	265613.4	0.9				ug/L	276439	Standard

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	Na	23	6.7	114.6	**1.6629**	2.404	144.6	mg/L	2	Standard
	Mg	24	8961.0	5.2	**10.9001**	0.306	2.8	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1473**	0.203	137.7	mg/L	3	Standard
	Ca	43	38.3	7.5	**2.9389**	0.971	33.0	mg/L	43	Standard
	Fe	54	84.2	15.9	**-0.0773**	0.009	11.5	mg/L	262	Standard
	Fe	57	88.3	13.1	**0.0858**	0.021	24.8	mg/L	65	Standard
>	**Sc-1**	45	22463.3	2.5				mg/L	26874	Standard
	Cl	35	193394.6	1.6				ug/L	141022	Standard
	Kr	83	101.0	6.9				ug/L	75	Standard
	Br	81	2930.3	10.7				ug/L	2810	Standard
	P	31	157982.8	1.2				ug/L	458976	Standard
	S	34	113836.1	1.3				ug/L	103378	Standard
	Sr	88	135.0	32.1				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.4	5.9				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	13.3	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.296	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.098	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.478
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.084
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311050504
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Method 6020 - Summary Report

Sample ID: L1311050505
Sample Date/Time: Monday, November 18, 2013 11:53:48
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	254266.2	1.9				ug/L	269614	Standard
	Be	9	68.3	129.3	**0.0082**	0.031	382.4	ug/L	23	Standard
	Al	27	1031937.1	19.0	**5.2085**	0.971	18.6	ug/L	1170	Standard
	Sc	45	22348.1	0.4				ug/L	26874	Standard
	Ti	47	26.0	57.7	**0.0127**	0.064	508.2	ug/L	25	Standard
	V	51	1596.2	1.2	**0.0622**	0.006	9.4	ug/L	1686	Standard
	Cr	52	5632.4	1.3	**0.1983**	0.021	10.6	ug/L	6098	Standard
	Cr	53	223.3	7.2	**0.0528**	0.012	22.9	ug/L	193	Standard
	Mn	55	27109.9	3.3	**2.0344**	0.095	4.7	ug/L	1232	Standard
	Co	59	122.0	21.4	**-0.0013**	0.003	238.6	ug/L	106	Standard
	Ni	60	749.7	14.9	**0.0931**	0.044	47.3	ug/L	556	Standard
	Cu	65	498.3	17.4	**0.1444**	0.035	24.4	ug/L	124	Standard
	Zn	66	1834.4	2.8	**1.1775**	0.040	3.4	ug/L	196	Standard
>	**Ge**	72	441551.1	1.2				ug/L	473313	Standard
	As	75	-241.7	13.9	**0.0329**	0.026	77.5	ug/L	-286	Standard
	Se	82	-29.7	19.4	**0.0860**	0.044	51.2	ug/L	-33	Standard
	Se-1	77	86.7	7.9	**0.1016**	0.060	59.2	ug/L	86	Standard
>	**Ga**	71	23.3	12.4				mg/L	35	Standard
	Rb	85	148.3	24.8				ug/L	13	Standard
	Y	89	393605.0	2.0				ug/L	439493	Standard
>	**Rh**	103	6.7	43.3				ug/L	5	Standard
	Mo	98	76.9	19.6	**0.0060**	0.004	69.8	ug/L	10	Standard
	Ag	107	61.7	34.4	**-0.0049**	0.003	69.4	ug/L	53	Standard
	Cd	111	10.6	141.8	**0.0023**	0.007	321.6	mg/L	1	Standard
	Cd	114	31.9	113.1	**-0.0033**	0.007	214.4	ug/L	32	Standard
>	**In**	115	459574.4	0.9				ug/L	494305	Standard
	Sn	118	51.7	4.5	**-0.0140**	0.002	11.2	ug/L	53	Standard
	Sb	123	78.5	12.9	**0.0303**	0.004	13.2	ug/L	7	Standard
	Ba	135	253.7	1.9	**0.1364**	0.002	1.3	ug/L	11	Standard
	Ce	140	45.0	11.1				ug/L	10	Standard
>	**Tb**	159	489489.6	0.5				ug/L	538219	Standard
	Ho	165	0.0					ug/L	8	Standard
	Tl	203	20.0	95.8	**0.0013**	0.003	249.1	ug/L	1	Standard
	Tl	205	20.0	43.3	**0.0021**	0.001	56.6	ug/L	3	Standard
	Pb	206	98.0	7.1	**-0.0022**	0.003	141.9	ug/L	80	Standard
	Pb	207	75.7	17.7	**0.0020**	0.006	309.7	ug/L	73	Standard
	Pb	208	177.0	11.3	**-0.0059**	0.004	60.8	ug/L	190	Standard
	U	238	323.3	25.7	**0.0892**	0.024	26.3	ug/L	0	Standard
>	**Bi**	209	265485.2	1.1				ug/L	276439	Standard

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	Na	23	5.0	0.0	**1.1213**	0.006	0.5	mg/L	2	Standard
	Mg	24	2665.2	9.4	**3.2377**	0.304	9.4	mg/L	37	Standard
	K	39	3.3	173.2	**-0.1457**	0.408	279.8	mg/L	3	Standard
	Ca	43	28.3	20.4	**-0.4739**	1.987	419.4	mg/L	43	Standard
	Fe	54	119.2	25.0	**-0.0567**	0.018	31.2	mg/L	262	Standard
	Fe	57	71.7	33.0	**0.0523**	0.049	94.1	mg/L	65	Standard
>	**Sc-1**	45	22348.1	0.4				mg/L	26874	Standard
	Cl	35	173737.9	1.4				ug/L	141022	Standard
	Kr	83	94.0	2.8				ug/L	75	Standard
	Br	81	2903.6	9.5				ug/L	2810	Standard
	P	31	158614.7	2.9				ug/L	458976	Standard
	S	34	115070.4	1.3				ug/L	103378	Standard
	Sr	88	63.3	24.1				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	187.1				mg/L	10	Standard
	Ho-1	165	0.0					mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		94.307	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.289	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.974
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.037
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311050506
Sample Date/Time: Monday, November 18, 2013 11:56:53
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	260750.8	3.0				ug/L	269614	Standard
	Be	9	35.0	24.7	**-0.0039**	0.003	76.9	ug/L	23	Standard
	Al	27	5441759.5	1.7	**26.8343**	0.959	3.6	ug/L	1170	Standard
	Sc	45	22463.3	0.9				ug/L	26874	Standard
	Ti	47	13.3	24.1	**-0.0420**	0.014	32.7	ug/L	25	Standard
	V	51	1556.3	6.1	**0.0550**	0.012	22.6	ug/L	1686	Standard
	Cr	52	5719.7	5.0	**0.2079**	0.038	18.1	ug/L	6098	Standard
	Cr	53	320.0	19.2	**0.1350**	0.055	40.4	ug/L	193	Standard
	Mn	55	17035.9	1.6	**1.2204**	0.011	0.9	ug/L	1232	Standard
	Co	59	150.7	16.3	**0.0019**	0.003	146.3	ug/L	106	Standard
	Ni	60	1037.0	2.7	**0.2043**	0.009	4.3	ug/L	556	Standard
	Cu	65	791.0	8.2	**0.2630**	0.024	9.0	ug/L	124	Standard
	Zn	66	2992.3	2.4	**2.0354**	0.050	2.4	ug/L	196	Standard
>	**Ge**	72	443452.1	0.9				ug/L	473313	Standard
	As	75	-224.4	41.7	**0.0465**	0.069	148.8	ug/L	-286	Standard
	Se	82	200.8	16.0	**1.7435**	0.231	13.3	ug/L	-33	Standard
	Se-1	77	247.7	2.1	**1.6844**	0.071	4.2	ug/L	86	Standard
>	**Ga**	71	13.3	21.7				mg/L	35	Standard
	Rb	85	428.3	5.5				ug/L	13	Standard
	Y	89	393367.9	1.0				ug/L	439493	Standard
>	**Rh**	103	36.7	34.3				ug/L	5	Standard
	Mo	98	179.2	1.4	**0.0338**	0.001	2.8	ug/L	10	Standard
	Ag	107	48.3	14.1	**-0.0072**	0.001	14.6	ug/L	53	Standard
	Cd	111	2.8	63.2	**-0.0015**	0.001	55.0	mg/L	1	Standard
	Cd	114	18.6	70.9	**-0.0059**	0.003	43.4	ug/L	32	Standard
>	**In**	115	463504.9	0.6				ug/L	494305	Standard
	Sn	118	53.0	14.7	**-0.0132**	0.006	47.2	ug/L	53	Standard
	Sb	123	127.2	11.4	**0.0496**	0.006	12.0	ug/L	7	Standard
	Ba	135	331.7	3.6	**0.1805**	0.006	3.2	ug/L	11	Standard
	Ce	140	26.7	10.8				ug/L	10	Standard
>	**Tb**	159	488302.1	0.2				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	21.0	9.5	**0.0015**	0.000	22.5	ug/L	1	Standard
	Tl	205	18.3	15.7	**0.0019**	0.000	21.9	ug/L	3	Standard
	Pb	206	90.3	10.5	**-0.0053**	0.004	79.9	ug/L	80	Standard
	Pb	207	76.0	7.0	**0.0021**	0.002	114.3	ug/L	73	Standard
	Pb	208	170.0	2.7	**-0.0071**	0.001	8.1	ug/L	190	Standard
	U	238	960.7	5.4	**0.2689**	0.013	4.7	ug/L	0	Standard
>	**Bi**	209	265314.6	1.0				ug/L	276439	Standard

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	Na	23	11.7	65.5	**3.1538**	2.315	73.4	mg/L	2	Standard
	Mg	24	10313.5	2.4	**12.5552**	0.245	2.0	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2636**	0.204	77.3	mg/L	3	Standard
	Ca	43	36.7	78.7	**2.4087**	10.118	420.1	mg/L	43	Standard
	Fe	54	102.8	14.9	**-0.0667**	0.009	13.3	mg/L	262	Standard
	Fe	57	91.7	15.7	**0.0929**	0.030	31.9	mg/L	65	Standard
>	**Sc-1**	45	22463.3	0.9				mg/L	26874	Standard
	Cl	35	208266.9	2.5				ug/L	141022	Standard
	Kr	83	95.0	18.9				ug/L	75	Standard
	Br	81	3483.7	4.9				ug/L	2810	Standard
	P	31	163909.3	3.8				ug/L	458976	Standard
	S	34	113787.4	0.7				ug/L	103378	Standard
	Sr	88	153.3	18.0				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	173.2				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.713	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.691	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	93.769
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.976
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311050506
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Method 6020 - Summary Report

Sample ID: L1311036801
Sample Date/Time: Monday, November 18, 2013 11:59:57
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	260643.0	1.4				ug/L	269614	Standard
	Be	9	46.7	27.0	**0.0002**	0.005	1929.3	ug/L	23	Standard
	Al	27	6396373.8	1.6	**31.5388**	0.553	1.8	ug/L	1170	Standard
	Sc	45	23483.2	0.4				ug/L	26874	Standard
	Ti	47	19.3	23.9	**-0.0172**	0.020	115.4	ug/L	25	Standard
	V	51	1785.5	6.0	**0.0875**	0.017	19.7	ug/L	1686	Standard
	Cr	52	6232.6	4.7	**0.2799**	0.050	17.8	ug/L	6098	Standard
	Cr	53	218.3	10.8	**0.0461**	0.021	45.2	ug/L	193	Standard
	Mn	55	50685.0	1.1	**3.8688**	0.062	1.6	ug/L	1232	Standard
	Co	59	161.7	12.1	**0.0030**	0.002	75.6	ug/L	106	Standard
	Ni	60	1253.1	2.6	**0.2844**	0.011	3.9	ug/L	556	Standard
	Cu	65	989.4	3.2	**0.3404**	0.014	4.2	ug/L	124	Standard
	Zn	66	2501.9	1.6	**1.6524**	0.031	1.9	ug/L	196	Standard
>	**Ge**	72	447564.9	0.5				ug/L	473313	Standard
	As	75	-218.1	26.7	**0.0528**	0.042	79.2	ug/L	-286	Standard
	Se	82	-9.7	173.9	**0.2318**	0.120	51.9	ug/L	-33	Standard
	Se-1	77	89.7	3.6	**0.1197**	0.032	26.4	ug/L	86	Standard
>	**Ga**	71	28.3	66.8				mg/L	35	Standard
	Rb	85	1375.1	12.0				ug/L	13	Standard
	Y	89	403347.1	1.3				ug/L	439493	Standard
>	**Rh**	103	43.3	6.7				ug/L	5	Standard
	Mo	98	60.6	17.8	**0.0012**	0.003	238.8	ug/L	10	Standard
	Ag	107	51.3	18.7	**-0.0067**	0.002	23.4	ug/L	53	Standard
	Cd	111	4.6	62.6	**-0.0007**	0.001	208.4	mg/L	1	Standard
	Cd	114	15.1	19.5	**-0.0066**	0.001	8.3	ug/L	32	Standard
>	**In**	115	467051.3	0.6				ug/L	494305	Standard
	Sn	118	59.3	3.5	**-0.0084**	0.002	23.0	ug/L	53	Standard
	Sb	123	88.0	12.5	**0.0336**	0.005	13.5	ug/L	7	Standard
	Ba	135	239.3	5.2	**0.1257**	0.007	5.4	ug/L	11	Standard
	Ce	140	133.3	12.1				ug/L	10	Standard
>	**Tb**	159	491618.7	0.8				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	13.7	15.2	**0.0003**	0.000	142.4	ug/L	1	Standard
	Tl	205	25.0	20.0	**0.0029**	0.001	25.0	ug/L	3	Standard
	Pb	206	95.0	6.3	**-0.0029**	0.002	83.9	ug/L	80	Standard
	Pb	207	84.7	11.9	**0.0065**	0.005	71.1	ug/L	73	Standard
	Pb	208	204.3	15.4	**-0.0004**	0.006	1634.6	ug/L	190	Standard
	U	238	3222.0	1.5	**0.9172**	0.019	2.1	ug/L	0	Standard
>	**Bi**	209	262184.7	0.6				ug/L	276439	Standard

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	Na	23	16.7	86.6	**4.4738**	4.245	94.9	mg/L	2	Standard
	Mg	24	9926.6	3.8	**11.5561**	0.391	3.4	mg/L	37	Standard
	K	39	8.3	34.6	**0.1797**	0.193	107.2	mg/L	3	Standard
	Ca	43	36.7	20.8	**1.8042**	2.483	137.6	mg/L	43	Standard
	Fe	54	108.9	8.0	**-0.0658**	0.005	7.1	mg/L	262	Standard
	Fe	57	100.0	26.5	**0.1012**	0.052	51.8	mg/L	65	Standard
>	**Sc-1**	45	23483.2	0.4				mg/L	26874	Standard
	Cl	35	222195.4	2.6				ug/L	141022	Standard
	Kr	83	95.3	8.0				ug/L	75	Standard
	Br	81	3263.7	11.2				ug/L	2810	Standard
	P	31	166942.4	4.3				ug/L	458976	Standard
	S	34	116991.8	2.5				ug/L	103378	Standard
	Sr	88	188.3	18.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.7	86.6				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	0.0					mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.673	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.560	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	94.486
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.844
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311036801PS WG452303-01
Sample Date/Time: Monday, November 18, 2013 12:03:02
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	292182.9	2.2				ug/L	269614	Standard
	Be	9	160669.6	3.0	**49.9367**	0.912	1.8	ug/L	23	Standard
	Al	27	6876950.9	0.8	**30.2549**	0.699	2.3	ug/L	1170	Standard
	Sc	45	26905.5	1.2				ug/L	26874	Standard
	Ti	47	19.3	29.4	**-0.0263**	0.022	82.0	ug/L	25	Standard
	V	51	353678.3	2.8	**47.2238**	1.519	3.2	ug/L	1686	Standard
	Cr	52	352880.1	2.8	**48.1462**	1.714	3.6	ug/L	6098	Standard
	Cr	53	63779.0	2.6	**47.8996**	1.345	2.8	ug/L	193	Standard
	Mn	55	785206.8	1.6	**55.0013**	1.230	2.2	ug/L	1232	Standard
	Co	59	492177.8	1.8	**49.7196**	1.042	2.1	ug/L	106	Standard
	Ni	60	144949.1	0.6	**49.7253**	0.647	1.3	ug/L	556	Standard
	Cu	65	140911.9	1.1	**50.5715**	0.928	1.8	ug/L	124	Standard
	Zn	66	78414.1	0.3	**51.2837**	0.629	1.2	ug/L	196	Standard
>	**Ge**	72	504015.8	1.0				ug/L	473313	Standard
	As	75	76779.7	1.1	**50.0014**	1.021	2.0	ug/L	-286	Standard
	Se	82	7872.7	1.9	**50.0813**	1.335	2.7	ug/L	-33	Standard
	Se-1	77	5853.5	1.6	**49.9707**	0.895	1.8	ug/L	86	Standard
>	**Ga**	71	70.0	37.1				mg/L	35	Standard
	Rb	85	1540.1	1.8				ug/L	13	Standard
	Y	89	461614.6	1.9				ug/L	439493	Standard
>	**Rh**	103	81.7	35.3				ug/L	5	Standard
	Mo	98	122.6	6.6	**0.0143**	0.002	12.4	ug/L	10	Standard
	Ag	107	361207.6	0.7	**51.4447**	0.589	1.1	ug/L	53	Standard
	Cd	111	115119.6	1.2	**49.4120**	0.126	0.3	mg/L	1	Standard
	Cd	114	286161.2	0.9	**48.5326**	0.852	1.8	ug/L	32	Standard
>	**In**	115	525363.2	1.2				ug/L	494305	Standard
	Sn	118	291.3	7.0	**0.1530**	0.012	8.0	ug/L	53	Standard
	Sb	123	136407.8	0.9	**48.4032**	0.662	1.4	ug/L	7	Standard
	Ba	135	97834.2	1.4	**50.2293**	0.162	0.3	ug/L	11	Standard
	Ce	140	135.0	7.4				ug/L	10	Standard
>	**Tb**	159	547957.6	0.4				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	311275.4	0.8	**49.7928**	0.778	1.6	ug/L	1	Standard
	Tl	205	407934.6	1.7	**52.8418**	0.637	1.2	ug/L	3	Standard
	Pb	206	142823.7	0.6	**53.2428**	0.126	0.2	ug/L	80	Standard
	Pb	207	127712.7	0.8	**52.8517**	0.717	1.4	ug/L	73	Standard
	Pb	208	285105.3	0.9	**48.2030**	0.233	0.5	ug/L	190	Standard
	U	238	188096.7	0.4	**48.7962**	0.215	0.4	ug/L	0	Standard
>	**Bi**	209	288266.1	0.7				ug/L	276439	Standard

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	Na	23	21.7	26.6	**5.1497**	1.496	29.1	mg/L	2	Standard
	Mg	24	10663.8	2.9	**10.8328**	0.191	1.8	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	28.3	27.0	**-2.1306**	2.244	105.3	mg/L	43	Standard
	Fe	54	298.0	9.6	**0.0185**	0.016	84.3	mg/L	262	Standard
	Fe	57	95.0	15.8	**0.0675**	0.027	40.5	mg/L	65	Standard
>	**Sc-1**	45	26905.5	1.2				mg/L	26874	Standard
	Cl	35	240336.8	1.6				ug/L	141022	Standard
	Kr	83	111.7	2.9				ug/L	75	Standard
	Br	81	3807.1	5.0				ug/L	2810	Standard
	P	31	497148.0	1.9				ug/L	458976	Standard
	S	34	126201.8	0.6				ug/L	103378	Standard
	Sr	88	210.0	21.4				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	12.4	127.2				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	20.0	50.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.371	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.487	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.283
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.278
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311036801PS WG452303-01
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Method 6020 - Summary Report

Sample ID: L1311036801SDL WG452303-02
Sample Date/Time: Monday, November 18, 2013 12:06:07
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 250
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	256245.9	2.0				ug/L	269614	Standard
	Be	9	48.3	15.8	**0.0010**	0.002	235.6	ug/L	23	Standard
	Al	27	1181516.1	3.1	**5.9216**	0.241	4.1	ug/L	1170	Standard
	Sc	45	23224.5	2.4				ug/L	26874	Standard
	Ti	47	13.0	27.7	**-0.0442**	0.015	33.9	ug/L	25	Standard
	V	51	1817.0	4.5	**0.0911**	0.013	13.8	ug/L	1686	Standard
	Cr	52	6262.0	0.9	**0.2804**	0.012	4.4	ug/L	6098	Standard
	Cr	53	223.3	1.3	**0.0495**	0.003	6.0	ug/L	193	Standard
	Mn	55	10791.8	2.8	**0.7108**	0.025	3.5	ug/L	1232	Standard
	Co	59	139.7	31.8	**0.0005**	0.005	1098.0	ug/L	106	Standard
	Ni	60	682.0	4.8	**0.0618**	0.013	20.6	ug/L	556	Standard
	Cu	65	487.0	4.2	**0.1363**	0.008	5.5	ug/L	124	Standard
	Zn	66	1994.1	3.0	**1.2711**	0.046	3.6	ug/L	196	Standard
>	Ge	72	449380.8	0.4				ug/L	473313	Standard
	As	75	-288.2	15.4	**0.0023**	0.032	1356.7	ug/L	-286	Standard
	Se	82	-45.1	22.2	**-0.0192**	0.071	368.4	ug/L	-33	Standard
	Se-1	77	81.7	25.5	**0.0390**	0.206	528.2	ug/L	86	Standard
>	Ga	71	15.0	57.7				mg/L	35	Standard
	Rb	85	268.3	17.6				ug/L	13	Standard
	Y	89	404091.3	0.9				ug/L	439493	Standard
>	Rh	103	11.7	49.5				ug/L	5	Standard
	Mo	98	20.1	10.1	**-0.0098**	0.001	5.6	ug/L	10	Standard
	Ag	107	92.0	50.9	**-0.0004**	0.007	1970.0	ug/L	53	Standard
	Cd	111	8.6	29.0	**0.0012**	0.001	97.3	mg/L	1	Standard
	Cd	114	35.4	16.2	**-0.0028**	0.001	39.6	ug/L	32	Standard
>	In	115	471184.4	0.3				ug/L	494305	Standard
	Sn	118	48.7	6.3	**-0.0174**	0.002	14.0	ug/L	53	Standard
	Sb	123	264.4	8.0	**0.1031**	0.008	7.8	ug/L	7	Standard
	Ba	135	61.7	3.7	**0.0228**	0.001	6.0	ug/L	11	Standard
	Ce	140	23.3	53.9				ug/L	10	Standard
>	Tb	159	491140.4	1.0				ug/L	538219	Standard
	Ho	165	0.0					ug/L	8	Standard
	Tl	203	34.3	79.3	**0.0037**	0.005	125.1	ug/L	1	Standard
	Tl	205	45.0	11.1	**0.0055**	0.001	12.7	ug/L	3	Standard
	Pb	206	109.3	25.2	**0.0015**	0.011	722.1	ug/L	80	Standard
	Pb	207	84.7	10.7	**0.0052**	0.004	76.0	ug/L	73	Standard
	Pb	208	196.7	7.9	**-0.0030**	0.003	97.9	ug/L	190	Standard
	U	238	509.3	4.8	**0.1388**	0.007	4.9	ug/L	0	Standard
>	Bi	209	270881.0	0.4				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0785**	0.877	1117.1	mg/L	2	Standard
	Mg	24	2055.1	4.5	**2.3944**	0.102	4.2	mg/L	37	Standard
	K	39	6.7	43.3	**0.0752**	0.206	273.8	mg/L	3	Standard
	Ca	43	28.3	27.0	**-0.8636**	2.421	280.3	mg/L	43	Standard
	Fe	54	99.0	25.0	**-0.0709**	0.013	18.2	mg/L	262	Standard
	Fe	57	83.3	6.9	**0.0702**	0.015	20.8	mg/L	65	Standard
>	**Sc-1**	45	23224.5	2.4				mg/L	26874	Standard
	Cl	35	184170.8	1.7				ug/L	141022	Standard
	Kr	83	102.7	10.0				ug/L	75	Standard
	Br	81	2613.6	4.8				ug/L	2810	Standard
	P	31	158838.3	0.7				ug/L	458976	Standard
	S	34	118389.1	0.6				ug/L	103378	Standard
	Sr	88	80.0	34.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	10	Standard
	Ho-1	165	0.0					mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		95.042	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.944	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		95.323
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.989
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311036801SDL WG452303-02
Report Date/Time: Monday, November 18, 2013 12:08:20
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 12:09:14
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	278428.8	1.7				ug/L	269614	Standard
	Be	9	153611.5	1.0	**50.1162**	1.207	2.4	ug/L	23	Standard
	Al	27	10037117.6	0.9	**46.3355**	0.703	1.5	ug/L	1170	Standard
	Sc	45	25296.1	1.3				ug/L	26874	Standard
	Ti	47	25430.7	1.2	**98.5462**	1.458	1.5	ug/L	25	Standard
	V	51	345954.1	0.5	**47.8149**	0.260	0.5	ug/L	1686	Standard
	Cr	52	341810.4	1.8	**48.2715**	0.977	2.0	ug/L	6098	Standard
	Cr	53	62776.5	0.7	**48.8061**	0.429	0.9	ug/L	193	Standard
	Mn	55	697734.8	1.1	**50.5780**	0.570	1.1	ug/L	1232	Standard
	Co	59	481774.9	2.3	**50.3801**	1.237	2.5	ug/L	106	Standard
	Ni	60	140751.1	1.2	**49.9831**	0.703	1.4	ug/L	556	Standard
	Cu	65	135297.1	0.9	**50.2607**	0.575	1.1	ug/L	124	Standard
	Zn	66	74448.5	0.5	**50.3973**	0.381	0.8	ug/L	196	Standard
>	Ge	72	486876.6	0.3				ug/L	473313	Standard
	As	75	74843.3	0.1	**50.4478**	0.111	0.2	ug/L	-286	Standard
	Se	82	7723.1	1.5	**50.8472**	0.814	1.6	ug/L	-33	Standard
	Se-1	77	5692.1	1.0	**50.3055**	0.475	0.9	ug/L	86	Standard
>	Ga	71	75.0	20.0				mg/L	35	Standard
	Rb	85	1160.0	7.9				ug/L	13	Standard
	Y	89	444563.2	1.1				ug/L	439493	Standard
>	Rh	103	28.3	36.7				ug/L	5	Standard
	Mo	98	419104.6	2.1	**103.5707**	2.077	2.0	ug/L	10	Standard
	Ag	107	358937.8	1.1	**52.3941**	0.158	0.3	ug/L	53	Standard
	Cd	111	114769.8	0.7	**50.4938**	0.367	0.7	mg/L	1	Standard
	Cd	114	287965.5	2.2	**50.0493**	0.719	1.4	ug/L	32	Standard
>	In	115	512579.1	1.4				ug/L	494305	Standard
	Sn	118	70136.4	2.9	**51.6217**	0.869	1.7	ug/L	53	Standard
	Sb	123	133562.5	0.5	**48.5758**	0.494	1.0	ug/L	7	Standard
	Ba	135	95817.4	1.5	**50.4209**	0.063	0.1	ug/L	11	Standard
	Ce	140	31.7	18.2				ug/L	10	Standard
>	Tb	159	535441.8	0.4				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	311251.7	1.1	**50.0366**	0.079	0.2	ug/L	1	Standard
	Tl	205	407971.3	0.5	**53.1201**	0.714	1.3	ug/L	3	Standard
	Pb	206	142846.2	0.7	**53.5225**	0.460	0.9	ug/L	80	Standard
	Pb	207	127624.6	1.1	**53.0809**	0.544	1.0	ug/L	73	Standard
	Pb	208	283875.7	0.5	**48.2398**	0.257	0.5	ug/L	190	Standard
	U	238	187125.5	1.2	**48.7895**	0.446	0.9	ug/L	0	Standard
>	Bi	209	286815.1	1.0				ug/L	276439	Standard

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	Na	23	23.3	65.5	**5.9511**	4.185	70.3	mg/L	2	Standard
	Mg	24	4779.1	4.8	**5.1496**	0.293	5.7	mg/L	37	Standard
	K	39	70.0	18.9	**3.9965**	0.828	20.7	mg/L	3	Standard
	Ca	43	51.7	44.7	**5.5441**	7.084	127.8	mg/L	43	Standard
	Fe	54	10876.4	1.0	**5.4962**	0.128	2.3	mg/L	262	Standard
	Fe	57	3062.0	3.5	**5.5277**	0.137	2.5	mg/L	65	Standard
>	**Sc-1**	45	25296.1	1.3				mg/L	26874	Standard
	Cl	35	163011.1	2.1				ug/L	141022	Standard
	Kr	83	98.0	8.2				ug/L	75	Standard
	Br	81	3043.6	2.6				ug/L	2810	Standard
	P	31	541425.0	2.2				ug/L	458976	Standard
	S	34	133705.7	0.8				ug/L	103378	Standard
	Sr	88	38.3	45.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	5.7	109.1				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	20.0	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.269	
	Be	9	100.232		
	Al	27	92.671		
	Sc	45			
	Ti	47	98.546		
	V	51	95.630		
	Cr	52	96.543		
	Cr	53			
	Mn	55	101.156		
	Co	59	100.760		
	Ni	60	99.966		
	Cu	65	100.521		
	Zn	66	100.795		
>	Ge	72		102.866	
	As	75	100.896		
	Se	82	101.694		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.571		
|	Ag	107	104.788		
|	Cd	111	100.988		
|	Cd	114			
|>	In	115			103.697
|	Sn	118	103.243		
|	Sb	123	97.152		
⌊	Ba	135	100.842		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	100.073		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.480		
|	U	238	97.579		
⌊>	Bi	209			103.753
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Monday, November 18, 2013 12:11:27
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 12:12:18
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	276592.6	2.3				ug/L	269614	Standard
	Be	9	76.7	19.9	**0.0091**	0.005	56.1	ug/L	23	Standard
	Al	27	1923.5	8.3	**0.0018**	0.001	30.1	ug/L	1170	Standard
	Sc	45	25366.2	2.6				ug/L	26874	Standard
	Ti	47	25.0	28.0	**-0.0014**	0.028	1963.1	ug/L	25	Standard
	V	51	1099.8	6.2	**-0.0289**	0.009	30.0	ug/L	1686	Standard
	Cr	52	4138.2	1.8	**-0.0965**	0.008	8.0	ug/L	6098	Standard
	Cr	53	171.7	7.3	**-0.0049**	0.009	187.2	ug/L	193	Standard
	Mn	55	1424.4	1.3	**-0.0352**	0.001	2.1	ug/L	1232	Standard
	Co	59	93.3	13.9	**-0.0056**	0.001	24.1	ug/L	106	Standard
	Ni	60	534.7	2.7	**-0.0103**	0.005	53.2	ug/L	556	Standard
	Cu	65	440.3	14.0	**0.1045**	0.024	22.8	ug/L	124	Standard
	Zn	66	315.3	5.3	**0.0179**	0.013	69.9	ug/L	196	Standard
>	**Ge**	72	485088.7	0.5				ug/L	473313	Standard
	As	75	-286.5	3.0	**0.0189**	0.005	27.3	ug/L	-286	Standard
	Se	82	-36.6	8.4	**0.0607**	0.019	32.0	ug/L	-33	Standard
	Se-1	77	93.3	9.2	**0.0850**	0.076	89.4	ug/L	86	Standard
>	**Ga**	71	20.0	43.3				mg/L	35	Standard
	Rb	85	23.3	32.7				ug/L	13	Standard
	Y	89	447259.4	1.4				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	85.5	31.2	**0.0060**	0.007	109.7	ug/L	10	Standard
	Ag	107	78.7	9.4	**-0.0035**	0.001	29.9	ug/L	53	Standard
	Cd	111	4.6	24.7	**-0.0009**	0.000	56.2	mg/L	1	Standard
	Cd	114	32.9	40.0	**-0.0037**	0.002	60.9	ug/L	32	Standard
>	**In**	115	511436.6	0.6				ug/L	494305	Standard
	Sn	118	79.3	4.8	**0.0022**	0.002	112.5	ug/L	53	Standard
	Sb	123	297.9	26.5	**0.1071**	0.029	26.9	ug/L	7	Standard
	Ba	135	99.0	10.6	**0.0397**	0.005	13.3	ug/L	11	Standard
	Ce	140	10.0	86.6				ug/L	10	Standard
>	**Tb**	159	536366.8	1.6				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	17.3	8.8	**0.0006**	0.000	38.3	ug/L	1	Standard
	Tl	205	20.0	66.1	**0.0019**	0.002	90.6	ug/L	3	Standard
	Pb	206	101.0	10.3	**-0.0045**	0.004	82.7	ug/L	80	Standard
	Pb	207	82.7	18.5	**0.0019**	0.006	335.5	ug/L	73	Standard
	Pb	208	193.7	12.9	**-0.0059**	0.004	68.8	ug/L	190	Standard
	U	238	11.3	28.4	**0.0011**	0.001	78.9	ug/L	0	Standard
>	**Bi**	209	290752.2	0.3				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0279**	0.789	2825.2	mg/L	2	Standard
	Mg	24	43.3	56.9	**0.0146**	0.026	178.8	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1704**	0.183	107.2	mg/L	3	Standard
	Ca	43	18.3	56.8	**-4.6896**	3.212	68.5	mg/L	43	Standard
	Fe	54	289.4	9.1	**0.0226**	0.010	44.2	mg/L	262	Standard
	Fe	57	48.3	47.8	**-0.0075**	0.045	596.6	mg/L	65	Standard
>	**Sc-1**	45	25366.2	2.6				mg/L	26874	Standard
	Cl	35	159848.8	0.9				ug/L	141022	Standard
	Kr	83	93.3	2.2				ug/L	75	Standard
	Br	81	3060.3	7.8				ug/L	2810	Standard
	P	31	529756.1	1.1				ug/L	458976	Standard
	S	34	128954.8	0.9				ug/L	103378	Standard
	Sr	88	41.7	36.7				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	13.0	40.1				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.588	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.488	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.466
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.178
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1311036804
Sample Date/Time: Monday, November 18, 2013 12:15:25
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	329955.7	0.4				ug/L	269614	Standard
	Be	9	66.7	30.3	**0.0023**	0.006	242.3	ug/L	23	Standard
	Al	27	172149798.8	0.4	**670.6076**	2.855	0.4	ug/L	1170	Standard
	Sc	45	22878.9	1.5				ug/L	26874	Standard
	Ti	47	127.3	14.6	**0.4878**	0.089	18.3	ug/L	25	Standard
	V	51	3092.9	7.9	**0.3272**	0.038	11.6	ug/L	1686	Standard
	Cr	52	7308.1	4.7	**0.5509**	0.050	9.1	ug/L	6098	Standard
	Cr	53	2045.1	10.1	**1.7542**	0.201	11.4	ug/L	193	Standard
	Mn	55	55082.3	1.5	**4.6131**	0.045	1.0	ug/L	1232	Standard
	Co	59	5128.9	0.6	**0.6214**	0.003	0.5	ug/L	106	Standard
	Ni	60	30314.3	2.5	**12.6264**	0.233	1.8	ug/L	556	Standard
	Cu	65	10044.0	3.4	**4.3749**	0.181	4.1	ug/L	124	Standard
	Zn	66	8748.5	2.0	**6.8593**	0.091	1.3	ug/L	196	Standard
>	**Ge**	72	410187.7	0.7				ug/L	473313	Standard
	As	75	1564.5	9.8	**1.4581**	0.119	8.1	ug/L	-286	Standard
	Se	82	1754.9	3.7	**13.9318**	0.415	3.0	ug/L	-33	Standard
	Se-1	77	1146.7	1.8	**11.4551**	0.245	2.1	ug/L	86	Standard
>	**Ga**	71	68.3	37.5				mg/L	35	Standard
	Rb	85	28261.3	1.6				ug/L	13	Standard
	Y	89	386778.1	1.0				ug/L	439493	Standard
>	**Rh**	103	1498.4	4.9				ug/L	5	Standard
	Mo	98	3337.4	1.6	**1.0085**	0.011	1.1	ug/L	10	Standard
	Ag	107	72.0	20.7	**-0.0019**	0.003	135.3	ug/L	53	Standard
	Cd	111	62.9	8.8	**0.0315**	0.003	10.1	mg/L	1	Standard
	Cd	114	161.4	17.6	**0.0254**	0.006	23.1	ug/L	32	Standard
>	**In**	115	412995.9	0.8				ug/L	494305	Standard
	Sn	118	71.0	8.6	**0.0085**	0.006	65.5	ug/L	53	Standard
	Sb	123	246.2	0.2	**0.1096**	0.001	0.7	ug/L	7	Standard
	Ba	135	10196.4	0.9	**6.6485**	0.011	0.2	ug/L	11	Standard
	Ce	140	635.0	16.2				ug/L	10	Standard
>	**Tb**	159	461573.6	0.4				ug/L	538219	Standard
	Ho	165	111.7	24.7				ug/L	8	Standard
	Tl	203	129.0	7.4	**0.0251**	0.002	7.7	ug/L	1	Standard
	Tl	205	143.3	5.3	**0.0238**	0.001	5.0	ug/L	3	Standard
	Pb	206	114.0	16.9	**0.0143**	0.010	68.7	ug/L	80	Standard
	Pb	207	90.3	6.1	**0.0173**	0.003	17.4	ug/L	73	Standard
	Pb	208	240.7	0.6	**0.0154**	0.000	2.1	ug/L	190	Standard
	U	238	131613.9	0.9	**45.0917**	0.224	0.5	ug/L	0	Standard
>	**Bi**	209	218274.8	1.2				ug/L	276439	Standard

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	Na	23	540.0	13.1	**163.1956**	23.739	14.5	mg/L	2	Standard
	Mg	24	394106.6	0.7	**472.2910**	6.753	1.4	mg/L	37	Standard
	K	39	26.7	57.3	**1.4648**	1.053	71.9	mg/L	3	Standard
	Ca	43	543.3	9.8	**174.1374**	15.980	9.2	mg/L	43	Standard
	Fe	54	218.9	29.0	**-0.0016**	0.035	2172.5	mg/L	262	Standard
	Fe	57	1041.7	4.5	**2.0192**	0.091	4.5	mg/L	65	Standard
>	**Sc-1**	45	22878.9	1.5				mg/L	26874	Standard
	Cl	35	1623099.8	1.2				ug/L	141022	Standard
	Kr	83	217.3	3.0				ug/L	75	Standard
	Br	81	59228.9	2.6				ug/L	2810	Standard
	P	31	433343.2	0.9				ug/L	458976	Standard
	S	34	115612.8	0.6				ug/L	103378	Standard
	Sr	88	7778.7	2.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	105.8	24.4				mg/L	10	Standard
	Ho-1	165	111.7	24.7				mg/L	8	Standard
	Er	166	86.7	17.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.381	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		86.663	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.551
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	78.959
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

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Method 6020 - Summary Report

Sample ID: L1311036805
Sample Date/Time: Monday, November 18, 2013 12:18:30
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	329402.4	0.9				ug/L	269614	Standard
	Be	9	55.0	36.4	**-0.0009**	0.005	590.9	ug/L	23	Standard
	Al	27	160188303.4	0.8	**625.1143**	10.243	1.6	ug/L	1170	Standard
	Sc	45	23237.8	1.4				ug/L	26874	Standard
	Ti	47	188.7	5.9	**0.7531**	0.050	6.6	ug/L	25	Standard
	V	51	4522.4	0.7	**0.5484**	0.005	0.9	ug/L	1686	Standard
	Cr	52	9003.0	1.4	**0.8097**	0.021	2.5	ug/L	6098	Standard
	Cr	53	2270.2	3.3	**1.9212**	0.069	3.6	ug/L	193	Standard
	Mn	55	30046.4	0.8	**2.4032**	0.020	0.8	ug/L	1232	Standard
	Co	59	5045.5	1.8	**0.5990**	0.011	1.8	ug/L	106	Standard
	Ni	60	29023.8	0.5	**11.8445**	0.059	0.5	ug/L	556	Standard
	Cu	65	9395.6	1.1	**4.0079**	0.046	1.2	ug/L	124	Standard
	Zn	66	11081.4	10.8	**8.5690**	0.949	11.1	ug/L	196	Standard
>	Ge	72	418251.2	0.0				ug/L	473313	Standard
	As	75	2016.8	8.8	**1.7877**	0.138	7.7	ug/L	-286	Standard
	Se	82	1832.9	3.6	**14.2649**	0.500	3.5	ug/L	-33	Standard
	Se-1	77	1158.0	3.4	**11.3374**	0.405	3.6	ug/L	86	Standard
>	Ga	71	80.0	37.5				mg/L	35	Standard
	Rb	85	29812.6	1.5				ug/L	13	Standard
	Y	89	395269.8	2.4				ug/L	439493	Standard
>	Rh	103	1520.1	3.4				ug/L	5	Standard
	Mo	98	4685.6	1.3	**1.3883**	0.013	1.0	ug/L	10	Standard
	Ag	107	64.7	23.3	**-0.0035**	0.003	76.7	ug/L	53	Standard
	Cd	111	70.3	13.5	**0.0346**	0.005	14.4	mg/L	1	Standard
	Cd	114	232.9	23.3	**0.0396**	0.011	28.4	ug/L	32	Standard
>	In	115	422907.6	0.6				ug/L	494305	Standard
	Sn	118	77.0	16.0	**0.0124**	0.011	91.6	ug/L	53	Standard
	Sb	123	221.0	6.8	**0.0959**	0.006	6.3	ug/L	7	Standard
	Ba	135	15833.6	0.8	**10.0886**	0.031	0.3	ug/L	11	Standard
	Ce	140	636.7	2.8				ug/L	10	Standard
>	Tb	159	473617.3	1.0				ug/L	538219	Standard
	Ho	165	145.0	13.8				ug/L	8	Standard
	Tl	203	131.0	14.5	**0.0250**	0.004	15.9	ug/L	1	Standard
	Tl	205	156.7	27.9	**0.0256**	0.007	28.4	ug/L	3	Standard
	Pb	206	111.0	3.9	**0.0117**	0.002	18.7	ug/L	80	Standard
	Pb	207	98.0	7.1	**0.0205**	0.004	18.8	ug/L	73	Standard
	Pb	208	221.7	6.1	**0.0102**	0.003	29.6	ug/L	190	Standard
	U	238	118530.8	0.5	**39.7987**	0.287	0.7	ug/L	0	Standard
>	Bi	209	222716.6	0.2				ug/L	276439	Standard

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	Na	23	513.3	9.0	**152.4470**	12.604	8.3	mg/L	2	Standard
	Mg	24	367863.8	0.4	**434.0319**	6.296	1.5	mg/L	37	Standard
	K	39	21.7	74.2	**1.0988**	1.104	100.5	mg/L	3	Standard
	Ca	43	511.7	13.3	**160.6257**	20.242	12.6	mg/L	43	Standard
	Fe	54	229.2	18.9	**0.0026**	0.026	968.8	mg/L	262	Standard
	Fe	57	941.7	8.6	**1.7858**	0.146	8.2	mg/L	65	Standard
>	**Sc-1**	45	23237.8	1.4				mg/L	26874	Standard
	Cl	35	1533713.0	0.1				ug/L	141022	Standard
	Kr	83	223.3	8.8				ug/L	75	Standard
	Br	81	54558.1	1.5				ug/L	2810	Standard
	P	31	442929.6	2.2				ug/L	458976	Standard
	S	34	111562.6	0.9				ug/L	103378	Standard
	Sr	88	7075.0	2.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	101.7	5.2				mg/L	10	Standard
	Ho-1	165	145.0	13.8				mg/L	8	Standard
	Er	166	103.3	14.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.175	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		88.367	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.556
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	80.566
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

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Method 6020 - Summary Report

Sample ID: L1311039801
Sample Date/Time: Monday, November 18, 2013 12:21:42
Number of Replicates: 3
Autosampler Position: 325
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	293973.4	1.8				ug/L	269614	Standard
	Be	9	43.3	24.0	**-0.0027**	0.003	115.1	ug/L	23	Standard
	Al	27	20539.5	64.9	**0.0824**	0.057	69.7	ug/L	1170	Standard
	Sc	45	26763.6	1.0				ug/L	26874	Standard
	Ti	47	36.3	9.7	**0.0373**	0.012	31.1	ug/L	25	Standard
	V	51	2360.5	5.2	**0.1343**	0.013	9.6	ug/L	1686	Standard
	Cr	52	8535.7	2.4	**0.4899**	0.015	3.0	ug/L	6098	Standard
	Cr	53	335.0	18.2	**0.1133**	0.046	40.8	ug/L	193	Standard
	Mn	55	4718.7	3.4	**0.1922**	0.008	4.1	ug/L	1232	Standard
	Co	59	172.0	9.1	**0.0020**	0.001	71.1	ug/L	106	Standard
	Ni	60	721.7	0.3	**0.0470**	0.002	4.6	ug/L	556	Standard
	Cu	65	1012.7	20.5	**0.3035**	0.070	23.2	ug/L	124	Standard
	Zn	66	3742.1	3.3	**2.2597**	0.053	2.3	ug/L	196	Standard
>	**Ge**	72	503876.1	1.1				ug/L	473313	Standard
	As	75	-215.1	4.8	**0.0723**	0.007	10.0	ug/L	-286	Standard
	Se	82	4.1	14.1	**0.3268**	0.004	1.2	ug/L	-33	Standard
	Se-1	77	96.7	13.8	**0.0826**	0.115	139.7	ug/L	86	Standard
>	**Ga**	71	21.7	13.3				mg/L	35	Standard
	Rb	85	101.7	7.5				ug/L	13	Standard
	Y	89	473484.5	0.5				ug/L	439493	Standard
>	**Rh**	103	3.3	86.6				ug/L	5	Standard
	Mo	98	267.0	8.2	**0.0479**	0.005	11.1	ug/L	10	Standard
	Ag	107	56.3	1.0	**-0.0071**	0.000	2.2	ug/L	53	Standard
	Cd	111	9.6	27.3	**0.0012**	0.001	97.8	mg/L	1	Standard
	Cd	114	52.3	43.4	**-0.0007**	0.004	521.0	ug/L	32	Standard
>	**In**	115	536370.9	1.2				ug/L	494305	Standard
	Sn	118	102.3	8.4	**0.0157**	0.007	43.7	ug/L	53	Standard
	Sb	123	132.5	11.6	**0.0446**	0.005	11.7	ug/L	7	Standard
	Ba	135	210.3	10.6	**0.0932**	0.011	11.3	ug/L	11	Standard
	Ce	140	81.7	35.3				ug/L	10	Standard
>	**Tb**	159	560983.4	0.7				ug/L	538219	Standard
	Ho	165	6.7	173.2				ug/L	8	Standard
	Tl	203	21.7	14.1	**0.0012**	0.000	37.7	ug/L	1	Standard
	Tl	205	33.3	34.6	**0.0035**	0.001	41.7	ug/L	3	Standard
	Pb	206	176.0	12.0	**0.0217**	0.007	32.5	ug/L	80	Standard
	Pb	207	162.7	13.5	**0.0332**	0.008	24.7	ug/L	73	Standard
	Pb	208	355.0	11.6	**0.0198**	0.006	31.8	ug/L	190	Standard
	U	238	20.7	46.0	**0.0034**	0.002	72.9	ug/L	0	Standard
>	**Bi**	209	297185.8	1.0				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	85.0	52.3	**0.0555**	0.047	83.9	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2830**	0.170	60.1	mg/L	3	Standard
	Ca	43	35.0	28.6	**-0.1641**	2.871	1750.0	mg/L	43	Standard
	Fe	54	332.2	15.4	**0.0358**	0.024	67.8	mg/L	262	Standard
	Fe	57	83.3	38.6	**0.0479**	0.055	115.7	mg/L	65	Standard
>	**Sc-1**	45	26763.6	1.0				mg/L	26874	Standard
	Cl	35	201548.4	1.0				ug/L	141022	Standard
	Kr	83	93.0	3.2				ug/L	75	Standard
	Br	81	6651.5	2.3				ug/L	2810	Standard
	P	31	502109.8	1.1				ug/L	458976	Standard
	S	34	111057.2	0.8				ug/L	103378	Standard
	Sr	88	31.7	39.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.5	173.2				mg/L	10	Standard
	Ho-1	165	6.7	173.2				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		109.035	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.457	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.510
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.505
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311051401
Sample Date/Time: Monday, November 18, 2013 12:24:46
Number of Replicates: 3
Autosampler Position: 326
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	267166.6	0.8				ug/L	269614	Standard
	Be	9	30.0	33.3	**-0.0059**	0.003	56.5	ug/L	23	Standard
	Al	27	5681343.9	1.5	**27.3256**	0.321	1.2	ug/L	1170	Standard
	Sc	45	22818.8	0.5				ug/L	26874	Standard
	Ti	47	18.0	19.2	**-0.0227**	0.015	64.1	ug/L	25	Standard
	V	51	1876.8	1.0	**0.1017**	0.004	3.7	ug/L	1686	Standard
	Cr	52	6902.9	1.0	**0.3858**	0.011	2.8	ug/L	6098	Standard
	Cr	53	458.3	1.3	**0.2502**	0.006	2.6	ug/L	193	Standard
	Mn	55	60597.0	2.2	**4.6592**	0.087	1.9	ug/L	1232	Standard
	Co	59	249.3	5.2	**0.0130**	0.001	11.1	ug/L	106	Standard
	Ni	60	1218.4	1.2	**0.2716**	0.005	2.0	ug/L	556	Standard
	Cu	65	931.0	3.3	**0.3174**	0.014	4.4	ug/L	124	Standard
	Zn	66	2979.3	0.6	**2.0085**	0.004	0.2	ug/L	196	Standard
>	**Ge**	72	446911.7	0.4				ug/L	473313	Standard
	As	75	-173.7	40.2	**0.0850**	0.051	59.5	ug/L	-286	Standard
	Se	82	307.5	0.7	**2.4937**	0.019	0.8	ug/L	-33	Standard
	Se-1	77	325.0	4.2	**2.4210**	0.136	5.6	ug/L	86	Standard
>	**Ga**	71	18.3	68.6				mg/L	35	Standard
	Rb	85	498.3	20.9				ug/L	13	Standard
	Y	89	399903.7	0.2				ug/L	439493	Standard
>	**Rh**	103	58.3	13.1				ug/L	5	Standard
	Mo	98	97.0	11.8	**0.0111**	0.003	27.1	ug/L	10	Standard
	Ag	107	55.7	5.8	**-0.0061**	0.001	9.2	ug/L	53	Standard
	Cd	111	2.2	26.1	**-0.0018**	0.000	15.5	mg/L	1	Standard
	Cd	114	21.6	12.1	**-0.0053**	0.000	9.3	ug/L	32	Standard
>	**In**	115	468015.5	0.5				ug/L	494305	Standard
	Sn	118	66.0	16.9	**-0.0032**	0.009	280.2	ug/L	53	Standard
	Sb	123	140.9	12.4	**0.0546**	0.007	12.5	ug/L	7	Standard
	Ba	135	273.0	3.9	**0.1449**	0.007	4.7	ug/L	11	Standard
	Ce	140	28.3	10.2				ug/L	10	Standard
>	**Tb**	159	504632.6	0.3				ug/L	538219	Standard
	Ho	165	8.3	34.6				ug/L	8	Standard
	Tl	203	45.7	21.5	**0.0057**	0.002	28.7	ug/L	1	Standard
	Tl	205	71.7	24.5	**0.0093**	0.002	25.5	ug/L	3	Standard
	Pb	206	99.3	7.6	**-0.0019**	0.003	175.7	ug/L	80	Standard
	Pb	207	82.7	2.5	**0.0048**	0.001	16.1	ug/L	73	Standard
	Pb	208	199.7	3.1	**-0.0020**	0.001	70.9	ug/L	190	Standard
	U	238	1695.4	1.4	**0.4723**	0.011	2.3	ug/L	0	Standard
>	**Bi**	209	267423.1	0.9				ug/L	276439	Standard

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	Na	23	6.7	86.6	**1.5989**	1.755	109.8	mg/L	2	Standard
	Mg	24	15639.7	2.4	**18.7593**	0.468	2.5	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2661**	0.199	74.9	mg/L	3	Standard
	Ca	43	33.3	34.6	**1.0148**	3.886	382.9	mg/L	43	Standard
	Fe	54	111.0	29.8	**-0.0628**	0.019	30.5	mg/L	262	Standard
	Fe	57	113.3	9.2	**0.1341**	0.022	16.7	mg/L	65	Standard
>	**Sc-1**	45	22818.8	0.5				mg/L	26874	Standard
	Cl	35	233562.2	3.0				ug/L	141022	Standard
	Kr	83	101.7	6.4				ug/L	75	Standard
	Br	81	4253.9	4.6				ug/L	2810	Standard
	P	31	156930.3	1.8				ug/L	458976	Standard
	S	34	109316.3	1.0				ug/L	103378	Standard
	Sr	88	163.3	15.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	10	Standard
	Ho-1	165	8.3	34.6				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.092	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.422	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		94.681
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		96.739
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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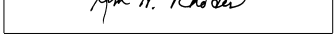

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 12:27:52
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	281737.5	1.9				ug/L	269614	Standard
	Be	9	154291.8	1.8	**49.7349**	0.288	0.6	ug/L	23	Standard
	Al	27	9889776.2	0.8	**45.1181**	0.499	1.1	ug/L	1170	Standard
	Sc	45	24763.6	1.2				ug/L	26874	Standard
	Ti	47	25111.1	1.8	**97.7999**	1.917	2.0	ug/L	25	Standard
	V	51	343163.7	0.8	**47.6691**	0.444	0.9	ug/L	1686	Standard
	Cr	52	338171.7	0.8	**47.9940**	0.267	0.6	ug/L	6098	Standard
	Cr	53	61685.3	1.2	**48.2000**	0.762	1.6	ug/L	193	Standard
	Mn	55	697355.8	1.0	**50.8088**	0.755	1.5	ug/L	1232	Standard
	Co	59	472950.2	1.5	**49.7043**	0.560	1.1	ug/L	106	Standard
	Ni	60	137666.3	0.3	**49.1313**	0.290	0.6	ug/L	556	Standard
	Cu	65	133897.7	1.0	**49.9936**	0.730	1.5	ug/L	124	Standard
	Zn	66	73443.6	1.1	**49.9667**	0.545	1.1	ug/L	196	Standard
>	Ge	72	484426.3	0.4				ug/L	473313	Standard
	As	75	73066.2	1.2	**49.5037**	0.662	1.3	ug/L	-286	Standard
	Se	82	7588.6	1.3	**50.2165**	0.421	0.8	ug/L	-33	Standard
	Se-1	77	5584.7	1.3	**49.5970**	0.721	1.5	ug/L	86	Standard
>	Ga	71	61.7	32.8				mg/L	35	Standard
	Rb	85	1195.0	11.1				ug/L	13	Standard
	Y	89	440041.9	0.3				ug/L	439493	Standard
>	Rh	103	23.3	65.5				ug/L	5	Standard
	Mo	98	414319.1	0.3	**103.0756**	1.064	1.0	ug/L	10	Standard
	Ag	107	355175.4	1.2	**52.1905**	0.252	0.5	ug/L	53	Standard
	Cd	111	112275.0	0.5	**49.7258**	0.297	0.6	mg/L	1	Standard
	Cd	114	284852.2	1.0	**49.8416**	0.083	0.2	ug/L	32	Standard
>	In	115	509168.2	1.0				ug/L	494305	Standard
	Sn	118	68396.0	0.6	**50.6850**	0.345	0.7	ug/L	53	Standard
	Sb	123	132493.1	0.9	**48.5086**	0.632	1.3	ug/L	7	Standard
	Ba	135	94520.9	0.3	**50.0768**	0.675	1.3	ug/L	11	Standard
	Ce	140	55.0	55.3				ug/L	10	Standard
>	Tb	159	534887.5	1.6				ug/L	538219	Standard
	Ho	165	8.3	91.7				ug/L	8	Standard
	Tl	203	307480.4	0.7	**50.3457**	0.463	0.9	ug/L	1	Standard
	Tl	205	402293.0	1.3	**53.3422**	0.063	0.1	ug/L	3	Standard
	Pb	206	140911.2	0.2	**53.7739**	0.536	1.0	ug/L	80	Standard
	Pb	207	127078.0	0.1	**53.8323**	0.591	1.1	ug/L	73	Standard
	Pb	208	280914.4	0.4	**48.6194**	0.470	1.0	ug/L	190	Standard
	U	238	184605.2	0.5	**49.0246**	0.663	1.4	ug/L	0	Standard
>	Bi	209	281620.0	1.2				ug/L	276439	Standard

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	Na	23	10.0	100.0	**2.3597**	2.765	117.2	mg/L	2	Standard
	Mg	24	5012.5	3.6	**5.5197**	0.269	4.9	mg/L	37	Standard
	K	39	71.7	14.5	**4.1932**	0.625	14.9	mg/L	3	Standard
	Ca	43	38.3	27.2	**1.7099**	3.271	191.3	mg/L	43	Standard
	Fe	54	11437.6	3.0	**5.9129**	0.194	3.3	mg/L	262	Standard
	Fe	57	3055.3	8.9	**5.6374**	0.513	9.1	mg/L	65	Standard
>	**Sc-1**	45	24763.6	1.2				mg/L	26874	Standard
	Cl	35	152677.7	2.6				ug/L	141022	Standard
	Kr	83	103.7	4.0				ug/L	75	Standard
	Br	81	2983.6	0.4				ug/L	2810	Standard
	P	31	486944.4	0.3				ug/L	458976	Standard
	S	34	116707.8	1.0				ug/L	103378	Standard
	Sr	88	33.3	37.7				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	93.2				mg/L	10	Standard
	Ho-1	165	8.3	91.7				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.496	
	Be	9	99.470		
	Al	27	90.236		
	Sc	45			
	Ti	47	97.800		
	V	51	95.338		
	Cr	52	95.988		
	Cr	53			
	Mn	55	101.618		
	Co	59	99.409		
	Ni	60	98.263		
	Cu	65	99.987		
	Zn	66	99.933		
>	Ge	72		102.348	
	As	75	99.007		
	Se	82	100.433		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.076		
|	Ag	107	104.381		
|	Cd	111	99.452		
|	Cd	114			
|>	In	115			103.007
|	Sn	118	101.370		
|	Sb	123	97.017		
⌊	Ba	135	100.154		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	100.691		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.239		
|	U	238	98.049		
⌊>	Bi	209			101.874
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 12:30:57
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	279487.1	2.7				ug/L	269614	Standard
	Be	9	98.3	17.9	**0.0160**	0.007	40.8	ug/L	23	Standard
	Al	27	48947.5	144.0	**0.2240**	0.336	149.8	ug/L	1170	Standard
	Sc	45	25142.5	1.2				ug/L	26874	Standard
	Ti	47	20.7	58.1	**-0.0183**	0.047	259.3	ug/L	25	Standard
	V	51	1264.0	5.9	**-0.0065**	0.012	184.7	ug/L	1686	Standard
	Cr	52	4397.3	3.2	**-0.0612**	0.022	36.5	ug/L	6098	Standard
	Cr	53	225.0	13.9	**0.0363**	0.024	65.9	ug/L	193	Standard
	Mn	55	2034.5	0.8	**0.0088**	0.000	5.3	ug/L	1232	Standard
	Co	59	180.7	34.3	**0.0036**	0.007	186.1	ug/L	106	Standard
	Ni	60	574.0	13.7	**0.0033**	0.030	896.8	ug/L	556	Standard
	Cu	65	425.3	12.9	**0.0985**	0.022	22.3	ug/L	124	Standard
	Zn	66	399.0	12.1	**0.0743**	0.035	47.7	ug/L	196	Standard
>	**Ge**	72	486605.9	0.9				ug/L	473313	Standard
	As	75	-266.8	11.8	**0.0327**	0.021	65.8	ug/L	-286	Standard
	Se	82	-39.9	27.8	**0.0392**	0.074	189.0	ug/L	-33	Standard
	Se-1	77	98.3	3.6	**0.1275**	0.037	29.0	ug/L	86	Standard
>	**Ga**	71	16.7	45.8				mg/L	35	Standard
	Rb	85	15.0	33.3				ug/L	13	Standard
	Y	89	450139.4	1.2				ug/L	439493	Standard
>	**Rh**	103	5.0	0.0				ug/L	5	Standard
	Mo	98	144.9	37.0	**0.0202**	0.013	66.0	ug/L	10	Standard
	Ag	107	122.0	19.4	**0.0026**	0.003	133.6	ug/L	53	Standard
	Cd	111	29.1	59.0	**0.0098**	0.007	76.5	mg/L	1	Standard
	Cd	114	62.7	23.7	**0.0013**	0.003	196.5	ug/L	32	Standard
>	**In**	115	519416.6	0.7				ug/L	494305	Standard
	Sn	118	85.3	8.3	**0.0056**	0.005	89.6	ug/L	53	Standard
	Sb	123	355.3	24.8	**0.1261**	0.032	25.5	ug/L	7	Standard
	Ba	135	127.7	10.1	**0.0538**	0.007	12.7	ug/L	11	Standard
	Ce	140	15.0	33.3				ug/L	10	Standard
>	**Tb**	159	541961.0	0.6				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	65.3	46.5	**0.0084**	0.005	58.9	ug/L	1	Standard
	Tl	205	153.3	88.2	**0.0193**	0.018	91.8	ug/L	3	Standard
	Pb	206	123.0	13.4	**0.0041**	0.006	148.4	ug/L	80	Standard
	Pb	207	101.0	5.0	**0.0099**	0.002	20.5	ug/L	73	Standard
	Pb	208	300.0	34.6	**0.0126**	0.018	142.4	ug/L	190	Standard
	U	238	113.0	123.9	**0.0276**	0.037	132.6	ug/L	0	Standard
>	**Bi**	209	287397.5	0.4				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	150.0	115.5	**0.1308**	0.187	142.9	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2772**	0.180	65.0	mg/L	3	Standard
	Ca	43	21.7	48.0	**-3.6157**	3.233	89.4	mg/L	43	Standard
	Fe	54	279.3	1.8	**0.0188**	0.001	6.5	mg/L	262	Standard
	Fe	57	85.0	25.6	**0.0606**	0.042	68.5	mg/L	65	Standard
>	**Sc-1**	45	25142.5	1.2				mg/L	26874	Standard
	Cl	35	157251.9	1.5				ug/L	141022	Standard
	Kr	83	94.7	11.8				ug/L	75	Standard
	Br	81	2953.6	11.5				ug/L	2810	Standard
	P	31	496917.7	1.0				ug/L	458976	Standard
	S	34	118463.0	0.7				ug/L	103378	Standard
	Sr	88	25.0	20.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.4	112.0				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	13.3	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.662	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.808	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	105.080
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.964
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, November 18, 2013 12:34:03
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	291989.6	2.6				ug/L	269614	Standard
	Be	9	610.0	16.0	**0.1735**	0.028	16.3	ug/L	23	Standard
	Al	27	11001.2	145.0	**0.0402**	0.068	169.4	ug/L	1170	Standard
	Sc	45	25960.6	0.9				ug/L	26874	Standard
	Ti	47	12.7	29.9	**-0.0502**	0.014	28.8	ug/L	25	Standard
	V	51	3910.3	3.3	**0.3545**	0.016	4.4	ug/L	1686	Standard
	Cr	52	9841.9	1.7	**0.7028**	0.020	2.9	ug/L	6098	Standard
	Cr	53	1165.0	5.6	**0.7591**	0.046	6.0	ug/L	193	Standard
	Mn	55	8479.7	4.9	**0.4704**	0.028	5.9	ug/L	1232	Standard
	Co	59	3991.5	6.0	**0.3975**	0.023	5.7	ug/L	106	Standard
	Ni	60	4900.1	1.3	**1.5263**	0.014	0.9	ug/L	556	Standard
	Cu	65	2490.9	3.2	**0.8563**	0.025	2.9	ug/L	124	Standard
	Zn	66	10740.1	0.3	**7.0218**	0.051	0.7	ug/L	196	Standard
>	**Ge**	72	492266.4	0.5				ug/L	473313	Standard
	As	75	243.1	14.5	**0.3732**	0.023	6.2	ug/L	-286	Standard
	Se	82	14.7	103.7	**0.3958**	0.098	24.9	ug/L	-33	Standard
	Se-1	77	125.0	5.0	**0.3539**	0.060	17.1	ug/L	86	Standard
>	**Ga**	71	16.7	96.4				mg/L	35	Standard
	Rb	85	13.3	57.3				ug/L	13	Standard
	Y	89	454008.4	0.5				ug/L	439493	Standard
>	**Rh**	103	5.0	100.0				ug/L	5	Standard
	Mo	98	154.6	140.9	**0.0225**	0.053	236.2	ug/L	10	Standard
	Ag	107	3025.0	10.7	**0.4203**	0.047	11.1	ug/L	53	Standard
	Cd	111	513.3	6.2	**0.2197**	0.014	6.2	mg/L	1	Standard
	Cd	114	1376.3	9.0	**0.2264**	0.022	9.6	ug/L	32	Standard
>	**In**	115	520080.0	0.2				ug/L	494305	Standard
	Sn	118	78.3	35.0	**0.0005**	0.020	4066.1	ug/L	53	Standard
	Sb	123	1114.2	4.9	**0.3979**	0.020	5.0	ug/L	7	Standard
	Ba	135	1421.7	5.8	**0.7250**	0.043	5.9	ug/L	11	Standard
	Ce	140	8.3	69.3				ug/L	10	Standard
>	**Tb**	159	542198.4	1.3				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	641.0	37.4	**0.1005**	0.038	37.7	ug/L	1	Standard
	Tl	205	741.7	18.1	**0.0955**	0.017	17.8	ug/L	3	Standard
	Pb	206	746.7	21.3	**0.2370**	0.058	24.6	ug/L	80	Standard
	Pb	207	623.3	14.5	**0.2264**	0.036	16.0	ug/L	73	Standard
	Pb	208	1333.7	6.4	**0.1876**	0.013	7.1	ug/L	190	Standard
	U	238	1458.4	7.3	**0.3771**	0.027	7.2	ug/L	0	Standard
>	**Bi**	209	287772.8	0.4				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	66.7	56.3	**0.0385**	0.039	102.4	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2786**	0.178	63.8	mg/L	3	Standard
	Ca	43	10.0	50.0	**-7.3237**	1.523	20.8	mg/L	43	Standard
	Fe	54	315.4	15.3	**0.0325**	0.026	79.0	mg/L	262	Standard
	Fe	57	83.3	18.3	**0.0526**	0.029	54.6	mg/L	65	Standard
>	**Sc-1**	45	25960.6	0.9				mg/L	26874	Standard
	Cl	35	155645.5	1.7				ug/L	141022	Standard
	Kr	83	103.7	9.4				ug/L	75	Standard
	Br	81	2950.3	10.4				ug/L	2810	Standard
	P	31	492366.5	1.5				ug/L	458976	Standard
	S	34	115233.2	1.2				ug/L	103378	Standard
	Sr	88	63.3	12.1				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	10.0	100.0				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	0.0					mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.299	
	Be	9	86.755		
	Al	27			
	Sc	45			
	Ti	47			
	V	51	88.628		
	Cr	52	87.855		
	Cr	53			
	Mn	55	94.081		
	Co	59	99.376		
	Ni	60	95.394		
	Cu	65	107.035		
	Zn	66	112.349		
>	Ge	72		104.004	
	As	75	93.306		
	Se	82	98.960		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98			
|	Ag	107	105.084		
|	Cd	111	91.530		
|	Cd	114			
|>	In	115			105.214
|	Sn	118			
|	Sb	123	99.470		
⌊	Ba	135	96.671		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	125.580		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	93.810		
|	U	238	94.275		
⌊>	Bi	209			104.100
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311033702
Sample Date/Time: Monday, November 18, 2013 12:38:04
Number of Replicates: 3
Autosampler Position: 327
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	286216.6	1.0				ug/L	269614	Standard
	Be	9	75.0	11.5	**0.0077**	0.003	36.1	ug/L	23	Standard
	Al	27	6211091.8	0.7	**27.8868**	0.232	0.8	ug/L	1170	Standard
	Sc	45	26590.0	3.1				ug/L	26874	Standard
	Ti	47	760.0	0.3	**2.9029**	0.021	0.7	ug/L	25	Standard
	V	51	14223.4	2.2	**1.8271**	0.040	2.2	ug/L	1686	Standard
	Cr	52	8990.7	1.4	**0.6198**	0.014	2.2	ug/L	6098	Standard
	Cr	53	2721.9	8.8	**2.0221**	0.198	9.8	ug/L	193	Standard
	Mn	55	46424.3	0.5	**3.2967**	0.009	0.3	ug/L	1232	Standard
	Co	59	866.7	2.7	**0.0769**	0.003	3.7	ug/L	106	Standard
	Ni	60	3483.1	2.3	**1.0629**	0.032	3.0	ug/L	556	Standard
	Cu	65	1392.1	2.0	**0.4672**	0.009	1.9	ug/L	124	Standard
	Zn	66	18640.8	1.5	**12.7007**	0.149	1.2	ug/L	196	Standard
>	**Ge**	72	478184.6	0.4				ug/L	473313	Standard
	As	75	1395.8	5.0	**1.1659**	0.050	4.3	ug/L	-286	Standard
	Se	82	582.7	4.5	**4.1842**	0.187	4.5	ug/L	-33	Standard
	Se-1	77	286.7	11.2	**1.8637**	0.300	16.1	ug/L	86	Standard
>	**Ga**	71	220.0	14.2				mg/L	35	Standard
	Rb	85	32261.0	2.0				ug/L	13	Standard
	Y	89	442656.7	0.8				ug/L	439493	Standard
>	**Rh**	103	100.0	17.3				ug/L	5	Standard
	Mo	98	3230.4	0.9	**0.8031**	0.004	0.5	ug/L	10	Standard
	Ag	107	320.0	6.1	**0.0329**	0.003	8.3	ug/L	53	Standard
	Cd	111	10.1	16.4	**0.0017**	0.001	44.6	mg/L	1	Standard
	Cd	114	32.4	61.1	**-0.0037**	0.004	95.4	ug/L	32	Standard
>	**In**	115	500075.7	0.5				ug/L	494305	Standard
	Sn	118	96.0	7.9	**0.0161**	0.005	33.5	ug/L	53	Standard
	Sb	123	228.6	6.6	**0.0837**	0.005	6.4	ug/L	7	Standard
	Ba	135	47338.2	1.0	**25.5269**	0.174	0.7	ug/L	11	Standard
	Ce	140	5879.5	3.7				ug/L	10	Standard
>	**Tb**	159	529935.0	0.6				ug/L	538219	Standard
	Ho	165	118.3	24.0				ug/L	8	Standard
	Tl	203	87.0	14.4	**0.0123**	0.002	17.0	ug/L	1	Standard
	Tl	205	136.7	31.1	**0.0177**	0.006	32.9	ug/L	3	Standard
	Pb	206	449.7	2.6	**0.1325**	0.004	3.0	ug/L	80	Standard
	Pb	207	375.0	4.8	**0.1294**	0.008	6.0	ug/L	73	Standard
	Pb	208	844.7	3.1	**0.1102**	0.004	4.0	ug/L	190	Standard
	U	238	902.7	2.2	**0.2416**	0.005	2.1	ug/L	0	Standard
>	**Bi**	209	277282.3	0.6				ug/L	276439	Standard

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	Na	23	86.7	21.8	**22.2167**	5.331	24.0	mg/L	2	Standard
	Mg	24	9104.4	4.9	**9.3600**	0.498	5.3	mg/L	37	Standard
	K	39	10.0	86.6	**0.2115**	0.509	240.6	mg/L	3	Standard
	Ca	43	96.7	34.4	**17.7906**	8.951	50.3	mg/L	43	Standard
	Fe	54	470.4	7.2	**0.1049**	0.018	16.8	mg/L	262	Standard
	Fe	57	273.3	11.0	**0.3821**	0.066	17.2	mg/L	65	Standard
>	**Sc-1**	45	26590.0	3.1				mg/L	26874	Standard
	Cl	35	168870.0	1.6				ug/L	141022	Standard
	Kr	83	104.3	1.5				ug/L	75	Standard
	Br	81	78476.1	1.2				ug/L	2810	Standard
	P	31	707201.5	1.9				ug/L	458976	Standard
	S	34	92768.3	3.0				ug/L	103378	Standard
	Sr	88	506.7	2.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	26.7	78.1				mg/L	0	Standard
	Dy	164	158.5	30.3				mg/L	10	Standard
	Ho-1	165	118.3	24.0				mg/L	8	Standard
	Er	166	100.0	36.1				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.158	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.029	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.167
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.305
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311033703
Sample Date/Time: Monday, November 18, 2013 12:41:09
Number of Replicates: 3
Autosampler Position: 328
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	274917.8	2.6				ug/L	269614	Standard
	Be	9	93.3	43.0	**0.0146**	0.012	85.4	ug/L	23	Standard
	Al	27	33699386.1	0.6	**157.6059**	3.176	2.0	ug/L	1170	Standard
	Sc	45	26762.0	1.9				ug/L	26874	Standard
	Ti	47	2536.9	0.9	**10.1515**	0.197	1.9	ug/L	25	Standard
	V	51	10897.1	2.0	**1.3925**	0.018	1.3	ug/L	1686	Standard
	Cr	52	29464.3	0.4	**3.7049**	0.069	1.9	ug/L	6098	Standard
	Cr	53	8699.2	3.6	**6.9287**	0.370	5.3	ug/L	193	Standard
	Mn	55	123824.6	0.2	**9.2364**	0.151	1.6	ug/L	1232	Standard
	Co	59	3187.3	1.3	**0.3319**	0.002	0.6	ug/L	106	Standard
	Ni	60	11827.9	0.8	**4.1910**	0.051	1.2	ug/L	556	Standard
	Cu	65	3789.5	1.6	**1.4079**	0.007	0.5	ug/L	124	Standard
	Zn	66	6960.9	1.0	**4.7300**	0.061	1.3	ug/L	196	Standard
>	Ge	72	467493.0	1.8				ug/L	473313	Standard
	As	75	584.4	18.4	**0.6200**	0.072	11.6	ug/L	-286	Standard
	Se	82	604.5	1.6	**4.4228**	0.125	2.8	ug/L	-33	Standard
	Se-1	77	738.0	6.7	**6.1454**	0.558	9.1	ug/L	86	Standard
>	Ga	71	460.0	7.1				mg/L	35	Standard
	Rb	85	9561.3	1.9				ug/L	13	Standard
	Y	89	439024.6	2.0				ug/L	439493	Standard
>	Rh	103	388.3	3.9				ug/L	5	Standard
	Mo	98	2893.0	3.6	**0.7467**	0.021	2.8	ug/L	10	Standard
	Ag	107	109.7	26.3	**0.0021**	0.004	212.7	ug/L	53	Standard
	Cd	111	26.5	55.4	**0.0095**	0.007	71.6	mg/L	1	Standard
	Cd	114	120.4	45.5	**0.0128**	0.010	78.2	ug/L	32	Standard
>	In	115	480941.7	0.9				ug/L	494305	Standard
	Sn	118	233.7	1.5	**0.1271**	0.003	2.6	ug/L	53	Standard
	Sb	123	170.7	8.3	**0.0646**	0.005	8.4	ug/L	7	Standard
	Ba	135	44748.0	0.7	**25.0906**	0.133	0.5	ug/L	11	Standard
	Ce	140	17860.5	1.7				ug/L	10	Standard
>	Tb	159	523212.5	0.8				ug/L	538219	Standard
	Ho	165	220.0	9.9				ug/L	8	Standard
	Tl	203	90.3	29.7	**0.0135**	0.005	33.8	ug/L	1	Standard
	Tl	205	126.7	14.9	**0.0171**	0.003	15.2	ug/L	3	Standard
	Pb	206	1066.4	2.9	**0.3887**	0.015	3.8	ug/L	80	Standard
	Pb	207	878.4	2.4	**0.3616**	0.011	3.1	ug/L	73	Standard
	Pb	208	1979.1	1.5	**0.3240**	0.004	1.3	ug/L	190	Standard
	U	238	878.0	4.7	**0.2447**	0.013	5.2	ug/L	0	Standard
>	Bi	209	266338.5	0.6				ug/L	276439	Standard

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	Na	23	345.0	9.1	**88.9293**	9.637	10.8	mg/L	2	Standard
	Mg	24	17318.2	2.1	**17.7154**	0.570	3.2	mg/L	37	Standard
	K	39	23.3	49.5	**0.9997**	0.686	68.6	mg/L	3	Standard
	Ca	43	330.0	19.7	**85.3125**	17.399	20.4	mg/L	43	Standard
	Fe	54	700.9	13.4	**0.2164**	0.050	23.0	mg/L	262	Standard
	Fe	57	646.7	4.0	**1.0260**	0.025	2.4	mg/L	65	Standard
>	**Sc-1**	45	26762.0	1.9				mg/L	26874	Standard
	Cl	35	359819.0	0.1				ug/L	141022	Standard
	Kr	83	104.0	6.3				ug/L	75	Standard
	Br	81	41978.1	1.9				ug/L	2810	Standard
	P	31	699344.0	1.3				ug/L	458976	Standard
	S	34	102116.3	1.5				ug/L	103378	Standard
	Sr	88	1626.8	7.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	444.1	21.8				mg/L	10	Standard
	Ho-1	165	220.0	9.9				mg/L	8	Standard
	Er	166	193.3	15.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.967	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.770	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		97.296
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		96.346
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	

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Method 6020 - Summary Report

Sample ID: L1311047201 WG452233-02
Sample Date/Time: Monday, November 18, 2013 12:44:14
Number of Replicates: 3
Autosampler Position: 329
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	284471.7	2.4				ug/L	269614	Standard
	Be	9	38.3	27.2	**-0.0038**	0.004	96.6	ug/L	23	Standard
	Al	27	11493655.1	0.7	**51.9509**	1.594	3.1	ug/L	1170	Standard
	Sc	45	25184.3	2.9				ug/L	26874	Standard
	Ti	47	186.7	6.3	**0.6476**	0.049	7.6	ug/L	25	Standard
	V	51	1532.8	14.0	**0.0372**	0.031	82.2	ug/L	1686	Standard
	Cr	52	7476.2	1.4	**0.4124**	0.018	4.4	ug/L	6098	Standard
	Cr	53	3368.7	2.7	**2.5680**	0.077	3.0	ug/L	193	Standard
	Mn	55	711825.2	1.5	**53.1898**	0.704	1.3	ug/L	1232	Standard
	Co	59	1317.1	1.1	**0.1266**	0.002	1.5	ug/L	106	Standard
	Ni	60	4768.8	1.0	**1.5509**	0.019	1.2	ug/L	556	Standard
	Cu	65	2188.8	4.8	**0.7791**	0.037	4.8	ug/L	124	Standard
	Zn	66	4154.6	0.6	**2.7129**	0.021	0.8	ug/L	196	Standard
>	**Ge**	72	472373.6	0.4				ug/L	473313	Standard
	As	75	930.5	8.3	**0.8557**	0.055	6.4	ug/L	-286	Standard
	Se	82	443.7	3.4	**3.2938**	0.109	3.3	ug/L	-33	Standard
	Se-1	77	340.0	12.0	**2.3877**	0.368	15.4	ug/L	86	Standard
>	**Ga**	71	175.0	15.1				mg/L	35	Standard
	Rb	85	10647.1	3.8				ug/L	13	Standard
	Y	89	437114.0	0.4				ug/L	439493	Standard
>	**Rh**	103	95.0	9.1				ug/L	5	Standard
	Mo	98	5514.1	1.8	**1.4044**	0.028	2.0	ug/L	10	Standard
	Ag	107	62.3	16.4	**-0.0055**	0.002	28.2	ug/L	53	Standard
	Cd	111	9.9	23.0	**0.0016**	0.001	64.3	mg/L	1	Standard
	Cd	114	50.3	44.1	**-0.0003**	0.004	1198.8	ug/L	32	Standard
>	**In**	115	492091.2	0.3				ug/L	494305	Standard
	Sn	118	111.3	13.5	**0.0291**	0.012	39.9	ug/L	53	Standard
	Sb	123	298.5	5.3	**0.1116**	0.006	5.4	ug/L	7	Standard
	Ba	135	39482.4	0.3	**21.6344**	0.028	0.1	ug/L	11	Standard
	Ce	140	1715.1	9.1				ug/L	10	Standard
>	**Tb**	159	530976.2	1.2				ug/L	538219	Standard
	Ho	165	35.0	37.8				ug/L	8	Standard
	Tl	203	101.0	10.9	**0.0150**	0.002	12.4	ug/L	1	Standard
	Tl	205	123.3	6.2	**0.0162**	0.001	6.5	ug/L	3	Standard
	Pb	206	244.7	7.0	**0.0547**	0.007	12.4	ug/L	80	Standard
	Pb	207	216.3	13.0	**0.0627**	0.012	19.7	ug/L	73	Standard
	Pb	208	432.0	0.6	**0.0390**	0.000	1.2	ug/L	190	Standard
	U	238	984.4	1.8	**0.2684**	0.005	1.8	ug/L	0	Standard
>	**Bi**	209	272342.5	0.0				ug/L	276439	Standard

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	Na	23	90.0	29.4	**24.3179**	7.316	30.1	mg/L	2	Standard
	Mg	24	35119.0	0.8	**38.2262**	1.402	3.7	mg/L	37	Standard
	K	39	18.3	15.7	**0.7743**	0.209	27.0	mg/L	3	Standard
	Ca	43	115.0	19.9	**25.3116**	8.066	31.9	mg/L	43	Standard
	Fe	54	479.0	6.3	**0.1223**	0.016	12.9	mg/L	262	Standard
	Fe	57	245.0	23.2	**0.3556**	0.106	29.8	mg/L	65	Standard
>	**Sc-1**	45	25184.3	2.9				mg/L	26874	Standard
	Cl	35	258055.8	1.0				ug/L	141022	Standard
	Kr	83	108.7	12.3				ug/L	75	Standard
	Br	81	57606.0	2.1				ug/L	2810	Standard
	P	31	502572.1	1.5				ug/L	458976	Standard
	S	34	112761.4	1.5				ug/L	103378	Standard
	Sr	88	366.7	7.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	61.6	40.2				mg/L	10	Standard
	Ho-1	165	35.0	37.8				mg/L	8	Standard
	Er	166	36.7	41.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.511	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.801	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	99.552
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	98.518
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311047201DP WG452233-07
Sample Date/Time: Monday, November 18, 2013 12:47:18
Number of Replicates: 3
Autosampler Position: 330
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	277910.9	1.4				ug/L	269614	Standard
	Be	9	51.7	29.6	**0.0008**	0.005	612.4	ug/L	23	Standard
	Al	27	11095817.5	1.3	**51.3229**	1.312	2.6	ug/L	1170	Standard
	Sc	45	25713.5	2.4				ug/L	26874	Standard
	Ti	47	175.0	14.6	**0.5993**	0.105	17.6	ug/L	25	Standard
	V	51	1685.8	10.4	**0.0584**	0.024	41.9	ug/L	1686	Standard
	Cr	52	7532.5	1.4	**0.4176**	0.010	2.4	ug/L	6098	Standard
	Cr	53	3462.1	4.5	**2.6353**	0.124	4.7	ug/L	193	Standard
	Mn	55	687328.5	0.3	**51.2154**	0.430	0.8	ug/L	1232	Standard
	Co	59	1268.4	3.7	**0.1210**	0.005	4.3	ug/L	106	Standard
	Ni	60	4668.7	1.4	**1.5094**	0.029	1.9	ug/L	556	Standard
	Cu	65	2005.8	1.5	**0.7069**	0.016	2.2	ug/L	124	Standard
	Zn	66	3433.4	2.1	**2.2012**	0.058	2.6	ug/L	196	Standard
>	Ge	72	473674.7	0.6				ug/L	473313	Standard
	As	75	933.0	2.3	**0.8555**	0.011	1.3	ug/L	-286	Standard
	Se	82	438.2	4.6	**3.2491**	0.147	4.5	ug/L	-33	Standard
	Se-1	77	320.7	6.2	**2.2011**	0.172	7.8	ug/L	86	Standard
>	Ga	71	196.7	3.9				mg/L	35	Standard
	Rb	85	10320.2	1.0				ug/L	13	Standard
	Y	89	431309.8	1.0				ug/L	439493	Standard
>	Rh	103	108.3	9.6				ug/L	5	Standard
	Mo	98	5381.1	2.0	**1.3742**	0.021	1.5	ug/L	10	Standard
	Ag	107	50.7	19.0	**-0.0072**	0.001	20.1	ug/L	53	Standard
	Cd	111	8.1	18.9	**0.0008**	0.001	83.7	mg/L	1	Standard
	Cd	114	26.5	10.9	**-0.0046**	0.001	11.6	ug/L	32	Standard
>	In	115	490602.6	0.7				ug/L	494305	Standard
	Sn	118	70.0	13.6	**-0.0025**	0.007	276.2	ug/L	53	Standard
	Sb	123	345.9	3.1	**0.1299**	0.003	2.6	ug/L	7	Standard
	Ba	135	38931.0	0.4	**21.3973**	0.130	0.6	ug/L	11	Standard
	Ce	140	1830.1	7.3				ug/L	10	Standard
>	Tb	159	524792.1	0.4				ug/L	538219	Standard
	Ho	165	31.7	32.9				ug/L	8	Standard
	Tl	203	90.7	4.5	**0.0134**	0.001	5.6	ug/L	1	Standard
	Tl	205	128.3	4.5	**0.0171**	0.001	4.8	ug/L	3	Standard
	Pb	206	217.0	10.8	**0.0447**	0.009	20.8	ug/L	80	Standard
	Pb	207	194.0	7.6	**0.0539**	0.007	12.2	ug/L	73	Standard
	Pb	208	419.7	4.1	**0.0376**	0.004	9.3	ug/L	190	Standard
	U	238	959.4	3.4	**0.2645**	0.008	3.1	ug/L	0	Standard
>	Bi	209	269382.3	0.6				ug/L	276439	Standard

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	Na	23	83.3	18.3	**21.9957**	3.996	18.2	mg/L	2	Standard
	Mg	24	33821.0	1.6	**36.0343**	0.413	1.1	mg/L	37	Standard
	K	39	18.3	31.5	**0.7472**	0.356	47.6	mg/L	3	Standard
	Ca	43	106.7	18.9	**22.0265**	6.866	31.2	mg/L	43	Standard
	Fe	54	375.6	15.5	**0.0643**	0.026	41.1	mg/L	262	Standard
	Fe	57	276.7	13.1	**0.4025**	0.055	13.8	mg/L	65	Standard
>	**Sc-1**	45	25713.5	2.4				mg/L	26874	Standard
	Cl	35	252870.0	0.5				ug/L	141022	Standard
	Kr	83	104.0	5.4				ug/L	75	Standard
	Br	81	57017.2	3.4				ug/L	2810	Standard
	P	31	479942.4	2.4				ug/L	458976	Standard
	S	34	109977.7	1.2				ug/L	103378	Standard
	Sr	88	353.3	10.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	41.6	37.4				mg/L	10	Standard
	Ho-1	165	31.7	32.9				mg/L	8	Standard
	Er	166	36.7	15.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.077	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.076	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.251
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.447
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311047201DP WG452233-07
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 12:50:25
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	277951.2	3.1				ug/L	269614	Standard
	Be	9	154219.6	2.8	**50.4095**	1.692	3.4	ug/L	23	Standard
	Al	27	9896009.8	1.8	**45.7784**	1.351	3.0	ug/L	1170	Standard
	Sc	45	24917.1	2.5				ug/L	26874	Standard
	Ti	47	25070.7	2.8	**98.4927**	1.953	2.0	ug/L	25	Standard
	V	51	335793.9	1.9	**47.0513**	0.297	0.6	ug/L	1686	Standard
	Cr	52	336222.4	0.9	**48.1424**	0.365	0.8	ug/L	6098	Standard
	Cr	53	60932.3	1.2	**48.0300**	0.268	0.6	ug/L	193	Standard
	Mn	55	691887.8	0.7	**50.8566**	0.532	1.0	ug/L	1232	Standard
	Co	59	473014.2	1.0	**50.1526**	0.329	0.7	ug/L	106	Standard
	Ni	60	137046.5	1.7	**49.3408**	0.451	0.9	ug/L	556	Standard
	Cu	65	133251.1	1.0	**50.1912**	0.439	0.9	ug/L	124	Standard
	Zn	66	73742.1	1.8	**50.6133**	0.541	1.1	ug/L	196	Standard
>	Ge	72	480210.8	1.7				ug/L	473313	Standard
	As	75	73562.7	0.9	**50.2777**	0.396	0.8	ug/L	-286	Standard
	Se	82	7574.3	0.8	**50.5740**	1.214	2.4	ug/L	-33	Standard
	Se-1	77	5586.4	1.7	**50.0603**	1.087	2.2	ug/L	86	Standard
>	Ga	71	48.3	39.2				mg/L	35	Standard
	Rb	85	1150.0	11.0				ug/L	13	Standard
	Y	89	440047.4	0.9				ug/L	439493	Standard
>	Rh	103	16.7	69.3				ug/L	5	Standard
	Mo	98	418436.7	0.7	**104.5050**	1.550	1.5	ug/L	10	Standard
	Ag	107	355562.7	0.4	**52.4527**	0.482	0.9	ug/L	53	Standard
	Cd	111	113104.8	0.6	**50.2890**	0.660	1.3	mg/L	1	Standard
	Cd	114	288810.9	0.5	**50.7334**	0.609	1.2	ug/L	32	Standard
>	In	115	507201.6	0.9				ug/L	494305	Standard
	Sn	118	68985.4	0.1	**51.3209**	0.411	0.8	ug/L	53	Standard
	Sb	123	134162.8	0.6	**49.3105**	0.641	1.3	ug/L	7	Standard
	Ba	135	94395.5	0.4	**50.2012**	0.297	0.6	ug/L	11	Standard
	Ce	140	65.0	13.3				ug/L	10	Standard
>	Tb	159	536888.7	0.8				ug/L	538219	Standard
	Ho	165	3.3	173.2				ug/L	8	Standard
	Tl	203	308126.9	0.4	**50.1672**	0.280	0.6	ug/L	1	Standard
	Tl	205	402020.4	0.4	**53.0093**	0.355	0.7	ug/L	3	Standard
	Pb	206	142230.5	0.3	**53.9706**	0.318	0.6	ug/L	80	Standard
	Pb	207	128432.4	1.0	**54.0990**	0.713	1.3	ug/L	73	Standard
	Pb	208	283529.5	0.7	**48.7955**	0.487	1.0	ug/L	190	Standard
	U	238	186341.9	0.2	**49.2050**	0.247	0.5	ug/L	0	Standard
>	Bi	209	283201.2	0.3				ug/L	276439	Standard

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	Na	23	16.7	34.6	**4.1784**	1.513	36.2	mg/L	2	Standard
	Mg	24	4685.7	0.9	**5.1253**	0.090	1.8	mg/L	37	Standard
	K	39	68.3	8.4	**3.9549**	0.297	7.5	mg/L	3	Standard
	Ca	43	48.3	26.0	**4.8007**	4.219	87.9	mg/L	43	Standard
	Fe	54	10792.2	3.0	**5.5360**	0.033	0.6	mg/L	262	Standard
	Fe	57	2938.6	7.9	**5.3938**	0.579	10.7	mg/L	65	Standard
>	**Sc-1**	45	24917.1	2.5				mg/L	26874	Standard
	Cl	35	155141.1	1.9				ug/L	141022	Standard
	Kr	83	105.0	6.7				ug/L	75	Standard
	Br	81	3170.3	4.9				ug/L	2810	Standard
	P	31	514449.7	0.4				ug/L	458976	Standard
	S	34	130114.7	1.0				ug/L	103378	Standard
	Sr	88	48.3	39.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	93.2				mg/L	10	Standard
	Ho-1	165	3.3	173.2				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.092	
	Be	9	100.819		
	Al	27	91.557		
	Sc	45			
	Ti	47	98.493		
	V	51	94.103		
	Cr	52	96.285		
	Cr	53			
	Mn	55	101.713		
	Co	59	100.305		
	Ni	60	98.682		
	Cu	65	100.382		
	Zn	66	101.227		
>	Ge	72		101.457	
	As	75	100.555		
	Se	82	101.148		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	104.505		
|	Ag	107	104.905		
|	Cd	111	100.578		
|	Cd	114			
|>	In	115		102.609	
|	Sn	118	102.642		
|	Sb	123	98.621		
⌊	Ba	135	100.402		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	100.334		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.591		
|	U	238	98.410		
⌊>	Bi	209		102.446	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 12:53:30
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	270135.6	1.6				ug/L	269614	Standard
	Be	9	45.0	0.0	**-0.0009**	0.000	25.6	ug/L	23	Standard
	Al	27	1951.8	17.0	**0.0021**	0.001	67.4	ug/L	1170	Standard
	Sc	45	24501.5	1.1				ug/L	26874	Standard
	Ti	47	13.0	26.6	**-0.0461**	0.014	31.2	ug/L	25	Standard
	V	51	1036.7	4.7	**-0.0320**	0.008	26.4	ug/L	1686	Standard
	Cr	52	3838.2	2.7	**-0.1181**	0.010	8.4	ug/L	6098	Standard
	Cr	53	206.7	21.7	**0.0291**	0.038	130.0	ug/L	193	Standard
	Mn	55	1464.4	4.0	**-0.0281**	0.004	14.8	ug/L	1232	Standard
	Co	59	87.7	17.1	**-0.0058**	0.002	29.4	ug/L	106	Standard
	Ni	60	493.3	4.5	**-0.0181**	0.010	53.1	ug/L	556	Standard
	Cu	65	304.7	2.0	**0.0583**	0.003	5.9	ug/L	124	Standard
	Zn	66	307.3	3.9	**0.0206**	0.007	33.4	ug/L	196	Standard
>	**Ge**	72	466822.8	1.0				ug/L	473313	Standard
	As	75	-285.2	6.3	**0.0123**	0.013	103.8	ug/L	-286	Standard
	Se	82	-45.8	1.9	**-0.0116**	0.008	65.3	ug/L	-33	Standard
	Se-1	77	83.7	5.6	**0.0276**	0.046	167.7	ug/L	86	Standard
>	**Ga**	71	18.3	56.8				mg/L	35	Standard
	Rb	85	23.3	12.4				ug/L	13	Standard
	Y	89	434066.6	0.5				ug/L	439493	Standard
>	**Rh**	103	10.0					ug/L	5	Standard
	Mo	98	89.9	37.4	**0.0078**	0.009	111.8	ug/L	10	Standard
	Ag	107	64.3	17.1	**-0.0053**	0.002	32.4	ug/L	53	Standard
	Cd	111	4.6	82.2	**-0.0008**	0.002	210.4	mg/L	1	Standard
	Cd	114	13.1	168.1	**-0.0071**	0.004	56.0	ug/L	32	Standard
>	**In**	115	495873.2	0.4				ug/L	494305	Standard
	Sn	118	71.7	10.8	**-0.0018**	0.006	314.2	ug/L	53	Standard
	Sb	123	266.1	25.4	**0.0986**	0.026	26.3	ug/L	7	Standard
	Ba	135	72.3	8.0	**0.0269**	0.003	12.3	ug/L	11	Standard
	Ce	140	11.7	89.2				ug/L	10	Standard
>	**Tb**	159	524465.8	2.3				ug/L	538219	Standard
	Ho	165	0.0					ug/L	8	Standard
	Tl	203	18.3	71.2	**0.0009**	0.002	244.9	ug/L	1	Standard
	Tl	205	45.0	58.8	**0.0053**	0.004	66.4	ug/L	3	Standard
	Pb	206	103.0	12.2	**-0.0023**	0.005	204.0	ug/L	80	Standard
	Pb	207	89.0	10.7	**0.0059**	0.004	69.0	ug/L	73	Standard
	Pb	208	188.7	14.6	**-0.0056**	0.005	84.5	ug/L	190	Standard
	U	238	13.0	73.4	**0.0016**	0.003	158.4	ug/L	0	Standard
>	**Bi**	209	280078.0	0.5				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	48.3	11.9	**0.0222**	0.006	28.7	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	8.3	124.9	**-7.6605**	3.349	43.7	mg/L	43	Standard
	Fe	54	304.4	8.6	**0.0360**	0.015	41.2	mg/L	262	Standard
	Fe	57	61.7	65.5	**0.0208**	0.078	375.8	mg/L	65	Standard
>	**Sc-1**	45	24501.5	1.1				mg/L	26874	Standard
	Cl	35	153652.5	0.5				ug/L	141022	Standard
	Kr	83	98.7	4.2				ug/L	75	Standard
	Br	81	3090.3	8.4				ug/L	2810	Standard
	P	31	498110.4	3.1				ug/L	458976	Standard
	S	34	125339.6	0.4				ug/L	103378	Standard
	Sr	88	41.7	60.4				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	6.3	86.9				mg/L	10	Standard
	Ho-1	165	0.0					mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.193	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.629	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.317
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	101.316
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: PBW 62 WG452687-04
Sample Date/Time: Monday, November 18, 2013 13:10:18
Number of Replicates: 3
Autosampler Position: 301
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	263328.3	3.1				ug/L	269614	Standard
	Be	9	41.7	38.6	**-0.0018**	0.005	280.5	ug/L	23	Standard
	Al	27	1381.7	2.9	**-0.0004**	0.000	35.6	ug/L	1170	Standard
	Sc	45	23583.4	4.1				ug/L	26874	Standard
	Ti	47	10.0	43.6	**-0.0576**	0.018	31.3	ug/L	25	Standard
	V	51	1142.4	1.6	**-0.0139**	0.002	15.3	ug/L	1686	Standard
	Cr	52	4123.2	1.5	**-0.0651**	0.007	11.4	ug/L	6098	Standard
	Cr	53	146.7	25.6	**-0.0180**	0.030	169.5	ug/L	193	Standard
	Mn	55	906.7	2.7	**-0.0692**	0.002	3.1	ug/L	1232	Standard
	Co	59	67.0	22.6	**-0.0079**	0.002	20.8	ug/L	106	Standard
	Ni	60	475.3	3.9	**-0.0219**	0.008	35.8	ug/L	556	Standard
	Cu	65	175.0	2.6	**0.0091**	0.002	22.6	ug/L	124	Standard
	Zn	66	3225.3	1.5	**2.1272**	0.024	1.1	ug/L	196	Standard
>	Ge	72	459104.6	0.5				ug/L	473313	Standard
	As	75	-293.7	13.5	**0.0029**	0.027	956.6	ug/L	-286	Standard
	Se	82	-38.2	33.1	**0.0357**	0.087	244.5	ug/L	-33	Standard
	Se-1	77	72.3	8.8	**-0.0670**	0.063	94.7	ug/L	86	Standard
>	Ga	71	8.3	91.7				mg/L	35	Standard
	Rb	85	18.3	41.7				ug/L	13	Standard
	Y	89	418579.8	0.4				ug/L	439493	Standard
>	Rh	103	5.0	100.0				ug/L	5	Standard
	Mo	98	12.5	33.2	**-0.0119**	0.001	9.4	ug/L	10	Standard
	Ag	107	49.3	11.9	**-0.0072**	0.001	13.5	ug/L	53	Standard
	Cd	111	-0.0	16.7	**-0.0029**	0.000	0.0	mg/L	1	Standard
	Cd	114	12.0	63.6	**-0.0072**	0.001	19.9	ug/L	32	Standard
>	In	115	477553.0	1.0				ug/L	494305	Standard
	Sn	118	49.3	4.2	**-0.0174**	0.001	8.4	ug/L	53	Standard
	Sb	123	102.1	2.2	**0.0384**	0.001	1.4	ug/L	7	Standard
	Ba	135	6.7	22.9	**-0.0087**	0.001	10.2	ug/L	11	Standard
	Ce	140	13.3	43.3				ug/L	10	Standard
>	Tb	159	505762.9	1.9				ug/L	538219	Standard
	Ho	165	6.7	114.6				ug/L	8	Standard
	Tl	203	4.3	66.6	**-0.0014**	0.000	34.8	ug/L	1	Standard
	Tl	205	6.7	114.6	**0.0002**	0.001	456.3	ug/L	3	Standard
	Pb	206	85.0	5.1	**-0.0083**	0.002	21.1	ug/L	80	Standard
	Pb	207	73.0	12.2	**-0.0000**	0.004	14300.9	ug/L	73	Standard
	Pb	208	172.0	5.0	**-0.0076**	0.002	21.1	ug/L	190	Standard
	U	238	0.0		**-0.0019**	0.000	0.0	ug/L	0	Standard
>	Bi	209	272033.7	0.3				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0547**	0.836	1526.5	mg/L	2	Standard
	Mg	24	48.3	29.9	**0.0241**	0.015	62.5	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2728**	0.188	68.8	mg/L	3	Standard
	Ca	43	26.7	47.2	**-1.5166**	4.106	270.7	mg/L	43	Standard
	Fe	54	204.2	9.0	**-0.0128**	0.015	117.6	mg/L	262	Standard
	Fe	57	45.0	22.2	**-0.0084**	0.017	207.8	mg/L	65	Standard
>	**Sc-1**	45	23583.4	4.1				mg/L	26874	Standard
	Cl	35	147609.6	1.0				ug/L	141022	Standard
	Kr	83	91.0	13.5				ug/L	75	Standard
	Br	81	2823.6	7.5				ug/L	2810	Standard
	P	31	350503.9	3.3				ug/L	458976	Standard
	S	34	112826.9	1.2				ug/L	103378	Standard
	Sr	88	28.3	10.2				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.5	102.6				mg/L	10	Standard
	Ho-1	165	6.7	114.6				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		97.669	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.998	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBW 62 WG452687-04
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.611
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.406
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 62 WG452687-04
Report Date/Time: Monday, November 18, 2013 13:12:31
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Method 6020 - Summary Report

Sample ID: LCSW 62 WG452687-05
Sample Date/Time: Monday, November 18, 2013 13:13:49
Number of Replicates: 3
Autosampler Position: 302
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	281557.5	1.8				ug/L	269614	Standard
	Be	9	76383.7	1.1	**24.6317**	0.273	1.1	ug/L	23	Standard
	Al	27	80583.7	0.9	**0.3608**	0.008	2.2	ug/L	1170	Standard
	Sc	45	25187.6	2.1				ug/L	26874	Standard
	Ti	47	30.0	17.6	**0.0182**	0.019	105.4	ug/L	25	Standard
	V	51	168973.2	1.0	**23.4293**	0.248	1.1	ug/L	1686	Standard
	Cr	52	169486.2	1.9	**23.7654**	0.759	3.2	ug/L	6098	Standard
	Cr	53	31780.0	2.2	**24.8144**	0.376	1.5	ug/L	193	Standard
	Mn	55	350895.9	0.9	**25.5541**	0.613	2.4	ug/L	1232	Standard
	Co	59	233681.1	1.4	**24.6078**	0.659	2.7	ug/L	106	Standard
	Ni	60	69478.9	0.9	**24.7515**	0.524	2.1	ug/L	556	Standard
	Cu	65	68078.6	0.2	**25.4444**	0.446	1.8	ug/L	124	Standard
	Zn	66	39891.8	0.5	**27.1103**	0.512	1.9	ug/L	196	Standard
>	**Ge**	72	483443.1	1.5				ug/L	473313	Standard
	As	75	36303.9	1.0	**24.7551**	0.319	1.3	ug/L	-286	Standard
	Se	82	3702.4	1.3	**24.7068**	0.385	1.6	ug/L	-33	Standard
	Se-1	77	2844.9	2.0	**24.9500**	0.612	2.5	ug/L	86	Standard
>	**Ga**	71	43.3	35.3				mg/L	35	Standard
	Rb	85	151.7	11.6				ug/L	13	Standard
	Y	89	445769.1	0.3				ug/L	439493	Standard
>	**Rh**	103	20.0	66.1				ug/L	5	Standard
	Mo	98	81.5	13.3	**0.0050**	0.003	53.6	ug/L	10	Standard
	Ag	107	179874.4	0.5	**26.2630**	0.156	0.6	ug/L	53	Standard
	Cd	111	54701.8	0.5	**24.0772**	0.189	0.8	mg/L	1	Standard
	Cd	114	135156.1	0.5	**23.4994**	0.062	0.3	ug/L	32	Standard
>	**In**	115	512290.1	0.2				ug/L	494305	Standard
	Sn	118	88.3	10.3	**0.0087**	0.007	77.8	ug/L	53	Standard
	Sb	123	66735.5	1.4	**24.2820**	0.347	1.4	ug/L	7	Standard
	Ba	135	47270.6	1.2	**24.8831**	0.341	1.4	ug/L	11	Standard
	Ce	140	175.0	24.7				ug/L	10	Standard
>	**Tb**	159	541623.9	1.6				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	153255.3	1.4	**24.5156**	0.173	0.7	ug/L	1	Standard
	Tl	205	199868.1	1.1	**25.8975**	0.527	2.0	ug/L	3	Standard
	Pb	206	72431.1	0.8	**26.9867**	0.395	1.5	ug/L	80	Standard
	Pb	207	61287.7	1.0	**25.3487**	0.120	0.5	ug/L	73	Standard
	Pb	208	141628.0	0.2	**23.9308**	0.205	0.9	ug/L	190	Standard
	U	238	89196.5	0.8	**23.1423**	0.208	0.9	ug/L	0	Standard
>	**Bi**	209	288222.7	1.0				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0373**	0.805	2158.6	mg/L	2	Standard
	Mg	24	256.7	9.2	**0.2475**	0.026	10.3	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2749**	0.184	66.9	mg/L	3	Standard
	Ca	43	26.7	28.6	**-2.1240**	2.178	102.5	mg/L	43	Standard
	Fe	54	298.5	3.6	**0.0285**	0.005	18.0	mg/L	262	Standard
	Fe	57	60.0	38.2	**0.0138**	0.042	305.1	mg/L	65	Standard
>	**Sc-1**	45	25187.6	2.1				mg/L	26874	Standard
	Cl	35	151102.5	1.3				ug/L	141022	Standard
	Kr	83	96.3	8.3				ug/L	75	Standard
	Br	81	3147.0	6.1				ug/L	2810	Standard
	P	31	478349.6	1.4				ug/L	458976	Standard
	S	34	111248.6	0.1				ug/L	103378	Standard
	Sr	88	31.7	55.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.9	187.9				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.430	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.140	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSW 62 WG452687-05
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	103.638
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.263
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW 62 WG452687-05
Report Date/Time: Monday, November 18, 2013 13:16:02
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Method 6020 - Summary Report

Sample ID: L1311063001 WG452687-01
Sample Date/Time: Monday, November 18, 2013 13:16:53
Number of Replicates: 3
Autosampler Position: 303
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	310693.4	1.1				ug/L	269614	Standard
	Be	9	8859.3	3.3	**2.5739**	0.056	2.2	ug/L	23	Standard
	Al	27	67659261.9	0.6	**279.9198**	3.053	1.1	ug/L	1170	Standard
	Sc	45	31055.1	2.6				ug/L	26874	Standard
	Ti	47	40.3	21.4	**0.0748**	0.035	46.6	ug/L	25	Standard
	V	51	20471.6	2.8	**2.9755**	0.019	0.6	ug/L	1686	Standard
	Cr	52	4224.6	4.5	**-0.0189**	0.015	81.7	ug/L	6098	Standard
	Cr	53	395.0	10.0	**0.2030**	0.029	14.5	ug/L	193	Standard
	Mn	55	428212432.7	2.7	**34604.1939**	168.403	0.5	ug/L	1232	Standard
	Co	59	5684634.5	3.2	**661.0017**	6.594	1.0	ug/L	106	Standard
	Ni	60	991980.6	3.6	**392.9557**	5.540	1.4	ug/L	556	Standard
	Cu	65	27673.3	5.5	**11.3780**	0.376	3.3	ug/L	124	Standard
	Zn	66	417431029.9	2.5	**315405.8863**	3597.502	1.1	ug/L	196	Standard
>	**Ge**	72	437904.3	2.2				ug/L	473313	Standard
	As	75	10417.6	4.7	**7.9838**	0.214	2.7	ug/L	-286	Standard
	Se	82	817.7	11.6	**6.2442**	0.587	9.4	ug/L	-33	Standard
	Se-1	77	496.0	4.9	**4.1913**	0.194	4.6	ug/L	86	Standard
>	**Ga**	71	7541.9	6.2				mg/L	35	Standard
	Rb	85	17366.6	4.4				ug/L	13	Standard
	Y	89	3802162.4	1.4				ug/L	439493	Standard
>	**Rh**	103	68.3	18.4				ug/L	5	Standard
	Mo	98	144.6	11.0	**0.0278**	0.004	13.6	ug/L	10	Standard
	Ag	107	1291.7	6.5	**0.2122**	0.012	5.4	ug/L	53	Standard
	Cd	111	55551.2	1.8	**29.4468**	0.251	0.9	mg/L	1	Standard
	Cd	114	138859.2	3.2	**29.0715**	0.280	1.0	ug/L	32	Standard
>	**In**	115	425426.7	2.4				ug/L	494305	Standard
	Sn	118	50.3	4.6	**-0.0117**	0.002	16.3	ug/L	53	Standard
	Sb	123	85.2	7.6	**0.0359**	0.003	7.5	ug/L	7	Standard
	Ba	135	2813.6	1.8	**1.7720**	0.014	0.8	ug/L	11	Standard
	Ce	140	5133261.5	2.2				ug/L	10	Standard
>	**Tb**	159	633926.7	1.5				ug/L	538219	Standard
	Ho	165	145483.8	2.7				ug/L	8	Standard
	Tl	203	124.3	45.2	**0.0201**	0.010	49.4	ug/L	1	Standard
	Tl	205	136.7	39.1	**0.0192**	0.008	40.7	ug/L	3	Standard
	Pb	206	1896.5	4.2	**0.7510**	0.027	3.7	ug/L	80	Standard
	Pb	207	1567.1	5.4	**0.6947**	0.017	2.5	ug/L	73	Standard
	Pb	208	3635.8	3.9	**0.6508**	0.004	0.6	ug/L	190	Standard
	U	238	140.7	12.4	**0.0391**	0.006	14.5	ug/L	0	Standard
>	**Bi**	209	257271.4	3.3				ug/L	276439	Standard

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	Na	23	110.0	7.9	**24.1315**	2.439	10.1	mg/L	2	Standard
	Mg	24	19424.1	0.4	**17.1231**	0.395	2.3	mg/L	37	Standard
	K	39	70.0	49.5	**3.2098**	1.818	56.6	mg/L	3	Standard
	Ca	43	136.7	21.1	**24.0160**	8.203	34.2	mg/L	43	Standard
	Fe	54	121370.8	3.8	**50.9822**	1.865	3.7	mg/L	262	Standard
	Fe	57	34521.0	2.2	**51.5840**	1.673	3.2	mg/L	65	Standard
>	**Sc-1**	45	31055.1	2.6				mg/L	26874	Standard
	Cl	35	962465.9	1.7				ug/L	141022	Standard
	Kr	83	1455.4	3.3				ug/L	75	Standard
	Br	81	3473.7	1.8				ug/L	2810	Standard
	P	31	203288.1	4.5				ug/L	458976	Standard
	S	34	102539.2	2.0				ug/L	103378	Standard
	Sr	88	491.7	13.9				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	223466.4	2.8				mg/L	10	Standard
	Ho-1	165	145483.8	2.7				mg/L	8	Standard
	Er	166	127070.9	2.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.236	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.519	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		86.066
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		93.066
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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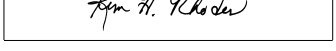

Method 6020 - Summary Report

Sample ID: L1311063005S WG452687-06
Sample Date/Time: Monday, November 18, 2013 13:19:58
Number of Replicates: 3
Autosampler Position: 304
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	314133.4	1.4				ug/L	269614	Standard
	Be	9	24264.4	2.4	**7.0027**	0.234	3.3	ug/L	23	Standard
	Al	27	64919822.1	0.4	**265.6692**	4.606	1.7	ug/L	1170	Standard
	Sc	45	30811.3	1.9				ug/L	26874	Standard
	Ti	47	34.0	10.6	**0.0459**	0.016	35.5	ug/L	25	Standard
	V	51	56134.8	0.7	**8.3577**	0.059	0.7	ug/L	1686	Standard
	Cr	52	36088.3	1.2	**4.9769**	0.066	1.3	ug/L	6098	Standard
	Cr	53	5737.8	3.8	**4.7669**	0.215	4.5	ug/L	193	Standard
	Mn	55	429506689.4	0.5	**34234.4270**	369.444	1.1	ug/L	1232	Standard
	Co	59	5803546.3	1.4	**665.6073**	5.584	0.8	ug/L	106	Standard
	Ni	60	1021200.6	1.2	**399.0315**	1.963	0.5	ug/L	556	Standard
	Cu	65	39485.0	0.4	**16.0431**	0.105	0.7	ug/L	124	Standard
	Zn	66	413007880.3	0.2	**307769.3214**	1779.877	0.6	ug/L	196	Standard
>	**Ge**	72	444023.1	0.7				ug/L	473313	Standard
	As	75	17831.8	3.3	**13.3344**	0.348	2.6	ug/L	-286	Standard
	Se	82	1844.3	5.2	**13.5334**	0.608	4.5	ug/L	-33	Standard
	Se-1	77	1172.7	2.3	**10.7811**	0.329	3.0	ug/L	86	Standard
>	**Ga**	71	7838.7	5.9				mg/L	35	Standard
	Rb	85	18139.2	1.9				ug/L	13	Standard
	Y	89	3693578.8	1.0				ug/L	439493	Standard
>	**Rh**	103	81.7	12.7				ug/L	5	Standard
	Mo	98	129.0	7.2	**0.0226**	0.003	14.7	ug/L	10	Standard
	Ag	107	31740.9	0.8	**5.4741**	0.045	0.8	ug/L	53	Standard
	Cd	111	68926.6	1.1	**35.9134**	0.311	0.9	mg/L	1	Standard
	Cd	114	169833.6	1.7	**34.9561**	0.163	0.5	ug/L	32	Standard
>	**In**	115	432802.6	1.5				ug/L	494305	Standard
	Sn	118	55.0	19.0	**-0.0084**	0.009	109.1	ug/L	53	Standard
	Sb	123	13202.9	1.2	**5.6853**	0.028	0.5	ug/L	7	Standard
	Ba	135	11274.9	1.9	**7.0174**	0.191	2.7	ug/L	11	Standard
	Ce	140	5335325.3	0.1				ug/L	10	Standard
>	**Tb**	159	643428.6	0.9				ug/L	538219	Standard
	Ho	165	145037.6	0.8				ug/L	8	Standard
	Tl	203	30073.8	1.1	**5.3293**	0.009	0.2	ug/L	1	Standard
	Tl	205	39244.1	1.0	**5.6340**	0.087	1.5	ug/L	3	Standard
	Pb	206	15774.9	1.5	**6.4805**	0.041	0.6	ug/L	80	Standard
	Pb	207	13495.7	1.0	**6.1611**	0.020	0.3	ug/L	73	Standard
	Pb	208	31130.7	1.3	**5.7994**	0.026	0.4	ug/L	190	Standard
	U	238	18895.8	1.4	**5.4310**	0.051	0.9	ug/L	0	Standard
>	**Bi**	209	260100.0	1.0				ug/L	276439	Standard

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	Na	23	103.3	26.6	**22.8185**	6.361	27.9	mg/L	2	Standard
	Mg	24	18407.8	1.3	**16.3497**	0.228	1.4	mg/L	37	Standard
	K	39	53.3	23.6	**2.3507**	0.600	25.5	mg/L	3	Standard
	Ca	43	135.0	9.8	**23.7766**	3.919	16.5	mg/L	43	Standard
	Fe	54	112855.9	4.6	**47.7681**	2.201	4.6	mg/L	262	Standard
	Fe	57	32436.4	2.3	**48.8258**	0.437	0.9	mg/L	65	Standard
>	**Sc-1**	45	30811.3	1.9				mg/L	26874	Standard
	Cl	35	940215.0	0.2				ug/L	141022	Standard
	Kr	83	1473.7	1.6				ug/L	75	Standard
	Br	81	3413.7	5.7				ug/L	2810	Standard
	P	31	204167.1	2.8				ug/L	458976	Standard
	S	34	96739.7	2.8				ug/L	103378	Standard
	Sr	88	541.7	15.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	224073.5	1.0				mg/L	10	Standard
	Ho-1	165	145037.6	0.8				mg/L	8	Standard
	Er	166	126391.8	1.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.512	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.812	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		87.558
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		94.089
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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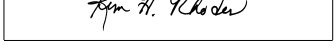

Method 6020 - Summary Report

Sample ID: L1311063007SD WG452687-07
Sample Date/Time: Monday, November 18, 2013 13:23:03
Number of Replicates: 3
Autosampler Position: 305
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	303478.8	2.6				ug/L	269614	Standard
	Be	9	23284.6	2.1	**6.9557**	0.163	2.3	ug/L	23	Standard
	Al	27	64899970.1	0.7	**274.9847**	6.971	2.5	ug/L	1170	Standard
	Sc	45	31188.7	0.2				ug/L	26874	Standard
	Ti	47	37.3	12.4	**0.0619**	0.020	32.9	ug/L	25	Standard
	V	51	53892.3	0.3	**8.1125**	0.053	0.6	ug/L	1686	Standard
	Cr	52	34694.0	0.6	**4.8216**	0.031	0.6	ug/L	6098	Standard
	Cr	53	5501.0	4.6	**4.6185**	0.212	4.6	ug/L	193	Standard
	Mn	55	424287439.9	0.7	**34212.2814**	156.282	0.5	ug/L	1232	Standard
	Co	59	5731396.0	0.2	**665.0653**	6.457	1.0	ug/L	106	Standard
	Ni	60	1027506.7	0.3	**406.2093**	2.341	0.6	ug/L	556	Standard
	Cu	65	39542.5	0.8	**16.2547**	0.067	0.4	ug/L	124	Standard
	Zn	66	416578044.3	0.4	**314065.4730**	3425.901	1.1	ug/L	196	Standard
>	Ge	72	438898.4	0.9				ug/L	473313	Standard
	As	75	17847.7	1.7	**13.5010**	0.191	1.4	ug/L	-286	Standard
	Se	82	1759.7	5.5	**13.0759**	0.674	5.2	ug/L	-33	Standard
	Se-1	77	1143.0	4.3	**10.6176**	0.414	3.9	ug/L	86	Standard
>	Ga	71	7663.6	3.6				mg/L	35	Standard
	Rb	85	17688.7	2.6				ug/L	13	Standard
	Y	89	3872593.5	0.8				ug/L	439493	Standard
>	Rh	103	105.0	17.2				ug/L	5	Standard
	Mo	98	177.5	15.5	**0.0372**	0.008	21.4	ug/L	10	Standard
	Ag	107	30943.9	0.6	**5.3876**	0.006	0.1	ug/L	53	Standard
	Cd	111	66765.6	0.7	**35.1214**	0.089	0.3	mg/L	1	Standard
	Cd	114	166108.8	0.9	**34.5204**	0.252	0.7	ug/L	32	Standard
>	In	115	428659.0	0.6				ug/L	494305	Standard
	Sn	118	68.3	31.5	**0.0037**	0.019	500.9	ug/L	53	Standard
	Sb	123	12691.6	1.6	**5.5176**	0.069	1.2	ug/L	7	Standard
	Ba	135	11380.6	1.2	**7.1509**	0.130	1.8	ug/L	11	Standard
	Ce	140	5293684.7	0.9				ug/L	10	Standard
>	Tb	159	646272.1	0.5				ug/L	538219	Standard
	Ho	165	151806.7	0.4				ug/L	8	Standard
	Tl	203	29440.6	1.1	**5.2342**	0.049	0.9	ug/L	1	Standard
	Tl	205	37289.2	0.5	**5.3704**	0.013	0.2	ug/L	3	Standard
	Pb	206	15618.7	0.5	**6.4372**	0.015	0.2	ug/L	80	Standard
	Pb	207	13076.3	0.8	**5.9883**	0.045	0.8	ug/L	73	Standard
	Pb	208	30072.7	0.8	**5.6196**	0.034	0.6	ug/L	190	Standard
	U	238	18246.0	0.6	**5.2615**	0.055	1.0	ug/L	0	Standard
>	Bi	209	259251.2	0.5				ug/L	276439	Standard

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	Na	23	131.7	12.2	**28.7948**	3.511	12.2	mg/L	2	Standard
	Mg	24	18035.7	1.1	**15.8222**	0.168	1.1	mg/L	37	Standard
	K	39	55.0	32.8	**2.4074**	0.908	37.7	mg/L	3	Standard
	Ca	43	131.7	17.1	**22.4784**	5.552	24.7	mg/L	43	Standard
	Fe	54	116736.5	0.9	**48.8109**	0.489	1.0	mg/L	262	Standard
	Fe	57	33702.5	1.9	**50.1210**	0.933	1.9	mg/L	65	Standard
>	**Sc-1**	45	31188.7	0.2				mg/L	26874	Standard
	Cl	35	931897.4	0.2				ug/L	141022	Standard
	Kr	83	1540.4	0.9				ug/L	75	Standard
	Br	81	3593.8	5.9				ug/L	2810	Standard
	P	31	197078.7	1.9				ug/L	458976	Standard
	S	34	90789.6	2.1				ug/L	103378	Standard
	Sr	88	541.7	9.6				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	236756.0	0.8				mg/L	10	Standard
	Ho-1	165	151806.7	0.4				mg/L	8	Standard
	Er	166	131689.9	1.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.560	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.729	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	86.719
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	93.782
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311079301
Sample Date/Time: Monday, November 18, 2013 13:26:09
Number of Replicates: 3
Autosampler Position: 306
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	280181.9	0.5				ug/L	269614	Standard
	Be	9	83.3	30.2	**0.0109**	0.008	73.9	ug/L	23	Standard
	Al	27	6698992.5	2.0	**30.7233**	0.490	1.6	ug/L	1170	Standard
	Sc	45	26049.0	1.0				ug/L	26874	Standard
	Ti	47	427.7	4.1	**1.5282**	0.073	4.8	ug/L	25	Standard
	V	51	7812.2	1.2	**0.8809**	0.014	1.6	ug/L	1686	Standard
	Cr	52	6609.4	1.9	**0.2369**	0.013	5.4	ug/L	6098	Standard
	Cr	53	960.0	17.6	**0.5944**	0.126	21.2	ug/L	193	Standard
	Mn	55	1693236.5	27.9	**120.5312**	33.542	27.8	ug/L	1232	Standard
	Co	59	18041.6	26.0	**1.8349**	0.479	26.1	ug/L	106	Standard
	Ni	60	7283.1	5.0	**2.3447**	0.121	5.2	ug/L	556	Standard
	Cu	65	3472.7	4.7	**1.2069**	0.066	5.5	ug/L	124	Standard
	Zn	66	855437.4	11.8	**569.8504**	66.290	11.6	ug/L	196	Standard
>	**Ge**	72	496474.4	0.5				ug/L	473313	Standard
	As	75	310.9	13.7	**0.4165**	0.027	6.6	ug/L	-286	Standard
	Se	82	38.8	32.4	**0.5493**	0.080	14.5	ug/L	-33	Standard
	Se-1	77	141.3	18.4	**0.4874**	0.224	45.9	ug/L	86	Standard
>	**Ga**	71	385.0	9.4				mg/L	35	Standard
	Rb	85	18576.4	1.4				ug/L	13	Standard
	Y	89	470081.0	0.6				ug/L	439493	Standard
>	**Rh**	103	51.7	24.4				ug/L	5	Standard
	Mo	98	3068.4	1.9	**0.7270**	0.006	0.8	ug/L	10	Standard
	Ag	107	98.7	45.2	**-0.0009**	0.006	750.5	ug/L	53	Standard
	Cd	111	211.9	11.5	**0.0884**	0.011	12.7	mg/L	1	Standard
	Cd	114	620.9	8.8	**0.0963**	0.010	10.8	ug/L	32	Standard
>	**In**	115	523696.8	1.2				ug/L	494305	Standard
	Sn	118	154.7	4.9	**0.0552**	0.007	12.1	ug/L	53	Standard
	Sb	123	232.8	9.1	**0.0814**	0.008	10.4	ug/L	7	Standard
	Ba	135	33754.6	0.8	**17.3783**	0.201	1.2	ug/L	11	Standard
	Ce	140	15619.7	5.5				ug/L	10	Standard
>	**Tb**	159	548056.8	1.1				ug/L	538219	Standard
	Ho	165	441.7	5.2				ug/L	8	Standard
	Tl	203	100.7	9.4	**0.0140**	0.002	10.8	ug/L	1	Standard
	Tl	205	158.3	23.3	**0.0198**	0.005	23.8	ug/L	3	Standard
	Pb	206	961.7	4.2	**0.3174**	0.014	4.3	ug/L	80	Standard
	Pb	207	857.7	5.2	**0.3235**	0.018	5.5	ug/L	73	Standard
	Pb	208	1873.7	3.3	**0.2791**	0.009	3.3	ug/L	190	Standard
	U	238	260.7	12.8	**0.0658**	0.008	12.7	ug/L	0	Standard
>	**Bi**	209	287863.9	0.4				ug/L	276439	Standard

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	Na	23	55.0	27.3	**14.2044**	4.043	28.5	mg/L	2	Standard
	Mg	24	11411.0	5.5	**11.9813**	0.739	6.2	mg/L	37	Standard
	K	39	6.7	114.6	**0.0248**	0.464	1872.6	mg/L	3	Standard
	Ca	43	91.7	30.0	**16.9705**	7.931	46.7	mg/L	43	Standard
	Fe	54	1755.8	4.7	**0.7551**	0.049	6.5	mg/L	262	Standard
	Fe	57	553.3	22.3	**0.8896**	0.213	24.0	mg/L	65	Standard
>	**Sc-1**	45	26049.0	1.0				mg/L	26874	Standard
	Cl	35	178084.5	3.1				ug/L	141022	Standard
	Kr	83	138.0	10.8				ug/L	75	Standard
	Br	81	14069.9	3.2				ug/L	2810	Standard
	P	31	508073.2	0.4				ug/L	458976	Standard
	S	34	94084.8	3.8				ug/L	103378	Standard
	Sr	88	301.7	12.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	649.6	9.3				mg/L	10	Standard
	Ho-1	165	441.7	5.2				mg/L	8	Standard
	Er	166	356.7	3.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.919	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.893	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.946
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.133
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311079303
Sample Date/Time: Monday, November 18, 2013 13:29:14
Number of Replicates: 3
Autosampler Position: 307
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	286946.7	0.5				ug/L	269614	Standard
	Be	9	60.0	30.0	**0.0029**	0.006	196.2	ug/L	23	Standard
	Al	27	9396107.3	1.8	**42.0813**	0.694	1.6	ug/L	1170	Standard
	Sc	45	26805.4	1.9				ug/L	26874	Standard
	Ti	47	244.0	5.2	**0.8316**	0.041	4.9	ug/L	25	Standard
	V	51	-36259.6	9.6	**-5.1272**	0.463	9.0	ug/L	1686	Standard
	Cr	52	1053620.8	0.3	**147.7066**	1.740	1.2	ug/L	6098	Standard
	Cr	53	199343.9	3.6	**152.6516**	4.334	2.8	ug/L	193	Standard
	Mn	55	323503.7	13.9	**22.9635**	3.008	13.1	ug/L	1232	Standard
	Co	59	1827.8	35.5	**0.1722**	0.065	37.6	ug/L	106	Standard
	Ni	60	7053.3	1.6	**2.2709**	0.033	1.4	ug/L	556	Standard
	Cu	65	7645.3	0.7	**2.7358**	0.010	0.4	ug/L	124	Standard
	Zn	66	34519.6	45.1	**22.8098**	10.158	44.5	ug/L	196	Standard
>	Ge	72	495194.8	0.9				ug/L	473313	Standard
	As	75	200.9	31.4	**0.3444**	0.041	12.0	ug/L	-286	Standard
	Se	82	28.6	60.0	**0.4846**	0.111	22.8	ug/L	-33	Standard
	Se-1	77	199.0	3.3	**0.9999**	0.058	5.8	ug/L	86	Standard
>	Ga	71	355.0	6.5				mg/L	35	Standard
	Rb	85	16080.2	2.8				ug/L	13	Standard
	Y	89	454030.9	0.7				ug/L	439493	Standard
>	Rh	103	41.7	25.0				ug/L	5	Standard
	Mo	98	4089.8	4.2	**0.9511**	0.036	3.8	ug/L	10	Standard
	Ag	107	109.7	3.8	**0.0003**	0.000	117.2	ug/L	53	Standard
	Cd	111	30.0	20.4	**0.0097**	0.003	26.2	mg/L	1	Standard
	Cd	114	37824.6	1.7	**6.2786**	0.189	3.0	ug/L	32	Standard
>	In	115	536152.7	1.4				ug/L	494305	Standard
	Sn	118	306864.6	2.8	**216.1153**	4.137	1.9	ug/L	53	Standard
	Sb	123	1214.8	2.2	**0.4209**	0.008	1.8	ug/L	7	Standard
	Ba	135	14191.6	1.3	**7.1289**	0.024	0.3	ug/L	11	Standard
	Ce	140	1785.1	36.5				ug/L	10	Standard
>	Tb	159	551178.0	0.5				ug/L	538219	Standard
	Ho	165	50.0	50.0				ug/L	8	Standard
	Tl	203	78.3	17.6	**0.0106**	0.002	20.6	ug/L	1	Standard
	Tl	205	106.7	37.6	**0.0134**	0.005	39.9	ug/L	3	Standard
	Pb	206	835.7	3.1	**0.2764**	0.008	3.0	ug/L	80	Standard
	Pb	207	719.0	3.3	**0.2719**	0.011	4.0	ug/L	73	Standard
	Pb	208	1643.0	2.2	**0.2455**	0.007	2.9	ug/L	190	Standard
	U	238	166.0	11.5	**0.0421**	0.005	12.1	ug/L	0	Standard
>	Bi	209	282349.2	0.6				ug/L	276439	Standard

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	Na	23	56.7	41.7	**14.2843**	6.302	44.1	mg/L	2	Standard
	Mg	24	36124.7	1.7	**36.9274**	1.064	2.9	mg/L	37	Standard
	K	39	13.3	21.7	**0.4045**	0.163	40.2	mg/L	3	Standard
	Ca	43	76.7	10.0	**11.8816**	1.779	15.0	mg/L	43	Standard
	Fe	54	1721.6	1.1	**0.7135**	0.018	2.5	mg/L	262	Standard
	Fe	57	581.7	8.6	**0.9111**	0.073	8.0	mg/L	65	Standard
>	**Sc-1**	45	26805.4	1.9				mg/L	26874	Standard
	Cl	35	217105.9	1.2				ug/L	141022	Standard
	Kr	83	120.3	7.5				ug/L	75	Standard
	Br	81	12244.9	1.9				ug/L	2810	Standard
	P	31	530370.0	4.2				ug/L	458976	Standard
	S	34	87388.0	1.2				ug/L	103378	Standard
	Sr	88	243.3	22.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	41.6	61.6				mg/L	10	Standard
	Ho-1	165	50.0	50.0				mg/L	8	Standard
	Er	166	36.7	31.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.429	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.623	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.466
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.138
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Sn 118 Upper, S, EEE	Sn	118	

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Method 6020 - Summary Report

Sample ID: L1311079303PS WG453185-01
Sample Date/Time: Monday, November 18, 2013 13:32:18
Number of Replicates: 3
Autosampler Position: 308
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	309639.4	3.5				ug/L	269614	Standard
	Be	9	167141.9	1.3	**49.0473**	1.189	2.4	ug/L	23	Standard
	Al	27	10100164.1	1.1	**41.9428**	1.012	2.4	ug/L	1170	Standard
	Sc	45	27636.8	0.8				ug/L	26874	Standard
	Ti	47	252.7	7.9	**0.8163**	0.088	10.8	ug/L	25	Standard
	V	51	339828.7	2.4	**43.7881**	0.479	1.1	ug/L	1686	Standard
	Cr	52	1522740.8	0.4	**202.7899**	4.091	2.0	ug/L	6098	Standard
	Cr	53	280374.1	1.6	**203.7652**	3.570	1.8	ug/L	193	Standard
	Mn	55	1089676.4	1.3	**73.7404**	0.817	1.1	ug/L	1232	Standard
	Co	59	527872.5	1.2	**51.4870**	0.515	1.0	ug/L	106	Standard
	Ni	60	155891.0	1.8	**51.6394**	0.598	1.2	ug/L	556	Standard
	Cu	65	153036.1	1.6	**53.0262**	0.246	0.5	ug/L	124	Standard
	Zn	66	98915.3	2.2	**62.4945**	0.436	0.7	ug/L	196	Standard
>	Ge	72	522031.7	1.8				ug/L	473313	Standard
	As	75	80457.3	1.5	**50.5830**	0.583	1.2	ug/L	-286	Standard
	Se	82	8109.2	0.7	**49.8096**	0.896	1.8	ug/L	-33	Standard
	Se-1	77	5999.5	2.1	**49.4377**	0.225	0.5	ug/L	86	Standard
>	Ga	71	438.3	10.2				mg/L	35	Standard
	Rb	85	17249.8	2.1				ug/L	13	Standard
	Y	89	480289.0	2.1				ug/L	439493	Standard
>	Rh	103	83.3	12.5				ug/L	5	Standard
	Mo	98	4376.8	2.0	**0.9813**	0.021	2.2	ug/L	10	Standard
	Ag	107	376643.3	1.1	**50.6446**	0.336	0.7	ug/L	53	Standard
	Cd	111	117894.0	1.3	**47.7783**	0.523	1.1	mg/L	1	Standard
	Cd	114	329399.3	2.4	**52.7397**	1.059	2.0	ug/L	32	Standard
>	In	115	556413.0	0.4				ug/L	494305	Standard
	Sn	118	324668.7	0.7	**220.3467**	1.011	0.5	ug/L	53	Standard
	Sb	123	143697.8	0.6	**48.1402**	0.097	0.2	ug/L	7	Standard
	Ba	135	116047.0	0.3	**56.2574**	0.081	0.1	ug/L	11	Standard
	Ce	140	1378.4	4.8				ug/L	10	Standard
>	Tb	159	574785.5	1.2				ug/L	538219	Standard
	Ho	165	46.7	34.4				ug/L	8	Standard
	Tl	203	321636.7	0.3	**51.5088**	0.228	0.4	ug/L	1	Standard
	Tl	205	427236.7	0.8	**55.4113**	0.503	0.9	ug/L	3	Standard
	Pb	206	151248.5	0.5	**56.4541**	0.346	0.6	ug/L	80	Standard
	Pb	207	134582.1	0.5	**55.7607**	0.365	0.7	ug/L	73	Standard
	Pb	208	296611.0	1.0	**50.2112**	0.550	1.1	ug/L	190	Standard
	U	238	197987.6	0.9	**51.4238**	0.521	1.0	ug/L	0	Standard
>	Bi	209	287917.5	0.2				ug/L	276439	Standard

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	Na	23	70.0	14.3	**17.0979**	2.393	14.0	mg/L	2	Standard
	Mg	24	37910.7	1.4	**37.5797**	0.773	2.1	mg/L	37	Standard
	K	39	25.0	20.0	**1.0511**	0.294	28.0	mg/L	3	Standard
	Ca	43	80.0	6.3	**12.1801**	1.563	12.8	mg/L	43	Standard
	Fe	54	1908.9	2.5	**0.7768**	0.029	3.7	mg/L	262	Standard
	Fe	57	576.7	7.8	**0.8728**	0.072	8.2	mg/L	65	Standard
>	**Sc-1**	45	27636.8	0.8				mg/L	26874	Standard
	Cl	35	223750.2	1.4				ug/L	141022	Standard
	Kr	83	131.7	5.8				ug/L	75	Standard
	Br	81	13279.2	5.9				ug/L	2810	Standard
	P	31	711843.4	2.3				ug/L	458976	Standard
	S	34	88259.7	2.4				ug/L	103378	Standard
	Sr	88	263.3	11.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	52.4	47.9				mg/L	10	Standard
	Ho-1	165	46.7	34.4				mg/L	8	Standard
	Er	166	20.0	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.845	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.293	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	112.565
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	104.152
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Sn 118 Upper, S, EEE	Sn	118	

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311079303SDL WG453185-02
Sample Date/Time: Monday, November 18, 2013 13:35:23
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	262099.8	1.9				ug/L	269614	Standard
	Be	9	60.0	22.0	**0.0047**	0.005	96.5	ug/L	23	Standard
	Al	27	1677085.5	1.3	**8.2182**	0.073	0.9	ug/L	1170	Standard
	Sc	45	23369.7	1.0				ug/L	26874	Standard
	Ti	47	54.0	12.1	**0.1264**	0.028	22.3	ug/L	25	Standard
	V	51	-3457.9	16.9	**-0.6977**	0.088	12.7	ug/L	1686	Standard
	Cr	52	191071.3	1.1	**28.7202**	0.242	0.8	ug/L	6098	Standard
	Cr	53	37087.0	1.9	**30.9329**	0.478	1.5	ug/L	193	Standard
	Mn	55	72027.5	0.5	**5.4872**	0.042	0.8	ug/L	1232	Standard
	Co	59	352.0	8.7	**0.0242**	0.003	14.3	ug/L	106	Standard
	Ni	60	1661.1	2.6	**0.4349**	0.019	4.4	ug/L	556	Standard
	Cu	65	1495.1	2.1	**0.5376**	0.013	2.4	ug/L	124	Standard
	Zn	66	8852.3	2.5	**6.2678**	0.175	2.8	ug/L	196	Standard
>	**Ge**	72	453067.2	0.4				ug/L	473313	Standard
	As	75	-204.2	14.7	**0.0646**	0.022	33.5	ug/L	-286	Standard
	Se	82	-32.4	33.9	**0.0725**	0.078	107.6	ug/L	-33	Standard
	Se-1	77	117.7	5.0	**0.3792**	0.061	16.1	ug/L	86	Standard
>	**Ga**	71	76.7	3.8				mg/L	35	Standard
	Rb	85	2915.3	7.9				ug/L	13	Standard
	Y	89	409426.7	0.9				ug/L	439493	Standard
>	**Rh**	103	16.7	34.6				ug/L	5	Standard
	Mo	98	760.4	2.7	**0.1835**	0.003	1.9	ug/L	10	Standard
	Ag	107	73.3	9.3	**-0.0037**	0.001	28.3	ug/L	53	Standard
	Cd	111	12.4	55.3	**0.0029**	0.003	111.3	mg/L	1	Standard
	Cd	114	7054.9	2.5	**1.2875**	0.034	2.7	ug/L	32	Standard
>	**In**	115	484758.1	1.2				ug/L	494305	Standard
	Sn	118	60484.8	0.6	**47.0765**	0.445	0.9	ug/L	53	Standard
	Sb	123	520.5	3.7	**0.1987**	0.006	3.2	ug/L	7	Standard
	Ba	135	2713.6	2.6	**1.4982**	0.056	3.8	ug/L	11	Standard
	Ce	140	256.7	11.1				ug/L	10	Standard
>	**Tb**	159	511286.3	1.4				ug/L	538219	Standard
	Ho	165	8.3	34.6				ug/L	8	Standard
	Tl	203	156.0	5.0	**0.0241**	0.002	6.4	ug/L	1	Standard
	Tl	205	208.3	9.7	**0.0277**	0.003	11.2	ug/L	3	Standard
	Pb	206	297.7	12.2	**0.0750**	0.014	18.0	ug/L	80	Standard
	Pb	207	251.7	6.3	**0.0776**	0.007	8.6	ug/L	73	Standard
	Pb	208	573.3	2.0	**0.0637**	0.002	3.8	ug/L	190	Standard
	U	238	48.0	19.9	**0.0112**	0.003	23.4	ug/L	0	Standard
>	**Bi**	209	273845.1	1.2				ug/L	276439	Standard

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	Na	23	6.7	86.6	**1.5417**	1.706	110.6	mg/L	2	Standard
	Mg	24	7040.0	2.2	**8.2288**	0.264	3.2	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2677**	0.197	73.4	mg/L	3	Standard
	Ca	43	41.7	25.0	**3.5263**	3.441	97.6	mg/L	43	Standard
	Fe	54	393.3	12.0	**0.0934**	0.024	26.2	mg/L	262	Standard
	Fe	57	160.0	19.0	**0.2210**	0.057	25.7	mg/L	65	Standard
>	**Sc-1**	45	23369.7	1.0				mg/L	26874	Standard
	Cl	35	149889.9	1.9				ug/L	141022	Standard
	Kr	83	119.3	3.5				ug/L	75	Standard
	Br	81	4317.3	3.3				ug/L	2810	Standard
	P	31	216033.2	2.5				ug/L	458976	Standard
	S	34	86259.9	1.7				ug/L	103378	Standard
	Sr	88	66.7	4.3				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	12.2	45.2				mg/L	10	Standard
	Ho-1	165	8.3	34.6				mg/L	8	Standard
	Er	166	23.3	49.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		97.213	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.722	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.069
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.062
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Lower	V	51	

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Method 6020 - Summary Report

Sample ID: L1311079303SDL WG453185-02
Sample Date/Time: Monday, November 18, 2013 13:38:28
Number of Replicates: 3
Autosampler Position: 310
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	252514.6	2.9				ug/L	269614	Standard
	Be	9	41.7	18.3	**-0.0011**	0.002	204.2	ug/L	23	Standard
	Al	27	334465.2	1.6	**1.6965**	0.065	3.8	ug/L	1170	Standard
	Sc	45	22785.5	1.6				ug/L	26874	Standard
	Ti	47	29.7	21.7	**0.0268**	0.027	98.8	ug/L	25	Standard
	V	51	230.9	105.4	**-0.1472**	0.037	25.0	ug/L	1686	Standard
	Cr	52	40740.4	1.3	**5.6850**	0.116	2.0	ug/L	6098	Standard
	Cr	53	7405.1	2.2	**6.1687**	0.106	1.7	ug/L	193	Standard
	Mn	55	14428.9	3.7	**1.0070**	0.051	5.1	ug/L	1232	Standard
	Co	59	143.0	6.3	**0.0010**	0.001	104.6	ug/L	106	Standard
	Ni	60	669.7	2.4	**0.0592**	0.005	8.8	ug/L	556	Standard
	Cu	65	399.7	4.3	**0.1025**	0.006	5.9	ug/L	124	Standard
	Zn	66	5205.9	5.3	**3.6690**	0.226	6.2	ug/L	196	Standard
>	Ge	72	445617.9	0.7				ug/L	473313	Standard
	As	75	-321.1	15.2	**-0.0236**	0.036	151.6	ug/L	-286	Standard
	Se	82	-64.5	35.0	**-0.1599**	0.160	99.9	ug/L	-33	Standard
	Se-1	77	75.7	10.8	**-0.0133**	0.085	644.0	ug/L	86	Standard
>	Ga	71	55.0	27.3				mg/L	35	Standard
	Rb	85	606.7	7.1				ug/L	13	Standard
	Y	89	404616.6	0.8				ug/L	439493	Standard
>	Rh	103	0.0					ug/L	5	Standard
	Mo	98	161.7	5.4	**0.0279**	0.002	8.2	ug/L	10	Standard
	Ag	107	49.0	10.8	**-0.0073**	0.001	11.6	ug/L	53	Standard
	Cd	111	5.5	64.2	**-0.0003**	0.002	575.1	mg/L	1	Standard
	Cd	114	1445.7	4.6	**0.2616**	0.012	4.8	ug/L	32	Standard
>	In	115	475248.3	0.1				ug/L	494305	Standard
	Sn	118	11905.7	0.6	**9.4062**	0.068	0.7	ug/L	53	Standard
	Sb	123	211.9	7.5	**0.0816**	0.006	7.6	ug/L	7	Standard
	Ba	135	540.0	4.3	**0.2940**	0.013	4.3	ug/L	11	Standard
	Ce	140	48.3	31.6				ug/L	10	Standard
>	Tb	159	493754.4	1.7				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	60.7	9.1	**0.0082**	0.001	11.7	ug/L	1	Standard
	Tl	205	55.0		**0.0069**	0.000	0.3	ug/L	3	Standard
	Pb	206	125.7	3.8	**0.0081**	0.002	21.4	ug/L	80	Standard
	Pb	207	106.3	5.4	**0.0149**	0.003	17.5	ug/L	73	Standard
	Pb	208	244.7	4.0	**0.0057**	0.002	32.7	ug/L	190	Standard
	U	238	10.3	24.4	**0.0010**	0.001	70.7	ug/L	0	Standard
>	Bi	209	270467.4	0.3				ug/L	276439	Standard

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Lynn H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	1415.1	2.8	**1.6715**	0.074	4.4	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0302**	0.353	1170.3	mg/L	3	Standard
	Ca	43	31.7	9.1	**0.4700**	0.846	180.1	mg/L	43	Standard
	Fe	54	133.3	27.0	**-0.0502**	0.020	38.9	mg/L	262	Standard
	Fe	57	86.7	27.3	**0.0802**	0.049	61.7	mg/L	65	Standard
>	**Sc-1**	45	22785.5	1.6				mg/L	26874	Standard
	Cl	35	141516.1	2.6				ug/L	141022	Standard
	Kr	83	123.3	11.6				ug/L	75	Standard
	Br	81	2890.3	10.7				ug/L	2810	Standard
	P	31	162118.7	4.1				ug/L	458976	Standard
	S	34	93405.5	2.3				ug/L	103378	Standard
	Sr	88	40.0	25.0				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	16.7	91.7				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	0.0					mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.658	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.149	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		96.145
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.840
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 13:41:35
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	281211.0	1.6				ug/L	269614	Standard
	Be	9	155457.0	2.1	**50.2078**	1.085	2.2	ug/L	23	Standard
	Al	27	10030614.5	0.9	**45.8436**	0.326	0.7	ug/L	1170	Standard
	Sc	45	26002.3	1.2				ug/L	26874	Standard
	Ti	47	25857.7	1.4	**97.8012**	0.520	0.5	ug/L	25	Standard
	V	51	347647.0	1.2	**46.8997**	0.676	1.4	ug/L	1686	Standard
	Cr	52	348671.0	0.7	**48.0610**	0.216	0.4	ug/L	6098	Standard
	Cr	53	63879.4	2.5	**48.4709**	0.712	1.5	ug/L	193	Standard
	Mn	55	706848.5	0.8	**50.0132**	0.104	0.2	ug/L	1232	Standard
	Co	59	486306.2	0.7	**49.6404**	0.575	1.2	ug/L	106	Standard
	Ni	60	142583.4	0.4	**49.4230**	0.343	0.7	ug/L	556	Standard
	Cu	65	138915.6	1.1	**50.3727**	0.529	1.0	ug/L	124	Standard
	Zn	66	77243.7	0.8	**51.0441**	0.479	0.9	ug/L	196	Standard
>	Ge	72	498794.9	1.0				ug/L	473313	Standard
	As	75	75409.0	1.6	**49.6177**	0.549	1.1	ug/L	-286	Standard
	Se	82	7802.3	1.4	**50.1441**	0.276	0.5	ug/L	-33	Standard
	Se-1	77	5703.1	0.5	**49.1843**	0.387	0.8	ug/L	86	Standard
>	Ga	71	61.7	12.4				mg/L	35	Standard
	Rb	85	1236.7	6.5				ug/L	13	Standard
	Y	89	457076.6	1.8				ug/L	439493	Standard
>	Rh	103	40.0	45.1				ug/L	5	Standard
	Mo	98	434381.9	0.8	**104.5172**	0.837	0.8	ug/L	10	Standard
	Ag	107	367668.8	0.3	**52.2561**	0.389	0.7	ug/L	53	Standard
	Cd	111	116914.6	1.4	**50.0796**	0.504	1.0	mg/L	1	Standard
	Cd	114	295234.4	1.7	**49.9619**	0.595	1.2	ug/L	32	Standard
>	In	115	526432.1	0.6				ug/L	494305	Standard
	Sn	118	71320.8	1.3	**51.1184**	0.705	1.4	ug/L	53	Standard
	Sb	123	137397.7	0.7	**48.6510**	0.090	0.2	ug/L	7	Standard
	Ba	135	97461.5	0.4	**49.9370**	0.096	0.2	ug/L	11	Standard
	Ce	140	45.0	22.2				ug/L	10	Standard
>	Tb	159	549512.6	0.6				ug/L	538219	Standard
	Ho	165	5.0	173.2				ug/L	8	Standard
	Tl	203	311000.2	0.9	**49.9527**	0.314	0.6	ug/L	1	Standard
	Tl	205	410351.1	0.8	**53.3794**	0.459	0.9	ug/L	3	Standard
	Pb	206	143512.8	0.3	**53.7239**	0.219	0.4	ug/L	80	Standard
	Pb	207	128269.3	0.2	**53.3016**	0.183	0.3	ug/L	73	Standard
	Pb	208	286590.5	0.3	**48.6580**	0.286	0.6	ug/L	190	Standard
	U	238	184753.3	0.3	**48.1287**	0.185	0.4	ug/L	0	Standard
>	Bi	209	287064.2	0.3				ug/L	276439	Standard

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Na	23	31.7	9.1	**8.0103**	0.872	10.9	mg/L	2	Standard
Mg	24	4815.8	4.4	**5.0464**	0.232	4.6	mg/L	37	Standard
K	39	61.7	20.4	**3.3771**	0.813	24.1	mg/L	3	Standard
Ca	43	48.3	21.5	**4.1448**	3.285	79.2	mg/L	43	Standard
Fe	54	11576.9	2.2	**5.6952**	0.148	2.6	mg/L	262	Standard
Fe	57	3335.4	7.0	**5.8653**	0.429	7.3	mg/L	65	Standard
Sc-1	45	26002.3	1.2				mg/L	26874	Standard
Cl	35	151424.9	0.2				ug/L	141022	Standard
Kr	83	136.3	10.6				ug/L	75	Standard
Br	81	3130.3	2.9				ug/L	2810	Standard
P	31	512445.6	1.0				ug/L	458976	Standard
S	34	122587.3	1.2				ug/L	103378	Standard
Sr	88	38.3	30.1				ug/L	30	Standard
C	12	0.0					mg/L	3	Standard
N	14	0.0					mg/L	0	Standard
Hg	202	3.3	173.2				mg/L	0	Standard
Dy	164	9.5	0.0				mg/L	10	Standard
Ho-1	165	5.0	173.2				mg/L	8	Standard
Er	166	10.0					mg/L	10	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6		104.301	
Be	9	100.416		
Al	27	91.687		
Sc	45			
Ti	47	97.801		
V	51	93.799		
Cr	52	96.122		
Cr	53			
Mn	55	100.026		
Co	59	99.281		
Ni	60	98.846		
Cu	65	100.745		
Zn	66	102.088		
Ge	72		105.384	
As	75	99.235		
Se	82	100.288		
Se-1	77			
Ga	71			
Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	104.517		
|	Ag	107	104.512		
|	Cd	111	100.159		
|	Cd	114			
|>	In	115			106.499
|	Sn	118	102.237		
|	Sb	123	97.302		
⌊	Ba	135	99.874		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	99.905		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.316		
|	U	238	96.257		
⌊>	Bi	209			103.844
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 13:44:40
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	282681.2	1.2				ug/L	269614	Standard
	Be	9	30.0	16.7	**-0.0064**	0.002	24.4	ug/L	23	Standard
	Al	27	1405.1	13.1	**-0.0007**	0.001	119.5	ug/L	1170	Standard
	Sc	45	25246.0	2.9				ug/L	26874	Standard
	Ti	47	11.0	18.2	**-0.0564**	0.008	13.7	ug/L	25	Standard
	V	51	1154.5	1.7	**-0.0229**	0.002	7.7	ug/L	1686	Standard
	Cr	52	4104.6	0.4	**-0.1075**	0.005	4.9	ug/L	6098	Standard
	Cr	53	153.3	11.5	**-0.0204**	0.013	65.9	ug/L	193	Standard
	Mn	55	1825.4	5.1	**-0.0073**	0.008	102.4	ug/L	1232	Standard
	Co	59	99.3	10.1	**-0.0051**	0.001	21.7	ug/L	106	Standard
	Ni	60	487.0	4.5	**-0.0291**	0.008	28.6	ug/L	556	Standard
	Cu	65	173.0	7.8	**0.0040**	0.005	117.1	ug/L	124	Standard
	Zn	66	1145.0	11.8	**0.5760**	0.095	16.6	ug/L	196	Standard
>	**Ge**	72	490199.3	0.6				ug/L	473313	Standard
	As	75	-363.8	13.6	**-0.0305**	0.032	105.3	ug/L	-286	Standard
	Se	82	-67.1	11.1	**-0.1353**	0.047	35.0	ug/L	-33	Standard
	Se-1	77	73.0	7.2	**-0.1049**	0.047	44.6	ug/L	86	Standard
>	**Ga**	71	28.3	36.7				mg/L	35	Standard
	Rb	85	20.0	43.3				ug/L	13	Standard
	Y	89	445432.8	0.4				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	75.1	24.8	**0.0031**	0.004	143.3	ug/L	10	Standard
	Ag	107	75.0	15.1	**-0.0042**	0.002	42.7	ug/L	53	Standard
	Cd	111	6.2	48.8	**-0.0002**	0.001	767.0	mg/L	1	Standard
	Cd	114	22.2	38.9	**-0.0056**	0.002	26.8	ug/L	32	Standard
>	**In**	115	519212.4	1.2				ug/L	494305	Standard
	Sn	118	102.7	6.8	**0.0183**	0.006	32.0	ug/L	53	Standard
	Sb	123	299.0	31.0	**0.1057**	0.033	30.8	ug/L	7	Standard
	Ba	135	69.7	14.2	**0.0237**	0.005	21.2	ug/L	11	Standard
	Ce	140	10.0	132.3				ug/L	10	Standard
>	**Tb**	159	540699.3	1.1				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	16.0	34.8	**0.0004**	0.001	208.0	ug/L	1	Standard
	Tl	205	18.3	56.8	**0.0017**	0.001	78.7	ug/L	3	Standard
	Pb	206	117.3	9.6	**0.0021**	0.004	199.8	ug/L	80	Standard
	Pb	207	96.3	21.6	**0.0080**	0.008	105.0	ug/L	73	Standard
	Pb	208	187.3	5.1	**-0.0065**	0.001	21.6	ug/L	190	Standard
	U	238	7.7	19.9	**0.0001**	0.000	291.2	ug/L	0	Standard
>	**Bi**	209	286814.3	0.7				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	36.7	79.9	**0.0081**	0.033	400.6	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2748**	0.184	67.0	mg/L	3	Standard
	Ca	43	25.0	52.9	**-2.6534**	4.054	152.8	mg/L	43	Standard
	Fe	54	297.9	8.6	**0.0277**	0.010	37.7	mg/L	262	Standard
	Fe	57	71.7	26.4	**0.0350**	0.034	97.7	mg/L	65	Standard
>	**Sc-1**	45	25246.0	2.9				mg/L	26874	Standard
	Cl	35	147351.1	1.4				ug/L	141022	Standard
	Kr	83	120.3	4.3				ug/L	75	Standard
	Br	81	2923.6	1.1				ug/L	2810	Standard
	P	31	486076.5	1.4				ug/L	458976	Standard
	S	34	114719.5	2.3				ug/L	103378	Standard
	Sr	88	35.0	57.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	179.6				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.846	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.568	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.039
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.753
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079305
Sample Date/Time: Monday, November 18, 2013 13:47:46
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	272198.6	1.5				ug/L	269614	Standard
	Be	9	55.0	9.1	**0.0023**	0.002	79.2	ug/L	23	Standard
	Al	27	5441367.6	1.9	**25.6928**	0.711	2.8	ug/L	1170	Standard
	Sc	45	25443.0	1.6				ug/L	26874	Standard
	Ti	47	786.7	9.8	**3.1270**	0.323	10.3	ug/L	25	Standard
	V	51	85183.7	1.0	**12.3094**	0.159	1.3	ug/L	1686	Standard
	Cr	52	27553.5	8.5	**3.4796**	0.348	10.0	ug/L	6098	Standard
	Cr	53	8253.9	10.3	**6.6616**	0.682	10.2	ug/L	193	Standard
	Mn	55	117502.5	0.3	**8.8883**	0.032	0.4	ug/L	1232	Standard
	Co	59	1026.7	1.2	**0.0981**	0.001	1.3	ug/L	106	Standard
	Ni	60	5122.2	0.9	**1.7287**	0.017	1.0	ug/L	556	Standard
	Cu	65	2933.6	4.2	**1.0934**	0.051	4.7	ug/L	124	Standard
	Zn	66	24043.4	1.1	**17.0727**	0.175	1.0	ug/L	196	Standard
>	Ge	72	460643.5	0.2				ug/L	473313	Standard
	As	75	235.5	17.9	**0.3790**	0.030	8.0	ug/L	-286	Standard
	Se	82	52.2	9.3	**0.6621**	0.034	5.2	ug/L	-33	Standard
	Se-1	77	555.7	15.7	**4.5124**	0.820	18.2	ug/L	86	Standard
>	Ga	71	351.7	11.0				mg/L	35	Standard
	Rb	85	146994.6	0.7				ug/L	13	Standard
	Y	89	425715.0	1.2				ug/L	439493	Standard
>	Rh	103	111.7	22.5				ug/L	5	Standard
	Mo	98	17827.5	1.0	**4.7813**	0.058	1.2	ug/L	10	Standard
	Ag	107	53.0	10.5	**-0.0066**	0.001	14.1	ug/L	53	Standard
	Cd	111	149.4	2.3	**0.0687**	0.002	2.5	mg/L	1	Standard
	Cd	114	423.5	11.2	**0.0707**	0.009	12.2	ug/L	32	Standard
>	In	115	470862.9	0.6				ug/L	494305	Standard
	Sn	118	303.3	12.6	**0.1869**	0.030	15.9	ug/L	53	Standard
	Sb	123	6225.8	5.4	**2.4629**	0.122	4.9	ug/L	7	Standard
	Ba	135	27222.8	0.7	**15.5857**	0.036	0.2	ug/L	11	Standard
	Ce	140	1521.7	6.8				ug/L	10	Standard
>	Tb	159	508643.7	0.7				ug/L	538219	Standard
	Ho	165	30.0	60.1				ug/L	8	Standard
	Tl	203	72.3	8.1	**0.0110**	0.001	10.4	ug/L	1	Standard
	Tl	205	80.0	10.8	**0.0111**	0.001	11.6	ug/L	3	Standard
	Pb	206	1402.7	1.1	**0.5521**	0.009	1.7	ug/L	80	Standard
	Pb	207	1123.0	5.0	**0.4958**	0.029	5.9	ug/L	73	Standard
	Pb	208	2636.4	2.1	**0.4680**	0.014	3.0	ug/L	190	Standard
	U	238	366.7	10.1	**0.1061**	0.011	10.2	ug/L	0	Standard
>	Bi	209	253989.5	0.6				ug/L	276439	Standard

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	Na	23	108.3	11.6	**29.0709**	3.625	12.5	mg/L	2	Standard
	Mg	24	87320.9	1.3	**94.0894**	2.734	2.9	mg/L	37	Standard
	K	39	71.7	22.4	**4.0667**	0.935	23.0	mg/L	3	Standard
	Ca	43	161.7	31.0	**38.9585**	14.899	38.2	mg/L	43	Standard
	Fe	54	403.3	9.3	**0.0808**	0.019	23.9	mg/L	262	Standard
	Fe	57	221.7	14.3	**0.3087**	0.063	20.3	mg/L	65	Standard
>	**Sc-1**	45	25443.0	1.6				mg/L	26874	Standard
	Cl	35	184314.5	3.5				ug/L	141022	Standard
	Kr	83	121.7	1.7				ug/L	75	Standard
	Br	81	8885.9	4.1				ug/L	2810	Standard
	P	31	493664.5	1.5				ug/L	458976	Standard
	S	34	78906.7	2.9				ug/L	103378	Standard
	Sr	88	513.3	14.5				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	170.0	5.9				mg/L	0	Standard
	Dy	164	41.4	37.0				mg/L	10	Standard
	Ho-1	165	30.0	60.1				mg/L	8	Standard
	Er	166	40.0	66.1				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.958	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.323	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		95.257
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		91.879
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311079308
Sample Date/Time: Monday, November 18, 2013 13:57:08
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	267127.7	1.1				ug/L	269614	Standard
	Be	9	198.3	21.1	**0.0513**	0.014	26.6	ug/L	23	Standard
	Al	27	64268132.7	0.7	**309.2628**	4.656	1.5	ug/L	1170	Standard
	Sc	45	26970.7	1.6				ug/L	26874	Standard
	Ti	47	5312.6	1.8	**20.9993**	0.487	2.3	ug/L	25	Standard
	V	51	2110331.5	13.4	**299.7582**	42.339	14.1	ug/L	1686	Standard
	Cr	52	179439577.9	1.9	**26312.9234**	450.217	1.7	ug/L	6098	Standard
	Cr	53	28484275.2	2.5	**22738.5072**	703.922	3.1	ug/L	193	Standard
	Mn	55	4463662.6	1.0	**332.0302**	4.121	1.2	ug/L	1232	Standard
	Co	59	16143.9	1.4	**1.7134**	0.018	1.0	ug/L	106	Standard
	Ni	60	72612.3	0.9	**26.3022**	0.086	0.3	ug/L	556	Standard
	Cu	65	252873.9	1.0	**96.2210**	0.332	0.3	ug/L	124	Standard
	Zn	66	37938.8	2.3	**26.2013**	0.789	3.0	ug/L	196	Standard
>	Ge	72	475586.3	0.8				ug/L	473313	Standard
	As	75	934.3	10.9	**0.8536**	0.065	7.6	ug/L	-286	Standard
	Se	82	-46.7	67.2	**-0.0130**	0.212	1632.7	ug/L	-33	Standard
	Se-1	77	133.3	13.7	**0.4684**	0.158	33.7	ug/L	86	Standard
>	Ga	71	3308.7	3.3				mg/L	35	Standard
	Rb	85	15134.2	1.3				ug/L	13	Standard
	Y	89	440503.5	0.5				ug/L	439493	Standard
>	Rh	103	61.7	28.5				ug/L	5	Standard
	Mo	98	17637.3	0.2	**4.5859**	0.126	2.8	ug/L	10	Standard
	Ag	107	2643.2	3.8	**0.3922**	0.009	2.4	ug/L	53	Standard
	Cd	111	47.1	10.9	**0.0190**	0.003	15.0	mg/L	1	Standard
	Cd	114	15384.8	2.7	**2.8125**	0.047	1.7	ug/L	32	Standard
>	In	115	485831.7	2.5				ug/L	494305	Standard
	Sn	118	131662.1	2.1	**102.3176**	0.972	0.9	ug/L	53	Standard
	Sb	123	3337.2	2.6	**1.2790**	0.014	1.1	ug/L	7	Standard
	Ba	135	21121.7	2.3	**11.7174**	0.028	0.2	ug/L	11	Standard
	Ce	140	15918.4	1.6				ug/L	10	Standard
>	Tb	159	519922.9	1.4				ug/L	538219	Standard
	Ho	165	440.0	7.1				ug/L	8	Standard
	Tl	203	71.3	14.1	**0.0102**	0.002	15.2	ug/L	1	Standard
	Tl	205	106.7	28.6	**0.0144**	0.005	32.1	ug/L	3	Standard
	Pb	206	6685.8	2.0	**2.6711**	0.090	3.4	ug/L	80	Standard
	Pb	207	5141.9	3.9	**2.2822**	0.047	2.0	ug/L	73	Standard
	Pb	208	12350.0	1.6	**2.2338**	0.008	0.3	ug/L	190	Standard
	U	238	1507.4	1.3	**0.4234**	0.005	1.2	ug/L	0	Standard
>	Bi	209	265127.4	1.9				ug/L	276439	Standard

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	Na	23	290.0	18.6	**73.8981**	12.846	17.4	mg/L	2	Standard
	Mg	24	35875.8	0.9	**36.4429**	0.679	1.9	mg/L	37	Standard
	K	39	15.0	33.3	**0.4995**	0.294	58.9	mg/L	3	Standard
	Ca	43	288.3	20.7	**72.9431**	18.556	25.4	mg/L	43	Standard
	Fe	54	59946.3	2.4	**28.9334**	0.488	1.7	mg/L	262	Standard
	Fe	57	18149.2	1.4	**31.1839**	0.841	2.7	mg/L	65	Standard
>	**Sc-1**	45	26970.7	1.6				mg/L	26874	Standard
	Cl	35	558733.3	1.3				ug/L	141022	Standard
	Kr	83	172.3	16.8				ug/L	75	Standard
	Br	81	4404.0	3.9				ug/L	2810	Standard
	P	31	681283.9	1.5				ug/L	458976	Standard
	S	34	79794.8	3.6				ug/L	103378	Standard
	Sr	88	330.0	2.6				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	561.0	13.6				mg/L	10	Standard
	Ho-1	165	440.0	7.1				mg/L	8	Standard
	Er	166	466.7	11.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.078	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.480	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		98.286
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		95.908
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	

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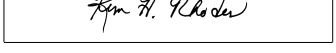

Sn 118 Upper, S, EEE	Sn	118	

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311079309
Sample Date/Time: Monday, November 18, 2013 14:00:14
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	334297.8	7.0				ug/L	269614	Standard
	Be	9	15.0	0.0	**-0.0120**	0.000	2.5	ug/L	23	Standard
	Al	27	1870.1	42.8	**0.0002**	0.004	1652.6	ug/L	1170	Standard
	Sc	45	28700.6	6.2				ug/L	26874	Standard
	Ti	47	13.3	22.9	**-0.0540**	0.010	19.2	ug/L	25	Standard
	V	51	333.0	32.9	**-0.1424**	0.011	7.9	ug/L	1686	Standard
	Cr	52	4597.8	35.6	**-0.1147**	0.228	198.9	ug/L	6098	Standard
	Cr	53	683.4	57.5	**0.3311**	0.283	85.5	ug/L	193	Standard
	Mn	55	1115.7	13.5	**-0.0687**	0.013	19.4	ug/L	1232	Standard
	Co	59	67.3	4.8	**-0.0093**	0.001	8.0	ug/L	106	Standard
	Ni	60	310.7	8.0	**-0.1056**	0.012	11.5	ug/L	556	Standard
	Cu	65	88.0	8.9	**-0.0315**	0.004	13.5	ug/L	124	Standard
	Zn	66	924.7	25.8	**0.3409**	0.106	31.0	ug/L	196	Standard
>	**Ge**	72	564401.5	7.2				ug/L	473313	Standard
	As	75	-319.0	68.4	**0.0204**	0.145	711.9	ug/L	-286	Standard
	Se	82	-88.6	78.4	**-0.2198**	0.446	202.7	ug/L	-33	Standard
	Se-1	77	53.3	1.1	**-0.3409**	0.035	10.3	ug/L	86	Standard
>	**Ga**	71	35.0	28.6				mg/L	35	Standard
	Rb	85	15.0	0.0				ug/L	13	Standard
	Y	89	536172.6	5.6				ug/L	439493	Standard
>	**Rh**	103	3.3	86.6				ug/L	5	Standard
	Mo	98	14.0	37.4	**-0.0124**	0.001	8.6	ug/L	10	Standard
	Ag	107	67.7	14.6	**-0.0069**	0.001	8.4	ug/L	53	Standard
	Cd	111	3.0	33.6	**-0.0018**	0.000	25.0	mg/L	1	Standard
	Cd	114	20.6	35.6	**-0.0065**	0.001	18.3	ug/L	32	Standard
>	**In**	115	628450.4	8.2				ug/L	494305	Standard
	Sn	118	103.3	14.1	**0.0059**	0.009	155.2	ug/L	53	Standard
	Sb	123	26.8	14.9	**0.0064**	0.001	8.4	ug/L	7	Standard
	Ba	135	10.7	28.6	**-0.0080**	0.001	13.2	ug/L	11	Standard
	Ce	140	28.3	10.2				ug/L	10	Standard
>	**Tb**	159	710964.5	8.7				ug/L	538219	Standard
	Ho	165	10.0	132.3				ug/L	8	Standard
	Tl	203	3.7	103.3	**-0.0017**	0.000	22.8	ug/L	1	Standard
	Tl	205	13.3	142.0	**0.0005**	0.002	315.9	ug/L	3	Standard
	Pb	206	114.7	16.5	**-0.0102**	0.002	24.5	ug/L	80	Standard
	Pb	207	110.3	14.1	**0.0018**	0.001	51.5	ug/L	73	Standard
	Pb	208	259.7	14.6	**-0.0059**	0.001	19.6	ug/L	190	Standard
	U	238	0.7	86.6	**-0.0017**	0.000	6.7	ug/L	0	Standard
>	**Bi**	209	388401.2	11.6				ug/L	276439	Standard

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Lynn H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	33.3	8.7	**-0.0000**	0.002	7389.2	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2954**	0.149	50.3	mg/L	3	Standard
	Ca	43	31.7	24.1	**-1.8046**	1.560	86.5	mg/L	43	Standard
	Fe	54	134.0	45.0	**-0.0646**	0.030	46.8	mg/L	262	Standard
	Fe	57	93.3	18.8	**0.0546**	0.030	54.2	mg/L	65	Standard
>	**Sc-1**	45	28700.6	6.2				mg/L	26874	Standard
	Cl	35	57893.3	22.2				ug/L	141022	Standard
	Kr	83	155.7	67.1				ug/L	75	Standard
	Br	81	1083.4	21.7				ug/L	2810	Standard
	P	31	196769.7	42.9				ug/L	458976	Standard
	S	34	41583.9	22.6				ug/L	103378	Standard
	Sr	88	55.0	41.7				ug/L	30	Standard
	C	12	6.7	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.5	107.6				mg/L	10	Standard
	Ho-1	165	10.0	132.3				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		123.991	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		119.245	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311079309
Report Date/Time: Monday, November 18, 2013 14:02:27
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	127.138
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	140.502
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311079313 WG452687-03
Sample Date/Time: Monday, November 18, 2013 14:03:18
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	277028.2	4.6				ug/L	269614	Standard
	Be	9	28.3	36.7	**-0.0067**	0.004	54.2	ug/L	23	Standard
	Al	27	3769237.3	1.7	**17.4971**	0.525	3.0	ug/L	1170	Standard
	Sc	45	25795.3	3.0				ug/L	26874	Standard
	Ti	47	130.3	8.7	**0.4145**	0.044	10.7	ug/L	25	Standard
	V	51	129409.6	1.3	**18.0469**	0.022	0.1	ug/L	1686	Standard
	Cr	52	33600.3	20.9	**4.1908**	0.986	23.5	ug/L	6098	Standard
	Cr	53	8394.1	20.8	**6.5025**	1.352	20.8	ug/L	193	Standard
	Mn	55	34379.3	1.5	**2.3981**	0.014	0.6	ug/L	1232	Standard
	Co	59	1029.4	5.5	**0.0939**	0.005	5.1	ug/L	106	Standard
	Ni	60	4983.2	0.8	**1.6026**	0.036	2.2	ug/L	556	Standard
	Cu	65	2197.8	3.2	**0.7702**	0.030	3.9	ug/L	124	Standard
	Zn	66	5421.3	6.0	**3.5433**	0.214	6.0	ug/L	196	Standard
>	Ge	72	479528.7	1.2				ug/L	473313	Standard
	As	75	330.7	26.5	**0.4374**	0.060	13.8	ug/L	-286	Standard
	Se	82	89.1	44.0	**0.8930**	0.260	29.1	ug/L	-33	Standard
	Se-1	77	394.7	16.6	**2.8420**	0.618	21.7	ug/L	86	Standard
>	Ga	71	465.0	10.9				mg/L	35	Standard
	Rb	85	207474.3	1.1				ug/L	13	Standard
	Y	89	435241.5	0.9				ug/L	439493	Standard
>	Rh	103	118.3	19.1				ug/L	5	Standard
	Mo	98	26609.5	1.4	**6.8092**	0.041	0.6	ug/L	10	Standard
	Ag	107	68.0	4.4	**-0.0047**	0.000	7.4	ug/L	53	Standard
	Cd	111	10.7	60.4	**0.0020**	0.003	148.9	mg/L	1	Standard
	Cd	114	132.6	22.4	**0.0144**	0.005	35.4	ug/L	32	Standard
>	In	115	493952.3	1.1				ug/L	494305	Standard
	Sn	118	90.0	13.7	**0.0124**	0.009	69.6	ug/L	53	Standard
	Sb	123	402.9	2.9	**0.1506**	0.006	4.1	ug/L	7	Standard
	Ba	135	23409.7	0.2	**12.7750**	0.139	1.1	ug/L	11	Standard
	Ce	140	246.7	25.5				ug/L	10	Standard
>	Tb	159	519355.0	1.0				ug/L	538219	Standard
	Ho	165	11.7	65.5				ug/L	8	Standard
	Tl	203	70.0	13.6	**0.0101**	0.002	16.4	ug/L	1	Standard
	Tl	205	88.3	6.5	**0.0118**	0.001	6.9	ug/L	3	Standard
	Pb	206	399.0	1.8	**0.1211**	0.003	2.4	ug/L	80	Standard
	Pb	207	329.7	4.5	**0.1174**	0.007	5.8	ug/L	73	Standard
	Pb	208	785.3	2.5	**0.1071**	0.003	3.2	ug/L	190	Standard
	U	238	216.3	1.2	**0.0596**	0.001	1.1	ug/L	0	Standard
>	Bi	209	263321.5	0.2				ug/L	276439	Standard

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	Na	23	143.3	8.1	**38.1184**	4.103	10.8	mg/L	2	Standard
	Mg	24	44943.3	2.4	**47.7592**	1.606	3.4	mg/L	37	Standard
	K	39	125.0	28.8	**7.2574**	2.089	28.8	mg/L	3	Standard
	Ca	43	181.7	16.6	**44.6281**	10.726	24.0	mg/L	43	Standard
	Fe	54	280.6	8.8	**0.0157**	0.011	71.9	mg/L	262	Standard
	Fe	57	326.7	15.6	**0.4907**	0.078	15.8	mg/L	65	Standard
>	**Sc-1**	45	25795.3	3.0				mg/L	26874	Standard
	Cl	35	208339.5	1.7				ug/L	141022	Standard
	Kr	83	117.7	19.0				ug/L	75	Standard
	Br	81	10820.5	3.4				ug/L	2810	Standard
	P	31	533191.3	3.0				ug/L	458976	Standard
	S	34	79189.8	1.7				ug/L	103378	Standard
	Sr	88	561.7	2.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	270.0	24.3				mg/L	0	Standard
	Dy	164	24.9	23.8				mg/L	10	Standard
	Ho-1	165	11.7	65.5				mg/L	8	Standard
	Er	166	36.7	15.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.750	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.313	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	99.929
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	95.255
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079313DP WG452687-10
Sample Date/Time: Monday, November 18, 2013 14:06:23
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	279905.4	1.3				ug/L	269614	Standard
	Be	9	38.3	27.2	**-0.0036**	0.004	98.8	ug/L	23	Standard
	Al	27	3808329.1	0.6	**17.4821**	0.148	0.8	ug/L	1170	Standard
	Sc	45	25780.2	1.2				ug/L	26874	Standard
	Ti	47	120.0	13.9	**0.3747**	0.068	18.0	ug/L	25	Standard
	V	51	128768.2	2.1	**17.9846**	0.281	1.6	ug/L	1686	Standard
	Cr	52	29103.0	6.1	**3.5490**	0.282	8.0	ug/L	6098	Standard
	Cr	53	9176.1	0.3	**7.1366**	0.058	0.8	ug/L	193	Standard
	Mn	55	35578.7	1.4	**2.4909**	0.043	1.7	ug/L	1232	Standard
	Co	59	1014.7	2.2	**0.0926**	0.003	2.9	ug/L	106	Standard
	Ni	60	5006.8	1.4	**1.6138**	0.021	1.3	ug/L	556	Standard
	Cu	65	2002.8	2.2	**0.6976**	0.014	2.0	ug/L	124	Standard
	Zn	66	5623.0	9.8	**3.6895**	0.389	10.5	ug/L	196	Standard
>	Ge	72	478764.6	0.5				ug/L	473313	Standard
	As	75	337.3	10.6	**0.4422**	0.025	5.6	ug/L	-286	Standard
	Se	82	95.2	11.9	**0.9346**	0.079	8.4	ug/L	-33	Standard
	Se-1	77	589.0	2.4	**4.6184**	0.150	3.2	ug/L	86	Standard
>	Ga	71	441.7	13.7				mg/L	35	Standard
	Rb	85	212150.1	1.1				ug/L	13	Standard
	Y	89	433964.1	1.1				ug/L	439493	Standard
>	Rh	103	116.7	21.6				ug/L	5	Standard
	Mo	98	26724.4	1.6	**6.8716**	0.103	1.5	ug/L	10	Standard
	Ag	107	55.7	23.9	**-0.0065**	0.002	31.1	ug/L	53	Standard
	Cd	111	16.0	32.4	**0.0044**	0.002	52.7	mg/L	1	Standard
	Cd	114	114.3	30.6	**0.0113**	0.006	56.1	ug/L	32	Standard
>	In	115	491591.5	0.5				ug/L	494305	Standard
	Sn	118	90.0	21.1	**0.0127**	0.014	113.5	ug/L	53	Standard
	Sb	123	382.1	5.4	**0.1434**	0.008	5.9	ug/L	7	Standard
	Ba	135	23413.7	0.7	**12.8379**	0.133	1.0	ug/L	11	Standard
	Ce	140	176.7	11.4				ug/L	10	Standard
>	Tb	159	521920.7	0.8				ug/L	538219	Standard
	Ho	165	13.3	57.3				ug/L	8	Standard
	Tl	203	81.7	22.8	**0.0122**	0.003	26.9	ug/L	1	Standard
	Tl	205	115.0	17.4	**0.0156**	0.003	18.1	ug/L	3	Standard
	Pb	206	358.3	2.2	**0.1046**	0.004	3.5	ug/L	80	Standard
	Pb	207	286.7	4.8	**0.0980**	0.007	6.7	ug/L	73	Standard
	Pb	208	643.0	1.7	**0.0808**	0.002	2.3	ug/L	190	Standard
	U	238	216.3	7.1	**0.0596**	0.004	7.4	ug/L	0	Standard
>	Bi	209	263137.3	0.3				ug/L	276439	Standard

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	Na	23	138.3	18.2	**36.6740**	6.347	17.3	mg/L	2	Standard
	Mg	24	45713.9	1.9	**48.5802**	0.339	0.7	mg/L	37	Standard
	K	39	116.7	9.9	**6.7843**	0.797	11.7	mg/L	3	Standard
	Ca	43	160.0	19.5	**37.8509**	8.903	23.5	mg/L	43	Standard
	Fe	54	294.8	5.3	**0.0231**	0.010	41.4	mg/L	262	Standard
	Fe	57	298.3	22.3	**0.4411**	0.119	27.1	mg/L	65	Standard
>	**Sc-1**	45	25780.2	1.2				mg/L	26874	Standard
	Cl	35	212611.4	0.6				ug/L	141022	Standard
	Kr	83	104.7	9.7				ug/L	75	Standard
	Br	81	10113.4	0.6				ug/L	2810	Standard
	P	31	527486.1	2.2				ug/L	458976	Standard
	S	34	82799.0	0.9				ug/L	103378	Standard
	Sr	88	495.0	5.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	313.3	25.6				mg/L	0	Standard
	Dy	164	15.7	34.4				mg/L	10	Standard
	Ho-1	165	13.3	57.3				mg/L	8	Standard
	Er	166	20.0	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.817	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.152	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.451
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		95.188
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079309
Sample Date/Time: Monday, November 18, 2013 14:09:29
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	303108.8	3.1				ug/L	269614	Standard
	Be	9	25.0	34.6	**-0.0086**	0.003	30.4	ug/L	23	Standard
	Al	27	6392320.1	1.3	**27.1127**	0.668	2.5	ug/L	1170	Standard
	Sc	45	27595.1	3.1				ug/L	26874	Standard
	Ti	47	83.0	3.2	**0.2056**	0.012	5.9	ug/L	25	Standard
	V	51	1855.9	4.7	**0.0615**	0.014	23.1	ug/L	1686	Standard
	Cr	52	10952.4	23.8	**0.7911**	0.349	44.1	ug/L	6098	Standard
	Cr	53	2583.6	57.0	**1.7627**	1.078	61.2	ug/L	193	Standard
	Mn	55	824305.1	1.4	**56.5046**	1.133	2.0	ug/L	1232	Standard
	Co	59	1099.4	2.2	**0.0933**	0.003	3.7	ug/L	106	Standard
	Ni	60	4871.8	1.3	**1.4403**	0.002	0.2	ug/L	556	Standard
	Cu	65	3183.7	1.5	**1.0595**	0.025	2.4	ug/L	124	Standard
	Zn	66	20921.8	1.7	**13.2424**	0.156	1.2	ug/L	196	Standard
>	**Ge**	72	515069.9	1.2				ug/L	473313	Standard
	As	75	-17.7	384.1	**0.2004**	0.044	21.7	ug/L	-286	Standard
	Se	82	-3.9	215.2	**0.2761**	0.053	19.1	ug/L	-33	Standard
	Se-1	77	194.3	4.4	**0.8933**	0.091	10.2	ug/L	86	Standard
>	**Ga**	71	45.0	29.4				mg/L	35	Standard
	Rb	85	15693.1	3.0				ug/L	13	Standard
	Y	89	473657.0	1.2				ug/L	439493	Standard
>	**Rh**	103	60.0	8.3				ug/L	5	Standard
	Mo	98	1256.7	4.0	**0.2805**	0.012	4.3	ug/L	10	Standard
	Ag	107	53.7	10.6	**-0.0075**	0.001	11.0	ug/L	53	Standard
	Cd	111	10.7	63.3	**0.0016**	0.003	176.8	mg/L	1	Standard
	Cd	114	72.2	21.9	**0.0025**	0.003	101.9	ug/L	32	Standard
>	**In**	115	538483.8	1.3				ug/L	494305	Standard
	Sn	118	540.0	8.4	**0.3227**	0.036	11.3	ug/L	53	Standard
	Sb	123	254.2	5.5	**0.0865**	0.005	5.6	ug/L	7	Standard
	Ba	135	28278.0	0.3	**14.1575**	0.219	1.5	ug/L	11	Standard
	Ce	140	125.0	6.9				ug/L	10	Standard
>	**Tb**	159	557230.5	0.8				ug/L	538219	Standard
	Ho	165	16.7	17.3				ug/L	8	Standard
	Tl	203	29.3	7.1	**0.0025**	0.000	12.9	ug/L	1	Standard
	Tl	205	35.0	28.6	**0.0038**	0.001	34.0	ug/L	3	Standard
	Pb	206	290.3	8.2	**0.0657**	0.009	14.1	ug/L	80	Standard
	Pb	207	243.0	3.3	**0.0678**	0.004	5.3	ug/L	73	Standard
	Pb	208	582.7	4.0	**0.0595**	0.004	7.2	ug/L	190	Standard
	U	238	4.0	86.6	**-0.0008**	0.001	107.1	ug/L	0	Standard
>	**Bi**	209	290322.8	0.4				ug/L	276439	Standard

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	Na	23	55.0	39.6	**13.3761**	5.498	41.1	mg/L	2	Standard
	Mg	24	10235.1	1.3	**10.1448**	0.402	4.0	mg/L	37	Standard
	K	39	26.7	10.8	**1.1514**	0.209	18.1	mg/L	3	Standard
	Ca	43	80.0	21.7	**12.2128**	4.894	40.1	mg/L	43	Standard
	Fe	54	781.1	7.9	**0.2437**	0.028	11.6	mg/L	262	Standard
	Fe	57	276.7	21.2	**0.3697**	0.102	27.6	mg/L	65	Standard
>	**Sc-1**	45	27595.1	3.1				mg/L	26874	Standard
	Cl	35	185552.8	1.7				ug/L	141022	Standard
	Kr	83	97.7	8.5				ug/L	75	Standard
	Br	81	7465.2	7.6				ug/L	2810	Standard
	P	31	526277.9	1.1				ug/L	458976	Standard
	S	34	96211.2	0.9				ug/L	103378	Standard
	Sr	88	250.0	17.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	16.5	124.5				mg/L	10	Standard
	Ho-1	165	16.7	17.3				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.423	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.822	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.937
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.022
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079301
Sample Date/Time: Monday, November 18, 2013 14:14:58
Number of Replicates: 3
Autosampler Position: 306
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	259522.8	2.2				ug/L	269614	Standard
	Be	9	23.3	53.9	**-0.0078**	0.005	58.4	ug/L	23	Standard
	Al	27	263112.0	1.8	**1.2967**	0.051	3.9	ug/L	1170	Standard
	Sc	45	23329.6	2.0				ug/L	26874	Standard
	Ti	47	25.0	25.0	**0.0059**	0.026	442.1	ug/L	25	Standard
	V	51	1479.6	4.1	**0.0397**	0.010	24.4	ug/L	1686	Standard
	Cr	52	4941.5	10.2	**0.0729**	0.079	108.6	ug/L	6098	Standard
	Cr	53	328.3	28.5	**0.1372**	0.079	57.4	ug/L	193	Standard
	Mn	55	52375.7	1.7	**3.9716**	0.068	1.7	ug/L	1232	Standard
	Co	59	611.7	3.3	**0.0537**	0.002	4.0	ug/L	106	Standard
	Ni	60	775.0	3.5	**0.0968**	0.011	11.0	ug/L	556	Standard
	Cu	65	211.3	2.4	**0.0250**	0.002	7.1	ug/L	124	Standard
	Zn	66	37442.2	2.2	**27.2769**	0.536	2.0	ug/L	196	Standard
>	**Ge**	72	450908.2	0.3				ug/L	473313	Standard
	As	75	-292.5	16.7	**-0.0001**	0.036	24689.7	ug/L	-286	Standard
	Se	82	-49.0	30.7	**-0.0453**	0.107	235.8	ug/L	-33	Standard
	Se-1	77	81.0	11.3	**0.0292**	0.087	297.6	ug/L	86	Standard
>	**Ga**	71	50.0	43.6				mg/L	35	Standard
	Rb	85	768.4	11.4				ug/L	13	Standard
	Y	89	406127.4	2.0				ug/L	439493	Standard
>	**Rh**	103	13.3	21.7				ug/L	5	Standard
	Mo	98	116.8	7.8	**0.0161**	0.002	14.7	ug/L	10	Standard
	Ag	107	51.0	21.8	**-0.0069**	0.002	25.7	ug/L	53	Standard
	Cd	111	13.5	11.4	**0.0036**	0.001	20.8	mg/L	1	Standard
	Cd	114	43.6	23.0	**-0.0012**	0.002	154.5	ug/L	32	Standard
>	**In**	115	473110.8	0.7				ug/L	494305	Standard
	Sn	118	53.0	8.6	**-0.0141**	0.003	23.8	ug/L	53	Standard
	Sb	123	63.5	7.0	**0.0235**	0.002	6.9	ug/L	7	Standard
	Ba	135	1344.4	3.0	**0.7542**	0.024	3.1	ug/L	11	Standard
	Ce	140	606.7	6.9				ug/L	10	Standard
>	**Tb**	159	488029.6	1.5				ug/L	538219	Standard
	Ho	165	33.3	31.2				ug/L	8	Standard
	Tl	203	14.0	12.4	**0.0003**	0.000	104.6	ug/L	1	Standard
	Tl	205	18.3	15.7	**0.0019**	0.000	21.8	ug/L	3	Standard
	Pb	206	120.0	7.4	**0.0065**	0.004	54.8	ug/L	80	Standard
	Pb	207	103.0	14.4	**0.0140**	0.007	46.3	ug/L	73	Standard
	Pb	208	222.0	8.1	**0.0022**	0.003	153.2	ug/L	190	Standard
	U	238	10.0	43.6	**0.0009**	0.001	129.8	ug/L	0	Standard
>	**Bi**	209	266551.2	0.3				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0558**	0.837	1499.5	mg/L	2	Standard
	Mg	24	553.3	11.2	**0.6190**	0.081	13.1	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2707**	0.191	70.7	mg/L	3	Standard
	Ca	43	28.3	20.4	**-0.9087**	1.717	189.0	mg/L	43	Standard
	Fe	54	154.3	20.2	**-0.0402**	0.016	39.0	mg/L	262	Standard
	Fe	57	95.0	22.9	**0.0931**	0.047	50.1	mg/L	65	Standard
>	**Sc-1**	45	23329.6	2.0				mg/L	26874	Standard
	Cl	35	143231.9	1.6				ug/L	141022	Standard
	Kr	83	101.7	14.1				ug/L	75	Standard
	Br	81	2960.3	5.2				ug/L	2810	Standard
	P	31	159497.2	2.7				ug/L	458976	Standard
	S	34	98304.6	1.2				ug/L	103378	Standard
	Sr	88	41.7	18.3				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	35.9	31.8				mg/L	10	Standard
	Ho-1	165	33.3	31.2				mg/L	8	Standard
	Er	166	16.7	34.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.257	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.266	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.712
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.423
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079303
Sample Date/Time: Monday, November 18, 2013 14:18:03
Number of Replicates: 3
Autosampler Position: 307
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	250963.7	2.3				ug/L	269614	Standard
	Be	9	23.3	32.7	**-0.0076**	0.003	38.7	ug/L	23	Standard
	Al	27	358624.6	0.6	**1.8301**	0.033	1.8	ug/L	1170	Standard
	Sc	45	22531.7	1.7				ug/L	26874	Standard
	Ti	47	15.7	13.3	**-0.0319**	0.009	27.7	ug/L	25	Standard
	V	51	275.2	30.0	**-0.1400**	0.013	9.1	ug/L	1686	Standard
	Cr	52	41690.6	0.4	**5.8782**	0.025	0.4	ug/L	6098	Standard
	Cr	53	7373.5	3.1	**6.1851**	0.192	3.1	ug/L	193	Standard
	Mn	55	29968.6	3.0	**2.2572**	0.068	3.0	ug/L	1232	Standard
	Co	59	122.0	18.1	**-0.0013**	0.003	191.2	ug/L	106	Standard
	Ni	60	857.7	3.8	**0.1348**	0.013	9.9	ug/L	556	Standard
	Cu	65	416.0	2.8	**0.1103**	0.005	4.1	ug/L	124	Standard
	Zn	66	4050.9	3.0	**2.8312**	0.090	3.2	ug/L	196	Standard
>	**Ge**	72	442578.5	0.2				ug/L	473313	Standard
	As	75	-296.5	21.9	**-0.0070**	0.048	682.9	ug/L	-286	Standard
	Se	82	-51.5	27.1	**-0.0700**	0.101	144.2	ug/L	-33	Standard
	Se-1	77	93.0	9.4	**0.1626**	0.088	53.9	ug/L	86	Standard
>	**Ga**	71	31.7	48.2				mg/L	35	Standard
	Rb	85	606.7	16.3				ug/L	13	Standard
	Y	89	400592.4	1.5				ug/L	439493	Standard
>	**Rh**	103	5.0	100.0				ug/L	5	Standard
	Mo	98	156.5	0.8	**0.0273**	0.000	1.5	ug/L	10	Standard
	Ag	107	46.7	12.9	**-0.0075**	0.001	12.3	ug/L	53	Standard
	Cd	111	3.5	44.1	**-0.0012**	0.001	60.7	mg/L	1	Standard
	Cd	114	1395.7	7.7	**0.2573**	0.019	7.4	ug/L	32	Standard
>	**In**	115	466080.4	0.7				ug/L	494305	Standard
	Sn	118	12403.7	1.7	**9.9967**	0.214	2.1	ug/L	53	Standard
	Sb	123	129.1	5.6	**0.0501**	0.003	6.3	ug/L	7	Standard
	Ba	135	562.7	0.7	**0.3132**	0.003	0.8	ug/L	11	Standard
	Ce	140	43.3	13.3				ug/L	10	Standard
>	**Tb**	159	482949.9	0.9				ug/L	538219	Standard
	Ho	165	6.7	114.6				ug/L	8	Standard
	Tl	203	16.3	15.4	**0.0007**	0.000	60.9	ug/L	1	Standard
	Tl	205	26.7	71.0	**0.0031**	0.003	86.7	ug/L	3	Standard
	Pb	206	125.0	9.1	**0.0094**	0.005	50.1	ug/L	80	Standard
	Pb	207	88.7	1.7	**0.0083**	0.001	9.1	ug/L	73	Standard
	Pb	208	239.0	2.3	**0.0061**	0.001	17.5	ug/L	190	Standard
	U	238	6.7	56.8	**0.0000**	0.001	2771.1	ug/L	0	Standard
>	**Bi**	209	261897.8	0.2				ug/L	276439	Standard

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	Na	23	8.3	91.7	**2.1346**	2.330	109.2	mg/L	2	Standard
	Mg	24	1463.4	9.7	**1.7498**	0.185	10.6	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2650**	0.201	75.9	mg/L	3	Standard
	Ca	43	16.7	86.6	**-4.6304**	4.932	106.5	mg/L	43	Standard
	Fe	54	136.7	30.2	**-0.0468**	0.026	54.5	mg/L	262	Standard
	Fe	57	105.0	4.8	**0.1198**	0.007	5.9	mg/L	65	Standard
>	**Sc-1**	45	22531.7	1.7				mg/L	26874	Standard
	Cl	35	144252.2	1.7				ug/L	141022	Standard
	Kr	83	105.7	7.2				ug/L	75	Standard
	Br	81	2780.3	3.2				ug/L	2810	Standard
	P	31	164437.3	5.1				ug/L	458976	Standard
	S	34	97185.7	0.9				ug/L	103378	Standard
	Sr	88	56.7	5.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	10	Standard
	Ho-1	165	6.7	114.6				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.082	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.506	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	94.290
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.740
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079303PS WG453185-01
Sample Date/Time: Monday, November 18, 2013 14:21:08
Number of Replicates: 3
Autosampler Position: 308
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	284794.6	2.8				ug/L	269614	Standard
	Be	9	163539.6	0.8	**52.1686**	1.043	2.0	ug/L	23	Standard
	Al	27	392990.1	4.1	**1.7661**	0.026	1.5	ug/L	1170	Standard
	Sc	45	26367.9	1.7				ug/L	26874	Standard
	Ti	47	31.0	11.2	**0.0179**	0.013	72.8	ug/L	25	Standard
	V	51	344844.2	0.8	**46.2498**	0.516	1.1	ug/L	1686	Standard
	Cr	52	390239.1	1.3	**53.5564**	0.484	0.9	ug/L	6098	Standard
	Cr	53	74590.3	6.1	**56.2780**	2.813	5.0	ug/L	193	Standard
	Mn	55	735134.0	0.8	**51.7192**	0.406	0.8	ug/L	1232	Standard
	Co	59	484722.2	0.5	**49.1914**	0.394	0.8	ug/L	106	Standard
	Ni	60	145318.9	0.2	**50.0834**	0.492	1.0	ug/L	556	Standard
	Cu	65	144242.0	0.5	**52.0043**	0.382	0.7	ug/L	124	Standard
	Zn	66	79259.5	2.1	**52.0708**	0.533	1.0	ug/L	196	Standard
>	**Ge**	72	501702.7	1.2				ug/L	473313	Standard
	As	75	76914.4	0.6	**50.3143**	0.278	0.6	ug/L	-286	Standard
	Se	82	7847.8	1.6	**50.1437**	0.423	0.8	ug/L	-33	Standard
	Se-1	77	5727.7	1.8	**49.1188**	1.467	3.0	ug/L	86	Standard
>	**Ga**	71	71.7	28.2				mg/L	35	Standard
	Rb	85	775.0	9.3				ug/L	13	Standard
	Y	89	457829.3	0.6				ug/L	439493	Standard
>	**Rh**	103	26.7	65.8				ug/L	5	Standard
	Mo	98	219.6	5.1	**0.0374**	0.003	6.7	ug/L	10	Standard
	Ag	107	381955.8	0.1	**54.0464**	0.163	0.3	ug/L	53	Standard
	Cd	111	117504.3	0.9	**50.1103**	0.269	0.5	mg/L	1	Standard
	Cd	114	291225.3	0.7	**49.0672**	0.155	0.3	ug/L	32	Standard
>	**In**	115	528767.5	0.4				ug/L	494305	Standard
	Sn	118	14007.8	1.3	**9.9502**	0.135	1.4	ug/L	53	Standard
	Sb	123	139401.1	0.3	**49.1428**	0.123	0.2	ug/L	7	Standard
	Ba	135	101010.3	0.3	**51.5273**	0.261	0.5	ug/L	11	Standard
	Ce	140	81.7	12.7				ug/L	10	Standard
>	**Tb**	159	541522.6	0.8				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	312912.6	0.7	**50.3667**	0.739	1.5	ug/L	1	Standard
	Tl	205	417213.3	1.1	**54.3869**	0.945	1.7	ug/L	3	Standard
	Pb	206	146528.2	0.9	**54.9659**	0.373	0.7	ug/L	80	Standard
	Pb	207	130702.0	0.6	**54.4243**	0.192	0.4	ug/L	73	Standard
	Pb	208	290565.2	0.4	**49.4353**	0.373	0.8	ug/L	190	Standard
	U	238	181246.3	0.3	**47.3124**	0.256	0.5	ug/L	0	Standard
>	**Bi**	209	286479.4	0.7				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0014**	0.743	54107.6	mg/L	2	Standard
	Mg	24	1610.1	8.2	**1.6411**	0.113	6.9	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	15.0	145.3	**-5.8554**	6.496	110.9	mg/L	43	Standard
	Fe	54	391.2	13.7	**0.0677**	0.028	41.7	mg/L	262	Standard
	Fe	57	110.0	15.7	**0.0968**	0.027	27.8	mg/L	65	Standard
>	**Sc-1**	45	26367.9	1.7				mg/L	26874	Standard
	Cl	35	157022.3	1.8				ug/L	141022	Standard
	Kr	83	106.3	6.9				ug/L	75	Standard
	Br	81	3317.0	4.1				ug/L	2810	Standard
	P	31	481807.4	2.6				ug/L	458976	Standard
	S	34	100951.9	2.0				ug/L	103378	Standard
	Sr	88	33.3	31.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.7	219.6				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	13.3	43.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.630	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.998	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		106.972
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		103.632
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311079303PS WG453185-01
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Method 6020 - Summary Report

Sample ID: L1311079303SDL WG453185-02
Sample Date/Time: Monday, November 18, 2013 14:24:13
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 125
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	247642.5	0.8				ug/L	269614	Standard
	Be	9	48.3	57.0	**0.0016**	0.010	618.0	ug/L	23	Standard
	Al	27	1188.4	28.5	**-0.0010**	0.002	181.9	ug/L	1170	Standard
	Sc	45	22955.7	0.9				ug/L	26874	Standard
	Ti	47	11.7	4.9	**-0.0484**	0.002	4.4	ug/L	25	Standard
	V	51	1402.9	2.2	**0.0347**	0.004	11.1	ug/L	1686	Standard
	Cr	52	5390.3	18.0	**0.1675**	0.149	88.7	ug/L	6098	Standard
	Cr	53	186.7	32.3	**0.0227**	0.051	226.2	ug/L	193	Standard
	Mn	55	831.0	35.1	**-0.0720**	0.023	31.9	ug/L	1232	Standard
	Co	59	116.0	54.8	**-0.0019**	0.007	391.4	ug/L	106	Standard
	Ni	60	467.0	13.0	**-0.0162**	0.024	147.3	ug/L	556	Standard
	Cu	65	75.0	20.7	**-0.0288**	0.007	22.5	ug/L	124	Standard
	Zn	66	930.4	49.8	**0.5049**	0.344	68.1	ug/L	196	Standard
>	**Ge**	72	437314.9	0.9				ug/L	473313	Standard
	As	75	-237.2	6.2	**0.0346**	0.010	29.8	ug/L	-286	Standard
	Se	82	-36.5	11.2	**0.0348**	0.028	79.9	ug/L	-33	Standard
	Se-1	77	72.0	12.0	**-0.0366**	0.081	222.1	ug/L	86	Standard
>	**Ga**	71	23.3	68.9				mg/L	35	Standard
	Rb	85	28.3	40.8				ug/L	13	Standard
	Y	89	396210.8	1.3				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	7.9	12.0	**-0.0131**	0.000	1.9	ug/L	10	Standard
	Ag	107	94.7	63.3	**0.0003**	0.010	3748.0	ug/L	53	Standard
	Cd	111	10.0	78.2	**0.0019**	0.004	194.5	mg/L	1	Standard
	Cd	114	43.4	69.4	**-0.0011**	0.006	507.9	ug/L	32	Standard
>	**In**	115	466022.7	0.6				ug/L	494305	Standard
	Sn	118	58.0	17.0	**-0.0094**	0.008	85.2	ug/L	53	Standard
	Sb	123	193.1	32.1	**0.0758**	0.025	33.3	ug/L	7	Standard
	Ba	135	15.7	48.3	**-0.0034**	0.004	127.6	ug/L	11	Standard
	Ce	140	20.0	75.0				ug/L	10	Standard
>	**Tb**	159	477814.6	1.3				ug/L	538219	Standard
	Ho	165	6.7	114.6				ug/L	8	Standard
	Tl	203	33.3	69.7	**0.0037**	0.004	110.2	ug/L	1	Standard
	Tl	205	45.0	96.9	**0.0057**	0.006	108.4	ug/L	3	Standard
	Pb	206	103.3	24.7	**0.0003**	0.010	4090.6	ug/L	80	Standard
	Pb	207	85.3	23.0	**0.0066**	0.009	134.9	ug/L	73	Standard
	Pb	208	185.0	21.0	**-0.0042**	0.007	171.9	ug/L	190	Standard
	U	238	13.3	92.6	**0.0019**	0.003	182.8	ug/L	0	Standard
>	**Bi**	209	263539.6	0.5				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	41.7	54.1	**0.0177**	0.026	149.3	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1517**	0.199	131.1	mg/L	3	Standard
	Ca	43	16.7	75.5	**-4.7076**	4.201	89.2	mg/L	43	Standard
	Fe	54	90.8	27.9	**-0.0748**	0.014	19.3	mg/L	262	Standard
	Fe	57	68.3	11.2	**0.0417**	0.017	40.0	mg/L	65	Standard
>	**Sc-1**	45	22955.7	0.9				mg/L	26874	Standard
	Cl	35	147505.7	3.2				ug/L	141022	Standard
	Kr	83	89.0	8.1				ug/L	75	Standard
	Br	81	2460.2	6.9				ug/L	2810	Standard
	P	31	151559.6	2.8				ug/L	458976	Standard
	S	34	101000.7	3.0				ug/L	103378	Standard
	Sr	88	38.3	27.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.7	103.3				mg/L	10	Standard
	Ho-1	165	6.7	114.6				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.851	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.394	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		94.278
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		95.334
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311079303SDL WG453185-02
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 14:27:20
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	281589.6	3.5				ug/L	269614	Standard
	Be	9	154774.9	1.2	**49.9503**	1.598	3.2	ug/L	23	Standard
	Al	27	9823386.2	0.5	**44.8648**	1.390	3.1	ug/L	1170	Standard
	Sc	45	25915.5	1.3				ug/L	26874	Standard
	Ti	47	25831.0	1.9	**98.4828**	2.162	2.2	ug/L	25	Standard
	V	51	341610.4	2.1	**46.4491**	1.164	2.5	ug/L	1686	Standard
	Cr	52	335265.4	2.7	**46.5572**	1.271	2.7	ug/L	6098	Standard
	Cr	53	62731.3	2.0	**47.9828**	1.122	2.3	ug/L	193	Standard
	Mn	55	688818.2	1.2	**49.1240**	0.881	1.8	ug/L	1232	Standard
	Co	59	467114.1	1.7	**48.0569**	0.897	1.9	ug/L	106	Standard
	Ni	60	140495.8	1.1	**49.0854**	0.892	1.8	ug/L	556	Standard
	Cu	65	136203.5	0.8	**49.7787**	0.338	0.7	ug/L	124	Standard
	Zn	66	74784.8	0.4	**49.8043**	0.162	0.3	ug/L	196	Standard
>	Ge	72	494877.2	0.7				ug/L	473313	Standard
	As	75	75195.9	0.6	**49.8704**	0.540	1.1	ug/L	-286	Standard
	Se	82	7681.1	0.5	**49.7615**	0.583	1.2	ug/L	-33	Standard
	Se-1	77	5719.1	2.2	**49.7165**	0.891	1.8	ug/L	86	Standard
>	Ga	71	55.0	9.1				mg/L	35	Standard
	Rb	85	1153.4	4.8				ug/L	13	Standard
	Y	89	448568.3	0.5				ug/L	439493	Standard
>	Rh	103	23.3	32.7				ug/L	5	Standard
	Mo	98	424491.7	0.5	**103.6254**	0.775	0.7	ug/L	10	Standard
	Ag	107	365816.6	0.6	**52.7508**	0.616	1.2	ug/L	53	Standard
	Cd	111	114587.6	0.3	**49.8005**	0.519	1.0	mg/L	1	Standard
	Cd	114	290200.5	1.9	**49.8250**	0.715	1.4	ug/L	32	Standard
>	In	115	518897.7	1.2				ug/L	494305	Standard
	Sn	118	70279.6	1.6	**51.1045**	0.752	1.5	ug/L	53	Standard
	Sb	123	134981.9	0.4	**48.4959**	0.752	1.5	ug/L	7	Standard
	Ba	135	96181.0	0.7	**50.0038**	0.948	1.9	ug/L	11	Standard
	Ce	140	40.0	33.1				ug/L	10	Standard
>	Tb	159	532079.7	0.2				ug/L	538219	Standard
	Ho	165	10.0	50.0				ug/L	8	Standard
	Tl	203	299878.9	0.3	**49.5164**	0.338	0.7	ug/L	1	Standard
	Tl	205	397649.1	0.8	**53.1766**	0.611	1.1	ug/L	3	Standard
	Pb	206	138985.9	0.2	**53.4860**	0.100	0.2	ug/L	80	Standard
	Pb	207	124745.1	0.4	**53.2885**	0.155	0.3	ug/L	73	Standard
	Pb	208	275701.6	0.7	**48.1197**	0.423	0.9	ug/L	190	Standard
	U	238	175628.0	0.5	**47.0330**	0.333	0.7	ug/L	0	Standard
>	Bi	209	279244.8	0.4				ug/L	276439	Standard

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	Na	23	16.7	34.6	**4.0169**	1.515	37.7	mg/L	2	Standard
	Mg	24	5095.9	1.5	**5.3604**	0.151	2.8	mg/L	37	Standard
	K	39	68.3	30.5	**3.7890**	1.272	33.6	mg/L	3	Standard
	Ca	43	31.7	59.8	**-0.8522**	5.651	663.1	mg/L	43	Standard
	Fe	54	11619.7	5.3	**5.7392**	0.386	6.7	mg/L	262	Standard
	Fe	57	3417.1	3.0	**6.0300**	0.100	1.7	mg/L	65	Standard
>	**Sc-1**	45	25915.5	1.3				mg/L	26874	Standard
	Cl	35	161345.2	0.8				ug/L	141022	Standard
	Kr	83	96.3	8.6				ug/L	75	Standard
	Br	81	2730.2	3.7				ug/L	2810	Standard
	P	31	519280.2	1.7				ug/L	458976	Standard
	S	34	132952.5	1.4				ug/L	103378	Standard
	Sr	88	36.7	34.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.4	225.8				mg/L	10	Standard
	Ho-1	165	10.0	50.0				mg/L	8	Standard
	Er	166	20.0	50.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.442	
	Be	9	99.901		
	Al	27	89.730		
	Sc	45			
	Ti	47	98.483		
	V	51	92.898		
	Cr	52	93.114		
	Cr	53			
	Mn	55	98.248		
	Co	59	96.114		
	Ni	60	98.171		
	Cu	65	99.557		
	Zn	66	99.609		
>	Ge	72		104.556	
	As	75	99.741		
	Se	82	99.523		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.625		
|	Ag	107	105.502		
|	Cd	111	99.601		
|	Cd	114			
|>	In	115		104.975	
|	Sn	118	102.209		
|	Sb	123	96.992		
⌊	Ba	135	100.008		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	99.033		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.239		
|	U	238	94.066		
⌊>	Bi	209		101.015	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 14:30:24
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	272434.9	2.2				ug/L	269614	Standard
	Be	9	100.0	15.0	**0.0173**	0.006	32.3	ug/L	23	Standard
	Al	27	5395.0	106.4	**0.0187**	0.028	149.3	ug/L	1170	Standard
	Sc	45	24860.4	2.3				ug/L	26874	Standard
	Ti	47	20.7	14.0	**-0.0176**	0.011	63.3	ug/L	25	Standard
	V	51	1333.5	16.1	**0.0055**	0.032	574.2	ug/L	1686	Standard
	Cr	52	13920.8	105.3	**1.3399**	2.153	160.7	ug/L	6098	Standard
	Cr	53	560.0	100.1	**0.3055**	0.448	146.7	ug/L	193	Standard
	Mn	55	20384.7	159.9	**1.3745**	2.423	176.3	ug/L	1232	Standard
	Co	59	564.4	119.9	**0.0448**	0.072	161.7	ug/L	106	Standard
	Ni	60	518.0	5.7	**-0.0145**	0.012	84.5	ug/L	556	Standard
	Cu	65	202.0	39.6	**0.0162**	0.030	185.2	ug/L	124	Standard
	Zn	66	2794.9	138.4	**1.7409**	2.690	154.5	ug/L	196	Standard
>	Ge	72	480674.5	0.8				ug/L	473313	Standard
	As	75	-310.4	16.4	**0.0006**	0.036	5756.7	ug/L	-286	Standard
	Se	82	-49.8	30.8	**-0.0297**	0.103	346.2	ug/L	-33	Standard
	Se-1	77	83.3	18.1	**0.0014**	0.133	9233.4	ug/L	86	Standard
>	Ga	71	35.0	14.3				mg/L	35	Standard
	Rb	85	28.3	27.0				ug/L	13	Standard
	Y	89	440349.0	0.5				ug/L	439493	Standard
>	Rh	103	5.0	0.0				ug/L	5	Standard
	Mo	98	202.9	64.4	**0.0359**	0.033	91.7	ug/L	10	Standard
	Ag	107	261.0	77.0	**0.0238**	0.030	125.4	ug/L	53	Standard
	Cd	111	36.1	128.3	**0.0132**	0.021	155.8	mg/L	1	Standard
	Cd	114	122.3	119.9	**0.0121**	0.026	212.5	ug/L	32	Standard
>	In	115	502481.8	0.8				ug/L	494305	Standard
	Sn	118	99.3	23.7	**0.0182**	0.017	95.5	ug/L	53	Standard
	Sb	123	343.9	26.1	**0.1263**	0.034	27.1	ug/L	7	Standard
	Ba	135	87.3	50.7	**0.0343**	0.023	68.3	ug/L	11	Standard
	Ce	140	11.7	89.2				ug/L	10	Standard
>	Tb	159	522562.7	1.1				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	95.0	94.3	**0.0136**	0.015	109.3	ug/L	1	Standard
	Tl	205	98.3	81.7	**0.0125**	0.011	85.8	ug/L	3	Standard
	Pb	206	185.3	40.5	**0.0297**	0.029	96.9	ug/L	80	Standard
	Pb	207	166.7	46.8	**0.0394**	0.033	84.2	ug/L	73	Standard
	Pb	208	252.7	21.2	**0.0059**	0.009	155.8	ug/L	190	Standard
	U	238	32.3	61.4	**0.0068**	0.005	77.7	ug/L	0	Standard
>	Bi	209	277951.7	0.4				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	36.7	28.4	**0.0086**	0.011	134.0	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0581**	0.327	562.1	mg/L	3	Standard
	Ca	43	21.7	13.3	**-3.5531**	0.863	24.3	mg/L	43	Standard
	Fe	54	267.5	28.5	**0.0145**	0.041	285.4	mg/L	262	Standard
	Fe	57	70.0	7.1	**0.0340**	0.007	21.8	mg/L	65	Standard
>	**Sc-1**	45	24860.4	2.3				mg/L	26874	Standard
	Cl	35	156288.7	1.5				ug/L	141022	Standard
	Kr	83	103.7	9.1				ug/L	75	Standard
	Br	81	2743.6	6.2				ug/L	2810	Standard
	P	31	485397.1	3.0				ug/L	458976	Standard
	S	34	121728.9	2.3				ug/L	103378	Standard
	Sr	88	35.0	24.7				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.0	100.7				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	13.3	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.046	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.555	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.654
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.547
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Cr	52	
QC Std 7	Mn	55	

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, November 18, 2013 14:38:56
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	276359.5	1.3				ug/L	269614	Standard
	Be	9	33.3	22.9	**-0.0051**	0.003	50.9	ug/L	23	Standard
	Al	27	975.0	7.6	**-0.0026**	0.000	15.2	ug/L	1170	Standard
	Sc	45	25039.0	1.4				ug/L	26874	Standard
	Ti	47	12.0	30.0	**-0.0511**	0.014	28.4	ug/L	25	Standard
	V	51	1278.2	4.5	**-0.0004**	0.008	1937.2	ug/L	1686	Standard
	Cr	52	4519.0	0.6	**-0.0285**	0.001	5.0	ug/L	6098	Standard
	Cr	53	155.0	12.9	**-0.0154**	0.015	100.3	ug/L	193	Standard
	Mn	55	937.0	1.4	**-0.0694**	0.001	1.2	ug/L	1232	Standard
	Co	59	82.7	9.1	**-0.0065**	0.001	12.9	ug/L	106	Standard
	Ni	60	489.7	4.7	**-0.0228**	0.008	33.3	ug/L	556	Standard
	Cu	65	111.0	6.8	**-0.0176**	0.003	16.5	ug/L	124	Standard
	Zn	66	366.0	1.7	**0.0575**	0.003	5.7	ug/L	196	Standard
>	Ge	72	475357.1	0.4				ug/L	473313	Standard
	As	75	-280.8	6.6	**0.0189**	0.012	62.8	ug/L	-286	Standard
	Se	82	-43.9	8.6	**0.0066**	0.024	367.3	ug/L	-33	Standard
	Se-1	77	78.0	8.0	**-0.0385**	0.060	155.6	ug/L	86	Standard
>	Ga	71	23.3	24.7				mg/L	35	Standard
	Rb	85	21.7	104.1				ug/L	13	Standard
	Y	89	436397.2	0.7				ug/L	439493	Standard
>	Rh	103	1.7	173.2				ug/L	5	Standard
	Mo	98	13.4	16.0	**-0.0118**	0.001	4.6	ug/L	10	Standard
	Ag	107	48.0	12.7	**-0.0078**	0.001	11.3	ug/L	53	Standard
	Cd	111	1.3	43.9	**-0.0023**	0.000	11.1	mg/L	1	Standard
	Cd	114	13.6	1.2	**-0.0070**	0.000	0.4	ug/L	32	Standard
>	In	115	501310.7	0.4				ug/L	494305	Standard
	Sn	118	51.0	11.8	**-0.0180**	0.005	25.2	ug/L	53	Standard
	Sb	123	34.9	8.2	**0.0115**	0.001	9.7	ug/L	7	Standard
	Ba	135	8.3	36.7	**-0.0080**	0.002	20.3	ug/L	11	Standard
	Ce	140	13.3	78.1				ug/L	10	Standard
>	Tb	159	515839.2	0.6				ug/L	538219	Standard
	Ho	165	8.3	124.9				ug/L	8	Standard
	Tl	203	2.7	43.3	**-0.0017**	0.000	11.5	ug/L	1	Standard
	Tl	205	3.3	86.6	**-0.0002**	0.000	171.8	ug/L	3	Standard
	Pb	206	82.3	7.4	**-0.0095**	0.002	24.4	ug/L	80	Standard
	Pb	207	86.0	12.9	**0.0054**	0.005	86.8	ug/L	73	Standard
	Pb	208	185.0	10.4	**-0.0054**	0.003	60.6	ug/L	190	Standard
	U	238	0.0		**-0.0019**	0.000	0.0	ug/L	0	Standard
>	Bi	209	273580.6	0.6				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0405**	0.811	2001.2	mg/L	2	Standard
	Mg	24	36.7	41.7	**0.0082**	0.017	201.1	mg/L	37	Standard
	K	39	6.7	43.3	**0.0417**	0.190	454.3	mg/L	3	Standard
	Ca	43	8.3	69.3	**-7.7500**	1.756	22.7	mg/L	43	Standard
	Fe	54	287.4	5.4	**0.0237**	0.010	43.3	mg/L	262	Standard
	Fe	57	70.0	32.7	**0.0328**	0.041	124.4	mg/L	65	Standard
>	**Sc-1**	45	25039.0	1.4				mg/L	26874	Standard
	Cl	35	147155.8	0.5				ug/L	141022	Standard
	Kr	83	94.7	5.8				ug/L	75	Standard
	Br	81	2596.9	10.2				ug/L	2810	Standard
	P	31	462653.2	3.0				ug/L	458976	Standard
	S	34	105563.2	1.1				ug/L	103378	Standard
	Sr	88	31.7	39.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.4	109.4				mg/L	10	Standard
	Ho-1	165	8.3	124.9				mg/L	8	Standard
	Er	166	13.3	43.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.502	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.432	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	101.417
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	98.966
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	Ca	43	

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Method 6020 - Summary Report

Sample ID: L1311079308
Sample Date/Time: Monday, November 18, 2013 14:42:01
Number of Replicates: 3
Autosampler Position: 328
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	261892.9	1.9				ug/L	269614	Standard
	Be	9	211.7	13.8	**0.0573**	0.009	15.8	ug/L	23	Standard
	Al	27	66183999.0	0.2	**324.9043**	6.925	2.1	ug/L	1170	Standard
	Sc	45	25870.4	3.0				ug/L	26874	Standard
	Ti	47	5318.3	2.1	**21.8383**	0.625	2.9	ug/L	25	Standard
	V	51	1710266.5	7.7	**252.0418**	17.951	7.1	ug/L	1686	Standard
	Cr	52	178511977.7	1.6	**27193.2963**	788.477	2.9	ug/L	6098	Standard
	Cr	53	28932252.2	1.8	**23982.4673**	120.674	0.5	ug/L	193	Standard
	Mn	55	4499113.1	0.7	**347.6061**	5.014	1.4	ug/L	1232	Standard
	Co	59	16097.5	2.3	**1.7747**	0.017	1.0	ug/L	106	Standard
	Ni	60	72824.6	1.3	**27.4061**	0.295	1.1	ug/L	556	Standard
	Cu	65	254173.8	2.1	**100.4418**	0.524	0.5	ug/L	124	Standard
	Zn	66	36433.4	1.9	**26.1261**	0.041	0.2	ug/L	196	Standard
>	**Ge**	72	457950.2	1.8				ug/L	473313	Standard
	As	75	1122.2	4.0	**1.0125**	0.018	1.8	ug/L	-286	Standard
	Se	82	10.0	43.8	**0.3702**	0.030	8.2	ug/L	-33	Standard
	Se-1	77	126.3	6.4	**0.4506**	0.096	21.3	ug/L	86	Standard
>	**Ga**	71	3327.0	6.4				mg/L	35	Standard
	Rb	85	15244.3	2.2				ug/L	13	Standard
	Y	89	424446.7	1.0				ug/L	439493	Standard
>	**Rh**	103	65.0	7.7				ug/L	5	Standard
	Mo	98	17955.0	2.4	**4.8074**	0.078	1.6	ug/L	10	Standard
	Ag	107	2682.9	2.8	**0.4110**	0.019	4.7	ug/L	53	Standard
	Cd	111	54.5	21.5	**0.0232**	0.006	25.8	mg/L	1	Standard
	Cd	114	15590.1	2.6	**2.9365**	0.093	3.2	ug/L	32	Standard
>	**In**	115	471650.0	1.8				ug/L	494305	Standard
	Sn	118	135704.8	1.8	**108.6329**	1.712	1.6	ug/L	53	Standard
	Sb	123	3311.5	1.1	**1.3075**	0.021	1.6	ug/L	7	Standard
	Ba	135	21605.7	2.5	**12.3457**	0.110	0.9	ug/L	11	Standard
	Ce	140	16340.5	2.6				ug/L	10	Standard
>	**Tb**	159	510132.4	1.8				ug/L	538219	Standard
	Ho	165	443.3	11.1				ug/L	8	Standard
	Tl	203	79.3	7.2	**0.0120**	0.001	6.7	ug/L	1	Standard
	Tl	205	88.3	3.3	**0.0121**	0.000	2.4	ug/L	3	Standard
	Pb	206	6723.5	3.0	**2.7626**	0.039	1.4	ug/L	80	Standard
	Pb	207	5351.9	1.4	**2.4462**	0.045	1.8	ug/L	73	Standard
	Pb	208	12413.6	1.2	**2.3105**	0.012	0.5	ug/L	190	Standard
	U	238	1525.4	4.9	**0.4405**	0.014	3.2	ug/L	0	Standard
>	**Bi**	209	257794.0	1.7				ug/L	276439	Standard

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	Na	23	305.0	9.1	**81.3878**	9.846	12.1	mg/L	2	Standard
	Mg	24	37745.3	1.8	**40.0067**	1.917	4.8	mg/L	37	Standard
	K	39	10.0	50.0	**0.2270**	0.299	131.9	mg/L	3	Standard
	Ca	43	333.3	4.3	**89.8676**	4.956	5.5	mg/L	43	Standard
	Fe	54	60235.0	3.4	**30.3210**	0.836	2.8	mg/L	262	Standard
	Fe	57	19025.3	3.4	**34.0856**	0.957	2.8	mg/L	65	Standard
>	**Sc-1**	45	25870.4	3.0				mg/L	26874	Standard
	Cl	35	571482.8	1.0				ug/L	141022	Standard
	Kr	83	111.7	6.8				ug/L	75	Standard
	Br	81	4350.6	6.5				ug/L	2810	Standard
	P	31	677920.6	1.2				ug/L	458976	Standard
	S	34	74971.8	3.1				ug/L	103378	Standard
	Sr	88	333.3	22.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	16.7	69.3				mg/L	0	Standard
	Dy	164	704.2	14.2				mg/L	10	Standard
	Ho-1	165	443.3	11.1				mg/L	8	Standard
	Er	166	400.0	2.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		97.136	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.754	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	95.417
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	93.255
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	

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Cu 65 Upper, S, EEE	Cu	65
Sn 118 Upper, S, EEE	Sn	118

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Method 6020 - Summary Report

Sample ID: L1311063002 WG452687-02
Sample Date/Time: Monday, November 18, 2013 14:47:00
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	307493.2	2.2				ug/L	269614	Standard
	Be	9	8489.0	1.8	**2.4933**	0.101	4.0	ug/L	23	Standard
	Al	27	64150024.4	0.4	**268.2237**	5.466	2.0	ug/L	1170	Standard
	Sc	45	30622.6	1.9				ug/L	26874	Standard
	Ti	47	29.7	8.5	**0.0287**	0.011	37.7	ug/L	25	Standard
	V	51	19077.7	2.9	**2.7505**	0.070	2.5	ug/L	1686	Standard
	Cr	52	14236.9	101.0	**1.5655**	2.273	145.2	ug/L	6098	Standard
	Cr	53	1500.1	61.8	**1.1584**	0.802	69.3	ug/L	193	Standard
	Mn	55	397635183.4	1.9	**32024.9594**	413.763	1.3	ug/L	1232	Standard
	Co	59	5260843.1	1.1	**609.7265**	3.342	0.5	ug/L	106	Standard
	Ni	60	929434.5	1.6	**366.9871**	4.905	1.3	ug/L	556	Standard
	Cu	65	25045.7	1.3	**10.2618**	0.125	1.2	ug/L	124	Standard
	Zn	66	389874860.5	0.8	**293583.4873**	1154.268	0.4	ug/L	196	Standard
>	Ge	72	439392.9	0.6				ug/L	473313	Standard
	As	75	9660.9	3.2	**7.3964**	0.192	2.6	ug/L	-286	Standard
	Se	82	789.0	12.9	**6.0205**	0.709	11.8	ug/L	-33	Standard
	Se-1	77	461.0	7.1	**3.8280**	0.342	8.9	ug/L	86	Standard
>	Ga	71	6931.6	3.0				mg/L	35	Standard
	Rb	85	17618.6	2.1				ug/L	13	Standard
	Y	89	3447634.9	0.2				ug/L	439493	Standard
>	Rh	103	75.0	6.7				ug/L	5	Standard
	Mo	98	132.9	16.5	**0.0237**	0.006	25.5	ug/L	10	Standard
	Ag	107	1241.1	7.0	**0.1999**	0.014	6.9	ug/L	53	Standard
	Cd	111	53786.8	1.5	**28.0691**	0.153	0.5	mg/L	1	Standard
	Cd	114	134571.2	1.3	**27.7455**	0.478	1.7	ug/L	32	Standard
>	In	115	432080.1	1.2				ug/L	494305	Standard
	Sn	118	83.0	49.0	**0.0160**	0.035	218.2	ug/L	53	Standard
	Sb	123	91.0	10.4	**0.0377**	0.004	10.0	ug/L	7	Standard
	Ba	135	2412.2	1.6	**1.4937**	0.012	0.8	ug/L	11	Standard
	Ce	140	4847130.4	1.1				ug/L	10	Standard
>	Tb	159	620698.4	1.3				ug/L	538219	Standard
	Ho	165	128926.3	1.4				ug/L	8	Standard
	Tl	203	73.0	29.3	**0.0112**	0.004	32.9	ug/L	1	Standard
	Tl	205	81.7	15.4	**0.0114**	0.002	14.4	ug/L	3	Standard
	Pb	206	1689.1	2.5	**0.6809**	0.017	2.5	ug/L	80	Standard
	Pb	207	1362.1	3.1	**0.6146**	0.010	1.6	ug/L	73	Standard
	Pb	208	3184.5	3.3	**0.5796**	0.016	2.8	ug/L	190	Standard
	U	238	127.0	15.2	**0.0360**	0.006	16.7	ug/L	0	Standard
>	Bi	209	251361.8	2.1				ug/L	276439	Standard

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	Na	23	103.3	14.8	**22.9691**	3.808	16.6	mg/L	2	Standard
	Mg	24	18441.2	1.4	**16.4795**	0.106	0.6	mg/L	37	Standard
	K	39	55.0	55.3	**2.4450**	1.513	61.9	mg/L	3	Standard
	Ca	43	128.3	12.5	**22.2052**	3.536	15.9	mg/L	43	Standard
	Fe	54	116793.7	2.0	**49.7637**	1.915	3.8	mg/L	262	Standard
	Fe	57	33306.6	2.1	**50.4714**	1.889	3.7	mg/L	65	Standard
>	**Sc-1**	45	30622.6	1.9				mg/L	26874	Standard
	Cl	35	910339.4	1.4				ug/L	141022	Standard
	Kr	83	1416.1	2.9				ug/L	75	Standard
	Br	81	3303.7	3.7				ug/L	2810	Standard
	P	31	194214.6	3.7				ug/L	458976	Standard
	S	34	80645.8	2.2				ug/L	103378	Standard
	Sr	88	490.0	17.0				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	200368.8	1.1				mg/L	10	Standard
	Ho-1	165	128926.3	1.4				mg/L	8	Standard
	Er	166	113275.2	1.4				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.049	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.833	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	87.412
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.928
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311063003
Sample Date/Time: Monday, November 18, 2013 14:50:05
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	308687.3	2.4				ug/L	269614	Standard
	Be	9	9549.7	3.2	**2.7968**	0.157	5.6	ug/L	23	Standard
	Al	27	65629463.5	1.8	**273.3024**	2.652	1.0	ug/L	1170	Standard
	Sc	45	30256.8	1.1				ug/L	26874	Standard
	Ti	47	36.3	15.2	**0.0575**	0.023	40.7	ug/L	25	Standard
	V	51	21741.3	1.0	**3.1639**	0.039	1.2	ug/L	1686	Standard
	Cr	52	4796.8	21.8	**0.0705**	0.164	233.1	ug/L	6098	Standard
	Cr	53	386.7	12.4	**0.1953**	0.042	21.4	ug/L	193	Standard
	Mn	55	412335353.9	0.6	**33246.7968**	227.722	0.7	ug/L	1232	Standard
	Co	59	5497577.9	1.0	**637.8684**	6.427	1.0	ug/L	106	Standard
	Ni	60	986251.0	1.5	**389.8610**	5.912	1.5	ug/L	556	Standard
	Cu	65	27308.6	2.1	**11.2065**	0.239	2.1	ug/L	124	Standard
	Zn	66	412272271.1	1.0	**310785.4945**	2926.481	0.9	ug/L	196	Standard
>	**Ge**	72	438917.3	0.2				ug/L	473313	Standard
	As	75	10154.5	1.2	**7.7724**	0.087	1.1	ug/L	-286	Standard
	Se	82	835.2	2.8	**6.3646**	0.173	2.7	ug/L	-33	Standard
	Se-1	77	500.7	3.9	**4.2270**	0.204	4.8	ug/L	86	Standard
>	**Ga**	71	7692.0	0.1				mg/L	35	Standard
	Rb	85	18402.8	4.2				ug/L	13	Standard
	Y	89	3640430.8	0.9				ug/L	439493	Standard
>	**Rh**	103	70.0	18.9				ug/L	5	Standard
	Mo	98	138.3	1.7	**0.0261**	0.001	3.6	ug/L	10	Standard
	Ag	107	1308.1	4.3	**0.2160**	0.010	4.7	ug/L	53	Standard
	Cd	111	57445.9	1.7	**30.5646**	0.435	1.4	mg/L	1	Standard
	Cd	114	142975.0	1.5	**30.0519**	0.356	1.2	ug/L	32	Standard
>	**In**	115	423797.2	0.6				ug/L	494305	Standard
	Sn	118	58.3	14.0	**-0.0044**	0.007	157.7	ug/L	53	Standard
	Sb	123	68.0	7.8	**0.0284**	0.002	7.9	ug/L	7	Standard
	Ba	135	2814.6	2.0	**1.7793**	0.035	2.0	ug/L	11	Standard
	Ce	140	5140527.8	1.1				ug/L	10	Standard
>	**Tb**	159	627999.9	1.2				ug/L	538219	Standard
	Ho	165	136882.6	3.0				ug/L	8	Standard
	Tl	203	68.7	7.5	**0.0105**	0.001	8.5	ug/L	1	Standard
	Tl	205	96.7	16.6	**0.0137**	0.002	16.6	ug/L	3	Standard
	Pb	206	1896.5	2.1	**0.7741**	0.013	1.7	ug/L	80	Standard
	Pb	207	1542.7	1.7	**0.7047**	0.009	1.2	ug/L	73	Standard
	Pb	208	3579.2	1.3	**0.6601**	0.004	0.6	ug/L	190	Standard
	U	238	125.3	12.0	**0.0356**	0.004	11.9	ug/L	0	Standard
>	**Bi**	209	249936.0	0.8				ug/L	276439	Standard

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	Na	23	126.7	24.1	**28.5852**	7.213	25.2	mg/L	2	Standard
	Mg	24	19085.3	2.2	**17.2621**	0.354	2.1	mg/L	37	Standard
	K	39	53.3	5.4	**2.4067**	0.129	5.4	mg/L	3	Standard
	Ca	43	128.3	23.5	**22.6687**	7.965	35.1	mg/L	43	Standard
	Fe	54	117720.1	1.9	**50.7481**	1.201	2.4	mg/L	262	Standard
	Fe	57	33921.3	1.4	**52.0137**	1.315	2.5	mg/L	65	Standard
>	**Sc-1**	45	30256.8	1.1				mg/L	26874	Standard
	Cl	35	952524.3	0.8				ug/L	141022	Standard
	Kr	83	1536.7	4.4				ug/L	75	Standard
	Br	81	3507.1	7.7				ug/L	2810	Standard
	P	31	204613.0	2.7				ug/L	458976	Standard
	S	34	84463.1	0.5				ug/L	103378	Standard
	Sr	88	498.3	16.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	215540.4	2.4				mg/L	10	Standard
	Ho-1	165	136882.6	3.0				mg/L	8	Standard
	Er	166	121542.2	1.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.492	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.733	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.736
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.413
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311079308
Sample Date/Time: Monday, November 18, 2013 14:54:21
Number of Replicates: 3
Autosampler Position: 328
Sample Description: 5000
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	245112.0	1.3				ug/L	269614	Standard
	Be	9	38.3	32.8	**-0.0018**	0.005	261.3	ug/L	23	Standard
	Al	27	17526.0	36.9	**0.0845**	0.033	38.5	ug/L	1170	Standard
	Sc	45	22146.2	1.4				ug/L	26874	Standard
	Ti	47	10.3	20.1	**-0.0544**	0.009	15.9	ug/L	25	Standard
	V	51	584.1	28.3	**-0.0921**	0.026	28.3	ug/L	1686	Standard
	Cr	52	18776.4	24.1	**2.2823**	0.675	29.6	ug/L	6098	Standard
	Cr	53	2950.3	26.2	**2.4045**	0.637	26.5	ug/L	193	Standard
	Mn	55	26508.4	54.7	**1.9911**	1.163	58.4	ug/L	1232	Standard
	Co	59	401.0	47.1	**0.0310**	0.022	70.0	ug/L	106	Standard
	Ni	60	431.0	30.4	**-0.0318**	0.049	154.3	ug/L	556	Standard
	Cu	65	287.7	16.1	**0.0587**	0.020	34.4	ug/L	124	Standard
	Zn	66	36159.2	57.4	**26.9019**	15.187	56.5	ug/L	196	Standard
>	**Ge**	72	439515.7	1.3				ug/L	473313	Standard
	As	75	-423.1	27.1	**-0.1021**	0.081	79.6	ug/L	-286	Standard
	Se	82	-95.3	37.4	**-0.3879**	0.249	64.3	ug/L	-33	Standard
	Se-1	77	73.0	3.6	**-0.0298**	0.027	90.8	ug/L	86	Standard
>	**Ga**	71	30.0	33.3				mg/L	35	Standard
	Rb	85	93.3	22.3				ug/L	13	Standard
	Y	89	394564.5	2.0				ug/L	439493	Standard
>	**Rh**	103	0.0					ug/L	5	Standard
	Mo	98	5.0	64.8	**-0.0138**	0.001	6.3	ug/L	10	Standard
	Ag	107	50.3	15.4	**-0.0068**	0.001	20.0	ug/L	53	Standard
	Cd	111	7.7	66.9	**0.0008**	0.002	299.1	mg/L	1	Standard
	Cd	114	28.5	29.7	**-0.0040**	0.002	39.9	ug/L	32	Standard
>	**In**	115	462134.8	1.3				ug/L	494305	Standard
	Sn	118	56.3	12.8	**-0.0104**	0.005	52.7	ug/L	53	Standard
	Sb	123	42.2	21.4	**0.0155**	0.004	23.5	ug/L	7	Standard
	Ba	135	13.0	15.4	**-0.0049**	0.001	22.7	ug/L	11	Standard
	Ce	140	470.0	65.8				ug/L	10	Standard
>	**Tb**	159	479660.4	1.6				ug/L	538219	Standard
	Ho	165	10.0	50.0				ug/L	8	Standard
	Tl	203	7.7	27.2	**-0.0008**	0.000	45.5	ug/L	1	Standard
	Tl	205	10.0	100.0	**0.0007**	0.001	194.9	ug/L	3	Standard
	Pb	206	85.0	16.6	**-0.0073**	0.006	78.5	ug/L	80	Standard
	Pb	207	73.7	13.0	**0.0012**	0.004	359.4	ug/L	73	Standard
	Pb	208	155.7	5.2	**-0.0097**	0.001	14.6	ug/L	190	Standard
	U	238	0.7	86.6	**-0.0017**	0.000	9.8	ug/L	0	Standard
>	**Bi**	209	264418.0	0.3				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	1.7	173.2	**0.0895**	0.896	1000.9	mg/L	2	Standard
	Mg	24	41.7	36.7	**0.0197**	0.019	96.0	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2630**	0.205	77.8	mg/L	3	Standard
	Ca	43	16.7	45.8	**-4.4524**	2.772	62.3	mg/L	43	Standard
	Fe	54	105.5	33.6	**-0.0643**	0.020	31.9	mg/L	262	Standard
	Fe	57	61.7	12.4	**0.0326**	0.015	45.2	mg/L	65	Standard
>	**Sc-1**	45	22146.2	1.4				mg/L	26874	Standard
	Cl	35	131370.9	3.6				ug/L	141022	Standard
	Kr	83	159.7	15.1				ug/L	75	Standard
	Br	81	2266.8	5.4				ug/L	2810	Standard
	P	31	157007.8	1.9				ug/L	458976	Standard
	S	34	102690.7	4.8				ug/L	103378	Standard
	Sr	88	43.3	13.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	25.9	56.9				mg/L	10	Standard
	Ho-1	165	10.0	50.0				mg/L	8	Standard
	Er	166	16.7	124.9				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		90.912	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.859	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	93.492
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.651
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079313 WG452687-03
Sample Date/Time: Monday, November 18, 2013 14:57:26
Number of Replicates: 3
Autosampler Position: 329
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	269011.2	2.2				ug/L	269614	Standard
	Be	9	31.7	32.9	**-0.0053**	0.004	69.2	ug/L	23	Standard
	Al	27	3632244.5	1.1	**17.3508**	0.203	1.2	ug/L	1170	Standard
	Sc	45	25292.8	1.3				ug/L	26874	Standard
	Ti	47	152.7	38.7	**0.5107**	0.234	45.8	ug/L	25	Standard
	V	51	122432.8	1.1	**17.3119**	0.238	1.4	ug/L	1686	Standard
	Cr	52	24863.4	2.1	**2.9765**	0.082	2.8	ug/L	6098	Standard
	Cr	53	7525.2	14.2	**5.9006**	0.833	14.1	ug/L	193	Standard
	Mn	55	34154.1	3.5	**2.4179**	0.102	4.2	ug/L	1232	Standard
	Co	59	1004.7	4.3	**0.0929**	0.005	5.4	ug/L	106	Standard
	Ni	60	4869.8	4.1	**1.5868**	0.081	5.1	ug/L	556	Standard
	Cu	65	2260.5	5.0	**0.8061**	0.048	5.9	ug/L	124	Standard
	Zn	66	5515.7	19.7	**3.6656**	0.783	21.3	ug/L	196	Standard
>	Ge	72	472754.5	0.5				ug/L	473313	Standard
	As	75	319.1	6.5	**0.4324**	0.013	3.1	ug/L	-286	Standard
	Se	82	83.7	11.4	**0.8647**	0.062	7.2	ug/L	-33	Standard
	Se-1	77	482.0	21.6	**3.6948**	0.942	25.5	ug/L	86	Standard
>	Ga	71	420.0	6.0				mg/L	35	Standard
	Rb	85	202178.3	0.5				ug/L	13	Standard
	Y	89	430760.3	1.7				ug/L	439493	Standard
>	Rh	103	98.3	26.1				ug/L	5	Standard
	Mo	98	25850.8	0.2	**6.7628**	0.007	0.1	ug/L	10	Standard
	Ag	107	73.3	2.1	**-0.0036**	0.000	6.8	ug/L	53	Standard
	Cd	111	10.2	85.2	**0.0019**	0.004	218.2	mg/L	1	Standard
	Cd	114	121.0	20.6	**0.0129**	0.005	35.8	ug/L	32	Standard
>	In	115	483155.1	0.1				ug/L	494305	Standard
	Sn	118	88.0	12.9	**0.0124**	0.009	72.0	ug/L	53	Standard
	Sb	123	344.6	7.5	**0.1315**	0.010	7.6	ug/L	7	Standard
	Ba	135	22788.1	1.5	**12.7124**	0.174	1.4	ug/L	11	Standard
	Ce	140	228.3	18.6				ug/L	10	Standard
>	Tb	159	506846.6	0.6				ug/L	538219	Standard
	Ho	165	20.0	66.1				ug/L	8	Standard
	Tl	203	70.3	20.7	**0.0105**	0.003	24.8	ug/L	1	Standard
	Tl	205	95.0	19.0	**0.0131**	0.003	20.3	ug/L	3	Standard
	Pb	206	394.3	8.5	**0.1231**	0.013	10.9	ug/L	80	Standard
	Pb	207	367.7	1.0	**0.1387**	0.001	0.7	ug/L	73	Standard
	Pb	208	766.7	4.8	**0.1071**	0.007	6.7	ug/L	190	Standard
	U	238	210.3	5.3	**0.0593**	0.003	5.2	ug/L	0	Standard
>	Bi	209	256952.9	0.4				ug/L	276439	Standard

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	Na	23	138.3	23.0	**37.5040**	9.163	24.4	mg/L	2	Standard
	Mg	24	43480.7	3.3	**47.1005**	1.506	3.2	mg/L	37	Standard
	K	39	110.0	15.7	**6.5077**	1.166	17.9	mg/L	3	Standard
	Ca	43	125.0	6.9	**28.0902**	2.715	9.7	mg/L	43	Standard
	Fe	54	319.9	7.2	**0.0390**	0.014	36.0	mg/L	262	Standard
	Fe	57	261.7	8.6	**0.3843**	0.044	11.5	mg/L	65	Standard
>	**Sc-1**	45	25292.8	1.3				mg/L	26874	Standard
	Cl	35	207803.5	1.3				ug/L	141022	Standard
	Kr	83	126.7	5.3				ug/L	75	Standard
	Br	81	10980.7	8.1				ug/L	2810	Standard
	P	31	524314.6	1.9				ug/L	458976	Standard
	S	34	85608.1	4.0				ug/L	103378	Standard
	Sr	88	506.7	22.2				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	256.7	11.9				mg/L	0	Standard
	Dy	164	25.5	45.8				mg/L	10	Standard
	Ho-1	165	20.0	66.1				mg/L	8	Standard
	Er	166	23.3	65.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.776	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.882	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	97.744
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	92.951
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311079313DP WG452687-10
Sample Date/Time: Monday, November 18, 2013 15:00:30
Number of Replicates: 3
Autosampler Position: 330
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	282936.5	2.2				ug/L	269614	Standard
	Be	9	43.3	46.6	**-0.0021**	0.007	332.6	ug/L	23	Standard
	Al	27	3847016.7	0.9	**17.4730**	0.252	1.4	ug/L	1170	Standard
	Sc	45	25508.1	2.3				ug/L	26874	Standard
	Ti	47	117.3	5.7	**0.3668**	0.027	7.2	ug/L	25	Standard
	V	51	130751.3	1.7	**18.3735**	0.298	1.6	ug/L	1686	Standard
	Cr	52	26502.2	5.7	**3.1915**	0.216	6.8	ug/L	6098	Standard
	Cr	53	10443.6	12.9	**8.1900**	1.073	13.1	ug/L	193	Standard
	Mn	55	39776.0	15.7	**2.8181**	0.463	16.4	ug/L	1232	Standard
	Co	59	1115.4	10.0	**0.1040**	0.012	11.6	ug/L	106	Standard
	Ni	60	5157.9	2.3	**1.6797**	0.054	3.2	ug/L	556	Standard
	Cu	65	1997.1	4.8	**0.6999**	0.039	5.5	ug/L	124	Standard
	Zn	66	25381.6	139.2	**17.4292**	24.526	140.7	ug/L	196	Standard
>	Ge	72	475987.0	0.9				ug/L	473313	Standard
	As	75	379.9	15.5	**0.4726**	0.038	8.1	ug/L	-286	Standard
	Se	82	97.6	20.7	**0.9546**	0.140	14.7	ug/L	-33	Standard
	Se-1	77	648.7	5.8	**5.1992**	0.398	7.6	ug/L	86	Standard
>	Ga	71	493.3	11.7				mg/L	35	Standard
	Rb	85	213057.6	0.6				ug/L	13	Standard
	Y	89	432311.6	1.5				ug/L	439493	Standard
>	Rh	103	110.0	9.1				ug/L	5	Standard
	Mo	98	27461.1	0.7	**7.0961**	0.065	0.9	ug/L	10	Standard
	Ag	107	62.7	16.1	**-0.0054**	0.002	28.9	ug/L	53	Standard
	Cd	111	18.7	73.4	**0.0057**	0.006	110.3	mg/L	1	Standard
	Cd	114	136.2	18.0	**0.0153**	0.004	28.8	ug/L	32	Standard
>	In	115	489208.5	0.3				ug/L	494305	Standard
	Sn	118	81.0	12.8	**0.0061**	0.008	129.3	ug/L	53	Standard
	Sb	123	320.9	3.8	**0.1208**	0.004	3.6	ug/L	7	Standard
	Ba	135	24105.8	0.9	**13.2818**	0.106	0.8	ug/L	11	Standard
	Ce	140	273.3	43.3				ug/L	10	Standard
>	Tb	159	516729.5	2.2				ug/L	538219	Standard
	Ho	165	18.3	41.7				ug/L	8	Standard
	Tl	203	76.3	22.6	**0.0114**	0.003	26.7	ug/L	1	Standard
	Tl	205	105.0	9.5	**0.0144**	0.001	9.5	ug/L	3	Standard
	Pb	206	343.0	8.3	**0.1003**	0.012	11.9	ug/L	80	Standard
	Pb	207	305.0	3.5	**0.1083**	0.006	5.1	ug/L	73	Standard
	Pb	208	675.3	6.9	**0.0886**	0.008	9.2	ug/L	190	Standard
	U	238	226.7	8.0	**0.0635**	0.005	8.1	ug/L	0	Standard
>	Bi	209	259378.7	0.5				ug/L	276439	Standard

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	Na	23	121.7	13.2	**32.6648**	5.111	15.6	mg/L	2	Standard
	Mg	24	46925.9	1.2	**50.4152**	0.830	1.6	mg/L	37	Standard
	K	39	131.7	20.9	**7.7946**	1.746	22.4	mg/L	3	Standard
	Ca	43	150.0	12.0	**35.4338**	6.094	17.2	mg/L	43	Standard
	Fe	54	286.0	22.2	**0.0199**	0.031	153.6	mg/L	262	Standard
	Fe	57	226.7	21.4	**0.3157**	0.083	26.3	mg/L	65	Standard
>	**Sc-1**	45	25508.1	2.3				mg/L	26874	Standard
	Cl	35	215092.8	1.4				ug/L	141022	Standard
	Kr	83	118.3	14.9				ug/L	75	Standard
	Br	81	10276.8	3.3				ug/L	2810	Standard
	P	31	539418.5	2.1				ug/L	458976	Standard
	S	34	82497.3	0.5				ug/L	103378	Standard
	Sr	88	493.3	6.2				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	236.7	27.2				mg/L	0	Standard
	Dy	164	21.4	17.3				mg/L	10	Standard
	Ho-1	165	18.3	41.7				mg/L	8	Standard
	Er	166	40.0	109.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.941	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.565	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		98.969
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		93.828
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079303
Sample Date/Time: Monday, November 18, 2013 15:03:35
Number of Replicates: 3
Autosampler Position: 331
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	347320.5	55.8				ug/L	269614	Standard
	Be	9	11.7	24.7	**-0.0123**	0.002	15.5	ug/L	23	Standard
	Al	27	1011.7	21.0	**-0.0027**	0.002	69.5	ug/L	1170	Standard
	Sc	45	30005.0	59.6				ug/L	26874	Standard
	Ti	47	12.3	32.8	**-0.0495**	0.024	48.7	ug/L	25	Standard
	V	51	679.0	42.4	**-0.0931**	0.033	35.6	ug/L	1686	Standard
	Cr	52	2682.6	41.3	**-0.3300**	0.128	38.9	ug/L	6098	Standard
	Cr	53	205.0	20.0	**0.0180**	0.056	313.4	ug/L	193	Standard
	Mn	55	1317.1	9.4	**-0.0367**	0.059	159.6	ug/L	1232	Standard
	Co	59	80.0	9.8	**-0.0064**	0.006	86.9	ug/L	106	Standard
	Ni	60	381.3	16.2	**-0.0494**	0.111	225.2	ug/L	556	Standard
	Cu	65	99.3	39.8	**-0.0261**	0.009	32.7	ug/L	124	Standard
	Zn	66	1615.1	50.1	**1.1837**	1.425	120.4	ug/L	196	Standard
>	Ge	72	563440.2	51.5				ug/L	473313	Standard
	As	75	-259.4	80.4	**0.0510**	0.118	231.2	ug/L	-286	Standard
	Se	82	-71.9	87.7	**-0.1351**	0.350	258.8	ug/L	-33	Standard
	Se-1	77	66.0	17.9	**-0.1630**	0.251	154.2	ug/L	86	Standard
>	Ga	71	26.7	39.0				mg/L	35	Standard
	Rb	85	35.0	37.8				ug/L	13	Standard
	Y	89	542493.8	52.2				ug/L	439493	Standard
>	Rh	103	3.3	86.6				ug/L	5	Standard
	Mo	98	17.1	61.9	**-0.0120**	0.001	8.3	ug/L	10	Standard
	Ag	107	59.7	43.5	**-0.0076**	0.001	11.2	ug/L	53	Standard
	Cd	111	1.6	93.8	**-0.0021**	0.001	35.5	mg/L	1	Standard
	Cd	114	9.8	77.2	**-0.0079**	0.001	13.8	ug/L	32	Standard
>	In	115	628272.8	51.0				ug/L	494305	Standard
	Sn	118	69.3	63.0	**-0.0163**	0.021	127.9	ug/L	53	Standard
	Sb	123	20.2	23.4	**0.0052**	0.002	42.3	ug/L	7	Standard
	Ba	135	8.3	30.2	**-0.0086**	0.001	10.6	ug/L	11	Standard
	Ce	140	8.3	91.7				ug/L	10	Standard
>	Tb	159	693010.1	50.4				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	16.7	96.4	**0.0010**	0.004	412.7	ug/L	1	Standard
	Tl	205	26.7	109.9	**0.0035**	0.006	168.8	ug/L	3	Standard
	Pb	206	122.3	38.2	**-0.0043**	0.006	131.5	ug/L	80	Standard
	Pb	207	96.3	49.5	**-0.0005**	0.001	207.3	ug/L	73	Standard
	Pb	208	252.7	33.9	**-0.0023**	0.009	401.9	ug/L	190	Standard
	U	238	1.0	100.0	**-0.0017**	0.000	11.4	ug/L	0	Standard
>	Bi	209	366951.0	51.2				ug/L	276439	Standard

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	Na	23	5.0	100.0	**1.2679**	1.469	115.9	mg/L	2	Standard
	Mg	24	43.3	13.3	**0.0180**	0.028	158.0	mg/L	37	Standard
	K	39	5.0	173.2	**-0.2196**	0.280	127.5	mg/L	3	Standard
	Ca	43	28.3	36.7	**-1.4977**	4.940	329.8	mg/L	43	Standard
	Fe	54	149.5	61.0	**-0.0468**	0.048	103.0	mg/L	262	Standard
	Fe	57	78.3	13.3	**0.0577**	0.093	161.4	mg/L	65	Standard
>	**Sc-1**	45	30005.0	59.6				mg/L	26874	Standard
	Cl	35	72352.7	42.9				ug/L	141022	Standard
	Kr	83	132.0	80.0				ug/L	75	Standard
	Br	81	1343.4	55.3				ug/L	2810	Standard
	P	31	195753.2	69.2				ug/L	458976	Standard
	S	34	45547.6	49.0				ug/L	103378	Standard
	Sr	88	60.0					ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.8	104.1				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		128.821	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		119.042	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	127.102
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	132.742
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311079303PS WG453185-01
Sample Date/Time: Monday, November 18, 2013 15:06:40
Number of Replicates: 3
Autosampler Position: 332
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	286452.7	1.2				ug/L	269614	Standard
	Be	9	158624.4	1.0	**50.2946**	0.862	1.7	ug/L	23	Standard
	Al	27	372826.6	1.0	**1.6659**	0.022	1.3	ug/L	1170	Standard
	Sc	45	26307.8	1.7				ug/L	26874	Standard
	Ti	47	20.0	8.7	**-0.0242**	0.007	30.7	ug/L	25	Standard
	V	51	329960.3	1.1	**43.8155**	0.849	1.9	ug/L	1686	Standard
	Cr	52	371273.1	1.5	**50.4172**	0.647	1.3	ug/L	6098	Standard
	Cr	53	71850.0	1.4	**53.6947**	0.432	0.8	ug/L	193	Standard
	Mn	55	695374.9	1.5	**48.4397**	0.974	2.0	ug/L	1232	Standard
	Co	59	459688.4	1.9	**46.1956**	0.939	2.0	ug/L	106	Standard
	Ni	60	140936.9	1.2	**48.0880**	0.198	0.4	ug/L	556	Standard
	Cu	65	140772.3	1.0	**50.2563**	0.508	1.0	ug/L	124	Standard
	Zn	66	76687.6	1.2	**49.8856**	0.267	0.5	ug/L	196	Standard
>	Ge	72	506644.3	1.2				ug/L	473313	Standard
	As	75	74554.9	1.7	**48.2999**	0.240	0.5	ug/L	-286	Standard
	Se	82	7506.9	1.1	**47.5159**	0.267	0.6	ug/L	-33	Standard
	Se-1	77	5539.3	1.7	**46.9971**	0.595	1.3	ug/L	86	Standard
>	Ga	71	88.3	8.6				mg/L	35	Standard
	Rb	85	668.3	4.1				ug/L	13	Standard
	Y	89	465199.2	2.2				ug/L	439493	Standard
>	Rh	103	16.7	75.5				ug/L	5	Standard
	Mo	98	204.8	12.5	**0.0340**	0.006	18.1	ug/L	10	Standard
	Ag	107	370376.2	0.9	**52.5689**	0.553	1.1	ug/L	53	Standard
	Cd	111	113043.9	1.0	**48.3556**	0.215	0.4	mg/L	1	Standard
	Cd	114	283125.0	0.3	**47.8495**	0.231	0.5	ug/L	32	Standard
>	In	115	527151.0	0.6				ug/L	494305	Standard
	Sn	118	13447.6	2.6	**9.5787**	0.208	2.2	ug/L	53	Standard
	Sb	123	135217.5	0.7	**47.8138**	0.105	0.2	ug/L	7	Standard
	Ba	135	96813.7	0.8	**49.5367**	0.167	0.3	ug/L	11	Standard
	Ce	140	68.3	33.8				ug/L	10	Standard
>	Tb	159	540907.1	1.4				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	299354.1	0.7	**48.3687**	0.280	0.6	ug/L	1	Standard
	Tl	205	398073.2	0.5	**52.0909**	0.388	0.7	ug/L	3	Standard
	Pb	206	137930.3	0.3	**51.9401**	0.148	0.3	ug/L	80	Standard
	Pb	207	122806.4	0.4	**51.3341**	0.214	0.4	ug/L	73	Standard
	Pb	208	274880.2	0.8	**46.9457**	0.333	0.7	ug/L	190	Standard
	U	238	171781.4	1.2	**45.0148**	0.415	0.9	ug/L	0	Standard
>	Bi	209	285365.9	0.4				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	1538.4	3.9	**1.5711**	0.044	2.8	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2829**	0.170	60.2	mg/L	3	Standard
	Ca	43	13.3	43.3	**-6.4039**	1.625	25.4	mg/L	43	Standard
	Fe	54	361.6	10.4	**0.0535**	0.022	40.3	mg/L	262	Standard
	Fe	57	90.0	27.8	**0.0624**	0.045	72.7	mg/L	65	Standard
>	**Sc-1**	45	26307.8	1.7				mg/L	26874	Standard
	Cl	35	152979.1	0.7				ug/L	141022	Standard
	Kr	83	102.7	3.1				ug/L	75	Standard
	Br	81	3363.7	2.1				ug/L	2810	Standard
	P	31	465236.5	2.0				ug/L	458976	Standard
	S	34	95530.2	1.4				ug/L	103378	Standard
	Sr	88	18.3	56.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.7	100.8				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.245	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.042	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311079303PS WG453185-01
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	106.645
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.229
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311079303PS WG453185-01
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Method 6020 - Summary Report

Sample ID: L1311079303
Sample Date/Time: Monday, November 18, 2013 15:13:20
Number of Replicates: 3
Autosampler Position: 331
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	243418.2	1.1				ug/L	269614	Standard
	Be	9	53.3	10.8	**0.0038**	0.002	53.5	ug/L	23	Standard
	Al	27	324204.7	2.3	**1.7047**	0.026	1.5	ug/L	1170	Standard
	Sc	45	22471.7	1.4				ug/L	26874	Standard
	Ti	47	21.7	23.7	**-0.0062**	0.022	359.6	ug/L	25	Standard
	V	51	827.1	7.5	**-0.0556**	0.010	17.8	ug/L	1686	Standard
	Cr	52	48195.7	35.7	**6.9065**	2.673	38.7	ug/L	6098	Standard
	Cr	53	7238.4	8.5	**6.0768**	0.507	8.3	ug/L	193	Standard
	Mn	55	130985.9	146.6	**10.3063**	15.295	148.4	ug/L	1232	Standard
	Co	59	1387.2	156.1	**0.1438**	0.248	172.7	ug/L	106	Standard
	Ni	60	783.0	11.2	**0.1058**	0.033	31.1	ug/L	556	Standard
	Cu	65	366.0	8.5	**0.0900**	0.012	13.5	ug/L	124	Standard
	Zn	66	15500.0	133.5	**11.3633**	15.402	135.5	ug/L	196	Standard
>	**Ge**	72	441960.7	0.5				ug/L	473313	Standard
	As	75	-275.5	2.6	**0.0082**	0.004	54.7	ug/L	-286	Standard
	Se	82	-53.0	8.9	**-0.0809**	0.033	41.3	ug/L	-33	Standard
	Se-1	77	79.7	8.1	**0.0319**	0.062	195.4	ug/L	86	Standard
>	**Ga**	71	65.0	20.4				mg/L	35	Standard
	Rb	85	566.7	8.8				ug/L	13	Standard
	Y	89	395825.9	1.3				ug/L	439493	Standard
>	**Rh**	103	5.0	100.0				ug/L	5	Standard
	Mo	98	143.1	12.1	**0.0242**	0.005	19.8	ug/L	10	Standard
	Ag	107	91.3	42.0	**-0.0001**	0.006	4642.0	ug/L	53	Standard
	Cd	111	8.8	11.3	**0.0014**	0.000	33.7	mg/L	1	Standard
	Cd	114	1236.6	4.8	**0.2298**	0.012	5.2	ug/L	32	Standard
>	**In**	115	460492.0	0.2				ug/L	494305	Standard
	Sn	118	11064.7	1.0	**9.0195**	0.076	0.8	ug/L	53	Standard
	Sb	123	194.2	16.8	**0.0771**	0.013	17.1	ug/L	7	Standard
	Ba	135	511.0	4.7	**0.2869**	0.014	4.9	ug/L	11	Standard
	Ce	140	93.3	43.6				ug/L	10	Standard
>	**Tb**	159	475929.2	0.3				ug/L	538219	Standard
	Ho	165	5.0	173.2				ug/L	8	Standard
	Tl	203	36.3	3.2	**0.0043**	0.000	5.5	ug/L	1	Standard
	Tl	205	75.0	76.9	**0.0101**	0.008	81.6	ug/L	3	Standard
	Pb	206	115.0	2.6	**0.0059**	0.002	25.9	ug/L	80	Standard
	Pb	207	95.7	18.3	**0.0120**	0.008	66.1	ug/L	73	Standard
	Pb	208	231.3	10.3	**0.0052**	0.004	81.3	ug/L	190	Standard
	U	238	20.3	76.2	**0.0040**	0.004	111.1	ug/L	0	Standard
>	**Bi**	209	258787.7	0.6				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0813**	0.881	1084.7	mg/L	2	Standard
	Mg	24	1325.1	10.9	**1.5854**	0.183	11.5	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2620**	0.206	78.8	mg/L	3	Standard
	Ca	43	18.3	41.7	**-3.9808**	2.634	66.2	mg/L	43	Standard
	Fe	54	169.5	7.9	**-0.0278**	0.009	30.6	mg/L	262	Standard
	Fe	57	95.0	27.9	**0.1000**	0.056	56.3	mg/L	65	Standard
>	**Sc-1**	45	22471.7	1.4				mg/L	26874	Standard
	Cl	35	151470.7	0.4				ug/L	141022	Standard
	Kr	83	100.7	7.6				ug/L	75	Standard
	Br	81	2653.6	6.6				ug/L	2810	Standard
	P	31	165901.8	1.8				ug/L	458976	Standard
	S	34	102153.2	0.7				ug/L	103378	Standard
	Sr	88	40.0	37.5				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	10	Standard
	Ho-1	165	5.0	173.2				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		90.284	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.376	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	93.159
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	93.615
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311079303SDL WG453185-02
Sample Date/Time: Monday, November 18, 2013 15:16:33
Number of Replicates: 3
Autosampler Position: 333
Sample Description: 125
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	240148.4	1.4				ug/L	269614	Standard
	Be	9	31.7	18.2	**-0.0041**	0.002	52.0	ug/L	23	Standard
	Al	27	67438.1	0.6	**0.3538**	0.003	0.9	ug/L	1170	Standard
	Sc	45	22271.4	2.7				ug/L	26874	Standard
	Ti	47	14.0	32.7	**-0.0373**	0.020	52.9	ug/L	25	Standard
	V	51	983.4	17.9	**-0.0275**	0.027	97.2	ug/L	1686	Standard
	Cr	52	11299.9	3.0	**1.1422**	0.048	4.2	ug/L	6098	Standard
	Cr	53	1548.4	7.0	**1.2282**	0.087	7.1	ug/L	193	Standard
	Mn	55	2977.3	14.9	**0.1061**	0.038	35.5	ug/L	1232	Standard
	Co	59	86.7	14.1	**-0.0051**	0.002	29.6	ug/L	106	Standard
	Ni	60	504.7	3.6	**0.0023**	0.008	342.8	ug/L	556	Standard
	Cu	65	141.0	9.2	**-0.0005**	0.006	1106.6	ug/L	124	Standard
	Zn	66	1353.1	16.8	**0.8450**	0.180	21.2	ug/L	196	Standard
>	**Ge**	72	429753.4	0.8				ug/L	473313	Standard
	As	75	-321.6	7.8	**-0.0327**	0.021	63.9	ug/L	-286	Standard
	Se	82	-70.4	3.3	**-0.2211**	0.013	5.9	ug/L	-33	Standard
	Se-1	77	75.0	11.4	**0.0070**	0.088	1255.1	ug/L	86	Standard
>	**Ga**	71	31.7	63.8				mg/L	35	Standard
	Rb	85	143.3	14.5				ug/L	13	Standard
	Y	89	392847.7	0.4				ug/L	439493	Standard
>	**Rh**	103	3.3	86.6				ug/L	5	Standard
	Mo	98	32.9	36.3	**-0.0060**	0.003	56.8	ug/L	10	Standard
	Ag	107	54.0	8.5	**-0.0060**	0.001	11.3	ug/L	53	Standard
	Cd	111	3.6	104.5	**-0.0011**	0.002	177.4	mg/L	1	Standard
	Cd	114	261.5	5.6	**0.0422**	0.003	7.5	ug/L	32	Standard
>	**In**	115	451421.3	0.9				ug/L	494305	Standard
	Sn	118	2304.8	1.4	**1.8724**	0.043	2.3	ug/L	53	Standard
	Sb	123	52.4	23.8	**0.0202**	0.005	26.4	ug/L	7	Standard
	Ba	135	103.7	2.9	**0.0495**	0.002	4.7	ug/L	11	Standard
	Ce	140	21.7	66.6				ug/L	10	Standard
>	**Tb**	159	466981.4	1.5				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	10.0	20.0	**-0.0003**	0.000	110.8	ug/L	1	Standard
	Tl	205	10.0	50.0	**0.0008**	0.001	94.3	ug/L	3	Standard
	Pb	206	89.7	3.4	**-0.0040**	0.001	33.8	ug/L	80	Standard
	Pb	207	77.0	6.0	**0.0040**	0.002	53.5	ug/L	73	Standard
	Pb	208	176.3	8.5	**-0.0046**	0.003	60.5	ug/L	190	Standard
	U	238	0.7	173.2	**-0.0017**	0.000	20.3	ug/L	0	Standard
>	**Bi**	209	254763.7	0.2				ug/L	276439	Standard

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	Na	23	3.3	86.6	**0.6069**	0.897	147.8	mg/L	2	Standard
	Mg	24	310.0	12.8	**0.3500**	0.051	14.6	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2623**	0.206	78.5	mg/L	3	Standard
	Ca	43	16.7	45.8	**-4.4598**	2.828	63.4	mg/L	43	Standard
	Fe	54	116.5	14.0	**-0.0582**	0.008	14.0	mg/L	262	Standard
	Fe	57	75.0	6.7	**0.0597**	0.008	14.2	mg/L	65	Standard
>	**Sc-1**	45	22271.4	2.7				mg/L	26874	Standard
	Cl	35	145296.2	2.0				ug/L	141022	Standard
	Kr	83	114.3	0.5				ug/L	75	Standard
	Br	81	2346.8	5.8				ug/L	2810	Standard
	P	31	151054.9	3.5				ug/L	458976	Standard
	S	34	103217.1	1.5				ug/L	103378	Standard
	Sr	88	35.0	49.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	201.4				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.071	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.797	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		91.324
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		92.159
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 15:19:40
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	274703.8	2.4				ug/L	269614	Standard
	Be	9	149973.8	2.1	**49.5934**	1.308	2.6	ug/L	23	Standard
	Al	27	9531789.7	1.7	**44.5997**	0.648	1.5	ug/L	1170	Standard
	Sc	45	24615.0	4.7				ug/L	26874	Standard
	Ti	47	25122.8	1.5	**98.7535**	0.171	0.2	ug/L	25	Standard
	V	51	324994.8	2.0	**45.5546**	0.394	0.9	ug/L	1686	Standard
	Cr	52	319349.2	2.7	**45.7102**	0.915	2.0	ug/L	6098	Standard
	Cr	53	61313.8	1.7	**48.3528**	0.214	0.4	ug/L	193	Standard
	Mn	55	660031.1	1.2	**48.5295**	0.216	0.4	ug/L	1232	Standard
	Co	59	449677.2	2.3	**47.6948**	0.317	0.7	ug/L	106	Standard
	Ni	60	134576.1	1.5	**48.4732**	0.526	1.1	ug/L	556	Standard
	Cu	65	132094.7	0.8	**49.7805**	0.436	0.9	ug/L	124	Standard
	Zn	66	72382.1	0.4	**49.7074**	0.676	1.4	ug/L	196	Standard
>	Ge	72	479970.7	1.6				ug/L	473313	Standard
	As	75	72986.4	1.2	**49.9093**	0.445	0.9	ug/L	-286	Standard
	Se	82	7487.2	1.9	**50.0128**	1.032	2.1	ug/L	-33	Standard
	Se-1	77	5550.7	1.6	**49.7673**	1.405	2.8	ug/L	86	Standard
>	Ga	71	41.7	36.7				mg/L	35	Standard
	Rb	85	1150.0	5.4				ug/L	13	Standard
	Y	89	441027.9	1.7				ug/L	439493	Standard
>	Rh	103	25.0	40.0				ug/L	5	Standard
	Mo	98	413462.4	2.0	**103.8182**	2.266	2.2	ug/L	10	Standard
	Ag	107	353218.3	0.8	**52.3882**	0.511	1.0	ug/L	53	Standard
	Cd	111	111061.1	1.1	**49.6466**	0.673	1.4	mg/L	1	Standard
	Cd	114	282241.0	1.5	**49.8441**	0.614	1.2	ug/L	32	Standard
>	In	115	504461.0	0.4				ug/L	494305	Standard
	Sn	118	67749.5	0.6	**50.6730**	0.402	0.8	ug/L	53	Standard
	Sb	123	131807.9	1.1	**48.7060**	0.654	1.3	ug/L	7	Standard
	Ba	135	93260.1	0.3	**49.8658**	0.269	0.5	ug/L	11	Standard
	Ce	140	45.0	22.2				ug/L	10	Standard
>	Tb	159	516004.7	0.6				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	290516.2	0.7	**49.5261**	0.115	0.2	ug/L	1	Standard
	Tl	205	386687.3	0.6	**53.3903**	0.711	1.3	ug/L	3	Standard
	Pb	206	134409.3	1.3	**53.4024**	0.552	1.0	ug/L	80	Standard
	Pb	207	120924.3	0.3	**53.3341**	0.443	0.8	ug/L	73	Standard
	Pb	208	267361.0	0.5	**48.1798**	0.544	1.1	ug/L	190	Standard
	U	238	170706.3	0.0	**47.1995**	0.405	0.9	ug/L	0	Standard
>	Bi	209	270472.2	0.9				ug/L	276439	Standard

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	Na	23	21.7	48.0	**5.5998**	2.781	49.7	mg/L	2	Standard
	Mg	24	4859.1	1.7	**5.3855**	0.169	3.1	mg/L	37	Standard
	K	39	103.3	35.7	**6.2211**	2.115	34.0	mg/L	3	Standard
	Ca	43	30.0	44.1	**-0.8812**	4.077	462.7	mg/L	43	Standard
	Fe	54	11234.0	2.2	**5.8473**	0.235	4.0	mg/L	262	Standard
	Fe	57	3233.7	3.2	**6.0176**	0.347	5.8	mg/L	65	Standard
>	**Sc-1**	45	24615.0	4.7				mg/L	26874	Standard
	Cl	35	153388.8	2.5				ug/L	141022	Standard
	Kr	83	115.0	13.9				ug/L	75	Standard
	Br	81	2706.9	6.3				ug/L	2810	Standard
	P	31	503679.6	1.6				ug/L	458976	Standard
	S	34	127889.1	0.2				ug/L	103378	Standard
	Sr	88	60.0	16.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	-0.3	86.6				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.888	
	Be	9	99.187		
	Al	27	89.199		
	Sc	45			
	Ti	47	98.753		
	V	51	91.109		
	Cr	52	91.420		
	Cr	53			
	Mn	55	97.059		
	Co	59	95.390		
	Ni	60	96.946		
	Cu	65	99.561		
	Zn	66	99.415		
>	Ge	72		101.407	
	As	75	99.819		
	Se	82	100.026		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.818		
|	Ag	107	104.776		
|	Cd	111	99.293		
|	Cd	114			
|>	In	115		102.055	
|	Sn	118	101.346		
|	Sb	123	97.412		
⌊	Ba	135	99.732		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	99.052		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.360		
|	U	238	94.399		
⌊>	Bi	209		97.841	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 15:22:45
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	272130.6	1.1				ug/L	269614	Standard
	Be	9	116.7	101.3	**0.0231**	0.040	173.2	ug/L	23	Standard
	Al	27	8470.8	147.3	**0.0332**	0.060	179.3	ug/L	1170	Standard
	Sc	45	25349.5	2.9				ug/L	26874	Standard
	Ti	47	22.7	64.3	**-0.0088**	0.057	648.3	ug/L	25	Standard
	V	51	1043.6	1.9	**-0.0337**	0.003	7.9	ug/L	1686	Standard
	Cr	52	4091.6	14.9	**-0.0912**	0.086	94.5	ug/L	6098	Standard
	Cr	53	770.0	134.4	**0.4732**	0.821	173.6	ug/L	193	Standard
	Mn	55	3709.6	123.9	**0.1360**	0.340	250.0	ug/L	1232	Standard
	Co	59	157.0	69.5	**0.0014**	0.012	821.0	ug/L	106	Standard
	Ni	60	574.3	36.9	**0.0079**	0.076	959.2	ug/L	556	Standard
	Cu	65	197.3	64.1	**0.0151**	0.048	314.8	ug/L	124	Standard
	Zn	66	16370.7	165.8	**11.1384**	18.785	168.7	ug/L	196	Standard
>	**Ge**	72	475206.6	0.7				ug/L	473313	Standard
	As	75	-318.0	15.7	**-0.0069**	0.035	508.8	ug/L	-286	Standard
	Se	82	-56.2	14.3	**-0.0760**	0.053	70.3	ug/L	-33	Standard
	Se-1	77	76.3	4.6	**-0.0538**	0.030	55.0	ug/L	86	Standard
>	**Ga**	71	45.0	69.4				mg/L	35	Standard
	Rb	85	36.7	103.3				ug/L	13	Standard
	Y	89	437138.3	0.9				ug/L	439493	Standard
>	**Rh**	103	0.0					ug/L	5	Standard
	Mo	98	92.4	40.6	**0.0081**	0.009	115.0	ug/L	10	Standard
	Ag	107	92.0	33.9	**-0.0013**	0.004	345.1	ug/L	53	Standard
	Cd	111	19.9	161.2	**0.0059**	0.014	239.9	mg/L	1	Standard
	Cd	114	54.4	84.8	**0.0002**	0.008	5181.5	ug/L	32	Standard
>	**In**	115	502494.6	1.9				ug/L	494305	Standard
	Sn	118	85.3	14.9	**0.0077**	0.009	116.1	ug/L	53	Standard
	Sb	123	300.9	38.4	**0.1106**	0.045	40.7	ug/L	7	Standard
	Ba	135	21.0	86.6	**-0.0013**	0.010	743.6	ug/L	11	Standard
	Ce	140	65.0	166.6				ug/L	10	Standard
>	**Tb**	159	518842.6	0.7				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	49.0	115.4	**0.0062**	0.010	155.9	ug/L	1	Standard
	Tl	205	56.7	68.5	**0.0071**	0.005	75.8	ug/L	3	Standard
	Pb	206	102.7	13.8	**-0.0014**	0.006	397.2	ug/L	80	Standard
	Pb	207	90.3	24.6	**0.0075**	0.010	132.6	ug/L	73	Standard
	Pb	208	193.7	2.3	**-0.0038**	0.001	30.7	ug/L	190	Standard
	U	238	17.0	65.5	**0.0028**	0.003	109.6	ug/L	0	Standard
>	**Bi**	209	272999.7	1.1				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	1.7	173.2	**0.0173**	0.771	4458.9	mg/L	2	Standard
	Mg	24	60.0	33.3	**0.0329**	0.021	63.6	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1765**	0.177	100.5	mg/L	3	Standard
	Ca	43	13.3	43.3	**-6.2009**	1.918	30.9	mg/L	43	Standard
	Fe	54	287.5	18.2	**0.0214**	0.023	107.9	mg/L	262	Standard
	Fe	57	70.0	21.4	**0.0315**	0.026	84.0	mg/L	65	Standard
>	**Sc-1**	45	25349.5	2.9				mg/L	26874	Standard
	Cl	35	148988.3	1.0				ug/L	141022	Standard
	Kr	83	110.3	6.2				ug/L	75	Standard
	Br	81	2673.6	8.9				ug/L	2810	Standard
	P	31	479952.9	3.6				ug/L	458976	Standard
	S	34	121797.7	1.8				ug/L	103378	Standard
	Sr	88	30.0	16.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.9	187.9				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.933	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.400	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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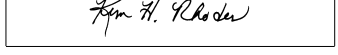

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.657
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.756
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Zn	66	

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1311063004
Sample Date/Time: Monday, November 18, 2013 15:26:49
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	301071.9	0.7				ug/L	269614	Standard
	Be	9	7992.1	2.3	**2.3956**	0.064	2.7	ug/L	23	Standard
	Al	27	63486884.2	1.1	**271.0285**	1.506	0.6	ug/L	1170	Standard
	Sc	45	29650.7	1.7				ug/L	26874	Standard
	Ti	47	31.3	21.3	**0.0392**	0.029	74.9	ug/L	25	Standard
	V	51	17026.8	1.1	**2.4990**	0.032	1.3	ug/L	1686	Standard
	Cr	52	5377.8	47.9	**0.1830**	0.419	228.9	ug/L	6098	Standard
	Cr	53	958.4	120.8	**0.7092**	1.025	144.5	ug/L	193	Standard
	Mn	55	379207711.4	2.1	**31280.1642**	394.286	1.3	ug/L	1232	Standard
	Co	59	4972140.8	0.9	**590.2415**	1.898	0.3	ug/L	106	Standard
	Ni	60	887360.1	0.8	**358.8710**	2.114	0.6	ug/L	556	Standard
	Cu	65	22284.7	1.1	**9.3464**	0.048	0.5	ug/L	124	Standard
	Zn	66	376330046.3	0.8	**290253.8521**	717.221	0.2	ug/L	196	Standard
>	**Ge**	72	428998.2	0.9				ug/L	473313	Standard
	As	75	9563.4	3.2	**7.4964**	0.197	2.6	ug/L	-286	Standard
	Se	82	706.3	9.6	**5.5461**	0.491	8.9	ug/L	-33	Standard
	Se-1	77	448.3	2.3	**3.8089**	0.071	1.9	ug/L	86	Standard
>	**Ga**	71	6491.4	2.8				mg/L	35	Standard
	Rb	85	17108.0	1.5				ug/L	13	Standard
	Y	89	3349528.4	0.8				ug/L	439493	Standard
>	**Rh**	103	81.7	7.1				ug/L	5	Standard
	Mo	98	165.2	33.7	**0.0346**	0.017	48.3	ug/L	10	Standard
	Ag	107	1228.4	8.0	**0.2038**	0.016	8.0	ug/L	53	Standard
	Cd	111	50653.7	0.7	**27.1937**	0.263	1.0	mg/L	1	Standard
	Cd	114	127200.0	1.4	**26.9755**	0.318	1.2	ug/L	32	Standard
>	**In**	115	420055.8	1.6				ug/L	494305	Standard
	Sn	118	66.3	10.0	**0.0032**	0.006	183.1	ug/L	53	Standard
	Sb	123	125.5	18.4	**0.0542**	0.011	19.5	ug/L	7	Standard
	Ba	135	2346.5	1.5	**1.4946**	0.006	0.4	ug/L	11	Standard
	Ce	140	4516926.6	0.7				ug/L	10	Standard
>	**Tb**	159	593163.9	1.9				ug/L	538219	Standard
	Ho	165	121276.8	1.0				ug/L	8	Standard
	Tl	203	119.0	83.7	**0.0201**	0.018	91.9	ug/L	1	Standard
	Tl	205	145.0	44.8	**0.0213**	0.010	45.5	ug/L	3	Standard
	Pb	206	1614.8	1.5	**0.6647**	0.003	0.5	ug/L	80	Standard
	Pb	207	1350.1	4.4	**0.6235**	0.023	3.6	ug/L	73	Standard
	Pb	208	3070.8	2.7	**0.5710**	0.010	1.8	ug/L	190	Standard
	U	238	136.0	32.5	**0.0394**	0.013	33.2	ug/L	0	Standard
>	**Bi**	209	245770.9	1.5				ug/L	276439	Standard

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	Na	23	108.3	21.3	**24.8412**	5.162	20.8	mg/L	2	Standard
	Mg	24	18508.0	1.7	**17.0817**	0.141	0.8	mg/L	37	Standard
	K	39	56.7	22.2	**2.6499**	0.724	27.3	mg/L	3	Standard
	Ca	43	143.3	24.7	**27.3351**	9.829	36.0	mg/L	43	Standard
	Fe	54	117438.9	0.3	**51.6685**	0.871	1.7	mg/L	262	Standard
	Fe	57	33086.1	2.5	**51.7569**	0.580	1.1	mg/L	65	Standard
>	**Sc-1**	45	29650.7	1.7				mg/L	26874	Standard
	Cl	35	916768.4	0.7				ug/L	141022	Standard
	Kr	83	1315.7	1.0				ug/L	75	Standard
	Br	81	3423.7	3.7				ug/L	2810	Standard
	P	31	191625.8	4.6				ug/L	458976	Standard
	S	34	87973.1	3.0				ug/L	103378	Standard
	Sr	88	436.7	9.3				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	184523.3	1.6				mg/L	10	Standard
	Ho-1	165	121276.8	1.0				mg/L	8	Standard
	Er	166	105962.7	1.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.668	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.637	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		84.979
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		88.906
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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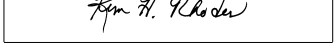

Method 6020 - Summary Report

Sample ID: L1311063006S WG452687-08
Sample Date/Time: Monday, November 18, 2013 15:29:54
Number of Replicates: 3
Autosampler Position: 319
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	312726.2	0.9				ug/L	269614	Standard
	Be	9	22698.7	0.6	**6.5780**	0.075	1.1	ug/L	23	Standard
	Al	27	64373112.3	0.9	**264.6020**	4.639	1.8	ug/L	1170	Standard
	Sc	45	29734.1	1.1				ug/L	26874	Standard
	Ti	47	32.7	12.7	**0.0451**	0.018	41.0	ug/L	25	Standard
	V	51	50684.9	2.2	**7.8017**	0.176	2.3	ug/L	1686	Standard
	Cr	52	33124.9	3.1	**4.6957**	0.167	3.6	ug/L	6098	Standard
	Cr	53	5674.4	2.2	**4.8838**	0.107	2.2	ug/L	193	Standard
	Mn	55	401197742.8	1.5	**33109.4801**	484.711	1.5	ug/L	1232	Standard
	Co	59	5317877.4	2.3	**631.5306**	13.954	2.2	ug/L	106	Standard
	Ni	60	956048.8	1.9	**386.8080**	7.083	1.8	ug/L	556	Standard
	Cu	65	35766.8	1.3	**15.0431**	0.184	1.2	ug/L	124	Standard
	Zn	66	395698868.1	0.8	**305309.2209**	2092.230	0.7	ug/L	196	Standard
>	**Ge**	72	428829.2	0.1				ug/L	473313	Standard
	As	75	16817.0	1.7	**13.0277**	0.226	1.7	ug/L	-286	Standard
	Se	82	1527.1	2.9	**11.6483**	0.328	2.8	ug/L	-33	Standard
	Se-1	77	1101.4	5.8	**10.4616**	0.642	6.1	ug/L	86	Standard
>	**Ga**	71	7070.0	1.0				mg/L	35	Standard
	Rb	85	17743.7	1.8				ug/L	13	Standard
	Y	89	3508309.0	0.4				ug/L	439493	Standard
>	**Rh**	103	103.3	15.6				ug/L	5	Standard
	Mo	98	131.1	10.7	**0.0242**	0.004	17.0	ug/L	10	Standard
	Ag	107	30912.2	1.9	**5.4685**	0.125	2.3	ug/L	53	Standard
	Cd	111	64274.5	0.8	**34.3512**	0.373	1.1	mg/L	1	Standard
	Cd	114	162502.1	1.3	**34.3092**	0.382	1.1	ug/L	32	Standard
>	**In**	115	421931.3	0.6				ug/L	494305	Standard
	Sn	118	53.3	12.1	**-0.0087**	0.006	68.0	ug/L	53	Standard
	Sb	123	12919.0	1.9	**5.7068**	0.143	2.5	ug/L	7	Standard
	Ba	135	10528.0	1.6	**6.7199**	0.135	2.0	ug/L	11	Standard
	Ce	140	4989269.1	1.1				ug/L	10	Standard
>	**Tb**	159	609808.2	0.7				ug/L	538219	Standard
	Ho	165	133055.2	2.3				ug/L	8	Standard
	Tl	203	28729.9	1.8	**5.3644**	0.086	1.6	ug/L	1	Standard
	Tl	205	36524.0	2.3	**5.5244**	0.114	2.1	ug/L	3	Standard
	Pb	206	14770.9	2.4	**6.3929**	0.116	1.8	ug/L	80	Standard
	Pb	207	12546.9	1.8	**6.0344**	0.066	1.1	ug/L	73	Standard
	Pb	208	28871.0	1.7	**5.6663**	0.080	1.4	ug/L	190	Standard
	U	238	17489.4	1.2	**5.2966**	0.055	1.0	ug/L	0	Standard
>	**Bi**	209	246852.8	0.9				ug/L	276439	Standard

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	Na	23	85.0	10.2	**19.3742**	2.171	11.2	mg/L	2	Standard
	Mg	24	18629.8	1.3	**17.1483**	0.395	2.3	mg/L	37	Standard
	K	39	43.3	17.6	**1.9234**	0.400	20.8	mg/L	3	Standard
	Ca	43	136.7	12.8	**25.3959**	4.579	18.0	mg/L	43	Standard
	Fe	54	119015.5	2.5	**52.2029**	0.896	1.7	mg/L	262	Standard
	Fe	57	33620.6	0.5	**52.4530**	0.458	0.9	mg/L	65	Standard
>	**Sc-1**	45	29734.1	1.1				mg/L	26874	Standard
	Cl	35	936611.5	1.6				ug/L	141022	Standard
	Kr	83	1397.4	2.5				ug/L	75	Standard
	Br	81	3180.3	7.0				ug/L	2810	Standard
	P	31	193094.5	1.6				ug/L	458976	Standard
	S	34	85198.9	1.4				ug/L	103378	Standard
	Sr	88	520.0	10.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	207807.8	1.6				mg/L	10	Standard
	Ho-1	165	133055.2	2.3				mg/L	8	Standard
	Er	166	114467.5	1.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.990	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.602	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311063006S WG452687-08
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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.358
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.297
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311063008SD WG452687-09
Sample Date/Time: Monday, November 18, 2013 15:32:59
Number of Replicates: 3
Autosampler Position: 320
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	298993.8	2.1				ug/L	269614	Standard
	Be	9	21006.2	2.2	**6.3698**	0.263	4.1	ug/L	23	Standard
	Al	27	61880139.5	1.1	**266.1029**	7.122	2.7	ug/L	1170	Standard
	Sc	45	29467.0	0.3				ug/L	26874	Standard
	Ti	47	33.7	26.0	**0.0492**	0.039	79.7	ug/L	25	Standard
	V	51	46184.2	0.5	**7.0712**	0.066	0.9	ug/L	1686	Standard
	Cr	52	31632.7	1.4	**4.4376**	0.062	1.4	ug/L	6098	Standard
	Cr	53	5639.4	5.5	**4.8373**	0.253	5.2	ug/L	193	Standard
	Mn	55	376701691.9	0.2	**30995.5447**	176.231	0.6	ug/L	1232	Standard
	Co	59	4993922.6	1.4	**591.2635**	4.305	0.7	ug/L	106	Standard
	Ni	60	895283.7	1.0	**361.1542**	5.966	1.7	ug/L	556	Standard
	Cu	65	33916.6	1.0	**14.2201**	0.250	1.8	ug/L	124	Standard
	Zn	66	370271607.7	1.0	**284836.3367**	2261.340	0.8	ug/L	196	Standard
>	Ge	72	430119.2	0.7				ug/L	473313	Standard
	As	75	16302.7	0.6	**12.5992**	0.168	1.3	ug/L	-286	Standard
	Se	82	1517.5	4.0	**11.5452**	0.524	4.5	ug/L	-33	Standard
	Se-1	77	1036.4	1.0	**9.7688**	0.146	1.5	ug/L	86	Standard
>	Ga	71	6784.9	3.6				mg/L	35	Standard
	Rb	85	17069.6	2.1				ug/L	13	Standard
	Y	89	3324648.8	1.3				ug/L	439493	Standard
>	Rh	103	73.3	7.9				ug/L	5	Standard
	Mo	98	132.2	12.5	**0.0245**	0.005	19.5	ug/L	10	Standard
	Ag	107	29466.0	0.3	**5.2098**	0.024	0.5	ug/L	53	Standard
	Cd	111	60156.0	0.2	**32.1386**	0.244	0.8	mg/L	1	Standard
	Cd	114	148753.4	1.3	**31.3939**	0.226	0.7	ug/L	32	Standard
>	In	115	422078.5	0.5				ug/L	494305	Standard
	Sn	118	62.7	10.6	**-0.0003**	0.006	1987.6	ug/L	53	Standard
	Sb	123	12209.4	0.4	**5.3909**	0.050	0.9	ug/L	7	Standard
	Ba	135	10086.7	0.9	**6.4352**	0.080	1.2	ug/L	11	Standard
	Ce	140	4502527.4	0.7				ug/L	10	Standard
>	Tb	159	603115.2	1.0				ug/L	538219	Standard
	Ho	165	120332.6	0.7				ug/L	8	Standard
	Tl	203	27166.7	0.2	**5.0603**	0.013	0.3	ug/L	1	Standard
	Tl	205	34298.8	0.7	**5.1754**	0.038	0.7	ug/L	3	Standard
	Pb	206	13960.8	0.9	**6.0256**	0.031	0.5	ug/L	80	Standard
	Pb	207	11679.5	1.2	**5.6016**	0.044	0.8	ug/L	73	Standard
	Pb	208	27439.3	0.5	**5.3705**	0.051	0.9	ug/L	190	Standard
	U	238	16573.4	1.4	**5.0068**	0.051	1.0	ug/L	0	Standard
>	Bi	209	247447.3	0.4				ug/L	276439	Standard

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	Na	23	111.7	5.2	**25.8057**	1.294	5.0	mg/L	2	Standard
	Mg	24	17885.6	1.8	**16.6087**	0.268	1.6	mg/L	37	Standard
	K	39	43.3	24.0	**1.9445**	0.554	28.5	mg/L	3	Standard
	Ca	43	141.7	8.9	**27.0368**	3.259	12.1	mg/L	43	Standard
	Fe	54	116062.4	1.8	**51.3694**	0.810	1.6	mg/L	262	Standard
	Fe	57	33233.1	0.6	**52.3152**	0.231	0.4	mg/L	65	Standard
>	**Sc-1**	45	29467.0	0.3				mg/L	26874	Standard
	Cl	35	896401.6	1.1				ug/L	141022	Standard
	Kr	83	1370.7	2.4				ug/L	75	Standard
	Br	81	3060.3	5.1				ug/L	2810	Standard
	P	31	190407.3	0.9				ug/L	458976	Standard
	S	34	83472.6	0.9				ug/L	103378	Standard
	Sr	88	461.7	14.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	187754.8	1.0				mg/L	10	Standard
	Ho-1	165	120332.6	0.7				mg/L	8	Standard
	Er	166	105583.4	2.1				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.897	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.874	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.388
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.512
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311063009
Sample Date/Time: Monday, November 18, 2013 15:36:04
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	237839.6	2.4				ug/L	269614	Standard
	Be	9	46.7	24.7	**0.0018**	0.005	261.1	ug/L	23	Standard
	Al	27	860592.2	1.1	**4.6448**	0.067	1.4	ug/L	1170	Standard
	Sc	45	22002.6	0.8				ug/L	26874	Standard
	Ti	47	112.3	18.2	**0.4070**	0.094	23.0	ug/L	25	Standard
	V	51	702.9	6.0	**-0.0688**	0.007	10.4	ug/L	1686	Standard
	Cr	52	3984.5	3.8	**-0.0293**	0.022	73.8	ug/L	6098	Standard
	Cr	53	1935.1	3.4	**1.6116**	0.065	4.0	ug/L	193	Standard
	Mn	55	90499.7	31.9	**7.4973**	2.447	32.6	ug/L	1232	Standard
	Co	59	1077.4	35.6	**0.1154**	0.047	40.3	ug/L	106	Standard
	Ni	60	1593.1	9.4	**0.4576**	0.064	14.1	ug/L	556	Standard
	Cu	65	3886.8	2.0	**1.6173**	0.024	1.5	ug/L	124	Standard
	Zn	66	117433.7	50.9	**92.5161**	47.323	51.2	ug/L	196	Standard
>	**Ge**	72	419611.5	0.6				ug/L	473313	Standard
	As	75	925.5	7.0	**0.9325**	0.047	5.0	ug/L	-286	Standard
	Se	82	405.6	7.6	**3.3806**	0.221	6.5	ug/L	-33	Standard
	Se-1	77	300.0	2.5	**2.3671**	0.062	2.6	ug/L	86	Standard
>	**Ga**	71	113.3	9.2				mg/L	35	Standard
	Rb	85	4689.1	4.5				ug/L	13	Standard
	Y	89	382047.6	1.7				ug/L	439493	Standard
>	**Rh**	103	60.0	22.0				ug/L	5	Standard
	Mo	98	4005.7	2.6	**1.1470**	0.032	2.8	ug/L	10	Standard
	Ag	107	83.0	6.3	**-0.0008**	0.001	119.6	ug/L	53	Standard
	Cd	111	217.5	6.7	**0.1094**	0.008	6.9	mg/L	1	Standard
	Cd	114	593.2	5.3	**0.1116**	0.006	5.6	ug/L	32	Standard
>	**In**	115	436626.6	0.1				ug/L	494305	Standard
	Sn	118	69.0	13.0	**0.0033**	0.008	239.1	ug/L	53	Standard
	Sb	123	142.2	3.4	**0.0592**	0.002	3.4	ug/L	7	Standard
	Ba	135	32426.3	0.6	**20.0242**	0.119	0.6	ug/L	11	Standard
	Ce	140	2658.6	13.4				ug/L	10	Standard
>	**Tb**	159	460927.6	0.0				ug/L	538219	Standard
	Ho	165	71.7	24.5				ug/L	8	Standard
	Tl	203	46.3	22.7	**0.0067**	0.002	29.5	ug/L	1	Standard
	Tl	205	63.3	31.9	**0.0091**	0.003	33.2	ug/L	3	Standard
	Pb	206	556.0	1.3	**0.2057**	0.005	2.2	ug/L	80	Standard
	Pb	207	484.0	5.1	**0.2072**	0.013	6.2	ug/L	73	Standard
	Pb	208	1047.7	0.8	**0.1732**	0.002	1.2	ug/L	190	Standard
	U	238	479.3	3.7	**0.1465**	0.005	3.3	ug/L	0	Standard
>	**Bi**	209	241515.8	1.0				ug/L	276439	Standard

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	Na	23	5.0	173.2	**1.1340**	2.705	238.5	mg/L	2	Standard
	Mg	24	67464.9	0.7	**84.0351**	0.779	0.9	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0205**	0.363	1772.3	mg/L	3	Standard
	Ca	43	20.0	25.0	**-3.2564**	1.781	54.7	mg/L	43	Standard
	Fe	54	267.6	20.0	**0.0327**	0.033	101.0	mg/L	262	Standard
	Fe	57	105.0	25.2	**0.1248**	0.054	43.4	mg/L	65	Standard
>	**Sc-1**	45	22002.6	0.8				mg/L	26874	Standard
	Cl	35	122795.2	2.7				ug/L	141022	Standard
	Kr	83	153.0	1.7				ug/L	75	Standard
	Br	81	73320.3	1.8				ug/L	2810	Standard
	P	31	193821.2	5.7				ug/L	458976	Standard
	S	34	73389.1	3.2				ug/L	103378	Standard
	Sr	88	288.3	14.0				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	130.3	41.3				mg/L	10	Standard
	Ho-1	165	71.7	24.5				mg/L	8	Standard
	Er	166	63.3	87.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		88.215	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		88.654	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.331
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	87.367
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311063010
Sample Date/Time: Monday, November 18, 2013 15:39:08
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	367182.3	12.3				ug/L	269614	Standard
	Be	9	13.3	78.1	**-0.0129**	0.002	16.4	ug/L	23	Standard
	Al	27	3989.1	91.3	**0.0078**	0.015	191.8	ug/L	1170	Standard
	Sc	45	31558.3	14.3				ug/L	26874	Standard
	Ti	47	11.7	21.6	**-0.0615**	0.010	15.8	ug/L	25	Standard
	V	51	491.8	11.5	**-0.1265**	0.004	3.4	ug/L	1686	Standard
	Cr	52	2931.7	58.9	**-0.3371**	0.241	71.5	ug/L	6098	Standard
	Cr	53	228.3	56.3	**0.0107**	0.098	919.5	ug/L	193	Standard
	Mn	55	33451.9	137.0	**2.0043**	3.027	151.0	ug/L	1232	Standard
	Co	59	493.3	117.7	**0.0296**	0.056	187.9	ug/L	106	Standard
	Ni	60	368.3	12.0	**-0.0937**	0.022	23.1	ug/L	556	Standard
	Cu	65	165.0	27.6	**-0.0093**	0.018	189.1	ug/L	124	Standard
	Zn	66	12344.9	80.3	**6.9653**	6.364	91.4	ug/L	196	Standard
>	**Ge**	72	598942.9	9.1				ug/L	473313	Standard
	As	75	-445.6	55.3	**-0.0271**	0.127	469.4	ug/L	-286	Standard
	Se	82	-131.5	62.2	**-0.3840**	0.416	108.2	ug/L	-33	Standard
	Se-1	77	57.3	7.9	**-0.3360**	0.034	10.1	ug/L	86	Standard
>	**Ga**	71	33.3	43.3				mg/L	35	Standard
	Rb	85	98.3	89.9				ug/L	13	Standard
	Y	89	565572.6	6.6				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	16.3	46.3	**-0.0120**	0.002	13.6	ug/L	10	Standard
	Ag	107	80.3	27.5	**-0.0057**	0.003	50.2	ug/L	53	Standard
	Cd	111	25.6	156.4	**0.0064**	0.015	228.9	mg/L	1	Standard
	Cd	114	71.6	135.0	**0.0008**	0.014	1798.5	ug/L	32	Standard
>	**In**	115	655241.1	6.0				ug/L	494305	Standard
	Sn	118	66.3	23.4	**-0.0178**	0.011	62.6	ug/L	53	Standard
	Sb	123	33.6	37.0	**0.0081**	0.004	48.8	ug/L	7	Standard
	Ba	135	20.7	96.1	**-0.0037**	0.009	236.7	ug/L	11	Standard
	Ce	140	973.4	153.2				ug/L	10	Standard
>	**Tb**	159	726191.3	4.2				ug/L	538219	Standard
	Ho	165	40.0	120.5				ug/L	8	Standard
	Tl	203	46.7	106.7	**0.0034**	0.006	178.9	ug/L	1	Standard
	Tl	205	55.0	96.2	**0.0046**	0.005	114.2	ug/L	3	Standard
	Pb	206	137.3	13.9	**-0.0046**	0.006	136.3	ug/L	80	Standard
	Pb	207	111.0	16.4	**0.0015**	0.007	468.8	ug/L	73	Standard
	Pb	208	283.0	8.7	**-0.0035**	0.004	126.5	ug/L	190	Standard
	U	238	2.7	108.3	**-0.0013**	0.001	42.8	ug/L	0	Standard
>	**Bi**	209	397113.8	4.4				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	61.7	56.9	**0.0240**	0.038	157.7	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2836**	0.169	59.6	mg/L	3	Standard
	Ca	43	30.0	60.1	**-2.4040**	5.785	240.6	mg/L	43	Standard
	Fe	54	152.8	16.7	**-0.0633**	0.003	4.3	mg/L	262	Standard
	Fe	57	116.7	27.6	**0.0807**	0.065	80.4	mg/L	65	Standard
>	**Sc-1**	45	31558.3	14.3				mg/L	26874	Standard
	Cl	35	56204.2	10.8				ug/L	141022	Standard
	Kr	83	259.0	55.9				ug/L	75	Standard
	Br	81	1266.7	5.4				ug/L	2810	Standard
	P	31	197042.2	31.7				ug/L	458976	Standard
	S	34	40827.5	15.4				ug/L	103378	Standard
	Sr	88	55.0	15.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	42.2	135.1				mg/L	10	Standard
	Ho-1	165	40.0	120.5				mg/L	8	Standard
	Er	166	23.3	65.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		136.188	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		126.543	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	132.558
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	143.653
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311063011
Sample Date/Time: Monday, November 18, 2013 15:42:13
Number of Replicates: 3
Autosampler Position: 323
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	235467.3	0.6				ug/L	269614	Standard
	Be	9	40.0	37.5	**-0.0006**	0.006	905.3	ug/L	23	Standard
	Al	27	35060766.0	1.1	**191.3755**	0.823	0.4	ug/L	1170	Standard
	Sc	45	21618.7	1.8				ug/L	26874	Standard
	Ti	47	91.3	14.0	**0.3089**	0.058	18.7	ug/L	25	Standard
	V	51	1084.6	2.5	**-0.0089**	0.003	35.3	ug/L	1686	Standard
	Cr	52	3167.7	0.6	**-0.1694**	0.002	1.4	ug/L	6098	Standard
	Cr	53	248.3	16.4	**0.0837**	0.037	44.7	ug/L	193	Standard
	Mn	55	45795100.0	0.7	**3829.8463**	21.525	0.6	ug/L	1232	Standard
	Co	59	102838.5	0.4	**12.3614**	0.047	0.4	ug/L	106	Standard
	Ni	60	11622.8	2.0	**4.5662**	0.075	1.6	ug/L	556	Standard
	Cu	65	3273.4	3.9	**1.3411**	0.062	4.6	ug/L	124	Standard
	Zn	66	8562852.6	0.2	**6695.2924**	32.071	0.5	ug/L	196	Standard
>	Ge	72	423161.6	0.6				ug/L	473313	Standard
	As	75	2141.5	2.7	**1.8656**	0.036	1.9	ug/L	-286	Standard
	Se	82	-44.5	36.2	**-0.0342**	0.122	358.3	ug/L	-33	Standard
	Se-1	77	72.7	8.4	**-0.0053**	0.063	1199.3	ug/L	86	Standard
>	Ga	71	475.0	8.6				mg/L	35	Standard
	Rb	85	4824.1	3.8				ug/L	13	Standard
	Y	89	374517.8	1.5				ug/L	439493	Standard
>	Rh	103	70.0	18.9				ug/L	5	Standard
	Mo	98	503.8	0.6	**0.1329**	0.001	0.9	ug/L	10	Standard
	Ag	107	69.0	8.7	**-0.0030**	0.001	35.7	ug/L	53	Standard
	Cd	111	26.3	38.0	**0.0109**	0.005	47.9	mg/L	1	Standard
	Cd	114	73.7	23.6	**0.0058**	0.004	62.6	ug/L	32	Standard
>	In	115	430960.4	0.3				ug/L	494305	Standard
	Sn	118	47.3	8.5	**-0.0149**	0.003	23.1	ug/L	53	Standard
	Sb	123	89.3	12.8	**0.0371**	0.005	13.1	ug/L	7	Standard
	Ba	135	3846.8	0.9	**2.3957**	0.014	0.6	ug/L	11	Standard
	Ce	140	1086.7	12.7				ug/L	10	Standard
>	Tb	159	456723.9	1.3				ug/L	538219	Standard
	Ho	165	61.7	33.8				ug/L	8	Standard
	Tl	203	56.7	7.1	**0.0087**	0.001	9.7	ug/L	1	Standard
	Tl	205	60.0	16.7	**0.0086**	0.001	17.1	ug/L	3	Standard
	Pb	206	130.0	12.3	**0.0162**	0.007	45.0	ug/L	80	Standard
	Pb	207	130.3	7.1	**0.0326**	0.004	12.7	ug/L	73	Standard
	Pb	208	262.3	9.5	**0.0148**	0.005	34.3	ug/L	190	Standard
	U	238	6.0	50.0	**0.0000**	0.001	40687.3	ug/L	0	Standard
>	Bi	209	240600.0	0.9				ug/L	276439	Standard

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	Na	23	120.0	18.2	**38.0856**	7.569	19.9	mg/L	2	Standard
	Mg	24	8730.8	1.6	**11.0437**	0.321	2.9	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0176**	0.366	2079.9	mg/L	3	Standard
	Ca	43	153.3	30.8	**44.9590**	17.550	39.0	mg/L	43	Standard
	Fe	54	79154.3	0.2	**47.7542**	0.806	1.7	mg/L	262	Standard
	Fe	57	22358.2	1.8	**47.9747**	1.155	2.4	mg/L	65	Standard
>	**Sc-1**	45	21618.7	1.8				mg/L	26874	Standard
	Cl	35	413080.0	0.6				ug/L	141022	Standard
	Kr	83	165.7	6.4				ug/L	75	Standard
	Br	81	3803.8	4.2				ug/L	2810	Standard
	P	31	199939.7	3.1				ug/L	458976	Standard
	S	34	86115.7	0.5				ug/L	103378	Standard
	Sr	88	408.3	7.1				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	87.6	49.3				mg/L	10	Standard
	Ho-1	165	61.7	33.8				mg/L	8	Standard
	Er	166	50.0	20.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		87.335	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.404	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	87.185
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	87.035
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311076312
Sample Date/Time: Monday, November 18, 2013 15:45:18
Number of Replicates: 3
Autosampler Position: 324
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	333348.8	45.4				ug/L	269614	Standard
	Be	9	15.0	33.3	**-0.0116**	0.002	14.5	ug/L	23	Standard
	Al	27	2800.4	91.7	**0.0021**	0.006	268.0	ug/L	1170	Standard
	Sc	45	28056.6	47.9				ug/L	26874	Standard
	Ti	47	8.7	17.6	**-0.0645**	0.015	23.8	ug/L	25	Standard
	V	51	513.4	42.6	**-0.1148**	0.027	23.8	ug/L	1686	Standard
	Cr	52	1916.8	34.9	**-0.4283**	0.090	21.0	ug/L	6098	Standard
	Cr	53	128.3	22.8	**-0.0408**	0.030	72.7	ug/L	193	Standard
	Mn	55	4938.5	78.7	**0.1778**	0.281	158.3	ug/L	1232	Standard
	Co	59	106.7	32.6	**-0.0042**	0.005	116.1	ug/L	106	Standard
	Ni	60	297.3	18.5	**-0.0864**	0.069	79.9	ug/L	556	Standard
	Cu	65	118.3	33.0	**-0.0173**	0.015	85.3	ug/L	124	Standard
	Zn	66	2482.9	29.8	**1.4005**	0.255	18.2	ug/L	196	Standard
>	Ge	72	540863.2	46.9				ug/L	473313	Standard
	As	75	-326.4	73.6	**0.0005**	0.171	32454.3	ug/L	-286	Standard
	Se	82	-95.0	78.4	**-0.2911**	0.514	176.5	ug/L	-33	Standard
	Se-1	77	63.3	12.7	**-0.1884**	0.178	94.7	ug/L	86	Standard
>	Ga	71	28.3	66.8				mg/L	35	Standard
	Rb	85	26.7	28.6				ug/L	13	Standard
	Y	89	530816.0	42.9				ug/L	439493	Standard
>	Rh	103	1.7	173.2				ug/L	5	Standard
	Mo	98	11.2	45.4	**-0.0129**	0.000	2.9	ug/L	10	Standard
	Ag	107	62.7	35.2	**-0.0070**	0.001	16.1	ug/L	53	Standard
	Cd	111	3.3	34.8	**-0.0014**	0.001	64.1	mg/L	1	Standard
	Cd	114	6.4	105.7	**-0.0081**	0.002	20.6	ug/L	32	Standard
>	In	115	601347.3	40.0				ug/L	494305	Standard
	Sn	118	72.7	51.7	**-0.0123**	0.013	109.3	ug/L	53	Standard
	Sb	123	31.0	29.4	**0.0084**	0.001	13.1	ug/L	7	Standard
	Ba	135	7.7	39.8	**-0.0088**	0.002	18.2	ug/L	11	Standard
	Ce	140	23.3	86.6				ug/L	10	Standard
>	Tb	159	639298.6	38.9				ug/L	538219	Standard
	Ho	165	5.0	173.2				ug/L	8	Standard
	Tl	203	12.0	71.2	**-0.0002**	0.002	771.2	ug/L	1	Standard
	Tl	205	18.3	128.9	**0.0021**	0.004	182.1	ug/L	3	Standard
	Pb	206	116.0	30.8	**-0.0054**	0.003	56.1	ug/L	80	Standard
	Pb	207	94.0	27.7	**0.0010**	0.004	358.0	ug/L	73	Standard
	Pb	208	257.3	28.1	**-0.0013**	0.005	346.1	ug/L	190	Standard
	U	238	0.7	86.6	**-0.0017**	0.000	9.2	ug/L	0	Standard
>	Bi	209	348234.9	39.0				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	45.0	67.6	**0.0114**	0.014	126.3	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	18.3	31.5	**-3.8400**	5.009	130.4	mg/L	43	Standard
	Fe	54	139.6	62.1	**-0.0615**	0.039	63.2	mg/L	262	Standard
	Fe	57	105.0	12.6	**0.0988**	0.068	69.1	mg/L	65	Standard
>	**Sc-1**	45	28056.6	47.9				mg/L	26874	Standard
	Cl	35	67845.7	34.7				ug/L	141022	Standard
	Kr	83	173.7	74.4				ug/L	75	Standard
	Br	81	1226.7	45.2				ug/L	2810	Standard
	P	31	226272.1	59.2				ug/L	458976	Standard
	S	34	52848.0	39.1				ug/L	103378	Standard
	Sr	88	60.0	54.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.0	100.7				mg/L	10	Standard
	Ho-1	165	5.0	173.2				mg/L	8	Standard
	Er	166	13.3	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		123.639	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		114.272	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	121.655
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	125.972
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 52 Lower	Cr	52	
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311076316
Sample Date/Time: Monday, November 18, 2013 15:48:23
Number of Replicates: 3
Autosampler Position: 325
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	329278.3	64.9				ug/L	269614	Standard
	Be	9	18.3	68.6	-0.0107	0.004	35.6	ug/L	23	Standard
	Al	27	1108.4	27.0	-0.0018	0.002	127.8	ug/L	1170	Standard
	Sc	45	29626.0	67.5				ug/L	26874	Standard
	Ti	47	11.7	17.8	-0.0462	0.029	63.2	ug/L	25	Standard
	V	51	558.2	65.7	-0.1098	0.047	42.5	ug/L	1686	Standard
	Cr	52	2201.2	51.2	-0.3820	0.141	37.0	ug/L	6098	Standard
	Cr	53	110.0	34.3	-0.0448	0.045	101.7	ug/L	193	Standard
	Mn	55	2666.4	95.8	0.0611	0.192	314.7	ug/L	1232	Standard
	Co	59	94.0	31.5	-0.0045	0.005	115.5	ug/L	106	Standard
	Ni	60	314.3	15.0	-0.0583	0.114	195.0	ug/L	556	Standard
	Cu	65	102.7	38.0	-0.0208	0.014	68.9	ug/L	124	Standard
	Zn	66	1647.4	19.2	1.0994	0.708	64.4	ug/L	196	Standard
>	Ge	72	552922.5	65.9				ug/L	473313	Standard
	As	75	-338.1	56.3	-0.0138	0.123	888.6	ug/L	-286	Standard
	Se	82	-85.7	62.7	-0.2636	0.354	134.2	ug/L	-33	Standard
	Se-1	77	56.7	18.7	-0.1917	0.282	147.1	ug/L	86	Standard
>	Ga	71	28.3	44.4				mg/L	35	Standard
	Rb	85	28.3	10.2				ug/L	13	Standard
	Y	89	513775.6	63.1				ug/L	439493	Standard
>	Rh	103	1.7	173.2				ug/L	5	Standard
	Mo	98	8.1	68.0	-0.0133	0.001	10.2	ug/L	10	Standard
	Ag	107	59.3	78.4	-0.0080	0.001	14.6	ug/L	53	Standard
	Cd	111	1.7	69.6	-0.0021	0.001	26.5	mg/L	1	Standard
	Cd	114	14.8	112.5	-0.0078	0.002	20.3	ug/L	32	Standard
>	In	115	595038.0	62.5				ug/L	494305	Standard
	Sn	118	70.0	65.9	-0.0120	0.027	228.9	ug/L	53	Standard
	Sb	123	22.8	63.9	0.0055	0.002	32.7	ug/L	7	Standard
	Ba	135	8.3	18.3	-0.0077	0.002	31.0	ug/L	11	Standard
	Ce	140	38.3	92.5				ug/L	10	Standard
>	Tb	159	623867.3	61.2				ug/L	538219	Standard
	Ho	165	8.3	34.6				ug/L	8	Standard
	Tl	203	6.0	60.1	-0.0010	0.001	108.7	ug/L	1	Standard
	Tl	205	13.3	57.3	0.0011	0.001	124.6	ug/L	3	Standard
	Pb	206	109.7	65.7	-0.0075	0.002	24.9	ug/L	80	Standard
	Pb	207	92.0	69.1	-0.0001	0.004	7906.7	ug/L	73	Standard
	Pb	208	221.7	52.2	-0.0053	0.003	49.2	ug/L	190	Standard
	U	238	0.0		-0.0019	0.000	0.0	ug/L	0	Standard
>	Bi	209	335693.8	60.2				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	38.3	7.5	**0.0156**	0.028	180.0	mg/L	37	Standard
	K	39	3.3	86.6	**-0.0633**	0.318	502.1	mg/L	3	Standard
	Ca	43	28.3	53.9	**-2.3370**	1.301	55.7	mg/L	43	Standard
	Fe	54	196.2	69.5	**-0.0346**	0.066	190.7	mg/L	262	Standard
	Fe	57	98.3	28.0	**0.1325**	0.207	156.0	mg/L	65	Standard
>	**Sc-1**	45	29626.0	67.5				mg/L	26874	Standard
	Cl	35	76157.2	50.5				ug/L	141022	Standard
	Kr	83	149.7	66.6				ug/L	75	Standard
	Br	81	1503.4	61.0				ug/L	2810	Standard
	P	31	243722.8	68.9				ug/L	458976	Standard
	S	34	58742.5	54.2				ug/L	103378	Standard
	Sr	88	75.0	53.3				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	10	Standard
	Ho-1	165	8.3	34.6				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.129	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		116.820	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	120.379
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	121.435
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
In 115 Int Std for sample	In	115	Rerun sample
Bi 209 Int Std for sample	Bi	209	Rerun sample

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Method 6020 - Summary Report

Sample ID: L1311077201
Sample Date/Time: Monday, November 18, 2013 15:51:27
Number of Replicates: 3
Autosampler Position: 326
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	282288.4	2.8				ug/L	269614	Standard
	Be	9	7843.7	0.8	**2.5093**	0.064	2.5	ug/L	23	Standard
	Al	27	30029090.9	0.9	**136.8170**	5.004	3.7	ug/L	1170	Standard
	Sc	45	26237.7	1.5				ug/L	26874	Standard
	Ti	47	143.0	10.3	**0.4890**	0.060	12.3	ug/L	25	Standard
	V	51	4656.0	4.4	**0.5026**	0.030	5.9	ug/L	1686	Standard
	Cr	52	8693.8	0.9	**0.6283**	0.009	1.5	ug/L	6098	Standard
	Cr	53	1153.4	8.9	**0.8138**	0.083	10.1	ug/L	193	Standard
	Mn	55	54426611.4	0.9	**4192.5845**	31.710	0.8	ug/L	1232	Standard
	Co	59	647220.1	0.9	**71.7343**	0.841	1.2	ug/L	106	Standard
	Ni	60	198861.6	0.9	**74.9400**	0.401	0.5	ug/L	556	Standard
	Cu	65	9102.1	1.2	**3.5277**	0.030	0.8	ug/L	124	Standard
	Zn	66	268120.2	0.5	**192.9088**	0.660	0.3	ug/L	196	Standard
>	Ge	72	459404.4	0.3				ug/L	473313	Standard
	As	75	5661.0	0.7	**4.2388**	0.031	0.7	ug/L	-286	Standard
	Se	82	-32.3	75.7	**0.0772**	0.169	219.3	ug/L	-33	Standard
	Se-1	77	149.7	15.2	**0.6675**	0.215	32.2	ug/L	86	Standard
>	Ga	71	1121.7	5.2				mg/L	35	Standard
	Rb	85	177357.1	0.9				ug/L	13	Standard
	Y	89	902836.9	1.4				ug/L	439493	Standard
>	Rh	103	136.7	24.4				ug/L	5	Standard
	Mo	98	218.8	2.8	**0.0450**	0.002	4.3	ug/L	10	Standard
	Ag	107	53.0	13.2	**-0.0064**	0.001	18.0	ug/L	53	Standard
	Cd	111	1117.8	1.6	**0.5450**	0.009	1.6	mg/L	1	Standard
	Cd	114	2825.9	2.7	**0.5379**	0.017	3.1	ug/L	32	Standard
>	In	115	460065.2	0.5				ug/L	494305	Standard
	Sn	118	163.7	6.2	**0.0780**	0.009	11.6	ug/L	53	Standard
	Sb	123	125.0	9.0	**0.0492**	0.005	9.8	ug/L	7	Standard
	Ba	135	8297.6	1.7	**4.8538**	0.103	2.1	ug/L	11	Standard
	Ce	140	439455.3	0.5				ug/L	10	Standard
>	Tb	159	512093.7	0.7				ug/L	538219	Standard
	Ho	165	20752.5	1.1				ug/L	8	Standard
	Tl	203	355.3	4.7	**0.0641**	0.002	3.8	ug/L	1	Standard
	Tl	205	428.3	9.7	**0.0640**	0.006	9.2	ug/L	3	Standard
	Pb	206	1090.7	1.0	**0.4323**	0.004	0.9	ug/L	80	Standard
	Pb	207	877.4	0.8	**0.3913**	0.002	0.4	ug/L	73	Standard
	Pb	208	2065.7	1.3	**0.3690**	0.008	2.1	ug/L	190	Standard
	U	238	1139.0	2.5	**0.3425**	0.005	1.5	ug/L	0	Standard
>	Bi	209	247352.2	1.1				ug/L	276439	Standard

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	Na	23	306.7	9.8	**80.5751**	9.030	11.2	mg/L	2	Standard
	Mg	24	3180.3	0.4	**3.2919**	0.060	1.8	mg/L	37	Standard
	K	39	61.7	23.4	**3.3332**	0.848	25.4	mg/L	3	Standard
	Ca	43	358.3	8.2	**95.7805**	7.778	8.1	mg/L	43	Standard
	Fe	54	102510.5	1.2	**50.9585**	0.468	0.9	mg/L	262	Standard
	Fe	57	29458.6	2.1	**52.0775**	0.329	0.6	mg/L	65	Standard
>	**Sc-1**	45	26237.7	1.5				mg/L	26874	Standard
	Cl	35	575929.2	0.5				ug/L	141022	Standard
	Kr	83	230.3	8.9				ug/L	75	Standard
	Br	81	6548.1	6.5				ug/L	2810	Standard
	P	31	536600.1	0.3				ug/L	458976	Standard
	S	34	83569.9	1.6				ug/L	103378	Standard
	Sr	88	841.7	14.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	31115.6	0.4				mg/L	10	Standard
	Ho-1	165	20752.5	1.1				mg/L	8	Standard
	Er	166	18331.1	1.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.701	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.061	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	93.073
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.478
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311077202
Sample Date/Time: Monday, November 18, 2013 15:54:33
Number of Replicates: 3
Autosampler Position: 327
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	291679.5	1.4				ug/L	269614	Standard
	Be	9	8695.8	0.5	**2.6925**	0.027	1.0	ug/L	23	Standard
	Al	27	31333755.7	2.0	**138.1105**	4.488	3.2	ug/L	1170	Standard
	Sc	45	27171.0	2.1				ug/L	26874	Standard
	Ti	47	143.3	3.3	**0.4815**	0.022	4.6	ug/L	25	Standard
	V	51	3740.8	3.2	**0.3597**	0.021	5.9	ug/L	1686	Standard
	Cr	52	9419.9	1.9	**0.7169**	0.035	4.9	ug/L	6098	Standard
	Cr	53	1321.7	5.5	**0.9367**	0.069	7.4	ug/L	193	Standard
	Mn	55	57938580.8	0.9	**4395.5707**	75.856	1.7	ug/L	1232	Standard
	Co	59	694785.2	0.8	**75.8375**	1.079	1.4	ug/L	106	Standard
	Ni	60	209226.4	0.3	**77.6561**	0.611	0.8	ug/L	556	Standard
	Cu	65	9874.9	0.2	**3.7732**	0.027	0.7	ug/L	124	Standard
	Zn	66	300682.1	7.1	**213.0097**	13.719	6.4	ug/L	196	Standard
>	**Ge**	72	466512.4	0.9				ug/L	473313	Standard
	As	75	5247.5	1.7	**3.8882**	0.086	2.2	ug/L	-286	Standard
	Se	82	-13.7	118.1	**0.2080**	0.110	52.9	ug/L	-33	Standard
	Se-1	77	149.0	8.8	**0.6400**	0.127	19.9	ug/L	86	Standard
>	**Ga**	71	1236.7	4.3				mg/L	35	Standard
	Rb	85	187113.3	0.5				ug/L	13	Standard
	Y	89	940665.4	0.8				ug/L	439493	Standard
>	**Rh**	103	170.0	8.8				ug/L	5	Standard
	Mo	98	171.5	2.1	**0.0313**	0.001	2.8	ug/L	10	Standard
	Ag	107	70.7	4.3	**-0.0037**	0.001	14.9	ug/L	53	Standard
	Cd	111	1252.2	1.5	**0.6015**	0.012	2.0	mg/L	1	Standard
	Cd	114	3143.4	1.3	**0.5900**	0.005	0.8	ug/L	32	Standard
>	**In**	115	467243.2	0.5				ug/L	494305	Standard
	Sn	118	71.7	8.2	**0.0015**	0.005	307.9	ug/L	53	Standard
	Sb	123	120.5	9.8	**0.0466**	0.005	10.6	ug/L	7	Standard
	Ba	135	8772.9	0.6	**5.0533**	0.052	1.0	ug/L	11	Standard
	Ce	140	466582.8	1.5				ug/L	10	Standard
>	**Tb**	159	525407.0	1.2				ug/L	538219	Standard
	Ho	165	22326.4	1.1				ug/L	8	Standard
	Tl	203	380.3	1.7	**0.0675**	0.001	1.1	ug/L	1	Standard
	Tl	205	515.0	10.1	**0.0757**	0.008	10.7	ug/L	3	Standard
	Pb	206	1196.4	1.3	**0.4690**	0.010	2.1	ug/L	80	Standard
	Pb	207	1002.0	1.6	**0.4428**	0.008	1.9	ug/L	73	Standard
	Pb	208	2195.1	2.6	**0.3867**	0.009	2.3	ug/L	190	Standard
	U	238	1230.7	1.5	**0.3636**	0.007	1.8	ug/L	0	Standard
>	**Bi**	209	251849.3	0.6				ug/L	276439	Standard

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	Na	23	321.7	10.3	**81.6533**	9.947	12.2	mg/L	2	Standard
	Mg	24	3255.4	4.5	**3.2551**	0.199	6.1	mg/L	37	Standard
	K	39	43.3	29.0	**2.1338**	0.695	32.6	mg/L	3	Standard
	Ca	43	380.0	9.9	**98.2742**	9.021	9.2	mg/L	43	Standard
	Fe	54	104521.5	2.8	**50.1710**	1.105	2.2	mg/L	262	Standard
	Fe	57	30308.6	1.1	**51.7513**	0.764	1.5	mg/L	65	Standard
>	**Sc-1**	45	27171.0	2.1				mg/L	26874	Standard
	Cl	35	597884.2	0.3				ug/L	141022	Standard
	Kr	83	216.0	7.5				ug/L	75	Standard
	Br	81	6838.2	3.7				ug/L	2810	Standard
	P	31	552328.9	0.6				ug/L	458976	Standard
	S	34	82830.8	0.5				ug/L	103378	Standard
	Sr	88	788.4	4.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	33282.9	1.4				mg/L	10	Standard
	Ho-1	165	22326.4	1.1				mg/L	8	Standard
	Er	166	20230.2	1.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.184	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.563	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		94.525
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		91.105
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

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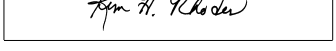

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 15:57:39
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	272311.1	2.2				ug/L	269614	Standard
	Be	9	151210.8	0.6	**50.4407**	0.842	1.7	ug/L	23	Standard
	Al	27	9734707.1	0.9	**45.9605**	1.288	2.8	ug/L	1170	Standard
	Sc	45	25825.3	2.0				ug/L	26874	Standard
	Ti	47	26531.5	0.6	**102.5710**	0.371	0.4	ug/L	25	Standard
	V	51	338134.5	3.1	**46.6157**	1.254	2.7	ug/L	1686	Standard
	Cr	52	332751.2	1.8	**46.8586**	0.632	1.3	ug/L	6098	Standard
	Cr	53	63625.0	2.0	**49.3486**	0.846	1.7	ug/L	193	Standard
	Mn	55	683217.7	1.2	**49.4048**	0.468	0.9	ug/L	1232	Standard
	Co	59	466490.1	2.0	**48.6630**	0.781	1.6	ug/L	106	Standard
	Ni	60	139029.3	1.1	**49.2521**	0.613	1.2	ug/L	556	Standard
	Cu	65	135648.2	0.6	**50.2725**	0.439	0.9	ug/L	124	Standard
	Zn	66	74802.5	0.3	**50.5179**	0.198	0.4	ug/L	196	Standard
>	Ge	72	488026.8	0.4				ug/L	473313	Standard
	As	75	74726.5	0.7	**50.2510**	0.289	0.6	ug/L	-286	Standard
	Se	82	7572.1	1.1	**49.7415**	0.460	0.9	ug/L	-33	Standard
	Se-1	77	5705.1	1.5	**50.3005**	0.617	1.2	ug/L	86	Standard
>	Ga	71	61.7	16.9				mg/L	35	Standard
	Rb	85	1190.0	3.4				ug/L	13	Standard
	Y	89	453037.0	0.9				ug/L	439493	Standard
>	Rh	103	25.0	20.0				ug/L	5	Standard
	Mo	98	421136.4	1.4	**105.2208**	1.183	1.1	ug/L	10	Standard
	Ag	107	361390.2	0.5	**53.3371**	0.322	0.6	ug/L	53	Standard
	Cd	111	113378.1	1.1	**50.4304**	0.147	0.3	mg/L	1	Standard
	Cd	114	287355.5	1.9	**50.4948**	0.420	0.8	ug/L	32	Standard
>	In	115	506966.7	1.1				ug/L	494305	Standard
	Sn	118	68109.1	0.9	**50.6903**	0.117	0.2	ug/L	53	Standard
	Sb	123	134892.9	0.3	**49.6013**	0.407	0.8	ug/L	7	Standard
	Ba	135	95306.2	0.9	**50.7082**	0.103	0.2	ug/L	11	Standard
	Ce	140	73.3	37.6				ug/L	10	Standard
>	Tb	159	525090.6	0.5				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	294270.5	0.3	**50.0398**	0.045	0.1	ug/L	1	Standard
	Tl	205	385696.0	0.9	**53.1157**	0.363	0.7	ug/L	3	Standard
	Pb	206	134817.2	0.5	**53.4297**	0.175	0.3	ug/L	80	Standard
	Pb	207	120844.7	0.3	**53.1629**	0.134	0.3	ug/L	73	Standard
	Pb	208	269183.3	0.2	**48.3838**	0.040	0.1	ug/L	190	Standard
	U	238	172364.5	0.4	**47.5364**	0.234	0.5	ug/L	0	Standard
>	Bi	209	271152.1	0.2				ug/L	276439	Standard

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	Na	23	26.7	47.2	**6.7596**	3.482	51.5	mg/L	2	Standard
	Mg	24	4879.1	6.3	**5.1452**	0.234	4.6	mg/L	37	Standard
	K	39	83.3	12.5	**4.7170**	0.537	11.4	mg/L	3	Standard
	Ca	43	33.3	22.9	**-0.2632**	2.459	934.4	mg/L	43	Standard
	Fe	54	11503.9	2.8	**5.6974**	0.105	1.8	mg/L	262	Standard
	Fe	57	3342.0	1.4	**5.9198**	0.198	3.4	mg/L	65	Standard
>	**Sc-1**	45	25825.3	2.0				mg/L	26874	Standard
	Cl	35	145847.5	2.1				ug/L	141022	Standard
	Kr	83	125.0	3.7				ug/L	75	Standard
	Br	81	2786.9	2.0				ug/L	2810	Standard
	P	31	460722.7	2.5				ug/L	458976	Standard
	S	34	109039.3	1.0				ug/L	103378	Standard
	Sr	88	36.7	20.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.8	101.7				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.000	
	Be	9	100.881		
	Al	27	91.921		
	Sc	45			
	Ti	47	102.571		
	V	51	93.231		
	Cr	52	93.717		
	Cr	53			
	Mn	55	98.810		
	Co	59	97.326		
	Ni	60	98.504		
	Cu	65	100.545		
	Zn	66	101.036		
>	Ge	72		103.109	
	As	75	100.502		
	Se	82	99.483		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	105.221		
|	Ag	107	106.674		
|	Cd	111	100.861		
|	Cd	114			
|>	In	115		102.561	
|	Sn	118	101.381		
|	Sb	123	99.203		
⌊	Ba	135	101.416		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	100.080		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.768		
|	U	238	95.073		
⌊>	Bi	209		98.087	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 16:00:44
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	277383.0	1.4				ug/L	269614	Standard
	Be	9	55.0	48.1	**0.0019**	0.008	446.9	ug/L	23	Standard
	Al	27	9362.4	122.0	**0.0365**	0.054	146.5	ug/L	1170	Standard
	Sc	45	26237.7	2.5				ug/L	26874	Standard
	Ti	47	11.7	17.8	**-0.0534**	0.008	14.8	ug/L	25	Standard
	V	51	1223.0	7.8	**-0.0119**	0.012	103.7	ug/L	1686	Standard
	Cr	52	5420.4	37.9	**0.0862**	0.291	337.2	ug/L	6098	Standard
	Cr	53	188.3	46.8	**0.0079**	0.068	864.7	ug/L	193	Standard
	Mn	55	100388.7	161.1	**7.1397**	11.719	164.1	ug/L	1232	Standard
	Co	59	1273.5	145.5	**0.1176**	0.193	164.3	ug/L	106	Standard
	Ni	60	434.7	28.2	**-0.0463**	0.043	92.5	ug/L	556	Standard
	Cu	65	172.0	2.5	**0.0042**	0.002	37.3	ug/L	124	Standard
	Zn	66	13874.3	153.5	**9.2106**	14.425	156.6	ug/L	196	Standard
>	**Ge**	72	485509.3	0.6				ug/L	473313	Standard
	As	75	-346.9	8.6	**-0.0215**	0.019	88.5	ug/L	-286	Standard
	Se	82	-67.3	4.5	**-0.1406**	0.019	13.2	ug/L	-33	Standard
	Se-1	77	80.7	11.8	**-0.0297**	0.084	281.4	ug/L	86	Standard
>	**Ga**	71	33.3	45.8				mg/L	35	Standard
	Rb	85	65.0	93.6				ug/L	13	Standard
	Y	89	452650.5	0.7				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	101.8	29.3	**0.0101**	0.007	73.9	ug/L	10	Standard
	Ag	107	105.0	38.1	**0.0004**	0.006	1398.6	ug/L	53	Standard
	Cd	111	26.2	53.8	**0.0087**	0.006	71.6	mg/L	1	Standard
	Cd	114	53.1	65.9	**-0.0002**	0.006	3600.5	ug/L	32	Standard
>	**In**	115	510158.9	0.2				ug/L	494305	Standard
	Sn	118	70.0	21.0	**-0.0046**	0.011	234.5	ug/L	53	Standard
	Sb	123	322.8	25.6	**0.1165**	0.030	26.0	ug/L	7	Standard
	Ba	135	34.3	64.6	**0.0056**	0.012	208.2	ug/L	11	Standard
	Ce	140	103.3	54.0				ug/L	10	Standard
>	**Tb**	159	527834.4	1.4				ug/L	538219	Standard
	Ho	165	13.3	57.3				ug/L	8	Standard
	Tl	203	52.7	44.8	**0.0067**	0.004	58.1	ug/L	1	Standard
	Tl	205	95.0	68.4	**0.0123**	0.009	72.8	ug/L	3	Standard
	Pb	206	108.3	0.5	**0.0007**	0.001	80.2	ug/L	80	Standard
	Pb	207	95.3	5.3	**0.0095**	0.002	19.8	ug/L	73	Standard
	Pb	208	219.7	9.4	**0.0008**	0.004	508.0	ug/L	190	Standard
	U	238	28.0	49.6	**0.0058**	0.004	66.3	ug/L	0	Standard
>	**Bi**	209	273639.7	0.9				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	43.3	26.6	**0.0135**	0.013	93.9	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2825**	0.171	60.5	mg/L	3	Standard
	Ca	43	25.0	40.0	**-2.8763**	3.144	109.3	mg/L	43	Standard
	Fe	54	372.5	23.1	**0.0599**	0.048	80.2	mg/L	262	Standard
	Fe	57	83.3	6.9	**0.0509**	0.009	18.4	mg/L	65	Standard
>	**Sc-1**	45	26237.7	2.5				mg/L	26874	Standard
	Cl	35	148511.7	1.0				ug/L	141022	Standard
	Kr	83	119.3	1.7				ug/L	75	Standard
	Br	81	2920.3	3.0				ug/L	2810	Standard
	P	31	455082.1	2.3				ug/L	458976	Standard
	S	34	107760.4	2.8				ug/L	103378	Standard
	Sr	88	30.0	44.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	179.8				mg/L	10	Standard
	Ho-1	165	13.3	57.3				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.881	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.577	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.207
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.987
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Mn	55	

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: PBW 48 WG452939-03
Sample Date/Time: Monday, November 18, 2013 16:12:49
Number of Replicates: 3
Autosampler Position: 205
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	246116.7	2.1				ug/L	269614	Standard
	Be	9	30.0	50.0	**-0.0049**	0.006	117.4	ug/L	23	Standard
	Al	27	993.4	5.4	**-0.0019**	0.000	19.1	ug/L	1170	Standard
	Sc	45	23264.5	2.7				ug/L	26874	Standard
	Ti	47	10.3	20.1	**-0.0533**	0.009	16.1	ug/L	25	Standard
	V	51	981.0	4.5	**-0.0275**	0.004	13.9	ug/L	1686	Standard
	Cr	52	3561.8	3.6	**-0.1121**	0.014	12.6	ug/L	6098	Standard
	Cr	53	108.3	14.8	**-0.0432**	0.015	34.4	ug/L	193	Standard
	Mn	55	794.4	36.6	**-0.0738**	0.023	30.7	ug/L	1232	Standard
	Co	59	76.3	7.9	**-0.0063**	0.001	9.9	ug/L	106	Standard
	Ni	60	443.0	6.1	**-0.0220**	0.015	65.9	ug/L	556	Standard
	Cu	65	55.0	7.3	**-0.0367**	0.001	4.1	ug/L	124	Standard
	Zn	66	1176.7	22.4	**0.7099**	0.193	27.2	ug/L	196	Standard
>	Ge	72	428674.5	2.0				ug/L	473313	Standard
	As	75	-292.3	12.9	**-0.0108**	0.027	253.9	ug/L	-286	Standard
	Se	82	-52.0	5.3	**-0.0856**	0.018	21.1	ug/L	-33	Standard
	Se-1	77	69.3	2.2	**-0.0488**	0.013	26.9	ug/L	86	Standard
>	Ga	71	33.3	45.8				mg/L	35	Standard
	Rb	85	18.3	56.8				ug/L	13	Standard
	Y	89	388902.1	1.7				ug/L	439493	Standard
>	Rh	103	8.3	34.6				ug/L	5	Standard
	Mo	98	7.4	24.4	**-0.0131**	0.000	3.8	ug/L	10	Standard
	Ag	107	52.7	12.1	**-0.0062**	0.001	17.0	ug/L	53	Standard
	Cd	111	1.0	101.1	**-0.0024**	0.000	20.7	mg/L	1	Standard
	Cd	114	13.8	36.3	**-0.0067**	0.001	15.4	ug/L	32	Standard
>	In	115	447085.2	1.4				ug/L	494305	Standard
	Sn	118	44.0	6.0	**-0.0192**	0.003	13.5	ug/L	53	Standard
	Sb	123	112.2	2.7	**0.0453**	0.001	3.2	ug/L	7	Standard
	Ba	135	5.3	28.6	**-0.0093**	0.001	9.4	ug/L	11	Standard
	Ce	140	10.0	132.3				ug/L	10	Standard
>	Tb	159	468311.2	1.2				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	3.7	68.6	**-0.0015**	0.000	33.3	ug/L	1	Standard
	Tl	205	6.7	114.6	**0.0003**	0.001	353.7	ug/L	3	Standard
	Pb	206	80.3	8.7	**-0.0070**	0.002	34.2	ug/L	80	Standard
	Pb	207	68.7	12.7	**0.0010**	0.004	416.9	ug/L	73	Standard
	Pb	208	162.7	1.3	**-0.0064**	0.001	18.4	ug/L	190	Standard
	U	238	1.0	173.2	**-0.0016**	0.001	32.8	ug/L	0	Standard
>	Bi	209	247718.0	2.3				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	46.7	60.9	**0.0233**	0.033	143.8	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	16.7	34.6	**-4.7378**	1.994	42.1	mg/L	43	Standard
	Fe	54	84.4	36.1	**-0.0789**	0.018	22.6	mg/L	262	Standard
	Fe	57	76.7	16.4	**0.0564**	0.025	43.9	mg/L	65	Standard
>	**Sc-1**	45	23264.5	2.7				mg/L	26874	Standard
	Cl	35	119726.0	2.4				ug/L	141022	Standard
	Kr	83	104.7	2.4				ug/L	75	Standard
	Br	81	2340.2	2.7				ug/L	2810	Standard
	P	31	140452.1	4.4				ug/L	458976	Standard
	S	34	85173.8	1.7				ug/L	103378	Standard
	Sr	88	43.3	40.5				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	179.8				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.285	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.569	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	90.447
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	89.610
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 48 WG452939-03
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Method 6020 - Summary Report

Sample ID: LCSW 48 WG452939-04
Sample Date/Time: Monday, November 18, 2013 16:15:54
Number of Replicates: 3
Autosampler Position: 206
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	282181.2	2.6				ug/L	269614	Standard
	Be	9	75325.1	1.5	**24.2386**	0.337	1.4	ug/L	23	Standard
	Al	27	5894.8	64.3	**0.0200**	0.018	90.5	ug/L	1170	Standard
	Sc	45	26376.3	2.9				ug/L	26874	Standard
	Ti	47	21.7	7.1	**-0.0142**	0.006	42.3	ug/L	25	Standard
	V	51	165184.2	1.5	**22.8701**	0.307	1.3	ug/L	1686	Standard
	Cr	52	165057.9	0.5	**23.0921**	0.250	1.1	ug/L	6098	Standard
	Cr	53	31225.5	3.3	**24.3505**	0.823	3.4	ug/L	193	Standard
	Mn	55	355533.2	6.6	**25.8679**	1.961	7.6	ug/L	1232	Standard
	Co	59	224861.6	0.1	**23.6449**	0.240	1.0	ug/L	106	Standard
	Ni	60	70707.0	1.4	**25.1562**	0.224	0.9	ug/L	556	Standard
	Cu	65	68940.5	0.2	**25.7323**	0.192	0.7	ug/L	124	Standard
	Zn	66	41496.8	3.1	**28.1760**	1.139	4.0	ug/L	196	Standard
>	Ge	72	484034.1	1.0				ug/L	473313	Standard
	As	75	36493.2	0.9	**24.8506**	0.040	0.2	ug/L	-286	Standard
	Se	82	3649.1	0.5	**24.3246**	0.129	0.5	ug/L	-33	Standard
	Se-1	77	2721.9	0.5	**23.8063**	0.216	0.9	ug/L	86	Standard
>	Ga	71	41.7	36.7				mg/L	35	Standard
	Rb	85	58.3	27.6				ug/L	13	Standard
	Y	89	453149.1	1.4				ug/L	439493	Standard
>	Rh	103	16.7	34.6				ug/L	5	Standard
	Mo	98	78.2	67.6	**0.0041**	0.013	320.1	ug/L	10	Standard
	Ag	107	181306.7	0.7	**26.3967**	0.179	0.7	ug/L	53	Standard
	Cd	111	54329.8	0.5	**23.8462**	0.293	1.2	mg/L	1	Standard
	Cd	114	136859.9	0.6	**23.7281**	0.133	0.6	ug/L	32	Standard
>	In	115	513766.0	0.9				ug/L	494305	Standard
	Sn	118	80.7	10.5	**0.0029**	0.006	216.1	ug/L	53	Standard
	Sb	123	67217.9	0.3	**24.3886**	0.221	0.9	ug/L	7	Standard
	Ba	135	46640.0	1.3	**24.4806**	0.314	1.3	ug/L	11	Standard
	Ce	140	103.3	5.6				ug/L	10	Standard
>	Tb	159	526924.9	1.1				ug/L	538219	Standard
	Ho	165	6.7	114.6				ug/L	8	Standard
	Tl	203	145939.2	0.6	**24.3931**	0.126	0.5	ug/L	1	Standard
	Tl	205	194752.1	1.2	**26.3660**	0.530	2.0	ug/L	3	Standard
	Pb	206	67896.5	0.6	**26.4293**	0.138	0.5	ug/L	80	Standard
	Pb	207	58604.8	0.9	**25.3259**	0.142	0.6	ug/L	73	Standard
	Pb	208	135434.2	1.3	**23.9089**	0.189	0.8	ug/L	190	Standard
	U	238	84083.0	0.4	**22.7945**	0.258	1.1	ug/L	0	Standard
>	Bi	209	275851.9	0.8				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0056**	0.750	13473.9	mg/L	2	Standard
	Mg	24	50.0	34.6	**0.0202**	0.018	91.3	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	13.3	57.3	**-6.3551**	2.352	37.0	mg/L	43	Standard
	Fe	54	310.8	18.2	**0.0273**	0.025	92.3	mg/L	262	Standard
	Fe	57	88.3	18.2	**0.0594**	0.032	53.7	mg/L	65	Standard
>	**Sc-1**	45	26376.3	2.9				mg/L	26874	Standard
	Cl	35	131803.0	2.6				ug/L	141022	Standard
	Kr	83	126.0	5.7				ug/L	75	Standard
	Br	81	4390.6	0.2				ug/L	2810	Standard
	P	31	447468.1	0.3				ug/L	458976	Standard
	S	34	86338.6	0.4				ug/L	103378	Standard
	Sr	88	40.0	25.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	9.7	103.3				mg/L	10	Standard
	Ho-1	165	6.7	114.6				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.661	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.265	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.937
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.788
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW 48 WG452939-04
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Method 6020 - Summary Report

Sample ID: L1311063038 WG452939-01
Sample Date/Time: Monday, November 18, 2013 16:18:59
Number of Replicates: 3
Autosampler Position: 207
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	256511.5	0.5				ug/L	269614	Standard
	Be	9	683.3	9.7	**0.2260**	0.025	10.9	ug/L	23	Standard
	Al	27	12018308.4	0.3	**60.2165**	0.462	0.8	ug/L	1170	Standard
	Sc	45	23136.0	2.1				ug/L	26874	Standard
	Ti	47	41.0	21.7	**0.0799**	0.038	48.1	ug/L	25	Standard
	V	51	868.6	8.6	**-0.0465**	0.013	27.0	ug/L	1686	Standard
	Cr	52	3244.3	3.5	**-0.1690**	0.020	11.9	ug/L	6098	Standard
	Cr	53	206.7	15.6	**0.0420**	0.029	67.9	ug/L	193	Standard
	Mn	55	72541759.0	1.5	**5927.3668**	74.350	1.3	ug/L	1232	Standard
	Co	59	782609.3	2.7	**92.0051**	2.137	2.3	ug/L	106	Standard
	Ni	60	296787.6	1.9	**118.7499**	1.854	1.6	ug/L	556	Standard
	Cu	65	1130276.2	2.3	**472.4814**	8.721	1.8	ug/L	124	Standard
	Zn	66	89569745.3	1.7	**68426.1192**	956.827	1.4	ug/L	196	Standard
>	**Ge**	72	433104.1	0.6				ug/L	473313	Standard
	As	75	1595.4	2.1	**1.4158**	0.029	2.1	ug/L	-286	Standard
	Se	82	80.6	3.1	**0.8939**	0.022	2.4	ug/L	-33	Standard
	Se-1	77	123.7	7.0	**0.4919**	0.089	18.1	ug/L	86	Standard
>	**Ga**	71	603.3	6.0				mg/L	35	Standard
	Rb	85	4882.5	4.4				ug/L	13	Standard
	Y	89	494803.5	1.1				ug/L	439493	Standard
>	**Rh**	103	106.7	15.1				ug/L	5	Standard
	Mo	98	95.3	6.8	**0.0119**	0.002	15.1	ug/L	10	Standard
	Ag	107	353.0	5.4	**0.0442**	0.003	7.5	ug/L	53	Standard
	Cd	111	64692.1	2.1	**32.6976**	0.546	1.7	mg/L	1	Standard
	Cd	114	160875.0	1.1	**32.1235**	0.246	0.8	ug/L	32	Standard
>	**In**	115	446114.4	0.5				ug/L	494305	Standard
	Sn	118	49.7	7.1	**-0.0143**	0.003	22.0	ug/L	53	Standard
	Sb	123	79.8	11.4	**0.0319**	0.004	12.4	ug/L	7	Standard
	Ba	135	1304.1	3.4	**0.7761**	0.023	3.0	ug/L	11	Standard
	Ce	140	109203.9	1.5				ug/L	10	Standard
>	**Tb**	159	489408.9	0.8				ug/L	538219	Standard
	Ho	165	4063.9	3.1				ug/L	8	Standard
	Tl	203	67.0	9.3	**0.0100**	0.001	11.6	ug/L	1	Standard
	Tl	205	68.3	54.9	**0.0093**	0.005	58.6	ug/L	3	Standard
	Pb	206	578.7	2.5	**0.2032**	0.007	3.5	ug/L	80	Standard
	Pb	207	497.3	6.0	**0.2017**	0.015	7.5	ug/L	73	Standard
	Pb	208	1148.0	6.2	**0.1821**	0.013	7.0	ug/L	190	Standard
	U	238	92.0	8.7	**0.0252**	0.002	9.5	ug/L	0	Standard
>	**Bi**	209	253933.3	0.4				ug/L	276439	Standard

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	Na	23	58.3	13.1	**17.0433**	2.452	14.4	mg/L	2	Standard
	Mg	24	4807.4	4.8	**5.6641**	0.210	3.7	mg/L	37	Standard
	K	39	15.0	33.3	**0.6472**	0.357	55.2	mg/L	3	Standard
	Ca	43	78.3	47.0	**16.0354**	12.453	77.7	mg/L	43	Standard
	Fe	54	12916.6	3.5	**7.1748**	0.282	3.9	mg/L	262	Standard
	Fe	57	3560.4	3.3	**7.0565**	0.258	3.7	mg/L	65	Standard
>	**Sc-1**	45	23136.0	2.1				mg/L	26874	Standard
	Cl	35	297956.3	1.6				ug/L	141022	Standard
	Kr	83	414.0	5.1				ug/L	75	Standard
	Br	81	3083.6	7.5				ug/L	2810	Standard
	P	31	213201.3	1.2				ug/L	458976	Standard
	S	34	79761.1	2.5				ug/L	103378	Standard
	Sr	88	141.7	10.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6444.8	2.6				mg/L	10	Standard
	Ho-1	165	4063.9	3.1				mg/L	8	Standard
	Er	166	3617.1	1.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		95.140	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.505	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		90.251
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		91.859
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311063038S WG452939-05
Sample Date/Time: Monday, November 18, 2013 16:22:04
Number of Replicates: 3
Autosampler Position: 208
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	256550.5	0.9				ug/L	269614	Standard
	Be	9	16005.1	1.3	**5.6514**	0.073	1.3	ug/L	23	Standard
	Al	27	12129031.8	1.7	**60.7597**	0.749	1.2	ug/L	1170	Standard
	Sc	45	23149.3	1.2				ug/L	26874	Standard
	Ti	47	38.3	14.4	**0.0684**	0.025	36.1	ug/L	25	Standard
	V	51	32451.5	1.7	**4.8764**	0.055	1.1	ug/L	1686	Standard
	Cr	52	32991.2	0.2	**4.6186**	0.048	1.0	ug/L	6098	Standard
	Cr	53	5972.8	2.8	**5.0938**	0.170	3.3	ug/L	193	Standard
	Mn	55	72720459.6	1.4	**5939.1473**	81.275	1.4	ug/L	1232	Standard
	Co	59	827796.5	2.5	**97.2742**	2.336	2.4	ug/L	106	Standard
	Ni	60	308978.1	1.5	**123.5795**	1.820	1.5	ug/L	556	Standard
	Cu	65	1139009.5	0.9	**475.9180**	2.764	0.6	ug/L	124	Standard
	Zn	66	88807956.4	0.9	**67811.8263**	549.008	0.8	ug/L	196	Standard
>	Ge	72	433323.6	0.8				ug/L	473313	Standard
	As	75	9350.9	1.7	**7.2648**	0.167	2.3	ug/L	-286	Standard
	Se	82	937.5	2.2	**7.1945**	0.112	1.6	ug/L	-33	Standard
	Se-1	77	729.7	2.2	**6.5995**	0.160	2.4	ug/L	86	Standard
>	Ga	71	763.4	2.0				mg/L	35	Standard
	Rb	85	4884.1	3.6				ug/L	13	Standard
	Y	89	492442.7	1.7				ug/L	439493	Standard
>	Rh	103	123.3	16.4				ug/L	5	Standard
	Mo	98	90.5	11.4	**0.0104**	0.003	28.1	ug/L	10	Standard
	Ag	107	33608.6	0.1	**5.6030**	0.052	0.9	ug/L	53	Standard
	Cd	111	75234.3	1.9	**37.8880**	0.414	1.1	mg/L	1	Standard
	Cd	114	186588.6	0.5	**37.1254**	0.127	0.3	ug/L	32	Standard
>	In	115	447739.7	0.9				ug/L	494305	Standard
	Sn	118	60.0	8.3	**-0.0058**	0.004	67.9	ug/L	53	Standard
	Sb	123	13656.0	1.1	**5.6839**	0.022	0.4	ug/L	7	Standard
	Ba	135	10164.4	1.4	**6.1127**	0.107	1.7	ug/L	11	Standard
	Ce	140	109042.7	0.8				ug/L	10	Standard
>	Tb	159	485633.8	1.0				ug/L	538219	Standard
	Ho	165	4058.9	2.4				ug/L	8	Standard
	Tl	203	29599.6	1.4	**5.3347**	0.040	0.8	ug/L	1	Standard
	Tl	205	37884.0	1.6	**5.5308**	0.052	0.9	ug/L	3	Standard
	Pb	206	14154.6	0.7	**5.9107**	0.054	0.9	ug/L	80	Standard
	Pb	207	12182.2	1.1	**5.6537**	0.043	0.8	ug/L	73	Standard
	Pb	208	28128.8	0.9	**5.3266**	0.049	0.9	ug/L	190	Standard
	U	238	17528.1	1.8	**5.1237**	0.071	1.4	ug/L	0	Standard
>	Bi	209	255737.6	0.7				ug/L	276439	Standard

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	Na	23	51.7	36.6	**15.0322**	5.704	37.9	mg/L	2	Standard
	Mg	24	4727.4	3.4	**5.5674**	0.205	3.7	mg/L	37	Standard
	K	39	15.0	57.7	**0.6398**	0.585	91.4	mg/L	3	Standard
	Ca	43	76.7	32.8	**15.4454**	8.627	55.9	mg/L	43	Standard
	Fe	54	13152.5	0.7	**7.3025**	0.083	1.1	mg/L	262	Standard
	Fe	57	3820.5	5.8	**7.5725**	0.428	5.6	mg/L	65	Standard
>	**Sc-1**	45	23149.3	1.2				mg/L	26874	Standard
	Cl	35	299636.1	1.3				ug/L	141022	Standard
	Kr	83	410.7	11.1				ug/L	75	Standard
	Br	81	2893.6	8.0				ug/L	2810	Standard
	P	31	215539.1	1.1				ug/L	458976	Standard
	S	34	81376.3	0.7				ug/L	103378	Standard
	Sr	88	196.7	28.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	6507.6	3.8				mg/L	10	Standard
	Ho-1	165	4058.9	2.4				mg/L	8	Standard
	Er	166	3700.5	4.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		95.155	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.551	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		90.580
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		92.511
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311063038SD WG452939-06
Sample Date/Time: Monday, November 18, 2013 16:25:08
Number of Replicates: 3
Autosampler Position: 209
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	260105.1	3.2				ug/L	269614	Standard
	Be	9	14944.0	1.6	**5.2072**	0.204	3.9	ug/L	23	Standard
	Al	27	11633954.5	0.9	**57.5114**	1.331	2.3	ug/L	1170	Standard
	Sc	45	23526.6	0.4				ug/L	26874	Standard
	Ti	47	40.7	12.1	**0.0777**	0.020	26.1	ug/L	25	Standard
	V	51	30438.1	1.7	**4.5465**	0.095	2.1	ug/L	1686	Standard
	Cr	52	31528.8	0.7	**4.3656**	0.078	1.8	ug/L	6098	Standard
	Cr	53	5335.9	1.9	**4.5193**	0.108	2.4	ug/L	193	Standard
	Mn	55	70690822.6	0.6	**5753.1251**	20.216	0.4	ug/L	1232	Standard
	Co	59	803411.8	0.2	**94.0811**	0.753	0.8	ug/L	106	Standard
	Ni	60	302923.7	0.8	**120.7386**	2.117	1.8	ug/L	556	Standard
	Cu	65	1107180.4	0.4	**461.0274**	5.875	1.3	ug/L	124	Standard
	Zn	66	87020320.5	1.0	**66215.5809**	764.247	1.2	ug/L	196	Standard
>	Ge	72	434849.5	0.9				ug/L	473313	Standard
	As	75	8817.1	1.0	**6.8381**	0.040	0.6	ug/L	-286	Standard
	Se	82	912.6	0.9	**6.9884**	0.041	0.6	ug/L	-33	Standard
	Se-1	77	678.0	0.1	**6.0550**	0.068	1.1	ug/L	86	Standard
>	Ga	71	763.4	13.4				mg/L	35	Standard
	Rb	85	4749.1	3.5				ug/L	13	Standard
	Y	89	494134.7	1.7				ug/L	439493	Standard
>	Rh	103	138.3	11.6				ug/L	5	Standard
	Mo	98	88.7	8.7	**0.0097**	0.002	22.9	ug/L	10	Standard
	Ag	107	32024.5	0.9	**5.2854**	0.038	0.7	ug/L	53	Standard
	Cd	111	72656.7	1.1	**36.2323**	0.286	0.8	mg/L	1	Standard
	Cd	114	181409.7	1.0	**35.7395**	0.270	0.8	ug/L	32	Standard
>	In	115	452174.6	0.3				ug/L	494305	Standard
	Sn	118	60.0	15.3	**-0.0063**	0.008	119.9	ug/L	53	Standard
	Sb	123	13010.8	0.6	**5.3623**	0.047	0.9	ug/L	7	Standard
	Ba	135	9765.8	1.1	**5.8143**	0.047	0.8	ug/L	11	Standard
	Ce	140	106659.1	1.1				ug/L	10	Standard
>	Tb	159	492641.2	0.8				ug/L	538219	Standard
	Ho	165	3918.8	5.3				ug/L	8	Standard
	Tl	203	27973.1	1.7	**5.0067**	0.071	1.4	ug/L	1	Standard
	Tl	205	35546.7	1.2	**5.1539**	0.053	1.0	ug/L	3	Standard
	Pb	206	13400.6	0.6	**5.5546**	0.013	0.2	ug/L	80	Standard
	Pb	207	11469.7	0.2	**5.2843**	0.021	0.4	ug/L	73	Standard
	Pb	208	26470.0	0.6	**4.9754**	0.019	0.4	ug/L	190	Standard
	U	238	16662.2	1.5	**4.8370**	0.077	1.6	ug/L	0	Standard
>	Bi	209	257512.9	0.4				ug/L	276439	Standard

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	Na	23	43.3	17.6	**12.3185**	2.206	17.9	mg/L	2	Standard
	Mg	24	4490.7	3.2	**5.2010**	0.158	3.0	mg/L	37	Standard
	K	39	15.0	33.3	**0.6284**	0.341	54.2	mg/L	3	Standard
	Ca	43	91.7	3.1	**19.9568**	0.920	4.6	mg/L	43	Standard
	Fe	54	12268.6	1.3	**6.6918**	0.104	1.6	mg/L	262	Standard
	Fe	57	3757.1	2.0	**7.3245**	0.120	1.6	mg/L	65	Standard
>	**Sc-1**	45	23526.6	0.4				mg/L	26874	Standard
	Cl	35	293918.2	0.8				ug/L	141022	Standard
	Kr	83	417.0	4.6				ug/L	75	Standard
	Br	81	2866.9	4.4				ug/L	2810	Standard
	P	31	214786.7	0.6				ug/L	458976	Standard
	S	34	81094.8	1.0				ug/L	103378	Standard
	Sr	88	180.0	24.2				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	6496.8	6.0				mg/L	10	Standard
	Ho-1	165	3918.8	5.3				mg/L	8	Standard
	Er	166	3647.1	9.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.473	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.874	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		91.477
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		93.154
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

L1311087401

Sample ID: ~~L1311084701~~

Sample Date/Time: Monday, November 18, 2013 16:28:13
Number of Replicates: 3
Autosampler Position: 210
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	271258.8	1.8				ug/L	269614	Standard
	Be	9	43.3	46.6	**-0.0015**	0.007	457.9	ug/L	23	Standard
	Al	27	6564522.5	0.6	**31.1065**	0.674	2.2	ug/L	1170	Standard
	Sc	45	26194.3	1.0				ug/L	26874	Standard
	Ti	47	91.0	14.3	**0.2626**	0.051	19.2	ug/L	25	Standard
	V	51	1549.9	2.2	**0.0382**	0.005	11.8	ug/L	1686	Standard
	Cr	52	4799.8	1.3	**0.0127**	0.009	72.6	ug/L	6098	Standard
	Cr	53	435.0	17.2	**0.2082**	0.060	28.8	ug/L	193	Standard
	Mn	55	30324828.4	0.4	**2257.4186**	11.058	0.5	ug/L	1232	Standard
	Co	59	5137.5	1.5	**0.5350**	0.008	1.6	ug/L	106	Standard
	Ni	60	3685.8	0.4	**1.1443**	0.003	0.3	ug/L	556	Standard
	Cu	65	1108.0	8.7	**0.3621**	0.036	9.8	ug/L	124	Standard
	Zn	66	8300.7	26.6	**5.5772**	1.516	27.2	ug/L	196	Standard
>	**Ge**	72	475382.5	0.3				ug/L	473313	Standard
	As	75	6659.0	1.8	**4.7897**	0.091	1.9	ug/L	-286	Standard
	Se	82	3.0	1045.0	**0.3212**	0.209	65.1	ug/L	-33	Standard
	Se-1	77	109.3	3.5	**0.2493**	0.038	15.1	ug/L	86	Standard
>	**Ga**	71	316.7	0.9				mg/L	35	Standard
	Rb	85	3377.0	5.5				ug/L	13	Standard
	Y	89	433267.4	2.0				ug/L	439493	Standard
>	**Rh**	103	186.7	29.5				ug/L	5	Standard
	Mo	98	313548.6	0.7	**80.6845**	0.376	0.5	ug/L	10	Standard
	Ag	107	66.7	7.1	**-0.0048**	0.001	15.1	ug/L	53	Standard
	Cd	111	-74.6	27.6	**-0.0371**	0.009	25.5	mg/L	1	Standard
	Cd	114	459.5	2.8	**0.0737**	0.002	2.9	ug/L	32	Standard
>	**In**	115	492205.3	0.2				ug/L	494305	Standard
	Sn	118	80.0	11.3	**0.0050**	0.007	140.2	ug/L	53	Standard
	Sb	123	199.8	0.8	**0.0742**	0.001	1.0	ug/L	7	Standard
	Ba	135	63921.6	0.8	**35.0254**	0.254	0.7	ug/L	11	Standard
	Ce	140	851.7	12.6				ug/L	10	Standard
>	**Tb**	159	515351.4	1.9				ug/L	538219	Standard
	Ho	165	15.0	33.3				ug/L	8	Standard
	Tl	203	94.0	4.3	**0.0142**	0.001	4.8	ug/L	1	Standard
	Tl	205	143.3	5.3	**0.0194**	0.001	5.4	ug/L	3	Standard
	Pb	206	131.7	3.1	**0.0113**	0.002	14.8	ug/L	80	Standard
	Pb	207	101.0	6.0	**0.0133**	0.003	20.8	ug/L	73	Standard
	Pb	208	252.7	6.5	**0.0079**	0.003	38.0	ug/L	190	Standard
	U	238	243.0	7.2	**0.0665**	0.005	7.5	ug/L	0	Standard
>	**Bi**	209	266009.8	0.1				ug/L	276439	Standard

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	Na	23	75.0	20.0	**19.3765**	3.836	19.8	mg/L	2	Standard
	Mg	24	9949.9	2.3	**10.3839**	0.320	3.1	mg/L	37	Standard
	K	39	31.7	9.1	**1.5325**	0.194	12.6	mg/L	3	Standard
	Ca	43	116.7	13.8	**24.2787**	4.620	19.0	mg/L	43	Standard
	Fe	54	1925.8	5.2	**0.8348**	0.048	5.8	mg/L	262	Standard
	Fe	57	681.7	5.6	**1.1130**	0.076	6.8	mg/L	65	Standard
>	**Sc-1**	45	26194.3	1.0				mg/L	26874	Standard
	Cl	35	169739.6	1.3				ug/L	141022	Standard
	Kr	83	151.3	12.6				ug/L	75	Standard
	Br	81	15004.1	4.4				ug/L	2810	Standard
	P	31	480575.3	3.6				ug/L	458976	Standard
	S	34	90464.3	0.2				ug/L	103378	Standard
	Sr	88	828.4	3.9				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	45.2	44.2				mg/L	10	Standard
	Ho-1	165	15.0	33.3				mg/L	8	Standard
	Er	166	30.0	57.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.610	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.437	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85	L1311087401		

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.575
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.227
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

L1311087402

Sample ID: ~~L1311084702~~

Sample Date/Time: Monday, November 18, 2013 16:31:46
Number of Replicates: 3
Autosampler Position: 211
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	273560.3	2.6				ug/L	269614	Standard
	Be	9	36.7	7.9	**-0.0039**	0.001	33.5	ug/L	23	Standard
	Al	27	8808089.0	0.8	**41.3976**	1.137	2.7	ug/L	1170	Standard
	Sc	45	26182.6	1.7				ug/L	26874	Standard
	Ti	47	77.3	10.8	**0.2085**	0.034	16.4	ug/L	25	Standard
	V	51	2214.3	5.0	**0.1326**	0.014	10.3	ug/L	1686	Standard
	Cr	52	5398.0	3.3	**0.1004**	0.021	20.7	ug/L	6098	Standard
	Cr	53	546.7	10.8	**0.2973**	0.047	15.7	ug/L	193	Standard
	Mn	55	15071989.6	1.6	**1121.9432**	19.908	1.8	ug/L	1232	Standard
	Co	59	2302.5	2.5	**0.2313**	0.005	2.0	ug/L	106	Standard
	Ni	60	5357.6	2.6	**1.7549**	0.057	3.2	ug/L	556	Standard
	Cu	65	1203.0	12.3	**0.3986**	0.060	15.0	ug/L	124	Standard
	Zn	66	9472.5	78.6	**6.4184**	5.244	81.7	ug/L	196	Standard
>	**Ge**	72	475379.9	0.7				ug/L	473313	Standard
	As	75	73289.7	0.9	**50.5941**	0.179	0.4	ug/L	-286	Standard
	Se	82	11.6	100.8	**0.3785**	0.078	20.6	ug/L	-33	Standard
	Se-1	77	118.0	7.2	**0.3290**	0.081	24.7	ug/L	86	Standard
>	**Ga**	71	2508.5	2.3				mg/L	35	Standard
	Rb	85	24493.1	2.4				ug/L	13	Standard
	Y	89	440602.0	1.4				ug/L	439493	Standard
>	**Rh**	103	356.7	15.0				ug/L	5	Standard
	Mo	98	409377.0	0.5	**106.3104**	0.609	0.6	ug/L	10	Standard
	Ag	107	62.0	17.4	**-0.0055**	0.002	30.3	ug/L	53	Standard
	Cd	111	-70.8	28.0	**-0.0357**	0.009	25.9	mg/L	1	Standard
	Cd	114	801.3	9.0	**0.1369**	0.013	9.4	ug/L	32	Standard
>	**In**	115	487757.0	0.2				ug/L	494305	Standard
	Sn	118	137.0	13.4	**0.0497**	0.014	28.4	ug/L	53	Standard
	Sb	123	429.1	6.8	**0.1625**	0.011	6.9	ug/L	7	Standard
	Ba	135	71302.4	0.1	**39.4276**	0.017	0.0	ug/L	11	Standard
	Ce	140	388.3	11.0				ug/L	10	Standard
>	**Tb**	159	513352.2	1.0				ug/L	538219	Standard
	Ho	165	18.3	15.7				ug/L	8	Standard
	Tl	203	145.7	7.6	**0.0235**	0.002	7.9	ug/L	1	Standard
	Tl	205	205.0	19.0	**0.0286**	0.006	19.3	ug/L	3	Standard
	Pb	206	116.0	5.2	**0.0058**	0.002	42.9	ug/L	80	Standard
	Pb	207	103.3	4.5	**0.0151**	0.002	12.8	ug/L	73	Standard
	Pb	208	255.3	2.6	**0.0092**	0.001	12.9	ug/L	190	Standard
	U	238	10180.8	1.5	**2.9086**	0.032	1.1	ug/L	0	Standard
>	**Bi**	209	261586.1	0.4				ug/L	276439	Standard

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	Na	23	123.3	20.8	**32.1850**	6.727	20.9	mg/L	2	Standard
	Mg	24	11024.0	3.3	**11.5152**	0.484	4.2	mg/L	37	Standard
	K	39	20.0	25.0	**0.8299**	0.319	38.5	mg/L	3	Standard
	Ca	43	176.7	9.1	**42.0936**	4.231	10.1	mg/L	43	Standard
	Fe	54	735.7	1.4	**0.2410**	0.010	4.1	mg/L	262	Standard
	Fe	57	450.0	4.8	**0.7020**	0.036	5.2	mg/L	65	Standard
>	**Sc-1**	45	26182.6	1.7				mg/L	26874	Standard
	Cl	35	179250.8	0.6				ug/L	141022	Standard
	Kr	83	121.0	4.4				ug/L	75	Standard
	Br	81	12515.2	6.1				ug/L	2810	Standard
	P	31	475071.8	2.1				ug/L	458976	Standard
	S	34	88576.8	4.0				ug/L	103378	Standard
	Sr	88	1463.4	5.3				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	393.3	17.3				mg/L	0	Standard
	Dy	164	41.9	13.8				mg/L	10	Standard
	Ho-1	165	18.3	15.7				mg/L	8	Standard
	Er	166	30.0	0.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.464	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.437	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.675
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.627
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Mo 98 Upper, S, EEE	Mo	98	

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Method 6020 - Summary Report

L1311087403

Sample ID: ~~L1311084703~~
Sample Date/Time: Monday, November 18, 2013 16:34:51
Number of Replicates: 3
Autosampler Position: 212
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	289240.3	1.9				ug/L	269614	Standard
	Be	9	40.0	12.5	**-0.0035**	0.002	44.9	ug/L	23	Standard
	Al	27	10434171.4	1.0	**46.3668**	0.543	1.2	ug/L	1170	Standard
	Sc	45	26221.0	4.7				ug/L	26874	Standard
	Ti	47	127.7	26.1	**0.4039**	0.132	32.6	ug/L	25	Standard
	V	51	2113.4	5.5	**0.1155**	0.012	10.8	ug/L	1686	Standard
	Cr	52	4886.5	1.1	**0.0190**	0.011	57.1	ug/L	6098	Standard
	Cr	53	946.7	10.9	**0.6105**	0.088	14.4	ug/L	193	Standard
	Mn	55	1839570.1	1.3	**135.5761**	2.327	1.7	ug/L	1232	Standard
	Co	59	40160.5	0.5	**4.2484**	0.062	1.5	ug/L	106	Standard
	Ni	60	9089.7	1.5	**3.0875**	0.037	1.2	ug/L	556	Standard
	Cu	65	7624.6	4.0	**2.8183**	0.121	4.3	ug/L	124	Standard
	Zn	66	10066.0	66.8	**6.7494**	4.653	68.9	ug/L	196	Standard
>	**Ge**	72	479765.1	1.7				ug/L	473313	Standard
	As	75	223.0	31.7	**0.3643**	0.050	13.8	ug/L	-286	Standard
	Se	82	65.8	9.6	**0.7380**	0.048	6.5	ug/L	-33	Standard
	Se-1	77	188.3	11.4	**0.9618**	0.225	23.4	ug/L	86	Standard
>	**Ga**	71	145.0	19.2				mg/L	35	Standard
	Rb	85	67466.6	2.4				ug/L	13	Standard
	Y	89	438884.4	3.0				ug/L	439493	Standard
>	**Rh**	103	198.3	15.2				ug/L	5	Standard
	Mo	98	99242.8	1.2	**25.6436**	0.190	0.7	ug/L	10	Standard
	Ag	107	92.0	36.2	**-0.0009**	0.005	570.6	ug/L	53	Standard
	Cd	111	58.5	134.1	**0.0241**	0.036	150.6	mg/L	1	Standard
	Cd	114	531.4	45.4	**0.0873**	0.044	50.9	ug/L	32	Standard
>	**In**	115	489978.9	0.9				ug/L	494305	Standard
	Sn	118	571.0	5.6	**0.3840**	0.029	7.5	ug/L	53	Standard
	Sb	123	1081.0	1.5	**0.4098**	0.009	2.1	ug/L	7	Standard
	Ba	135	46234.1	0.6	**25.4459**	0.109	0.4	ug/L	11	Standard
	Ce	140	446.7	25.4				ug/L	10	Standard
>	**Tb**	159	517301.6	1.1				ug/L	538219	Standard
	Ho	165	35.0	28.6				ug/L	8	Standard
	Tl	203	263.0	20.2	**0.0441**	0.009	20.6	ug/L	1	Standard
	Tl	205	351.7	1.6	**0.0494**	0.001	1.5	ug/L	3	Standard
	Pb	206	356.0	4.9	**0.1042**	0.007	6.8	ug/L	80	Standard
	Pb	207	286.7	8.2	**0.0985**	0.010	10.6	ug/L	73	Standard
	Pb	208	672.0	4.3	**0.0867**	0.006	6.5	ug/L	190	Standard
	U	238	1727.8	2.1	**0.4912**	0.011	2.3	ug/L	0	Standard
>	**Bi**	209	262048.0	0.5				ug/L	276439	Standard

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	Na	23	126.7	39.7	**32.7834**	11.991	36.6	mg/L	2	Standard
	Mg	24	10415.2	0.7	**10.8734**	0.502	4.6	mg/L	37	Standard
	K	39	45.0	33.3	**2.3211**	0.820	35.3	mg/L	3	Standard
	Ca	43	161.7	8.9	**37.7836**	6.280	16.6	mg/L	43	Standard
	Fe	54	642.5	12.9	**0.1956**	0.056	28.6	mg/L	262	Standard
	Fe	57	336.7	3.7	**0.5001**	0.005	1.1	mg/L	65	Standard
>	**Sc-1**	45	26221.0	4.7				mg/L	26874	Standard
	Cl	35	171508.0	1.4				ug/L	141022	Standard
	Kr	83	116.7	4.7				ug/L	75	Standard
	Br	81	11167.4	1.3				ug/L	2810	Standard
	P	31	511435.6	2.0				ug/L	458976	Standard
	S	34	77115.7	0.3				ug/L	103378	Standard
	Sr	88	1036.7	2.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	43.3				mg/L	0	Standard
	Dy	164	38.2	49.2				mg/L	10	Standard
	Ho-1	165	35.0	28.6				mg/L	8	Standard
	Er	166	36.7	78.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		107.279	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.363	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Sample ID: ~~L1311084703~~

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.125
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.794
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

L1311087403

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Method 6020 - Summary Report

L1311087403PS

Sample ID: L~~1311084703PS~~ WG453208-01

Sample Date/Time: Monday, November 18, 2013 16:37:56
Number of Replicates: 3
Autosampler Position: 213
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	295066.2	2.1				ug/L	269614	Standard
	Be	9	151889.3	1.4	**46.7524**	0.489	1.0	ug/L	23	Standard
	Al	27	11330356.1	1.5	**49.3557**	0.678	1.4	ug/L	1170	Standard
	Sc	45	27885.6	2.0				ug/L	26874	Standard
	Ti	47	141.3	8.5	**0.4300**	0.053	12.3	ug/L	25	Standard
	V	51	346655.9	0.4	**46.1671**	0.605	1.3	ug/L	1686	Standard
	Cr	52	342405.8	0.4	**46.5797**	0.945	2.0	ug/L	6098	Standard
	Cr	53	63521.2	1.3	**47.5884**	0.789	1.7	ug/L	193	Standard
	Mn	55	3079541.2	0.5	**215.5951**	3.862	1.8	ug/L	1232	Standard
	Co	59	504445.9	0.4	**50.8389**	0.965	1.9	ug/L	106	Standard
	Ni	60	143676.0	0.4	**49.1662**	0.628	1.3	ug/L	556	Standard
	Cu	65	133449.5	1.4	**47.7664**	0.150	0.3	ug/L	124	Standard
	Zn	66	74304.3	4.1	**48.4475**	1.259	2.6	ug/L	196	Standard
>	**Ge**	72	505281.2	1.7				ug/L	473313	Standard
	As	75	72834.2	1.2	**47.3212**	0.272	0.6	ug/L	-286	Standard
	Se	82	7250.9	1.3	**46.0299**	0.331	0.7	ug/L	-33	Standard
	Se-1	77	5401.6	0.8	**45.9478**	1.108	2.4	ug/L	86	Standard
>	**Ga**	71	160.0	20.5				mg/L	35	Standard
	Rb	85	74409.0	2.5				ug/L	13	Standard
	Y	89	460144.6	0.8				ug/L	439493	Standard
>	**Rh**	103	266.7	13.3				ug/L	5	Standard
	Mo	98	109434.1	1.2	**26.8329**	0.240	0.9	ug/L	10	Standard
	Ag	107	340108.7	0.7	**49.2812**	0.425	0.9	ug/L	53	Standard
	Cd	111	107103.9	0.8	**46.7727**	0.097	0.2	mg/L	1	Standard
	Cd	114	264171.6	0.8	**45.5787**	0.308	0.7	ug/L	32	Standard
>	**In**	115	516357.9	0.6				ug/L	494305	Standard
	Sn	118	311.3	1.9	**0.1714**	0.006	3.3	ug/L	53	Standard
	Sb	123	130754.2	0.5	**47.2025**	0.116	0.2	ug/L	7	Standard
	Ba	135	141422.6	0.4	**73.8816**	0.172	0.2	ug/L	11	Standard
	Ce	140	363.3	4.2				ug/L	10	Standard
>	**Tb**	159	535129.9	0.9				ug/L	538219	Standard
	Ho	165	33.3	8.7				ug/L	8	Standard
	Tl	203	288796.1	0.8	**48.6414**	0.366	0.8	ug/L	1	Standard
	Tl	205	377814.5	1.0	**51.5369**	0.697	1.4	ug/L	3	Standard
	Pb	206	132757.8	0.7	**52.1115**	0.279	0.5	ug/L	80	Standard
	Pb	207	118683.7	0.2	**51.7146**	0.204	0.4	ug/L	73	Standard
	Pb	208	263631.7	0.9	**46.9334**	0.335	0.7	ug/L	190	Standard
	U	238	174935.5	1.3	**47.7871**	0.731	1.5	ug/L	0	Standard
>	**Bi**	209	273758.7	0.4				ug/L	276439	Standard

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	Na	23	105.0	24.7	**25.7254**	6.862	26.7	mg/L	2	Standard
	Mg	24	11175.8	3.0	**10.9609**	0.484	4.4	mg/L	37	Standard
	K	39	33.3	52.7	**1.5045**	0.991	65.9	mg/L	3	Standard
	Ca	43	140.0	15.6	**28.6281**	5.284	18.5	mg/L	43	Standard
	Fe	54	877.7	2.1	**0.2851**	0.005	1.9	mg/L	262	Standard
	Fe	57	371.7	18.3	**0.5230**	0.115	22.0	mg/L	65	Standard
>	**Sc-1**	45	27885.6	2.0				mg/L	26874	Standard
	Cl	35	181549.3	1.0				ug/L	141022	Standard
	Kr	83	119.0	1.7				ug/L	75	Standard
	Br	81	11531.1	1.2				ug/L	2810	Standard
	P	31	695106.2	1.5				ug/L	458976	Standard
	S	34	80850.2	1.2				ug/L	103378	Standard
	Sr	88	1136.7	3.4				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	86.6				mg/L	0	Standard
	Dy	164	24.4	123.6				mg/L	10	Standard
	Ho-1	165	33.3	8.7				mg/L	8	Standard
	Er	166	46.7	32.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		109.440	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.754	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.461
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.030
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

L1311087403SDL

Sample ID: ~~L1311084703SDL~~ WG453208-02

Sample Date/Time: Monday, November 18, 2013 16:41:00
Number of Replicates: 3
Autosampler Position: 214
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	250631.2	1.4				ug/L	269614	Standard
	Be	9	58.3	49.5	**0.0051**	0.010	206.1	ug/L	23	Standard
	Al	27	1796347.5	1.1	**9.2071**	0.204	2.2	ug/L	1170	Standard
	Sc	45	23361.3	0.8				ug/L	26874	Standard
	Ti	47	36.0	0.0	**0.0566**	0.000	0.3	ug/L	25	Standard
	V	51	1315.2	1.8	**0.0210**	0.004	18.4	ug/L	1686	Standard
	Cr	52	4263.3	1.4	**-0.0119**	0.010	84.9	ug/L	6098	Standard
	Cr	53	371.7	4.7	**0.1833**	0.015	8.3	ug/L	193	Standard
	Mn	55	336822.3	1.2	**27.1058**	0.314	1.2	ug/L	1232	Standard
	Co	59	7241.1	0.5	**0.8275**	0.004	0.5	ug/L	106	Standard
	Ni	60	1980.8	1.4	**0.5843**	0.012	2.0	ug/L	556	Standard
	Cu	65	943.7	2.8	**0.3307**	0.011	3.3	ug/L	124	Standard
	Zn	66	3386.7	1.5	**2.3639**	0.038	1.6	ug/L	196	Standard
>	**Ge**	72	437518.7	0.1				ug/L	473313	Standard
	As	75	-163.6	17.8	**0.0897**	0.022	24.1	ug/L	-286	Standard
	Se	82	-17.2	53.6	**0.1755**	0.067	38.2	ug/L	-33	Standard
	Se-1	77	105.0	5.8	**0.2929**	0.061	20.9	ug/L	86	Standard
>	**Ga**	71	73.3	32.2				mg/L	35	Standard
	Rb	85	12458.5	1.3				ug/L	13	Standard
	Y	89	394400.6	0.3				ug/L	439493	Standard
>	**Rh**	103	51.7	20.1				ug/L	5	Standard
	Mo	98	17504.6	0.5	**4.8361**	0.055	1.1	ug/L	10	Standard
	Ag	107	80.0	14.4	**-0.0019**	0.002	100.4	ug/L	53	Standard
	Cd	111	6.9	157.8	**0.0005**	0.005	1070.5	mg/L	1	Standard
	Cd	114	72.1	24.9	**0.0046**	0.003	74.5	ug/L	32	Standard
>	**In**	115	457122.1	0.8				ug/L	494305	Standard
	Sn	118	106.3	4.6	**0.0315**	0.004	14.1	ug/L	53	Standard
	Sb	123	412.3	5.8	**0.1666**	0.009	5.2	ug/L	7	Standard
	Ba	135	8568.1	0.7	**5.0446**	0.048	1.0	ug/L	11	Standard
	Ce	140	71.7	26.4				ug/L	10	Standard
>	**Tb**	159	478424.7	0.9				ug/L	538219	Standard
	Ho	165	6.7	86.6				ug/L	8	Standard
	Tl	203	84.3	24.0	**0.0129**	0.004	27.5	ug/L	1	Standard
	Tl	205	113.3	31.3	**0.0157**	0.005	32.1	ug/L	3	Standard
	Pb	206	139.3	6.7	**0.0162**	0.004	23.9	ug/L	80	Standard
	Pb	207	106.7	6.6	**0.0173**	0.003	19.2	ug/L	73	Standard
	Pb	208	286.7	10.0	**0.0158**	0.005	32.1	ug/L	190	Standard
	U	238	339.3	3.2	**0.0965**	0.004	3.7	ug/L	0	Standard
>	**Bi**	209	258058.8	0.7				ug/L	276439	Standard

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	Na	23	20.0	66.1	**5.4910**	3.885	70.8	mg/L	2	Standard
	Mg	24	1975.1	3.0	**2.2865**	0.086	3.7	mg/L	37	Standard
	K	39	10.0	100.0	**0.2928**	0.674	230.3	mg/L	3	Standard
	Ca	43	40.0	37.5	**2.9814**	4.960	166.4	mg/L	43	Standard
	Fe	54	169.6	5.9	**-0.0316**	0.006	17.9	mg/L	262	Standard
	Fe	57	120.0	4.2	**0.1419**	0.008	5.8	mg/L	65	Standard
>	**Sc-1**	45	23361.3	0.8				mg/L	26874	Standard
	Cl	35	139630.5	1.4				ug/L	141022	Standard
	Kr	83	91.0	8.6				ug/L	75	Standard
	Br	81	3850.5	7.9				ug/L	2810	Standard
	P	31	215639.3	2.6				ug/L	458976	Standard
	S	34	89332.8	3.3				ug/L	103378	Standard
	Sr	88	235.0	5.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.2	103.5				mg/L	10	Standard
	Ho-1	165	6.7	86.6				mg/L	8	Standard
	Er	166	16.7	69.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.959	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.437	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.478
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	93.351
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Sample ID: ~~L1311084703SD~~L WG453208-02
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 16:44:07
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	271363.8	1.4				ug/L	269614	Standard
	Be	9	151534.0	0.8	**50.7208**	0.952	1.9	ug/L	23	Standard
	Al	27	9507712.5	0.9	**45.0308**	0.480	1.1	ug/L	1170	Standard
	Sc	45	25947.2	0.3				ug/L	26874	Standard
	Ti	47	25743.2	0.3	**101.4339**	0.196	0.2	ug/L	25	Standard
	V	51	334459.0	1.1	**47.0011**	0.680	1.4	ug/L	1686	Standard
	Cr	52	328348.2	1.0	**47.1317**	0.368	0.8	ug/L	6098	Standard
	Cr	53	61144.8	0.6	**48.3355**	0.469	1.0	ug/L	193	Standard
	Mn	55	671175.7	1.5	**49.4692**	0.929	1.9	ug/L	1232	Standard
	Co	59	450321.4	0.9	**47.8807**	0.499	1.0	ug/L	106	Standard
	Ni	60	136144.6	0.2	**49.1558**	0.265	0.5	ug/L	556	Standard
	Cu	65	132390.6	0.7	**50.0057**	0.176	0.4	ug/L	124	Standard
	Zn	66	73565.5	1.8	**50.6387**	1.057	2.1	ug/L	196	Standard
>	Ge	72	478832.3	0.4				ug/L	473313	Standard
	As	75	73599.6	0.8	**50.4430**	0.373	0.7	ug/L	-286	Standard
	Se	82	7502.2	1.0	**50.2253**	0.376	0.7	ug/L	-33	Standard
	Se-1	77	5526.0	0.8	**49.6483**	0.229	0.5	ug/L	86	Standard
>	Ga	71	70.0	21.4				mg/L	35	Standard
	Rb	85	1156.7	9.3				ug/L	13	Standard
	Y	89	433832.2	1.2				ug/L	439493	Standard
>	Rh	103	20.0	50.0				ug/L	5	Standard
	Mo	98	413127.5	0.3	**105.5209**	0.312	0.3	ug/L	10	Standard
	Ag	107	350839.5	0.5	**52.9320**	0.105	0.2	ug/L	53	Standard
	Cd	111	110444.7	0.7	**50.2213**	0.352	0.7	mg/L	1	Standard
	Cd	114	281621.5	1.0	**50.5936**	0.459	0.9	ug/L	32	Standard
>	In	115	495909.5	0.4				ug/L	494305	Standard
	Sn	118	66462.5	1.2	**50.5673**	0.618	1.2	ug/L	53	Standard
	Sb	123	131216.4	0.3	**49.3232**	0.319	0.6	ug/L	7	Standard
	Ba	135	91720.5	1.0	**49.8890**	0.629	1.3	ug/L	11	Standard
	Ce	140	46.7	89.9				ug/L	10	Standard
>	Tb	159	508855.5	0.4				ug/L	538219	Standard
	Ho	165	3.3	173.2				ug/L	8	Standard
	Tl	203	286630.5	0.2	**49.3821**	0.142	0.3	ug/L	1	Standard
	Tl	205	379456.5	1.0	**52.9449**	0.596	1.1	ug/L	3	Standard
	Pb	206	130534.9	0.7	**52.4129**	0.376	0.7	ug/L	80	Standard
	Pb	207	117910.7	0.8	**52.5545**	0.435	0.8	ug/L	73	Standard
	Pb	208	264977.7	0.2	**48.2546**	0.146	0.3	ug/L	190	Standard
	U	238	171387.6	0.3	**47.8888**	0.179	0.4	ug/L	0	Standard
>	Bi	209	267630.3	0.1				ug/L	276439	Standard

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	Na	23	16.7	69.3	**4.0175**	3.076	76.6	mg/L	2	Standard
	Mg	24	4912.5	3.0	**5.1584**	0.139	2.7	mg/L	37	Standard
	K	39	78.3	41.5	**4.3911**	1.971	44.9	mg/L	3	Standard
	Ca	43	38.3	27.2	**1.1541**	3.102	268.8	mg/L	43	Standard
	Fe	54	11275.2	2.4	**5.5553**	0.151	2.7	mg/L	262	Standard
	Fe	57	3278.7	5.8	**5.7755**	0.338	5.9	mg/L	65	Standard
>	**Sc-1**	45	25947.2	0.3				mg/L	26874	Standard
	Cl	35	154250.6	0.7				ug/L	141022	Standard
	Kr	83	107.3	19.2				ug/L	75	Standard
	Br	81	2636.9	9.9				ug/L	2810	Standard
	P	31	508459.7	4.1				ug/L	458976	Standard
	S	34	126702.6	0.7				ug/L	103378	Standard
	Sr	88	46.7	27.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	173.2				mg/L	10	Standard
	Ho-1	165	3.3	173.2				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.649	
	Be	9	101.442		
	Al	27	90.062		
	Sc	45			
	Ti	47	101.434		
	V	51	94.002		
	Cr	52	94.263		
	Cr	53			
	Mn	55	98.938		
	Co	59	95.761		
	Ni	60	98.312		
	Cu	65	100.011		
	Zn	66	101.277		
>	Ge	72		101.166	
	As	75	100.886		
	Se	82	100.451		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	105.521		
|	Ag	107	105.864		
|	Cd	111	100.443		
|	Cd	114			
|>	In	115		100.325	
|	Sn	118	101.135		
|	Sb	123	98.646		
⌊	Ba	135	99.778		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	98.764		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.509		
|	U	238	95.778		
⌊>	Bi	209		96.813	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 16:47:12
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	266327.2	1.3				ug/L	269614	Standard
	Be	9	55.0	41.7	**0.0027**	0.008	292.1	ug/L	23	Standard
	Al	27	1136.7	14.1	**-0.0016**	0.001	46.5	ug/L	1170	Standard
	Sc	45	25790.3	3.2				ug/L	26874	Standard
	Ti	47	14.3	10.7	**-0.0403**	0.006	15.3	ug/L	25	Standard
	V	51	1114.4	3.6	**-0.0193**	0.007	35.6	ug/L	1686	Standard
	Cr	52	3939.5	2.6	**-0.0978**	0.020	20.2	ug/L	6098	Standard
	Cr	53	158.3	21.5	**-0.0094**	0.028	295.2	ug/L	193	Standard
	Mn	55	1392.7	39.6	**-0.0327**	0.042	129.4	ug/L	1232	Standard
	Co	59	82.7	9.1	**-0.0063**	0.001	13.8	ug/L	106	Standard
	Ni	60	432.3	3.5	**-0.0395**	0.004	11.2	ug/L	556	Standard
	Cu	65	128.3	18.3	**-0.0097**	0.009	97.7	ug/L	124	Standard
	Zn	66	730.4	13.2	**0.3247**	0.068	20.8	ug/L	196	Standard
>	Ge	72	462856.0	0.7				ug/L	473313	Standard
	As	75	-357.5	4.7	**-0.0405**	0.011	26.3	ug/L	-286	Standard
	Se	82	-67.1	1.2	**-0.1610**	0.008	4.9	ug/L	-33	Standard
	Se-1	77	80.3	5.0	**0.0026**	0.033	1260.8	ug/L	86	Standard
>	Ga	71	40.0	37.5				mg/L	35	Standard
	Rb	85	15.0	33.3				ug/L	13	Standard
	Y	89	429502.5	0.3				ug/L	439493	Standard
>	Rh	103	6.7	43.3				ug/L	5	Standard
	Mo	98	77.6	61.8	**0.0050**	0.012	243.8	ug/L	10	Standard
	Ag	107	74.7	24.3	**-0.0034**	0.003	75.6	ug/L	53	Standard
	Cd	111	11.9	159.9	**0.0026**	0.009	339.2	mg/L	1	Standard
	Cd	114	40.3	75.5	**-0.0021**	0.005	261.4	ug/L	32	Standard
>	In	115	483155.0	1.9				ug/L	494305	Standard
	Sn	118	52.7	13.5	**-0.0153**	0.005	31.3	ug/L	53	Standard
	Sb	123	268.0	26.6	**0.1016**	0.026	25.3	ug/L	7	Standard
	Ba	135	12.3	103.3	**-0.0057**	0.007	122.2	ug/L	11	Standard
	Ce	140	8.3	34.6				ug/L	10	Standard
>	Tb	159	496051.3	0.6				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	24.3	120.7	**0.0021**	0.005	244.9	ug/L	1	Standard
	Tl	205	21.7	70.5	**0.0023**	0.002	90.3	ug/L	3	Standard
	Pb	206	87.3	21.3	**-0.0064**	0.008	119.4	ug/L	80	Standard
	Pb	207	75.0	20.5	**0.0017**	0.007	404.4	ug/L	73	Standard
	Pb	208	174.3	5.9	**-0.0063**	0.002	34.2	ug/L	190	Standard
	U	238	10.3	39.1	**0.0010**	0.001	107.9	ug/L	0	Standard
>	Bi	209	265170.8	1.2				ug/L	276439	Standard

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Lynn H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	36.7	7.9	**0.0071**	0.003	36.9	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	13.3	57.3	**-6.2659**	2.413	38.5	mg/L	43	Standard
	Fe	54	280.4	3.9	**0.0158**	0.008	51.8	mg/L	262	Standard
	Fe	57	66.7	18.9	**0.0239**	0.027	111.5	mg/L	65	Standard
>	**Sc-1**	45	25790.3	3.2				mg/L	26874	Standard
	Cl	35	148836.2	1.7				ug/L	141022	Standard
	Kr	83	117.7	1.8				ug/L	75	Standard
	Br	81	2883.6	7.0				ug/L	2810	Standard
	P	31	461957.0	2.1				ug/L	458976	Standard
	S	34	117317.6	2.1				ug/L	103378	Standard
	Sr	88	31.7	39.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		98.781	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.791	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.744
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.924
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311063032
Sample Date/Time: Monday, November 18, 2013 16:50:18
Number of Replicates: 3
Autosampler Position: 215
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	241111.7	0.7				ug/L	269614	Standard
	Be	9	25.0	34.6	**-0.0067**	0.003	47.8	ug/L	23	Standard
	Al	27	174330.7	1.6	**0.9223**	0.019	2.0	ug/L	1170	Standard
	Sc	45	23032.5	2.8				ug/L	26874	Standard
	Ti	47	21.3	11.8	**-0.0046**	0.010	223.7	ug/L	25	Standard
	V	51	1028.5	3.3	**-0.0196**	0.003	17.4	ug/L	1686	Standard
	Cr	52	3529.4	4.0	**-0.1160**	0.019	16.3	ug/L	6098	Standard
	Cr	53	176.7	5.9	**0.0176**	0.009	50.4	ug/L	193	Standard
	Mn	55	19843.8	124.8	**1.4887**	2.019	135.6	ug/L	1232	Standard
	Co	59	348.3	99.4	**0.0258**	0.041	157.0	ug/L	106	Standard
	Ni	60	653.7	4.6	**0.0636**	0.010	16.0	ug/L	556	Standard
	Cu	65	326.7	11.7	**0.0785**	0.017	22.3	ug/L	124	Standard
	Zn	66	4426.2	64.9	**3.2419**	2.270	70.0	ug/L	196	Standard
>	**Ge**	72	427721.7	1.2				ug/L	473313	Standard
	As	75	-229.2	12.5	**0.0366**	0.024	65.5	ug/L	-286	Standard
	Se	82	-41.8	10.4	**-0.0103**	0.033	316.4	ug/L	-33	Standard
	Se-1	77	73.3	6.7	**-0.0068**	0.042	621.2	ug/L	86	Standard
>	**Ga**	71	41.7	38.6				mg/L	35	Standard
	Rb	85	1855.1	9.3				ug/L	13	Standard
	Y	89	388095.3	1.8				ug/L	439493	Standard
>	**Rh**	103	13.3	21.7				ug/L	5	Standard
	Mo	98	588.9	12.7	**0.1538**	0.021	13.9	ug/L	10	Standard
	Ag	107	81.3	42.2	**-0.0012**	0.006	487.2	ug/L	53	Standard
	Cd	111	9.6	49.1	**0.0020**	0.002	119.3	mg/L	1	Standard
	Cd	114	25.2	63.2	**-0.0044**	0.003	74.0	ug/L	32	Standard
>	**In**	115	441425.9	0.1				ug/L	494305	Standard
	Sn	118	53.3	7.8	**-0.0108**	0.004	33.2	ug/L	53	Standard
	Sb	123	127.3	8.3	**0.0523**	0.004	8.5	ug/L	7	Standard
	Ba	135	36668.0	0.5	**22.3988**	0.127	0.6	ug/L	11	Standard
	Ce	140	35.0	57.1				ug/L	10	Standard
>	**Tb**	159	455841.1	1.2				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	22.0	12.0	**0.0020**	0.001	25.4	ug/L	1	Standard
	Tl	205	38.3	60.2	**0.0052**	0.004	68.2	ug/L	3	Standard
	Pb	206	90.0	7.3	**-0.0022**	0.003	140.4	ug/L	80	Standard
	Pb	207	86.0	14.3	**0.0101**	0.006	60.1	ug/L	73	Standard
	Pb	208	204.7	2.3	**0.0026**	0.001	36.7	ug/L	190	Standard
	U	238	105.3	14.7	**0.0305**	0.005	15.5	ug/L	0	Standard
>	**Bi**	209	243612.9	0.3				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0661**	0.855	1293.7	mg/L	2	Standard
	Mg	24	14468.6	3.3	**17.2097**	1.041	6.1	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2628**	0.205	78.0	mg/L	3	Standard
	Ca	43	21.7	26.6	**-2.9890**	2.058	68.9	mg/L	43	Standard
	Fe	54	129.6	13.9	**-0.0528**	0.011	20.3	mg/L	262	Standard
	Fe	57	76.7	21.0	**0.0578**	0.030	52.6	mg/L	65	Standard
>	**Sc-1**	45	23032.5	2.8				mg/L	26874	Standard
	Cl	35	129480.3	1.8				ug/L	141022	Standard
	Kr	83	97.0	5.5				ug/L	75	Standard
	Br	81	3040.3	2.9				ug/L	2810	Standard
	P	31	207563.8	1.2				ug/L	458976	Standard
	S	34	102460.5	3.4				ug/L	103378	Standard
	Sr	88	90.0	5.6				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	13.2	116.4				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.428	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.368	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.302
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	88.125
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311063033
Sample Date/Time: Monday, November 18, 2013 16:59:29
Number of Replicates: 3
Autosampler Position: 216
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	253927.3	2.0				ug/L	269614	Standard
	Be	9	31.7	9.1	**-0.0047**	0.001	24.3	ug/L	23	Standard
	Al	27	7779308.0	3.0	**39.3965**	1.942	4.9	ug/L	1170	Standard
	Sc	45	22995.8	2.9				ug/L	26874	Standard
	Ti	47	29.3	16.8	**0.0299**	0.022	72.8	ug/L	25	Standard
	V	51	1703.1	16.2	**0.0852**	0.044	51.6	ug/L	1686	Standard
	Cr	52	7439.4	45.1	**0.5137**	0.544	106.0	ug/L	6098	Standard
	Cr	53	218.3	38.5	**0.0534**	0.074	139.2	ug/L	193	Standard
	Mn	55	32898.4	154.3	**2.5647**	4.171	162.6	ug/L	1232	Standard
	Co	59	747.4	91.9	**0.0730**	0.081	111.2	ug/L	106	Standard
	Ni	60	3119.0	9.5	**1.0560**	0.125	11.9	ug/L	556	Standard
	Cu	65	2171.8	1.1	**0.8533**	0.014	1.7	ug/L	124	Standard
	Zn	66	176202.7	5.5	**135.1880**	7.749	5.7	ug/L	196	Standard
>	**Ge**	72	430666.0	0.6				ug/L	473313	Standard
	As	75	-213.8	5.0	**0.0497**	0.007	14.5	ug/L	-286	Standard
	Se	82	-24.8	36.9	**0.1179**	0.066	56.4	ug/L	-33	Standard
	Se-1	77	75.3	11.3	**0.0089**	0.088	993.9	ug/L	86	Standard
>	**Ga**	71	36.7	15.7				mg/L	35	Standard
	Rb	85	3417.1	5.6				ug/L	13	Standard
	Y	89	393491.6	1.6				ug/L	439493	Standard
>	**Rh**	103	120.0	29.2				ug/L	5	Standard
	Mo	98	94.2	105.4	**0.0117**	0.028	243.1	ug/L	10	Standard
	Ag	107	103.3	94.5	**0.0024**	0.016	672.5	ug/L	53	Standard
	Cd	111	101.9	65.4	**0.0489**	0.034	69.3	mg/L	1	Standard
	Cd	114	264.6	51.7	**0.0437**	0.027	62.9	ug/L	32	Standard
>	**In**	115	444013.3	1.0				ug/L	494305	Standard
	Sn	118	76.3	49.8	**0.0085**	0.032	379.2	ug/L	53	Standard
	Sb	123	102.9	18.1	**0.0417**	0.008	19.0	ug/L	7	Standard
	Ba	135	1388.4	6.6	**0.8311**	0.056	6.7	ug/L	11	Standard
	Ce	140	733.4	154.9				ug/L	10	Standard
>	**Tb**	159	463738.6	1.0				ug/L	538219	Standard
	Ho	165	20.0	86.6				ug/L	8	Standard
	Tl	203	94.0	156.6	**0.0153**	0.027	178.3	ug/L	1	Standard
	Tl	205	20.0	152.1	**0.0023**	0.005	196.9	ug/L	3	Standard
	Pb	206	148.7	51.0	**0.0227**	0.032	142.2	ug/L	80	Standard
	Pb	207	123.0	24.7	**0.0273**	0.014	51.4	ug/L	73	Standard
	Pb	208	237.7	14.9	**0.0085**	0.007	76.4	ug/L	190	Standard
	U	238	143.3	16.2	**0.0415**	0.007	16.0	ug/L	0	Standard
>	**Bi**	209	246791.1	1.0				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	60.0	14.4	**17.6103**	2.234	12.7	mg/L	2	Standard
	Mg	24	1316.7	3.5	**1.5393**	0.088	5.7	mg/L	37	Standard
	K	39	15.0	33.3	**0.6496**	0.332	51.2	mg/L	3	Standard
	Ca	43	90.0	11.1	**20.0468**	2.553	12.7	mg/L	43	Standard
	Fe	54	122.6	2.7	**-0.0567**	0.003	5.4	mg/L	262	Standard
	Fe	57	163.3	17.9	**0.2340**	0.064	27.4	mg/L	65	Standard
>	**Sc-1**	45	22995.8	2.9				mg/L	26874	Standard
	Cl	35	202831.2	6.6				ug/L	141022	Standard
	Kr	83	96.7	8.8				ug/L	75	Standard
	Br	81	2506.9	9.6				ug/L	2810	Standard
	P	31	212418.8	1.3				ug/L	458976	Standard
	S	34	95034.4	5.7				ug/L	103378	Standard
	Sr	88	388.3	25.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	31.6	122.3				mg/L	10	Standard
	Ho-1	165	20.0	86.6				mg/L	8	Standard
	Er	166	36.7	103.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		94.182	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.990	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		89.826
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.275
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311063034
Sample Date/Time: Monday, November 18, 2013 17:02:34
Number of Replicates: 3
Autosampler Position: 217
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	249047.1	1.5				ug/L	269614	Standard
	Be	9	60.0	52.0	**0.0059**	0.012	199.0	ug/L	23	Standard
	Al	27	7394084.6	1.1	**38.1567**	0.376	1.0	ug/L	1170	Standard
	Sc	45	23373.0	0.7				ug/L	26874	Standard
	Ti	47	22.3	43.5	**-0.0006**	0.043	6805.4	ug/L	25	Standard
	V	51	1857.6	3.1	**0.1096**	0.008	7.4	ug/L	1686	Standard
	Cr	52	6236.6	1.3	**0.3194**	0.015	4.7	ug/L	6098	Standard
	Cr	53	195.0	21.9	**0.0330**	0.039	116.9	ug/L	193	Standard
	Mn	55	1568.8	42.8	**-0.0100**	0.056	556.4	ug/L	1232	Standard
	Co	59	410.7	7.3	**0.0332**	0.003	9.8	ug/L	106	Standard
	Ni	60	3478.4	3.4	**1.2017**	0.051	4.3	ug/L	556	Standard
	Cu	65	2076.1	5.2	**0.8139**	0.048	5.9	ug/L	124	Standard
	Zn	66	172155.0	3.7	**132.1891**	5.253	4.0	ug/L	196	Standard
>	**Ge**	72	430301.2	0.6				ug/L	473313	Standard
	As	75	-269.5	13.4	**0.0071**	0.028	393.7	ug/L	-286	Standard
	Se	82	-41.2	31.7	**-0.0045**	0.098	2191.1	ug/L	-33	Standard
	Se-1	77	86.7	9.6	**0.1245**	0.087	69.7	ug/L	86	Standard
>	**Ga**	71	31.7	24.1				mg/L	35	Standard
	Rb	85	3215.3	2.0				ug/L	13	Standard
	Y	89	385466.8	0.5				ug/L	439493	Standard
>	**Rh**	103	85.0	20.4				ug/L	5	Standard
	Mo	98	35.0	13.6	**-0.0052**	0.001	24.9	ug/L	10	Standard
	Ag	107	57.0	17.3	**-0.0054**	0.002	30.8	ug/L	53	Standard
	Cd	111	79.6	16.2	**0.0375**	0.007	17.4	mg/L	1	Standard
	Cd	114	173.5	26.4	**0.0254**	0.009	36.1	ug/L	32	Standard
>	**In**	115	443989.6	0.6				ug/L	494305	Standard
	Sn	118	57.0	10.5	**-0.0079**	0.005	61.9	ug/L	53	Standard
	Sb	123	72.6	10.7	**0.0290**	0.003	10.7	ug/L	7	Standard
	Ba	135	1298.7	1.8	**0.7766**	0.010	1.2	ug/L	11	Standard
	Ce	140	18.3	41.7				ug/L	10	Standard
>	**Tb**	159	459756.4	0.8				ug/L	538219	Standard
	Ho	165	6.7	86.6				ug/L	8	Standard
	Tl	203	10.3	81.2	**-0.0002**	0.002	763.0	ug/L	1	Standard
	Tl	205	11.7	65.5	**0.0011**	0.001	108.1	ug/L	3	Standard
	Pb	206	121.0	5.2	**0.0107**	0.003	28.4	ug/L	80	Standard
	Pb	207	96.0	10.4	**0.0143**	0.005	36.0	ug/L	73	Standard
	Pb	208	246.0	8.8	**0.0101**	0.004	42.4	ug/L	190	Standard
	U	238	156.7	22.4	**0.0456**	0.011	24.0	ug/L	0	Standard
>	**Bi**	209	247271.5	0.7				ug/L	276439	Standard

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	Na	23	80.0	6.3	**23.2636**	1.356	5.8	mg/L	2	Standard
	Mg	24	1270.1	12.1	**1.4578**	0.178	12.2	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2675**	0.197	73.6	mg/L	3	Standard
	Ca	43	93.3	16.4	**20.7325**	5.289	25.5	mg/L	43	Standard
	Fe	54	132.4	11.6	**-0.0524**	0.008	15.8	mg/L	262	Standard
	Fe	57	180.0	15.5	**0.2613**	0.057	21.9	mg/L	65	Standard
>	**Sc-1**	45	23373.0	0.7				mg/L	26874	Standard
	Cl	35	219696.9	1.4				ug/L	141022	Standard
	Kr	83	108.0	9.4				ug/L	75	Standard
	Br	81	2606.9	3.2				ug/L	2810	Standard
	P	31	225039.9	3.1				ug/L	458976	Standard
	S	34	105645.4	0.2				ug/L	103378	Standard
	Sr	88	381.7	13.1				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.5	177.6				mg/L	10	Standard
	Ho-1	165	6.7	86.6				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.372	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.913	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		89.821
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.449
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311063035
Sample Date/Time: Monday, November 18, 2013 17:05:39
Number of Replicates: 3
Autosampler Position: 218
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	246584.2	2.1				ug/L	269614	Standard
	Be	9	73.3	39.4	**0.0110**	0.011	98.2	ug/L	23	Standard
	Al	27	8904691.8	1.2	**46.4166**	0.578	1.2	ug/L	1170	Standard
	Sc	45	22995.8	1.0				ug/L	26874	Standard
	Ti	47	163.7	9.7	**0.6214**	0.076	12.2	ug/L	25	Standard
	V	51	2578.3	3.0	**0.2235**	0.009	4.0	ug/L	1686	Standard
	Cr	52	6679.5	3.0	**0.3932**	0.023	5.8	ug/L	6098	Standard
	Cr	53	348.3	9.2	**0.1686**	0.026	15.2	ug/L	193	Standard
	Mn	55	17507.8	8.3	**1.3032**	0.107	8.2	ug/L	1232	Standard
	Co	59	1004.4	7.9	**0.1037**	0.009	8.4	ug/L	106	Standard
	Ni	60	4753.1	1.9	**1.7201**	0.049	2.8	ug/L	556	Standard
	Cu	65	2701.9	2.8	**1.0797**	0.041	3.8	ug/L	124	Standard
	Zn	66	271079.9	0.7	**208.6856**	2.545	1.2	ug/L	196	Standard
>	**Ge**	72	429420.9	0.9				ug/L	473313	Standard
	As	75	-229.5	3.4	**0.0372**	0.007	19.7	ug/L	-286	Standard
	Se	82	-32.3	5.5	**0.0608**	0.015	24.5	ug/L	-33	Standard
	Se-1	77	86.3	7.4	**0.1232**	0.072	58.1	ug/L	86	Standard
>	**Ga**	71	240.0	13.7				mg/L	35	Standard
	Rb	85	8337.3	2.6				ug/L	13	Standard
	Y	89	388863.9	1.1				ug/L	439493	Standard
>	**Rh**	103	63.3	29.9				ug/L	5	Standard
	Mo	98	69.1	108.5	**0.0045**	0.021	473.9	ug/L	10	Standard
	Ag	107	113.3	65.5	**0.0041**	0.012	301.5	ug/L	53	Standard
	Cd	111	169.0	1.2	**0.0831**	0.001	1.5	mg/L	1	Standard
	Cd	114	470.2	13.4	**0.0850**	0.013	14.8	ug/L	32	Standard
>	**In**	115	443333.0	0.3				ug/L	494305	Standard
	Sn	118	56.3	8.4	**-0.0084**	0.004	47.0	ug/L	53	Standard
	Sb	123	101.1	2.2	**0.0410**	0.001	2.1	ug/L	7	Standard
	Ba	135	2642.2	0.7	**1.5955**	0.015	1.0	ug/L	11	Standard
	Ce	140	1946.8	1.3				ug/L	10	Standard
>	**Tb**	159	463018.3	2.0				ug/L	538219	Standard
	Ho	165	66.7	4.3				ug/L	8	Standard
	Tl	203	34.7	78.3	**0.0043**	0.005	116.4	ug/L	1	Standard
	Tl	205	36.7	56.8	**0.0049**	0.003	64.3	ug/L	3	Standard
	Pb	206	313.7	3.6	**0.0950**	0.005	5.5	ug/L	80	Standard
	Pb	207	255.3	2.8	**0.0916**	0.004	3.9	ug/L	73	Standard
	Pb	208	574.0	3.9	**0.0752**	0.004	5.4	ug/L	190	Standard
	U	238	511.3	8.1	**0.1533**	0.012	8.0	ug/L	0	Standard
>	**Bi**	209	246454.0	0.7				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	95.0	24.1	**28.1475**	6.718	23.9	mg/L	2	Standard
	Mg	24	1156.7	5.5	**1.3470**	0.070	5.2	mg/L	37	Standard
	K	39	13.3	21.7	**0.5375**	0.207	38.4	mg/L	3	Standard
	Ca	43	111.7	10.3	**27.4370**	4.195	15.3	mg/L	43	Standard
	Fe	54	292.3	12.2	**0.0397**	0.020	49.8	mg/L	262	Standard
	Fe	57	251.7	12.9	**0.4120**	0.068	16.5	mg/L	65	Standard
>	**Sc-1**	45	22995.8	1.0				mg/L	26874	Standard
	Cl	35	231651.4	0.3				ug/L	141022	Standard
	Kr	83	108.0	3.7				ug/L	75	Standard
	Br	81	2653.6	8.1				ug/L	2810	Standard
	P	31	222137.3	4.8				ug/L	458976	Standard
	S	34	104539.4	1.1				ug/L	103378	Standard
	Sr	88	293.3	6.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	99.8	15.6				mg/L	10	Standard
	Ho-1	165	66.7	4.3				mg/L	8	Standard
	Er	166	73.3	31.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.458	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.727	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.688
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.153
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311063036
Sample Date/Time: Monday, November 18, 2013 17:08:44
Number of Replicates: 3
Autosampler Position: 219
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	242585.2	1.5				ug/L	269614	Standard
	Be	9	48.3	15.8	**0.0020**	0.003	129.9	ug/L	23	Standard
	Al	27	8543974.3	1.4	**45.2733**	1.138	2.5	ug/L	1170	Standard
	Sc	45	23553.3	1.5				ug/L	26874	Standard
	Ti	47	28.0	3.6	**0.0255**	0.005	18.5	ug/L	25	Standard
	V	51	1801.8	4.4	**0.1041**	0.011	10.7	ug/L	1686	Standard
	Cr	52	6143.9	1.6	**0.3158**	0.014	4.4	ug/L	6098	Standard
	Cr	53	196.7	20.4	**0.0365**	0.037	100.7	ug/L	193	Standard
	Mn	55	3439.4	2.1	**0.1470**	0.007	4.7	ug/L	1232	Standard
	Co	59	546.3	1.2	**0.0500**	0.001	1.7	ug/L	106	Standard
	Ni	60	4385.6	5.2	**1.5882**	0.095	6.0	ug/L	556	Standard
	Cu	65	2295.5	3.4	**0.9172**	0.032	3.5	ug/L	124	Standard
	Zn	66	256886.4	0.6	**199.6170**	1.297	0.6	ug/L	196	Standard
>	**Ge**	72	425384.5	0.5				ug/L	473313	Standard
	As	75	-212.4	9.3	**0.0486**	0.016	32.9	ug/L	-286	Standard
	Se	82	-18.2	15.3	**0.1645**	0.022	13.1	ug/L	-33	Standard
	Se-1	77	77.0	4.7	**0.0354**	0.041	116.2	ug/L	86	Standard
>	**Ga**	71	33.3	52.7				mg/L	35	Standard
	Rb	85	5511.0	0.2				ug/L	13	Standard
	Y	89	379293.9	0.5				ug/L	439493	Standard
>	**Rh**	103	80.0	10.8				ug/L	5	Standard
	Mo	98	19.4	24.7	**-0.0096**	0.001	14.5	ug/L	10	Standard
	Ag	107	59.0	11.9	**-0.0050**	0.001	24.0	ug/L	53	Standard
	Cd	111	126.3	3.0	**0.0615**	0.002	2.6	mg/L	1	Standard
	Cd	114	373.6	5.3	**0.0658**	0.005	6.9	ug/L	32	Standard
>	**In**	115	442366.8	1.0				ug/L	494305	Standard
	Sn	118	53.3	14.3	**-0.0108**	0.007	64.2	ug/L	53	Standard
	Sb	123	77.8	8.4	**0.0313**	0.003	9.0	ug/L	7	Standard
	Ba	135	1611.4	1.7	**0.9704**	0.025	2.5	ug/L	11	Standard
	Ce	140	151.7	7.6				ug/L	10	Standard
>	**Tb**	159	458775.1	2.6				ug/L	538219	Standard
	Ho	165	25.0	20.0				ug/L	8	Standard
	Tl	203	12.0	33.3	**0.0001**	0.001	700.8	ug/L	1	Standard
	Tl	205	16.7	96.4	**0.0018**	0.002	132.3	ug/L	3	Standard
	Pb	206	110.7	20.3	**0.0064**	0.010	151.4	ug/L	80	Standard
	Pb	207	91.0	22.0	**0.0121**	0.010	79.9	ug/L	73	Standard
	Pb	208	234.7	6.9	**0.0081**	0.003	40.5	ug/L	190	Standard
	U	238	502.7	2.7	**0.1509**	0.004	2.7	ug/L	0	Standard
>	**Bi**	209	246131.4	0.3				ug/L	276439	Standard

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	Na	23	91.7	22.0	**26.5160**	5.883	22.2	mg/L	2	Standard
	Mg	24	1091.7	5.0	**1.2395**	0.079	6.4	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0446**	0.334	749.1	mg/L	3	Standard
	Ca	43	110.0	23.6	**26.0036**	8.735	33.6	mg/L	43	Standard
	Fe	54	164.1	3.1	**-0.0354**	0.003	9.2	mg/L	262	Standard
	Fe	57	225.0	15.4	**0.3471**	0.066	19.1	mg/L	65	Standard
>	**Sc-1**	45	23553.3	1.5				mg/L	26874	Standard
	Cl	35	232855.8	1.0				ug/L	141022	Standard
	Kr	83	88.0	2.0				ug/L	75	Standard
	Br	81	2523.5	3.6				ug/L	2810	Standard
	P	31	209915.9	1.2				ug/L	458976	Standard
	S	34	104364.9	0.7				ug/L	103378	Standard
	Sr	88	281.7	23.4				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	24.6	79.8				mg/L	10	Standard
	Ho-1	165	25.0	20.0				mg/L	8	Standard
	Er	166	43.3	58.1				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.975	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.874	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.493
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.036
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Zn 66 Upper, S, EEE	Zn	66	

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311063037
Sample Date/Time: Monday, November 18, 2013 17:11:48
Number of Replicates: 3
Autosampler Position: 220
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	246675.9	2.3				ug/L	269614	Standard
	Be	9	693.3	2.2	**0.2395**	0.012	4.9	ug/L	23	Standard
	Al	27	10652201.3	0.8	**55.5116**	0.875	1.6	ug/L	1170	Standard
	Sc	45	22715.4	3.4				ug/L	26874	Standard
	Ti	47	36.3	28.1	**0.0639**	0.047	72.8	ug/L	25	Standard
	V	51	845.8	4.0	**-0.0466**	0.006	12.8	ug/L	1686	Standard
	Cr	52	3026.0	2.7	**-0.1915**	0.015	7.8	ug/L	6098	Standard
	Cr	53	190.0	25.1	**0.0316**	0.042	133.8	ug/L	193	Standard
	Mn	55	63196118.9	0.9	**5298.3121**	40.587	0.8	ug/L	1232	Standard
	Co	59	686984.5	2.2	**82.8660**	1.426	1.7	ug/L	106	Standard
	Ni	60	265352.3	1.3	**108.9228**	1.038	1.0	ug/L	556	Standard
	Cu	65	1166453.9	1.5	**500.3262**	5.931	1.2	ug/L	124	Standard
	Zn	66	81004689.3	0.8	**63495.7152**	273.249	0.4	ug/L	196	Standard
>	**Ge**	72	422106.0	0.4				ug/L	473313	Standard
	As	75	1155.0	2.1	**1.1062**	0.022	2.0	ug/L	-286	Standard
	Se	82	82.4	30.9	**0.9230**	0.194	21.1	ug/L	-33	Standard
	Se-1	77	119.7	9.8	**0.4827**	0.118	24.4	ug/L	86	Standard
>	**Ga**	71	740.0	7.1				mg/L	35	Standard
	Rb	85	4980.8	6.2				ug/L	13	Standard
	Y	89	478585.0	2.2				ug/L	439493	Standard
>	**Rh**	103	130.0	11.5				ug/L	5	Standard
	Mo	98	73.6	18.5	**0.0063**	0.004	71.1	ug/L	10	Standard
	Ag	107	269.7	13.4	**0.0314**	0.007	21.6	ug/L	53	Standard
	Cd	111	59639.7	1.9	**30.8659**	0.267	0.9	mg/L	1	Standard
	Cd	114	148478.0	1.7	**30.3580**	0.290	1.0	ug/L	32	Standard
>	**In**	115	435713.2	2.0				ug/L	494305	Standard
	Sn	118	42.3	9.5	**-0.0197**	0.003	14.2	ug/L	53	Standard
	Sb	123	77.2	3.2	**0.0315**	0.001	1.8	ug/L	7	Standard
	Ba	135	1150.0	3.0	**0.7000**	0.032	4.5	ug/L	11	Standard
	Ce	140	112358.4	0.6				ug/L	10	Standard
>	**Tb**	159	470322.1	1.2				ug/L	538219	Standard
	Ho	165	4290.6	3.9				ug/L	8	Standard
	Tl	203	64.0	11.8	**0.0098**	0.001	13.1	ug/L	1	Standard
	Tl	205	61.7	40.0	**0.0086**	0.004	42.3	ug/L	3	Standard
	Pb	206	643.0	2.6	**0.2377**	0.007	2.9	ug/L	80	Standard
	Pb	207	526.7	3.7	**0.2221**	0.006	2.9	ug/L	73	Standard
	Pb	208	1238.7	2.7	**0.2059**	0.005	2.5	ug/L	190	Standard
	U	238	92.0	3.3	**0.0260**	0.001	2.4	ug/L	0	Standard
>	**Bi**	209	247304.1	1.2				ug/L	276439	Standard

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	Na	23	50.0	26.5	**14.7685**	3.674	24.9	mg/L	2	Standard
	Mg	24	4205.6	2.6	**5.0490**	0.252	5.0	mg/L	37	Standard
	K	39	13.3	86.6	**0.5522**	0.810	146.6	mg/L	3	Standard
	Ca	43	75.0	23.1	**15.4548**	6.522	42.2	mg/L	43	Standard
	Fe	54	9622.4	3.5	**5.4148**	0.219	4.0	mg/L	262	Standard
	Fe	57	2830.3	7.3	**5.7058**	0.601	10.5	mg/L	65	Standard
>	**Sc-1**	45	22715.4	3.4				mg/L	26874	Standard
	Cl	35	284609.6	0.4				ug/L	141022	Standard
	Kr	83	380.0	8.9				ug/L	75	Standard
	Br	81	2896.9	3.5				ug/L	2810	Standard
	P	31	210781.6	4.9				ug/L	458976	Standard
	S	34	88630.2	2.1				ug/L	103378	Standard
	Sr	88	168.3	18.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6789.5	5.2				mg/L	10	Standard
	Ho-1	165	4290.6	3.9				mg/L	8	Standard
	Er	166	3940.5	0.9				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.492	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.181	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.147
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.461
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Cu 65 Upper, S, EEE	Cu	65	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311063039
Sample Date/Time: Monday, November 18, 2013 17:14:53
Number of Replicates: 3
Autosampler Position: 221
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	240163.4	0.4				ug/L	269614	Standard
	Be	9	48.3	21.5	**0.0022**	0.004	175.1	ug/L	23	Standard
	Al	27	7040984.6	2.0	**37.6747**	0.614	1.6	ug/L	1170	Standard
	Sc	45	22788.8	3.5				ug/L	26874	Standard
	Ti	47	50.0	17.4	**0.1230**	0.040	32.2	ug/L	25	Standard
	V	51	1186.5	3.2	**0.0061**	0.007	121.9	ug/L	1686	Standard
	Cr	52	3882.8	4.6	**-0.0559**	0.030	54.6	ug/L	6098	Standard
	Cr	53	223.3	10.1	**0.0599**	0.021	35.4	ug/L	193	Standard
	Mn	55	11047492.5	1.6	**917.4529**	11.208	1.2	ug/L	1232	Standard
	Co	59	22409.9	0.7	**2.6633**	0.029	1.1	ug/L	106	Standard
	Ni	60	3274.0	3.2	**1.1321**	0.033	3.0	ug/L	556	Standard
	Cu	65	2291.5	1.5	**0.9140**	0.012	1.4	ug/L	124	Standard
	Zn	66	128475.1	0.5	**99.5729**	0.483	0.5	ug/L	196	Standard
>	**Ge**	72	426077.4	0.8				ug/L	473313	Standard
	As	75	-67.0	61.4	**0.1605**	0.031	19.6	ug/L	-286	Standard
	Se	82	-80.4	15.4	**-0.3006**	0.094	31.1	ug/L	-33	Standard
	Se-1	77	89.7	7.3	**0.1636**	0.062	37.7	ug/L	86	Standard
>	**Ga**	71	223.3	26.7				mg/L	35	Standard
	Rb	85	21014.6	2.1				ug/L	13	Standard
	Y	89	397466.9	1.8				ug/L	439493	Standard
>	**Rh**	103	53.3	21.7				ug/L	5	Standard
	Mo	98	73.6	26.6	**0.0057**	0.006	97.4	ug/L	10	Standard
	Ag	107	51.0	13.7	**-0.0064**	0.001	18.4	ug/L	53	Standard
	Cd	111	2912.9	0.3	**1.4688**	0.008	0.6	mg/L	1	Standard
	Cd	114	7297.2	0.6	**1.4473**	0.006	0.4	ug/L	32	Standard
>	**In**	115	446362.2	0.2				ug/L	494305	Standard
	Sn	118	46.7	21.7	**-0.0169**	0.009	50.7	ug/L	53	Standard
	Sb	123	91.2	9.0	**0.0366**	0.003	9.1	ug/L	7	Standard
	Ba	135	2954.3	2.8	**1.7732**	0.053	3.0	ug/L	11	Standard
	Ce	140	27702.0	2.3				ug/L	10	Standard
>	**Tb**	159	464252.3	1.0				ug/L	538219	Standard
	Ho	165	386.7	10.5				ug/L	8	Standard
	Tl	203	111.0	12.7	**0.0182**	0.003	14.1	ug/L	1	Standard
	Tl	205	145.0	23.9	**0.0209**	0.005	24.8	ug/L	3	Standard
	Pb	206	291.3	7.0	**0.0827**	0.009	10.5	ug/L	80	Standard
	Pb	207	229.0	4.4	**0.0767**	0.005	6.3	ug/L	73	Standard
	Pb	208	566.0	4.8	**0.0714**	0.005	7.6	ug/L	190	Standard
	U	238	70.7	9.0	**0.0192**	0.002	9.7	ug/L	0	Standard
>	**Bi**	209	251373.7	0.1				ug/L	276439	Standard

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	Na	23	70.0	12.4	**20.8036**	2.094	10.1	mg/L	2	Standard
	Mg	24	2546.9	2.7	**3.0358**	0.171	5.6	mg/L	37	Standard
	K	39	21.7	35.3	**1.1155**	0.485	43.5	mg/L	3	Standard
	Ca	43	98.3	25.6	**23.1105**	7.732	33.5	mg/L	43	Standard
	Fe	54	4808.5	3.2	**2.6351**	0.147	5.6	mg/L	262	Standard
	Fe	57	1591.8	8.3	**3.1572**	0.366	11.6	mg/L	65	Standard
>	**Sc-1**	45	22788.8	3.5				mg/L	26874	Standard
	Cl	35	198769.3	0.5				ug/L	141022	Standard
	Kr	83	157.7	8.1				ug/L	75	Standard
	Br	81	4940.8	7.5				ug/L	2810	Standard
	P	31	203482.6	1.9				ug/L	458976	Standard
	S	34	97635.3	2.0				ug/L	103378	Standard
	Sr	88	270.0	13.0				ug/L	30	Standard
	C	12	13.3	43.3				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	546.3	17.6				mg/L	10	Standard
	Ho-1	165	386.7	10.5				mg/L	8	Standard
	Er	166	356.7	18.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.077	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.020	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		90.301
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		90.933
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	

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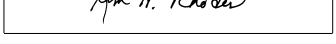

Method 6020 - Summary Report

Sample ID: L1311076701
Sample Date/Time: Monday, November 18, 2013 17:17:58
Number of Replicates: 3
Autosampler Position: 222
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	247119.4	1.8				ug/L	269614	Standard
	Be	9	10048.3	0.6	**3.6783**	0.043	1.2	ug/L	23	Standard
	Al	27	54896090.3	1.6	**285.5329**	1.865	0.7	ug/L	1170	Standard
	Sc	45	28797.4	3.3				ug/L	26874	Standard
	Ti	47	8941.0	1.8	**41.0041**	0.651	1.6	ug/L	25	Standard
	V	51	15014.2	1.1	**2.2868**	0.023	1.0	ug/L	1686	Standard
	Cr	52	42779.3	0.1	**6.5713**	0.036	0.5	ug/L	6098	Standard
	Cr	53	6518.1	3.7	**5.8835**	0.203	3.4	ug/L	193	Standard
	Mn	55	70573476.8	0.7	**6079.6851**	23.269	0.4	ug/L	1232	Standard
	Co	59	899035.1	0.9	**111.4389**	0.572	0.5	ug/L	106	Standard
	Ni	60	507144.1	0.8	**214.1027**	1.238	0.6	ug/L	556	Standard
	Cu	65	80100.8	0.3	**35.2491**	0.215	0.6	ug/L	124	Standard
	Zn	66	549476.8	0.4	**442.3796**	2.793	0.6	ug/L	196	Standard
>	Ge	72	410797.5	0.4				ug/L	473313	Standard
	As	75	1702.9	5.4	**1.5665**	0.070	4.4	ug/L	-286	Standard
	Se	82	-69.0	27.2	**-0.2349**	0.148	63.0	ug/L	-33	Standard
	Se-1	77	169.3	3.8	**1.0449**	0.061	5.9	ug/L	86	Standard
>	Ga	71	3583.8	7.4				mg/L	35	Standard
	Rb	85	60606.0	1.0				ug/L	13	Standard
	Y	89	867098.8	0.8				ug/L	439493	Standard
>	Rh	103	620.0	6.4				ug/L	5	Standard
	Mo	98	250.5	7.4	**0.0634**	0.006	9.6	ug/L	10	Standard
	Ag	107	103.3	11.2	**0.0042**	0.002	55.3	ug/L	53	Standard
	Cd	111	1641.5	4.0	**0.9135**	0.028	3.1	mg/L	1	Standard
	Cd	114	4086.7	2.0	**0.8923**	0.025	2.8	ug/L	32	Standard
>	In	115	403874.6	1.0				ug/L	494305	Standard
	Sn	118	269.7	5.9	**0.1959**	0.017	8.7	ug/L	53	Standard
	Sb	123	141.9	15.2	**0.0640**	0.010	15.7	ug/L	7	Standard
	Ba	135	53473.9	0.5	**35.7103**	0.184	0.5	ug/L	11	Standard
	Ce	140	232155.1	0.4				ug/L	10	Standard
>	Tb	159	468447.4	1.5				ug/L	538219	Standard
	Ho	165	23050.9	0.6				ug/L	8	Standard
	Tl	203	645.3	5.2	**0.1342**	0.006	4.7	ug/L	1	Standard
	Tl	205	830.0	3.2	**0.1414**	0.005	3.8	ug/L	3	Standard
	Pb	206	1014.4	4.5	**0.4581**	0.019	4.2	ug/L	80	Standard
	Pb	207	760.4	1.4	**0.3839**	0.003	0.8	ug/L	73	Standard
	Pb	208	1836.7	2.1	**0.3722**	0.006	1.6	ug/L	190	Standard
	U	238	5788.8	3.9	**1.9822**	0.064	3.2	ug/L	0	Standard
>	Bi	209	218157.1	0.7				ug/L	276439	Standard

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	Na	23	1401.7	6.2	**336.3477**	9.502	2.8	mg/L	2	Standard
	Mg	24	6924.9	4.7	**6.5593**	0.137	2.1	mg/L	37	Standard
	K	39	58.3	58.3	**2.8107**	1.827	65.0	mg/L	3	Standard
	Ca	43	1980.1	6.9	**524.1533**	34.812	6.6	mg/L	43	Standard
	Fe	54	104330.6	1.0	**47.2667**	1.149	2.4	mg/L	262	Standard
	Fe	57	32994.2	1.5	**53.1701**	0.991	1.9	mg/L	65	Standard
>	**Sc-1**	45	28797.4	3.3				mg/L	26874	Standard
	Cl	35	406258.2	1.1				ug/L	141022	Standard
	Kr	83	321.7	6.3				ug/L	75	Standard
	Br	81	5247.6	1.6				ug/L	2810	Standard
	P	31	592415.4	1.9				ug/L	458976	Standard
	S	34	91503.9	1.8				ug/L	103378	Standard
	Sr	88	3753.8	2.8				ug/L	30	Standard
	C	12	20.0	100.0				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	35744.2	1.8				mg/L	10	Standard
	Ho-1	165	23050.9	0.6				mg/L	8	Standard
	Er	166	19836.3	3.1				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.657	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		86.792	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		81.705
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		78.917
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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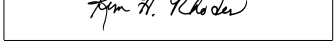

Method 6020 - Summary Report

Sample ID: L1311076702
Sample Date/Time: Monday, November 18, 2013 17:21:02
Number of Replicates: 3
Autosampler Position: 223
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	282019.0	3.4				ug/L	269614	Standard
	Be	9	53.3	5.4	**0.0011**	0.001	79.1	ug/L	23	Standard
	Al	27	47392604.9	1.0	**216.1858**	8.733	4.0	ug/L	1170	Standard
	Sc	45	26241.0	2.7				ug/L	26874	Standard
	Ti	47	59.0	0.0	**0.1457**	0.003	1.9	ug/L	25	Standard
	V	51	1871.6	2.9	**0.0954**	0.010	10.2	ug/L	1686	Standard
	Cr	52	6982.6	2.8	**0.3772**	0.040	10.7	ug/L	6098	Standard
	Cr	53	490.0	13.4	**0.2689**	0.054	20.0	ug/L	193	Standard
	Mn	55	1755952.7	0.8	**136.2132**	1.986	1.5	ug/L	1232	Standard
	Co	59	18923.8	0.9	**2.0993**	0.039	1.8	ug/L	106	Standard
	Ni	60	33733.9	1.9	**12.6460**	0.185	1.5	ug/L	556	Standard
	Cu	65	6839.5	2.2	**2.6577**	0.075	2.8	ug/L	124	Standard
	Zn	66	36694.4	2.5	**26.4377**	0.419	1.6	ug/L	196	Standard
>	**Ge**	72	455795.0	1.1				ug/L	473313	Standard
	As	75	-125.4	5.3	**0.1220**	0.004	3.6	ug/L	-286	Standard
	Se	82	32.6	28.8	**0.5293**	0.069	13.0	ug/L	-33	Standard
	Se-1	77	111.7	8.6	**0.3143**	0.083	26.5	ug/L	86	Standard
>	**Ga**	71	155.0	8.5				mg/L	35	Standard
	Rb	85	66428.8	3.5				ug/L	13	Standard
	Y	89	420352.4	1.8				ug/L	439493	Standard
>	**Rh**	103	255.0	18.9				ug/L	5	Standard
	Mo	98	167.1	9.4	**0.0299**	0.005	15.3	ug/L	10	Standard
	Ag	107	70.0	2.9	**-0.0038**	0.000	5.8	ug/L	53	Standard
	Cd	111	84.8	20.8	**0.0378**	0.008	21.5	mg/L	1	Standard
	Cd	114	210.1	16.8	**0.0304**	0.006	20.9	ug/L	32	Standard
>	**In**	115	469613.3	0.9				ug/L	494305	Standard
	Sn	118	122.3	7.7	**0.0420**	0.008	20.2	ug/L	53	Standard
	Sb	123	128.9	9.5	**0.0496**	0.004	9.0	ug/L	7	Standard
	Ba	135	4369.3	1.9	**2.4979**	0.057	2.3	ug/L	11	Standard
	Ce	140	591.7	9.0				ug/L	10	Standard
>	**Tb**	159	491692.6	0.5				ug/L	538219	Standard
	Ho	165	21.7	35.3				ug/L	8	Standard
	Tl	203	232.0	3.1	**0.0405**	0.001	2.7	ug/L	1	Standard
	Tl	205	323.3	8.5	**0.0474**	0.004	7.9	ug/L	3	Standard
	Pb	206	310.7	1.6	**0.0913**	0.003	3.1	ug/L	80	Standard
	Pb	207	264.3	12.0	**0.0937**	0.016	16.7	ug/L	73	Standard
	Pb	208	603.0	2.4	**0.0788**	0.003	4.3	ug/L	190	Standard
	U	238	587.3	3.2	**0.1732**	0.006	3.7	ug/L	0	Standard
>	**Bi**	209	250892.6	0.8				ug/L	276439	Standard

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	Na	23	270.0	16.7	**70.6308**	9.980	14.1	mg/L	2	Standard
	Mg	24	7757.0	4.5	**8.0763**	0.427	5.3	mg/L	37	Standard
	K	39	36.7	39.4	**1.8182**	0.836	46.0	mg/L	3	Standard
	Ca	43	391.7	11.6	**105.7414**	14.012	13.3	mg/L	43	Standard
	Fe	54	362.3	15.5	**0.0536**	0.023	42.8	mg/L	262	Standard
	Fe	57	598.3	7.8	**0.9643**	0.103	10.7	mg/L	65	Standard
>	**Sc-1**	45	26241.0	2.7				mg/L	26874	Standard
	Cl	35	455882.7	0.2				ug/L	141022	Standard
	Kr	83	114.7	3.9				ug/L	75	Standard
	Br	81	6481.4	6.8				ug/L	2810	Standard
	P	31	443692.8	0.4				ug/L	458976	Standard
	S	34	109762.9	1.5				ug/L	103378	Standard
	Sr	88	1083.4	6.0				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	42.1	27.8				mg/L	10	Standard
	Ho-1	165	21.7	35.3				mg/L	8	Standard
	Er	166	26.7	57.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.601	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.299	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		95.005
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		90.759
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1311076702
Report Date/Time: Monday, November 18, 2013 17:23:15
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Method 6020 - Summary Report

Sample ID: L1311076706 WG452939-02
Sample Date/Time: Monday, November 18, 2013 17:24:07
Number of Replicates: 3
Autosampler Position: 224
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	289638.4	2.7				ug/L	269614	Standard
	Be	9	22710.3	0.7	**7.1098**	0.169	2.4	ug/L	23	Standard
	Al	27	38987901.3	1.4	**173.1072**	5.875	3.4	ug/L	1170	Standard
	Sc	45	31324.0	3.9				ug/L	26874	Standard
	Ti	47	221.7	12.8	**0.8174**	0.113	13.8	ug/L	25	Standard
	V	51	20018.6	0.3	**2.7788**	0.013	0.5	ug/L	1686	Standard
	Cr	52	64218.8	0.3	**9.1152**	0.083	0.9	ug/L	6098	Standard
	Cr	53	11135.8	1.5	**9.1171**	0.185	2.0	ug/L	193	Standard
	Mn	55	25363448.9	1.2	**1965.3575**	34.752	1.8	ug/L	1232	Standard
	Co	59	612675.8	1.2	**68.3026**	0.566	0.8	ug/L	106	Standard
	Ni	60	397870.9	0.3	**151.0267**	0.519	0.3	ug/L	556	Standard
	Cu	65	51056.2	0.6	**20.1832**	0.117	0.6	ug/L	124	Standard
	Zn	66	733869.6	0.4	**531.4830**	4.825	0.9	ug/L	196	Standard
>	Ge	72	456713.6	0.6				ug/L	473313	Standard
	As	75	300.1	26.2	**0.4266**	0.056	13.1	ug/L	-286	Standard
	Se	82	-5.8	423.8	**0.2600**	0.172	66.1	ug/L	-33	Standard
	Se-1	77	173.0	4.5	**0.8989**	0.068	7.5	ug/L	86	Standard
>	Ga	71	4088.9	1.3				mg/L	35	Standard
	Rb	85	74380.5	0.7				ug/L	13	Standard
	Y	89	1053623.4	0.9				ug/L	439493	Standard
>	Rh	103	153.3	11.5				ug/L	5	Standard
	Mo	98	160.4	7.5	**0.0299**	0.003	10.8	ug/L	10	Standard
	Ag	107	58.3	15.5	**-0.0053**	0.001	27.7	ug/L	53	Standard
	Cd	111	1132.8	2.2	**0.5644**	0.013	2.3	mg/L	1	Standard
	Cd	114	2816.9	2.8	**0.5480**	0.018	3.2	ug/L	32	Standard
>	In	115	450338.8	0.4				ug/L	494305	Standard
	Sn	118	62.0	16.4	**-0.0044**	0.008	188.0	ug/L	53	Standard
	Sb	123	111.6	12.4	**0.0447**	0.006	12.6	ug/L	7	Standard
	Ba	135	2787.9	1.0	**1.6577**	0.014	0.9	ug/L	11	Standard
	Ce	140	336228.3	1.1				ug/L	10	Standard
>	Tb	159	523006.6	1.5				ug/L	538219	Standard
	Ho	165	32892.3	0.5				ug/L	8	Standard
	Tl	203	1068.4	0.4	**0.1972**	0.002	1.0	ug/L	1	Standard
	Tl	205	1388.4	5.2	**0.2091**	0.012	5.6	ug/L	3	Standard
	Pb	206	664.3	3.1	**0.2472**	0.009	3.7	ug/L	80	Standard
	Pb	207	530.3	3.7	**0.2241**	0.010	4.7	ug/L	73	Standard
	Pb	208	1212.4	5.8	**0.2009**	0.013	6.5	ug/L	190	Standard
	U	238	3270.4	1.5	**0.9878**	0.009	0.9	ug/L	0	Standard
>	Bi	209	247121.0	0.6				ug/L	276439	Standard

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	Na	23	298.3	15.6	**65.5380**	10.260	15.7	mg/L	2	Standard
	Mg	24	1255.1	2.6	**1.0672**	0.034	3.2	mg/L	37	Standard
	K	39	11.7	49.5	**0.2152**	0.306	142.4	mg/L	3	Standard
	Ca	43	333.3	3.1	**72.3990**	0.912	1.3	mg/L	43	Standard
	Fe	54	149423.3	0.2	**62.3073**	2.531	4.1	mg/L	262	Standard
	Fe	57	43494.0	1.3	**64.4977**	2.699	4.2	mg/L	65	Standard
>	**Sc-1**	45	31324.0	3.9				mg/L	26874	Standard
	Cl	35	730823.6	2.8				ug/L	141022	Standard
	Kr	83	293.7	6.1				ug/L	75	Standard
	Br	81	13235.8	5.2				ug/L	2810	Standard
	P	31	634410.0	2.2				ug/L	458976	Standard
	S	34	98734.2	2.9				ug/L	103378	Standard
	Sr	88	906.7	2.5				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	50400.0	0.7				mg/L	10	Standard
	Ho-1	165	32892.3	0.5				mg/L	8	Standard
	Er	166	28005.9	0.9				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		107.427	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.493	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1311076706 WG452939-02
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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		91.105
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.394
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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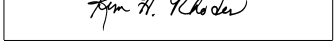

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 17:27:14
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	263678.8	2.4				ug/L	269614	Standard
	Be	9	145926.0	0.7	**50.2768**	1.171	2.3	ug/L	23	Standard
	Al	27	9400993.8	1.2	**45.8288**	0.633	1.4	ug/L	1170	Standard
	Sc	45	25339.5	2.8				ug/L	26874	Standard
	Ti	47	25892.1	1.8	**103.6855**	2.768	2.7	ug/L	25	Standard
	V	51	328577.2	0.5	**46.9202**	0.457	1.0	ug/L	1686	Standard
	Cr	52	320710.5	0.9	**46.7741**	0.193	0.4	ug/L	6098	Standard
	Cr	53	61067.8	0.6	**49.0594**	0.748	1.5	ug/L	193	Standard
	Mn	55	689910.8	7.8	**51.6528**	3.539	6.9	ug/L	1232	Standard
	Co	59	439384.3	0.4	**47.4729**	0.367	0.8	ug/L	106	Standard
	Ni	60	133402.1	1.4	**48.9421**	0.591	1.2	ug/L	556	Standard
	Cu	65	130630.4	0.1	**50.1410**	0.522	1.0	ug/L	124	Standard
	Zn	66	75898.9	6.9	**53.0796**	3.247	6.1	ug/L	196	Standard
>	Ge	72	471228.8	1.0				ug/L	473313	Standard
	As	75	72308.4	0.7	**50.3611**	0.605	1.2	ug/L	-286	Standard
	Se	82	7334.7	1.1	**49.9050**	1.020	2.0	ug/L	-33	Standard
	Se-1	77	5429.0	1.2	**49.5676**	0.910	1.8	ug/L	86	Standard
>	Ga	71	48.3	26.0				mg/L	35	Standard
	Rb	85	1160.0	4.3				ug/L	13	Standard
	Y	89	432009.2	0.7				ug/L	439493	Standard
>	Rh	103	26.7	28.6				ug/L	5	Standard
	Mo	98	405796.1	1.2	**104.2561**	1.978	1.9	ug/L	10	Standard
	Ag	107	347869.5	0.5	**52.7913**	0.716	1.4	ug/L	53	Standard
	Cd	111	108403.4	0.9	**49.5783**	0.360	0.7	mg/L	1	Standard
	Cd	114	277161.1	1.4	**50.0795**	0.479	1.0	ug/L	32	Standard
>	In	115	493082.4	1.4				ug/L	494305	Standard
	Sn	118	66866.6	1.3	**51.1674**	0.102	0.2	ug/L	53	Standard
	Sb	123	131463.3	0.8	**49.7018**	0.386	0.8	ug/L	7	Standard
	Ba	135	91443.1	0.6	**50.0265**	0.485	1.0	ug/L	11	Standard
	Ce	140	98.3	50.9				ug/L	10	Standard
>	Tb	159	505775.8	1.3				ug/L	538219	Standard
	Ho	165	13.3	57.3				ug/L	8	Standard
	Tl	203	289161.8	1.2	**49.4905**	0.417	0.8	ug/L	1	Standard
	Tl	205	369717.0	1.4	**51.2494**	0.905	1.8	ug/L	3	Standard
	Pb	206	132637.4	1.0	**52.9099**	0.709	1.3	ug/L	80	Standard
	Pb	207	118765.7	0.6	**52.5890**	0.418	0.8	ug/L	73	Standard
	Pb	208	263813.3	0.6	**47.7282**	0.466	1.0	ug/L	190	Standard
	U	238	173127.9	1.0	**48.0575**	0.383	0.8	ug/L	0	Standard
>	Bi	209	269396.9	0.4				ug/L	276439	Standard

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	Na	23	6.7	43.3	**1.3956**	0.794	56.9	mg/L	2	Standard
	Mg	24	4897.5	2.2	**5.2688**	0.143	2.7	mg/L	37	Standard
	K	39	50.0	20.0	**2.7304**	0.537	19.7	mg/L	3	Standard
	Ca	43	56.7	13.5	**7.0816**	2.545	35.9	mg/L	43	Standard
	Fe	54	11307.8	3.6	**5.7082**	0.134	2.3	mg/L	262	Standard
	Fe	57	3255.3	1.4	**5.8755**	0.117	2.0	mg/L	65	Standard
>	**Sc-1**	45	25339.5	2.8				mg/L	26874	Standard
	Cl	35	140976.9	1.3				ug/L	141022	Standard
	Kr	83	102.3	11.8				ug/L	75	Standard
	Br	81	2793.6	10.3				ug/L	2810	Standard
	P	31	427372.9	3.3				ug/L	458976	Standard
	S	34	108997.6	3.3				ug/L	103378	Standard
	Sr	88	60.0	22.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.9	217.0				mg/L	10	Standard
	Ho-1	165	13.3	57.3				mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		97.798	
	Be	9	100.554		
	Al	27	91.658		
	Sc	45			
	Ti	47	103.685		
	V	51	93.840		
	Cr	52	93.548		
	Cr	53			
	Mn	55	103.306		
	Co	59	94.946		
	Ni	60	97.884		
	Cu	65	100.282		
	Zn	66	106.159		
>	Ge	72		99.560	
	As	75	100.722		
	Se	82	99.810		
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89			
>	Rh	103			
	Mo	98	104.256		
	Ag	107	105.583		
	Cd	111	99.157		
	Cd	114			
>	In	115			99.753
	Sn	118	102.335		
	Sb	123	99.404		
	Ba	135	100.053		
	Ce	140			
>	Tb	159			
	Ho	165			
	Tl	203	98.981		
	Tl	205			
	Pb	206			
	Pb	207			
	Pb	208	95.456		
	U	238	96.115		
>	Bi	209			97.453
	Na	23			
	Mg	24			
	K	39			
	Ca	43			
	Fe	54			
	Fe	57			
>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 17:30:18
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	264804.7	2.2				ug/L	269614	Standard
	Be	9	81.7	9.4	**0.0120**	0.003	26.9	ug/L	23	Standard
	Al	27	2407.0	87.4	**0.0047**	0.011	225.2	ug/L	1170	Standard
	Sc	45	26282.8	3.0				ug/L	26874	Standard
	Ti	47	12.0	22.0	**-0.0511**	0.011	20.6	ug/L	25	Standard
	V	51	1219.9	1.7	**-0.0087**	0.003	38.6	ug/L	1686	Standard
	Cr	52	4309.6	1.6	**-0.0594**	0.010	16.0	ug/L	6098	Standard
	Cr	53	136.7	7.6	**-0.0301**	0.008	27.9	ug/L	193	Standard
	Mn	55	1470.7	31.3	**-0.0297**	0.034	114.8	ug/L	1232	Standard
	Co	59	109.3	31.6	**-0.0037**	0.004	100.3	ug/L	106	Standard
	Ni	60	347.3	5.8	**-0.0748**	0.007	9.4	ug/L	556	Standard
	Cu	65	154.3	13.0	**-0.0012**	0.008	651.6	ug/L	124	Standard
	Zn	66	607.3	5.1	**0.2253**	0.021	9.3	ug/L	196	Standard
>	Ge	72	475553.7	0.4				ug/L	473313	Standard
	As	75	-306.1	9.1	**0.0015**	0.020	1328.8	ug/L	-286	Standard
	Se	82	-53.9	23.0	**-0.0601**	0.083	138.5	ug/L	-33	Standard
	Se-1	77	82.0	14.6	**-0.0020**	0.112	5484.6	ug/L	86	Standard
>	Ga	71	26.7	21.7				mg/L	35	Standard
	Rb	85	23.3	53.9				ug/L	13	Standard
	Y	89	444461.5	0.4				ug/L	439493	Standard
>	Rh	103	8.3	69.3				ug/L	5	Standard
	Mo	98	81.9	47.7	**0.0056**	0.010	177.3	ug/L	10	Standard
	Ag	107	85.3	25.3	**-0.0022**	0.003	147.0	ug/L	53	Standard
	Cd	111	5.2	87.5	**-0.0005**	0.002	391.3	mg/L	1	Standard
	Cd	114	30.0	58.4	**-0.0041**	0.003	76.8	ug/L	32	Standard
>	In	115	499509.5	0.3				ug/L	494305	Standard
	Sn	118	61.7	5.7	**-0.0098**	0.003	26.7	ug/L	53	Standard
	Sb	123	260.5	30.6	**0.0957**	0.030	30.9	ug/L	7	Standard
	Ba	135	13.7	37.5	**-0.0051**	0.003	53.9	ug/L	11	Standard
	Ce	140	13.3	114.6				ug/L	10	Standard
>	Tb	159	513078.3	1.1				ug/L	538219	Standard
	Ho	165	8.3	34.6				ug/L	8	Standard
	Tl	203	28.3	71.4	**0.0027**	0.003	128.4	ug/L	1	Standard
	Tl	205	31.7	112.0	**0.0037**	0.005	132.6	ug/L	3	Standard
	Pb	206	99.7	8.2	**-0.0023**	0.003	146.5	ug/L	80	Standard
	Pb	207	89.0	8.5	**0.0071**	0.003	46.7	ug/L	73	Standard
	Pb	208	198.0	10.6	**-0.0028**	0.004	133.1	ug/L	190	Standard
	U	238	13.0	90.7	**0.0017**	0.003	188.4	ug/L	0	Standard
>	Bi	209	271074.1	0.5				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	55.0	24.1	**0.0257**	0.015	58.5	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	20.0	66.1	**-4.4710**	3.799	85.0	mg/L	43	Standard
	Fe	54	274.5	16.7	**0.0101**	0.023	228.4	mg/L	262	Standard
	Fe	57	70.0	18.9	**0.0274**	0.026	94.9	mg/L	65	Standard
>	**Sc-1**	45	26282.8	3.0				mg/L	26874	Standard
	Cl	35	145304.1	1.0				ug/L	141022	Standard
	Kr	83	110.0	11.4				ug/L	75	Standard
	Br	81	2626.9	6.0				ug/L	2810	Standard
	P	31	432262.7	3.6				ug/L	458976	Standard
	S	34	107473.2	1.2				ug/L	103378	Standard
	Sr	88	46.7	30.9				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.8	99.2				mg/L	10	Standard
	Ho-1	165	8.3	34.6				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		98.216	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.473	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.053
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.059
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311076706DP WG452939-07
Sample Date/Time: Monday, November 18, 2013 17:33:24
Number of Replicates: 3
Autosampler Position: 225
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	285559.1	3.0				ug/L	269614	Standard
	Be	9	21259.9	1.9	**6.7505**	0.201	3.0	ug/L	23	Standard
	Al	27	36395166.1	1.0	**163.9202**	5.542	3.4	ug/L	1170	Standard
	Sc	45	30929.9	0.4				ug/L	26874	Standard
	Ti	47	195.3	11.4	**0.7237**	0.097	13.4	ug/L	25	Standard
	V	51	19021.6	2.2	**2.6819**	0.075	2.8	ug/L	1686	Standard
	Cr	52	59285.4	0.7	**8.5239**	0.047	0.5	ug/L	6098	Standard
	Cr	53	10500.3	2.0	**8.7445**	0.152	1.7	ug/L	193	Standard
	Mn	55	23462889.9	0.9	**1850.5884**	17.889	1.0	ug/L	1232	Standard
	Co	59	568236.2	0.9	**64.4832**	0.225	0.3	ug/L	106	Standard
	Ni	60	371215.2	1.3	**143.4268**	2.075	1.4	ug/L	556	Standard
	Cu	65	47413.7	1.6	**19.0772**	0.389	2.0	ug/L	124	Standard
	Zn	66	686432.6	0.7	**506.0374**	6.180	1.2	ug/L	196	Standard
>	Ge	72	448669.9	0.6				ug/L	473313	Standard
	As	75	235.7	25.4	**0.3837**	0.044	11.6	ug/L	-286	Standard
	Se	82	-42.7	50.5	**-0.0020**	0.151	7630.4	ug/L	-33	Standard
	Se-1	77	146.7	2.4	**0.6724**	0.029	4.4	ug/L	86	Standard
>	Ga	71	3777.1	3.7				mg/L	35	Standard
	Rb	85	70999.3	1.3				ug/L	13	Standard
	Y	89	1000994.4	0.7				ug/L	439493	Standard
>	Rh	103	115.0	13.0				ug/L	5	Standard
	Mo	98	97.8	19.0	**0.0125**	0.005	41.2	ug/L	10	Standard
	Ag	107	61.3	2.5	**-0.0047**	0.000	5.3	ug/L	53	Standard
	Cd	111	1055.9	7.0	**0.5308**	0.039	7.4	mg/L	1	Standard
	Cd	114	2553.2	7.8	**0.5003**	0.038	7.7	ug/L	32	Standard
>	In	115	446282.6	0.5				ug/L	494305	Standard
	Sn	118	75.7	9.0	**0.0077**	0.006	79.2	ug/L	53	Standard
	Sb	123	189.0	7.2	**0.0774**	0.005	6.9	ug/L	7	Standard
	Ba	135	2659.6	1.1	**1.5954**	0.024	1.5	ug/L	11	Standard
	Ce	140	317133.5	1.6				ug/L	10	Standard
>	Tb	159	517090.8	0.6				ug/L	538219	Standard
	Ho	165	31419.2	0.8				ug/L	8	Standard
	Tl	203	978.7	5.1	**0.1818**	0.009	4.9	ug/L	1	Standard
	Tl	205	1278.4	3.4	**0.1939**	0.006	2.8	ug/L	3	Standard
	Pb	206	623.7	3.8	**0.2316**	0.012	5.3	ug/L	80	Standard
	Pb	207	517.0	5.6	**0.2195**	0.014	6.5	ug/L	73	Standard
	Pb	208	1173.4	0.5	**0.1950**	0.003	1.4	ug/L	190	Standard
	U	238	3056.3	0.7	**0.9300**	0.007	0.7	ug/L	0	Standard
>	Bi	209	245276.4	0.7				ug/L	276439	Standard

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	Na	23	231.7	14.4	**51.4471**	7.640	14.9	mg/L	2	Standard
	Mg	24	1128.4	7.6	**0.9681**	0.072	7.4	mg/L	37	Standard
	K	39	16.7	34.6	**0.4708**	0.294	62.4	mg/L	3	Standard
	Ca	43	340.0	14.0	**75.0935**	11.814	15.7	mg/L	43	Standard
	Fe	54	139974.9	0.7	**59.0430**	0.210	0.4	mg/L	262	Standard
	Fe	57	40681.2	1.2	**61.0275**	0.691	1.1	mg/L	65	Standard
>	**Sc-1**	45	30929.9	0.4				mg/L	26874	Standard
	Cl	35	694010.2	1.3				ug/L	141022	Standard
	Kr	83	260.3	8.0				ug/L	75	Standard
	Br	81	2866.9	8.1				ug/L	2810	Standard
	P	31	587083.9	1.9				ug/L	458976	Standard
	S	34	88995.6	0.9				ug/L	103378	Standard
	Sr	88	820.0	3.7				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	47230.3	1.5				mg/L	10	Standard
	Ho-1	165	31419.2	0.8				mg/L	8	Standard
	Er	166	26453.1	2.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.914	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.793	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		90.285
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		88.727
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311076707
Sample Date/Time: Monday, November 18, 2013 17:36:29
Number of Replicates: 3
Autosampler Position: 226
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	282092.4	1.9				ug/L	269614	Standard
	Be	9	21425.1	2.9	**6.8839**	0.176	2.6	ug/L	23	Standard
	Al	27	36857495.4	1.4	**167.9803**	4.422	2.6	ug/L	1170	Standard
	Sc	45	30084.8	0.8				ug/L	26874	Standard
	Ti	47	201.7	7.2	**0.7530**	0.062	8.3	ug/L	25	Standard
	V	51	18568.2	1.1	**2.6229**	0.019	0.7	ug/L	1686	Standard
	Cr	52	60380.4	1.0	**8.7260**	0.071	0.8	ug/L	6098	Standard
	Cr	53	10335.2	4.2	**8.6357**	0.398	4.6	ug/L	193	Standard
	Mn	55	24029166.5	0.9	**1901.6696**	12.673	0.7	ug/L	1232	Standard
	Co	59	571072.6	0.6	**65.0286**	0.649	1.0	ug/L	106	Standard
	Ni	60	370873.0	0.7	**143.7792**	0.626	0.4	ug/L	556	Standard
	Cu	65	49424.1	0.6	**19.9554**	0.110	0.6	ug/L	124	Standard
	Zn	66	693398.4	0.5	**512.8977**	2.244	0.4	ug/L	196	Standard
>	Ge	72	447147.2	0.5				ug/L	473313	Standard
	As	75	216.0	41.9	**0.3698**	0.067	18.0	ug/L	-286	Standard
	Se	82	-43.8	68.3	**-0.0116**	0.214	1850.7	ug/L	-33	Standard
	Se-1	77	156.0	2.3	**0.7684**	0.028	3.6	ug/L	86	Standard
>	Ga	71	3882.2	1.1				mg/L	35	Standard
	Rb	85	69601.2	1.1				ug/L	13	Standard
	Y	89	1009537.0	2.8				ug/L	439493	Standard
>	Rh	103	143.3	5.3				ug/L	5	Standard
	Mo	98	101.3	9.8	**0.0137**	0.003	22.0	ug/L	10	Standard
	Ag	107	66.3	9.8	**-0.0038**	0.001	27.0	ug/L	53	Standard
	Cd	111	1085.6	4.5	**0.5490**	0.028	5.2	mg/L	1	Standard
	Cd	114	2684.5	4.6	**0.5296**	0.021	4.0	ug/L	32	Standard
>	In	115	443708.8	0.7				ug/L	494305	Standard
	Sn	118	88.3	4.6	**0.0188**	0.003	15.7	ug/L	53	Standard
	Sb	123	145.3	3.8	**0.0595**	0.003	4.3	ug/L	7	Standard
	Ba	135	2631.6	1.9	**1.5878**	0.041	2.6	ug/L	11	Standard
	Ce	140	321553.2	1.2				ug/L	10	Standard
>	Tb	159	516916.6	1.8				ug/L	538219	Standard
	Ho	165	30791.3	1.4				ug/L	8	Standard
	Tl	203	1001.4	3.0	**0.1843**	0.006	3.1	ug/L	1	Standard
	Tl	205	1273.4	2.5	**0.1914**	0.006	2.9	ug/L	3	Standard
	Pb	206	714.0	2.7	**0.2682**	0.007	2.6	ug/L	80	Standard
	Pb	207	573.3	4.2	**0.2443**	0.012	5.1	ug/L	73	Standard
	Pb	208	1361.7	2.4	**0.2299**	0.007	3.1	ug/L	190	Standard
	U	238	3130.7	1.8	**0.9436**	0.013	1.4	ug/L	0	Standard
>	Bi	209	247604.8	0.4				ug/L	276439	Standard

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	Na	23	260.0	23.4	**59.3889**	13.894	23.4	mg/L	2	Standard
	Mg	24	1161.7	8.4	**1.0269**	0.091	8.8	mg/L	37	Standard
	K	39	23.3	118.0	**0.8454**	1.445	171.0	mg/L	3	Standard
	Ca	43	301.7	13.3	**67.5933**	10.138	15.0	mg/L	43	Standard
	Fe	54	139874.5	0.9	**60.6633**	0.585	1.0	mg/L	262	Standard
	Fe	57	39767.1	1.6	**61.3299**	0.522	0.9	mg/L	65	Standard
>	**Sc-1**	45	30084.8	0.8				mg/L	26874	Standard
	Cl	35	687039.6	0.5				ug/L	141022	Standard
	Kr	83	256.3	10.0				ug/L	75	Standard
	Br	81	2940.3	4.8				ug/L	2810	Standard
	P	31	587037.5	2.6				ug/L	458976	Standard
	S	34	88113.8	1.2				ug/L	103378	Standard
	Sr	88	813.4	6.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	48090.3	2.1				mg/L	10	Standard
	Ho-1	165	30791.3	1.4				mg/L	8	Standard
	Er	166	26302.8	2.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.628	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.472	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		89.764
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.569
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311076708
Sample Date/Time: Monday, November 18, 2013 17:39:34
Number of Replicates: 3
Autosampler Position: 227
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	284246.9	1.6				ug/L	269614	Standard
	Be	9	22266.4	1.5	**7.1010**	0.127	1.8	ug/L	23	Standard
	Al	27	37663298.7	1.3	**170.3257**	3.013	1.8	ug/L	1170	Standard
	Sc	45	31283.9	1.2				ug/L	26874	Standard
	Ti	47	208.3	2.3	**0.7730**	0.020	2.5	ug/L	25	Standard
	V	51	19791.6	1.0	**2.7803**	0.032	1.2	ug/L	1686	Standard
	Cr	52	62982.6	0.6	**9.0418**	0.061	0.7	ug/L	6098	Standard
	Cr	53	10658.7	3.0	**8.8264**	0.267	3.0	ug/L	193	Standard
	Mn	55	25012127.7	1.4	**1961.2866**	25.477	1.3	ug/L	1232	Standard
	Co	59	605056.7	1.0	**68.2644**	0.670	1.0	ug/L	106	Standard
	Ni	60	388272.6	0.9	**149.1500**	1.414	0.9	ug/L	556	Standard
	Cu	65	48878.4	1.1	**19.5524**	0.198	1.0	ug/L	124	Standard
	Zn	66	709600.8	0.8	**520.0586**	4.011	0.8	ug/L	196	Standard
>	Ge	72	451291.3	0.1				ug/L	473313	Standard
	As	75	227.2	29.7	**0.3764**	0.049	12.9	ug/L	-286	Standard
	Se	82	-58.9	30.2	**-0.1150**	0.126	109.4	ug/L	-33	Standard
	Se-1	77	173.0	7.1	**0.9190**	0.118	12.8	ug/L	86	Standard
>	Ga	71	4013.9	2.3				mg/L	35	Standard
	Rb	85	71669.1	0.3				ug/L	13	Standard
	Y	89	1032776.2	1.1				ug/L	439493	Standard
>	Rh	103	148.3	29.5				ug/L	5	Standard
	Mo	98	93.1	14.2	**0.0110**	0.004	32.6	ug/L	10	Standard
	Ag	107	73.3	15.9	**-0.0028**	0.002	67.2	ug/L	53	Standard
	Cd	111	1142.9	1.8	**0.5697**	0.010	1.8	mg/L	1	Standard
	Cd	114	2688.4	3.6	**0.5227**	0.015	2.8	ug/L	32	Standard
>	In	115	450153.3	1.3				ug/L	494305	Standard
	Sn	118	69.0	6.3	**0.0015**	0.004	271.9	ug/L	53	Standard
	Sb	123	168.2	13.2	**0.0682**	0.009	13.8	ug/L	7	Standard
	Ba	135	2893.9	0.9	**1.7221**	0.015	0.9	ug/L	11	Standard
	Ce	140	329245.7	1.0				ug/L	10	Standard
>	Tb	159	525487.6	0.9				ug/L	538219	Standard
	Ho	165	32538.2	1.8				ug/L	8	Standard
	Tl	203	1064.4	1.6	**0.1964**	0.002	1.0	ug/L	1	Standard
	Tl	205	1273.4	7.4	**0.1917**	0.016	8.3	ug/L	3	Standard
	Pb	206	675.3	1.1	**0.2519**	0.000	0.1	ug/L	80	Standard
	Pb	207	561.7	2.2	**0.2391**	0.008	3.2	ug/L	73	Standard
	Pb	208	1281.4	2.7	**0.2144**	0.007	3.1	ug/L	190	Standard
	U	238	3214.3	1.1	**0.9704**	0.006	0.6	ug/L	0	Standard
>	Bi	209	247247.5	1.0				ug/L	276439	Standard

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	Na	23	316.7	4.0	**69.6625**	3.097	4.4	mg/L	2	Standard
	Mg	24	1215.0	2.3	**1.0329**	0.014	1.3	mg/L	37	Standard
	K	39	13.3	21.7	**0.2926**	0.143	48.9	mg/L	3	Standard
	Ca	43	391.7	19.2	**87.1306**	19.690	22.6	mg/L	43	Standard
	Fe	54	145216.8	3.2	**60.5558**	1.261	2.1	mg/L	262	Standard
	Fe	57	42324.0	1.6	**62.7762**	0.657	1.0	mg/L	65	Standard
>	**Sc-1**	45	31283.9	1.2				mg/L	26874	Standard
	Cl	35	694461.5	0.6				ug/L	141022	Standard
	Kr	83	283.0	2.0				ug/L	75	Standard
	Br	81	3233.7	9.4				ug/L	2810	Standard
	P	31	602722.3	3.9				ug/L	458976	Standard
	S	34	91656.4	0.1				ug/L	103378	Standard
	Sr	88	928.4	0.8				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	50050.2	3.2				mg/L	10	Standard
	Ho-1	165	32538.2	1.8				mg/L	8	Standard
	Er	166	27488.2	1.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.427	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.347	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		91.068
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.440
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

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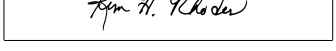

Method 6020 - Summary Report

Sample ID: L1311076709
Sample Date/Time: Monday, November 18, 2013 17:42:38
Number of Replicates: 3
Autosampler Position: 228
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	292258.7	1.2				ug/L	269614	Standard
	Be	9	22059.4	1.3	**6.8413**	0.119	1.7	ug/L	23	Standard
	Al	27	36855523.6	0.5	**162.0964**	1.975	1.2	ug/L	1170	Standard
	Sc	45	31947.0	1.4				ug/L	26874	Standard
	Ti	47	219.3	10.0	**0.8059**	0.101	12.5	ug/L	25	Standard
	V	51	19062.2	2.5	**2.6282**	0.088	3.4	ug/L	1686	Standard
	Cr	52	62801.9	1.4	**8.8674**	0.211	2.4	ug/L	6098	Standard
	Cr	53	11017.3	2.2	**8.9878**	0.234	2.6	ug/L	193	Standard
	Mn	55	24948308.9	0.4	**1926.7584**	31.850	1.7	ug/L	1232	Standard
	Co	59	605094.4	0.9	**67.2363**	1.125	1.7	ug/L	106	Standard
	Ni	60	384503.9	1.3	**145.4487**	1.056	0.7	ug/L	556	Standard
	Cu	65	49231.5	1.1	**19.3947**	0.273	1.4	ug/L	124	Standard
	Zn	66	707495.4	1.2	**510.6242**	3.232	0.6	ug/L	196	Standard
>	Ge	72	458272.9	1.3				ug/L	473313	Standard
	As	75	214.2	26.0	**0.3649**	0.041	11.2	ug/L	-286	Standard
	Se	82	-48.8	37.5	**-0.0382**	0.126	329.7	ug/L	-33	Standard
	Se-1	77	154.3	9.7	**0.7149**	0.132	18.4	ug/L	86	Standard
>	Ga	71	3900.5	4.8				mg/L	35	Standard
	Rb	85	72409.3	1.8				ug/L	13	Standard
	Y	89	1018821.8	1.0				ug/L	439493	Standard
>	Rh	103	156.7	16.4				ug/L	5	Standard
	Mo	98	89.2	11.3	**0.0099**	0.003	27.7	ug/L	10	Standard
	Ag	107	73.3	16.0	**-0.0028**	0.002	67.0	ug/L	53	Standard
	Cd	111	1129.3	0.7	**0.5636**	0.004	0.8	mg/L	1	Standard
	Cd	114	2886.8	5.1	**0.5629**	0.033	5.9	ug/L	32	Standard
>	In	115	449533.9	0.9				ug/L	494305	Standard
	Sn	118	68.0	22.6	**0.0007**	0.013	1865.4	ug/L	53	Standard
	Sb	123	142.3	2.2	**0.0575**	0.002	3.2	ug/L	7	Standard
	Ba	135	2858.3	1.0	**1.7031**	0.032	1.9	ug/L	11	Standard
	Ce	140	326570.4	0.8				ug/L	10	Standard
>	Tb	159	530889.6	0.9				ug/L	538219	Standard
	Ho	165	31018.4	0.1				ug/L	8	Standard
	Tl	203	1016.0	2.3	**0.1859**	0.004	2.1	ug/L	1	Standard
	Tl	205	1358.4	7.9	**0.2029**	0.017	8.2	ug/L	3	Standard
	Pb	206	737.7	3.3	**0.2765**	0.010	3.5	ug/L	80	Standard
	Pb	207	582.0	4.3	**0.2467**	0.012	4.9	ug/L	73	Standard
	Pb	208	1409.4	1.5	**0.2375**	0.003	1.4	ug/L	190	Standard
	U	238	3196.3	1.7	**0.9574**	0.013	1.4	ug/L	0	Standard
>	Bi	209	249182.3	0.3				ug/L	276439	Standard

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	Na	23	253.3	9.9	**54.4497**	5.083	9.3	mg/L	2	Standard
	Mg	24	1248.4	3.7	**1.0393**	0.027	2.6	mg/L	37	Standard
	K	39	18.3	128.9	**0.5225**	1.167	223.4	mg/L	3	Standard
	Ca	43	326.7	8.8	**69.1439**	6.871	9.9	mg/L	43	Standard
	Fe	54	145360.8	1.5	**59.3732**	1.355	2.3	mg/L	262	Standard
	Fe	57	42121.8	3.2	**61.1703**	1.415	2.3	mg/L	65	Standard
>	**Sc-1**	45	31947.0	1.4				mg/L	26874	Standard
	Cl	35	697680.2	0.8				ug/L	141022	Standard
	Kr	83	278.0	4.8				ug/L	75	Standard
	Br	81	3427.1	8.0				ug/L	2810	Standard
	P	31	605493.0	2.5				ug/L	458976	Standard
	S	34	92317.1	1.5				ug/L	103378	Standard
	Sr	88	896.7	1.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	48046.8	1.6				mg/L	10	Standard
	Ho-1	165	31018.4	0.1				mg/L	8	Standard
	Er	166	27000.7	3.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.399	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.822	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.943
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.140
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

Approved: November 19, 2013

Method 6020 - Summary Report

Sample ID: L1311076710
Sample Date/Time: Monday, November 18, 2013 17:45:44
Number of Replicates: 3
Autosampler Position: 229
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	383149.2	0.8				ug/L	269614	Standard
	Be	9	98841.4	1.4	**23.4211**	0.467	2.0	ug/L	23	Standard
	Al	27	95094233.6	0.1	**319.0173**	2.502	0.8	ug/L	1170	Standard
	Sc	45	66244.5	1.1				ug/L	26874	Standard
	Ti	47	35511.9	0.7	**184.4406**	0.874	0.5	ug/L	25	Standard
	V	51	50180.8	3.7	**9.1450**	0.345	3.8	ug/L	1686	Standard
	Cr	52	263650.8	0.6	**49.9039**	0.229	0.5	ug/L	6098	Standard
	Cr	53	42240.5	1.7	**43.9807**	0.606	1.4	ug/L	193	Standard
	Mn	55	371007388.1	0.4	**36129.4495**	279.755	0.8	ug/L	1232	Standard
	Co	59	9592607.8	1.0	**1344.2712**	16.867	1.3	ug/L	106	Standard
	Ni	60	3931440.6	0.5	**1877.7102**	10.897	0.6	ug/L	556	Standard
	Cu	65	232083.0	0.8	**115.5776**	0.540	0.5	ug/L	124	Standard
	Zn	66	5639824.5	0.9	**5134.5870**	51.956	1.0	ug/L	196	Standard
>	**Ge**	72	363420.5	0.4				ug/L	473313	Standard
	As	75	-706.2	39.6	**-0.4229**	0.251	59.3	ug/L	-286	Standard
	Se	82	-1979.7	5.6	**-17.0567**	0.949	5.6	ug/L	-33	Standard
	Se-1	77	809.4	3.4	**8.9723**	0.363	4.0	ug/L	86	Standard
>	**Ga**	71	17508.4	1.1				mg/L	35	Standard
	Rb	85	72143.1	2.3				ug/L	13	Standard
	Y	89	8434544.5	1.7				ug/L	439493	Standard
>	**Rh**	103	980.0	7.6				ug/L	5	Standard
	Mo	98	314698.5	0.7	**123.1843**	0.770	0.6	ug/L	10	Standard
	Ag	107	336.3	12.9	**0.0628**	0.010	16.6	ug/L	53	Standard
	Cd	111	13181.6	1.6	**9.1831**	0.135	1.5	mg/L	1	Standard
	Cd	114	33126.2	2.2	**9.1119**	0.164	1.8	ug/L	32	Standard
>	**In**	115	323596.9	0.5				ug/L	494305	Standard
	Sn	118	187.0	5.4	**0.1619**	0.012	7.1	ug/L	53	Standard
	Sb	123	602.2	2.8	**0.3454**	0.011	3.2	ug/L	7	Standard
	Ba	135	209585.3	0.8	**174.7269**	0.656	0.4	ug/L	11	Standard
	Ce	140	4121815.1	0.2				ug/L	10	Standard
>	**Tb**	159	715224.2	0.8				ug/L	538219	Standard
	Ho	165	336206.0	0.6				ug/L	8	Standard
	Tl	203	2127.8	0.6	**0.5423**	0.008	1.5	ug/L	1	Standard
	Tl	205	2431.9	0.5	**0.5032**	0.003	0.6	ug/L	3	Standard
	Pb	206	14933.0	1.3	**8.8691**	0.046	0.5	ug/L	80	Standard
	Pb	207	11964.7	0.7	**7.8922**	0.045	0.6	ug/L	73	Standard
	Pb	208	30434.2	1.2	**8.1983**	0.028	0.3	ug/L	190	Standard
	U	238	30485.0	3.3	**12.6462**	0.302	2.4	ug/L	0	Standard
>	**Bi**	209	180221.6	0.9				ug/L	276439	Standard

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	Na	23	2763.6	3.1	**288.3783**	7.858	2.7	mg/L	2	Standard
	Mg	24	3147.0	5.7	**1.2702**	0.062	4.9	mg/L	37	Standard
	K	39	53.3	28.6	**0.8949**	0.379	42.4	mg/L	3	Standard
	Ca	43	4824.1	3.7	**555.6830**	20.983	3.8	mg/L	43	Standard
	Fe	54	243428.0	0.8	**47.9237**	0.785	1.6	mg/L	262	Standard
	Fe	57	81614.2	0.7	**57.1623**	0.682	1.2	mg/L	65	Standard
>	**Sc-1**	45	66244.5	1.1				mg/L	26874	Standard
	Cl	35	460418.2	1.3				ug/L	141022	Standard
	Kr	83	3248.7	3.5				ug/L	75	Standard
	Br	81	16909.4	5.3				ug/L	2810	Standard
	P	31	1732358.9	1.3				ug/L	458976	Standard
	S	34	81190.5	3.5				ug/L	103378	Standard
	Sr	88	7620.2	2.1				ug/L	30	Standard
	C	12	6.7	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	514661.4	0.9				mg/L	10	Standard
	Ho-1	165	336206.0	0.6				mg/L	8	Standard
	Er	166	287305.2	1.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		142.110	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		76.782	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	65.465
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	65.194
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Co 59 Upper, S, EEE	Co	59	

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Ni 60 Upper, S, EEE	Ni	60
Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
As 75 Lower	As	75
Se 82 Lower	Se	82
Mo 98 Upper, S, EEE	Mo	98
Ba 135 Upper, S, EEE	Ba	135

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Method 6020 - Summary Report

Sample ID: L1311076711
Sample Date/Time: Monday, November 18, 2013 17:48:49
Number of Replicates: 3
Autosampler Position: 230
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	500190.0	1.5				ug/L	269614	Standard
	Be	9	443.3	6.8	**0.0644**	0.004	6.7	ug/L	23	Standard
	Al	27	34343788.8	2.4	**88.2472**	1.734	2.0	ug/L	1170	Standard
	Sc	45	26207.7	2.4				ug/L	26874	Standard
	Ti	47	181.7	10.4	**0.6661**	0.070	10.5	ug/L	25	Standard
	V	51	1925.6	0.7	**0.1082**	0.004	4.0	ug/L	1686	Standard
	Cr	52	7346.1	1.1	**0.4519**	0.025	5.6	ug/L	6098	Standard
	Cr	53	585.0	9.0	**0.3568**	0.051	14.4	ug/L	193	Standard
	Mn	55	5249149.2	1.0	**414.3824**	2.333	0.6	ug/L	1232	Standard
	Co	59	44174.7	1.9	**5.0042**	0.028	0.6	ug/L	106	Standard
	Ni	60	49015.9	2.3	**18.7849**	0.420	2.2	ug/L	556	Standard
	Cu	65	6131.6	1.3	**2.4180**	0.056	2.3	ug/L	124	Standard
	Zn	66	25232.3	1.8	**18.4315**	0.250	1.4	ug/L	196	Standard
>	**Ge**	72	448166.0	1.3				ug/L	473313	Standard
	As	75	134.1	15.9	**0.3095**	0.014	4.6	ug/L	-286	Standard
	Se	82	141.4	7.6	**1.3061**	0.073	5.6	ug/L	-33	Standard
	Se-1	77	147.0	10.7	**0.6781**	0.163	24.1	ug/L	86	Standard
>	**Ga**	71	161.7	11.7				mg/L	35	Standard
	Rb	85	91243.9	0.4				ug/L	13	Standard
	Y	89	438407.2	2.9				ug/L	439493	Standard
>	**Rh**	103	240.0	7.2				ug/L	5	Standard
	Mo	98	14268.1	2.2	**3.9015**	0.097	2.5	ug/L	10	Standard
	Ag	107	55.3	5.2	**-0.0060**	0.000	7.3	ug/L	53	Standard
	Cd	111	90.4	12.8	**0.0413**	0.005	13.0	mg/L	1	Standard
	Cd	114	273.9	19.2	**0.0435**	0.010	24.1	ug/L	32	Standard
>	**In**	115	461514.9	0.7				ug/L	494305	Standard
	Sn	118	103.7	6.4	**0.0284**	0.005	18.1	ug/L	53	Standard
	Sb	123	148.8	4.8	**0.0586**	0.003	4.7	ug/L	7	Standard
	Ba	135	7270.7	2.6	**4.2376**	0.087	2.0	ug/L	11	Standard
	Ce	140	12618.6	3.4				ug/L	10	Standard
>	**Tb**	159	492644.0	1.7				ug/L	538219	Standard
	Ho	165	976.7	13.7				ug/L	8	Standard
	Tl	203	295.7	4.1	**0.0531**	0.003	4.8	ug/L	1	Standard
	Tl	205	391.7	8.2	**0.0586**	0.005	7.7	ug/L	3	Standard
	Pb	206	280.7	3.6	**0.0805**	0.004	5.1	ug/L	80	Standard
	Pb	207	235.3	3.3	**0.0818**	0.004	4.5	ug/L	73	Standard
	Pb	208	539.3	6.3	**0.0682**	0.006	9.3	ug/L	190	Standard
	U	238	1259.7	3.4	**0.3800**	0.011	2.8	ug/L	0	Standard
>	**Bi**	209	246697.5	0.6				ug/L	276439	Standard

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	Na	23	420.0	5.5	**110.5544**	6.283	5.7	mg/L	2	Standard
	Mg	24	4068.9	4.8	**4.2242**	0.161	3.8	mg/L	37	Standard
	K	39	60.0	43.3	**3.2671**	1.678	51.3	mg/L	3	Standard
	Ca	43	513.3	3.0	**141.9083**	2.602	1.8	mg/L	43	Standard
	Fe	54	1584.1	3.0	**0.6640**	0.024	3.6	mg/L	262	Standard
	Fe	57	1173.4	5.8	**1.9854**	0.145	7.3	mg/L	65	Standard
>	**Sc-1**	45	26207.7	2.4				mg/L	26874	Standard
	Cl	35	496563.2	1.6				ug/L	141022	Standard
	Kr	83	119.7	3.9				ug/L	75	Standard
	Br	81	19649.4	6.7				ug/L	2810	Standard
	P	31	431330.1	2.9				ug/L	458976	Standard
	S	34	104625.0	1.3				ug/L	103378	Standard
	Sr	88	1106.7	8.8				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	1510.9	10.8				mg/L	10	Standard
	Ho-1	165	976.7	13.7				mg/L	8	Standard
	Er	166	886.7	11.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		185.521	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.687	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		93.366
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.241
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	

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Method 6020 - Summary Report

Sample ID: L1311046501
Sample Date/Time: Monday, November 18, 2013 17:51:54
Number of Replicates: 3
Autosampler Position: 231
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	251340.0	2.5				ug/L	269614	Standard
	Be	9	120.0	14.4	**0.0272**	0.005	19.4	ug/L	23	Standard
	Al	27	10044000.3	2.7	**51.3573**	0.519	1.0	ug/L	1170	Standard
	Sc	45	26760.3	2.3				ug/L	26874	Standard
	Ti	47	1619.4	2.2	**6.8669**	0.130	1.9	ug/L	25	Standard
	V	51	8781.1	2.0	**1.1690**	0.027	2.3	ug/L	1686	Standard
	Cr	52	9735.8	3.4	**0.8546**	0.025	3.0	ug/L	6098	Standard
	Cr	53	3043.6	4.4	**2.4925**	0.119	4.8	ug/L	193	Standard
	Mn	55	93012.6	13.3	**7.3561**	0.983	13.4	ug/L	1232	Standard
	Co	59	2230.5	13.8	**0.2433**	0.035	14.4	ug/L	106	Standard
	Ni	60	6243.3	5.2	**2.2665**	0.117	5.2	ug/L	556	Standard
	Cu	65	2858.3	3.8	**1.1186**	0.024	2.1	ug/L	124	Standard
	Zn	66	25473.1	1.5	**19.0004**	0.325	1.7	ug/L	196	Standard
>	Ge	72	439085.4	1.8				ug/L	473313	Standard
	As	75	2013.7	4.5	**1.7105**	0.058	3.4	ug/L	-286	Standard
	Se	82	851.4	2.7	**6.4809**	0.185	2.9	ug/L	-33	Standard
	Se-1	77	255.7	4.3	**1.7894**	0.148	8.3	ug/L	86	Standard
>	Ga	71	470.0	1.1				mg/L	35	Standard
	Rb	85	15025.8	2.2				ug/L	13	Standard
	Y	89	412844.1	2.3				ug/L	439493	Standard
>	Rh	103	138.3	9.1				ug/L	5	Standard
	Mo	98	1429.5	5.3	**0.3876**	0.018	4.7	ug/L	10	Standard
	Ag	107	108.0	3.3	**0.0030**	0.001	21.7	ug/L	53	Standard
	Cd	111	37.5	9.4	**0.0159**	0.002	11.5	mg/L	1	Standard
	Cd	114	111.9	24.7	**0.0128**	0.006	44.3	ug/L	32	Standard
>	In	115	449445.3	0.8				ug/L	494305	Standard
	Sn	118	239.7	2.3	**0.1450**	0.003	2.4	ug/L	53	Standard
	Sb	123	161.5	5.7	**0.0655**	0.004	6.1	ug/L	7	Standard
	Ba	135	35451.1	2.0	**21.2674**	0.288	1.4	ug/L	11	Standard
	Ce	140	21411.8	3.4				ug/L	10	Standard
>	Tb	159	472486.8	1.6				ug/L	538219	Standard
	Ho	165	266.7	9.2				ug/L	8	Standard
	Tl	203	124.0	1.6	**0.0211**	0.000	1.5	ug/L	1	Standard
	Tl	205	160.0	19.0	**0.0236**	0.005	20.5	ug/L	3	Standard
	Pb	206	914.0	1.1	**0.3576**	0.009	2.6	ug/L	80	Standard
	Pb	207	784.4	3.2	**0.3484**	0.011	3.1	ug/L	73	Standard
	Pb	208	1790.7	4.0	**0.3165**	0.013	4.2	ug/L	190	Standard
	U	238	2374.2	1.3	**0.7196**	0.008	1.1	ug/L	0	Standard
>	Bi	209	246094.0	1.3				ug/L	276439	Standard

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	Na	23	140.0	15.6	**35.7339**	5.033	14.1	mg/L	2	Standard
	Mg	24	12620.3	2.6	**12.9011**	0.390	3.0	mg/L	37	Standard
	K	39	20.0	50.0	**0.7954**	0.568	71.4	mg/L	3	Standard
	Ca	43	180.0	27.4	**41.8518**	13.876	33.2	mg/L	43	Standard
	Fe	54	823.6	23.6	**0.2746**	0.085	30.9	mg/L	262	Standard
	Fe	57	413.3	17.6	**0.6194**	0.109	17.6	mg/L	65	Standard
>	**Sc-1**	45	26760.3	2.3				mg/L	26874	Standard
	Cl	35	178818.8	2.5				ug/L	141022	Standard
	Kr	83	95.7	2.2				ug/L	75	Standard
	Br	81	134460.8	2.0				ug/L	2810	Standard
	P	31	598149.6	5.4				ug/L	458976	Standard
	S	34	90383.8	0.6				ug/L	103378	Standard
	Sr	88	640.0	7.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	463.9	23.8				mg/L	10	Standard
	Ho-1	165	266.7	9.2				mg/L	8	Standard
	Er	166	196.7	7.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.222	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.768	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.925
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.023
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311046502
Sample Date/Time: Monday, November 18, 2013 17:54:58
Number of Replicates: 3
Autosampler Position: 232
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	247004.4	2.2				ug/L	269614	Standard
	Be	9	36.7	15.7	**-0.0026**	0.002	71.4	ug/L	23	Standard
	Al	27	12089046.0	1.5	**62.9348**	2.317	3.7	ug/L	1170	Standard
	Sc	45	25117.5	1.0				ug/L	26874	Standard
	Ti	47	193.0	8.3	**0.7587**	0.077	10.2	ug/L	25	Standard
	V	51	5776.0	2.3	**0.7356**	0.026	3.5	ug/L	1686	Standard
	Cr	52	8186.5	1.3	**0.6513**	0.026	4.0	ug/L	6098	Standard
	Cr	53	4303.9	2.5	**3.7036**	0.125	3.4	ug/L	193	Standard
	Mn	55	17486.6	28.5	**1.3176**	0.423	32.1	ug/L	1232	Standard
	Co	59	1100.7	13.1	**0.1165**	0.018	15.5	ug/L	106	Standard
	Ni	60	5153.9	2.3	**1.9024**	0.049	2.6	ug/L	556	Standard
	Cu	65	1251.7	1.4	**0.4731**	0.009	1.9	ug/L	124	Standard
	Zn	66	3197.3	3.1	**2.2905**	0.068	3.0	ug/L	196	Standard
>	**Ge**	72	425227.6	0.7				ug/L	473313	Standard
	As	75	4071.3	2.4	**3.3406**	0.052	1.5	ug/L	-286	Standard
	Se	82	1839.2	1.4	**14.0825**	0.120	0.8	ug/L	-33	Standard
	Se-1	77	512.7	7.9	**4.5118**	0.441	9.8	ug/L	86	Standard
>	**Ga**	71	26.7	94.4				mg/L	35	Standard
	Rb	85	11874.7	3.1				ug/L	13	Standard
	Y	89	395153.4	0.9				ug/L	439493	Standard
>	**Rh**	103	173.3	7.3				ug/L	5	Standard
	Mo	98	847.1	1.5	**0.2307**	0.003	1.1	ug/L	10	Standard
	Ag	107	67.0	20.9	**-0.0035**	0.002	70.8	ug/L	53	Standard
	Cd	111	12.0	21.7	**0.0033**	0.001	40.2	mg/L	1	Standard
	Cd	114	34.9	59.5	**-0.0023**	0.004	179.9	ug/L	32	Standard
>	**In**	115	436361.6	0.6				ug/L	494305	Standard
	Sn	118	64.7	6.2	**-0.0004**	0.003	747.2	ug/L	53	Standard
	Sb	123	134.8	8.3	**0.0561**	0.005	9.0	ug/L	7	Standard
	Ba	135	34294.4	1.4	**21.1907**	0.165	0.8	ug/L	11	Standard
	Ce	140	275.0	10.1				ug/L	10	Standard
>	**Tb**	159	461780.8	1.6				ug/L	538219	Standard
	Ho	165	11.7	65.5				ug/L	8	Standard
	Tl	203	88.3	9.5	**0.0148**	0.002	11.2	ug/L	1	Standard
	Tl	205	110.0	12.0	**0.0164**	0.002	12.9	ug/L	3	Standard
	Pb	206	130.3	13.1	**0.0165**	0.008	46.5	ug/L	80	Standard
	Pb	207	115.3	5.6	**0.0253**	0.003	12.9	ug/L	73	Standard
	Pb	208	252.0	8.8	**0.0128**	0.004	35.0	ug/L	190	Standard
	U	238	1989.8	3.1	**0.6177**	0.016	2.6	ug/L	0	Standard
>	**Bi**	209	240164.5	0.6				ug/L	276439	Standard

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	Na	23	133.3	16.9	**36.2913**	5.905	16.3	mg/L	2	Standard
	Mg	24	15234.3	2.6	**16.5971**	0.423	2.6	mg/L	37	Standard
	K	39	15.0	57.7	**0.5619**	0.543	96.6	mg/L	3	Standard
	Ca	43	203.3	3.8	**52.5844**	1.932	3.7	mg/L	43	Standard
	Fe	54	437.2	9.6	**0.1010**	0.021	20.5	mg/L	262	Standard
	Fe	57	328.3	8.4	**0.5110**	0.055	10.7	mg/L	65	Standard
>	**Sc-1**	45	25117.5	1.0				mg/L	26874	Standard
	Cl	35	186614.9	0.2				ug/L	141022	Standard
	Kr	83	100.3	6.4				ug/L	75	Standard
	Br	81	273265.8	1.2				ug/L	2810	Standard
	P	31	560522.6	3.4				ug/L	458976	Standard
	S	34	94748.7	1.2				ug/L	103378	Standard
	Sr	88	830.0	5.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	13.0	46.5				mg/L	10	Standard
	Ho-1	165	11.7	65.5				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.614	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.841	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.278
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	86.878
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311046503
Sample Date/Time: Monday, November 18, 2013 17:58:03
Number of Replicates: 3
Autosampler Position: 233
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	245418.2	3.5				ug/L	269614	Standard
	Be	9	43.3	37.1	**0.0001**	0.006	5202.1	ug/L	23	Standard
	Al	27	5327215.1	0.8	**27.9115**	0.774	2.8	ug/L	1170	Standard
	Sc	45	26194.3	1.8				ug/L	26874	Standard
	Ti	47	266.0	4.7	**1.0704**	0.045	4.2	ug/L	25	Standard
	V	51	13269.3	1.4	**1.9044**	0.010	0.5	ug/L	1686	Standard
	Cr	52	10444.6	1.3	**1.0042**	0.008	0.8	ug/L	6098	Standard
	Cr	53	3257.0	10.2	**2.7398**	0.305	11.1	ug/L	193	Standard
	Mn	55	12997.9	31.0	**0.9298**	0.322	34.6	ug/L	1232	Standard
	Co	59	550.7	20.1	**0.0498**	0.012	25.1	ug/L	106	Standard
	Ni	60	2464.9	2.7	**0.7944**	0.023	2.9	ug/L	556	Standard
	Cu	65	914.7	3.0	**0.3257**	0.015	4.5	ug/L	124	Standard
	Zn	66	4589.0	1.6	**3.3372**	0.029	0.9	ug/L	196	Standard
>	**Ge**	72	429580.0	0.9				ug/L	473313	Standard
	As	75	626.6	12.1	**0.6884**	0.055	8.0	ug/L	-286	Standard
	Se	82	236.0	3.3	**2.0513**	0.046	2.2	ug/L	-33	Standard
	Se-1	77	298.7	5.4	**2.2821**	0.184	8.1	ug/L	86	Standard
>	**Ga**	71	53.3	14.3				mg/L	35	Standard
	Rb	85	21620.4	2.4				ug/L	13	Standard
	Y	89	400594.6	2.0				ug/L	439493	Standard
>	**Rh**	103	90.0	20.0				ug/L	5	Standard
	Mo	98	3691.2	2.2	**1.0416**	0.011	1.1	ug/L	10	Standard
	Ag	107	867.7	4.2	**0.1318**	0.005	3.5	ug/L	53	Standard
	Cd	111	8.3	40.5	**0.0013**	0.002	127.2	mg/L	1	Standard
	Cd	114	37.5	60.5	**-0.0019**	0.004	231.8	ug/L	32	Standard
>	**In**	115	442435.7	1.1				ug/L	494305	Standard
	Sn	118	93.0	9.6	**0.0230**	0.007	30.2	ug/L	53	Standard
	Sb	123	155.9	17.5	**0.0641**	0.011	17.1	ug/L	7	Standard
	Ba	135	63221.3	1.1	**38.5400**	0.097	0.3	ug/L	11	Standard
	Ce	140	811.7	21.8				ug/L	10	Standard
>	**Tb**	159	462286.4	0.1				ug/L	538219	Standard
	Ho	165	20.0	66.1				ug/L	8	Standard
	Tl	203	81.7	11.3	**0.0132**	0.002	13.7	ug/L	1	Standard
	Tl	205	98.3	22.9	**0.0143**	0.003	23.7	ug/L	3	Standard
	Pb	206	237.7	3.5	**0.0622**	0.004	6.6	ug/L	80	Standard
	Pb	207	194.3	7.3	**0.0624**	0.006	10.4	ug/L	73	Standard
	Pb	208	479.3	4.8	**0.0568**	0.004	7.2	ug/L	190	Standard
	U	238	1138.7	4.5	**0.3450**	0.015	4.3	ug/L	0	Standard
>	**Bi**	209	245465.4	0.6				ug/L	276439	Standard

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	Na	23	53.3	37.9	**13.6851**	5.393	39.4	mg/L	2	Standard
	Mg	24	8280.6	3.6	**8.6332**	0.167	1.9	mg/L	37	Standard
	K	39	15.0	33.3	**0.5238**	0.295	56.3	mg/L	3	Standard
	Ca	43	103.3	19.6	**20.3104**	5.719	28.2	mg/L	43	Standard
	Fe	54	316.8	3.7	**0.0317**	0.006	19.0	mg/L	262	Standard
	Fe	57	193.3	9.8	**0.2461**	0.030	12.1	mg/L	65	Standard
>	**Sc-1**	45	26194.3	1.8				mg/L	26874	Standard
	Cl	35	152288.2	0.3				ug/L	141022	Standard
	Kr	83	84.7	6.9				ug/L	75	Standard
	Br	81	28653.7	1.7				ug/L	2810	Standard
	P	31	571105.0	1.1				ug/L	458976	Standard
	S	34	101644.8	1.2				ug/L	103378	Standard
	Sr	88	491.7	5.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	45.7	83.8				mg/L	10	Standard
	Ho-1	165	20.0	66.1				mg/L	8	Standard
	Er	166	20.0	50.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.026	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.760	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.507
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	88.795
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311055701
Sample Date/Time: Monday, November 18, 2013 18:01:08
Number of Replicates: 3
Autosampler Position: 234
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	237183.9	1.4				ug/L	269614	Standard
	Be	9	36.7	20.8	**-0.0020**	0.003	149.6	ug/L	23	Standard
	Al	27	16839742.5	0.4	**91.2661**	1.643	1.8	ug/L	1170	Standard
	Sc	45	24882.1	1.0				ug/L	26874	Standard
	Ti	47	156.0	10.6	**0.5986**	0.081	13.6	ug/L	25	Standard
	V	51	11556.4	1.4	**1.6646**	0.037	2.2	ug/L	1686	Standard
	Cr	52	6531.1	1.8	**0.3862**	0.033	8.5	ug/L	6098	Standard
	Cr	53	3047.0	5.5	**2.5971**	0.158	6.1	ug/L	193	Standard
	Mn	55	385338.5	0.2	**32.1204**	0.381	1.2	ug/L	1232	Standard
	Co	59	664.3	4.1	**0.0646**	0.003	3.9	ug/L	106	Standard
	Ni	60	3295.7	1.1	**1.1518**	0.028	2.5	ug/L	556	Standard
	Cu	65	1208.7	0.2	**0.4579**	0.007	1.4	ug/L	124	Standard
	Zn	66	5707.4	1.2	**4.2696**	0.018	0.4	ug/L	196	Standard
>	**Ge**	72	422775.9	1.3				ug/L	473313	Standard
	As	75	988.7	7.5	**0.9767**	0.067	6.8	ug/L	-286	Standard
	Se	82	189.8	6.4	**1.7320**	0.103	6.0	ug/L	-33	Standard
	Se-1	77	376.7	6.1	**3.1356**	0.220	7.0	ug/L	86	Standard
>	**Ga**	71	71.7	38.4				mg/L	35	Standard
	Rb	85	8062.1	2.8				ug/L	13	Standard
	Y	89	390361.5	0.7				ug/L	439493	Standard
>	**Rh**	103	63.3	25.4				ug/L	5	Standard
	Mo	98	5941.4	1.3	**1.7310**	0.015	0.9	ug/L	10	Standard
	Ag	107	47.3	18.5	**-0.0068**	0.002	23.1	ug/L	53	Standard
	Cd	111	21.7	16.6	**0.0085**	0.002	24.1	mg/L	1	Standard
	Cd	114	111.6	36.5	**0.0136**	0.009	63.1	ug/L	32	Standard
>	**In**	115	431065.8	1.7				ug/L	494305	Standard
	Sn	118	66.3	8.6	**0.0018**	0.006	329.9	ug/L	53	Standard
	Sb	123	197.5	8.5	**0.0838**	0.006	6.9	ug/L	7	Standard
	Ba	135	63990.9	0.9	**40.0415**	0.288	0.7	ug/L	11	Standard
	Ce	140	395.0	11.0				ug/L	10	Standard
>	**Tb**	159	455255.1	0.6				ug/L	538219	Standard
	Ho	165	10.0	50.0				ug/L	8	Standard
	Tl	203	70.7	5.4	**0.0118**	0.001	6.9	ug/L	1	Standard
	Tl	205	85.0	10.2	**0.0129**	0.001	11.4	ug/L	3	Standard
	Pb	206	1397.1	5.1	**0.5993**	0.033	5.5	ug/L	80	Standard
	Pb	207	1153.0	3.5	**0.5553**	0.021	3.8	ug/L	73	Standard
	Pb	208	2717.4	1.7	**0.5272**	0.005	1.0	ug/L	190	Standard
	U	238	3989.9	2.1	**1.2714**	0.020	1.5	ug/L	0	Standard
>	**Bi**	209	234328.5	0.7				ug/L	276439	Standard

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	Na	23	101.7	28.0	**27.8860**	8.001	28.7	mg/L	2	Standard
	Mg	24	36818.0	1.5	**40.5353**	0.353	0.9	mg/L	37	Standard
	K	39	8.3	173.2	**0.1467**	0.914	623.4	mg/L	3	Standard
	Ca	43	93.3	32.7	**18.8295**	9.498	50.4	mg/L	43	Standard
	Fe	54	400.4	7.6	**0.0838**	0.015	17.6	mg/L	262	Standard
	Fe	57	218.3	16.1	**0.3108**	0.063	20.2	mg/L	65	Standard
>	**Sc-1**	45	24882.1	1.0				mg/L	26874	Standard
	Cl	35	162759.6	1.1				ug/L	141022	Standard
	Kr	83	90.3	13.9				ug/L	75	Standard
	Br	81	30741.2	4.0				ug/L	2810	Standard
	P	31	485988.9	1.5				ug/L	458976	Standard
	S	34	108099.3	1.5				ug/L	103378	Standard
	Sr	88	391.7	9.4				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	39.7	43.0				mg/L	10	Standard
	Ho-1	165	10.0	50.0				mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		87.972	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.323	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	87.206
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.767
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 18:04:15
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	240021.8	2.3				ug/L	269614	Standard
	Be	9	133539.6	3.0	**50.5319**	1.356	2.7	ug/L	23	Standard
	Al	27	8605441.0	2.3	**46.1054**	2.022	4.4	ug/L	1170	Standard
	Sc	45	25127.5	2.1				ug/L	26874	Standard
	Ti	47	24337.9	1.0	**105.2538**	0.749	0.7	ug/L	25	Standard
	V	51	313334.9	0.5	**48.3316**	0.235	0.5	ug/L	1686	Standard
	Cr	52	306107.4	1.0	**48.2406**	0.102	0.2	ug/L	6098	Standard
	Cr	53	56307.8	2.1	**48.8510**	0.745	1.5	ug/L	193	Standard
	Mn	55	616970.0	1.2	**49.9075**	0.358	0.7	ug/L	1232	Standard
	Co	59	406624.1	0.3	**47.4519**	0.313	0.7	ug/L	106	Standard
	Ni	60	124023.6	1.9	**49.1441**	0.602	1.2	ug/L	556	Standard
	Cu	65	120968.0	0.7	**50.1523**	0.758	1.5	ug/L	124	Standard
	Zn	66	66073.4	0.6	**49.9143**	0.461	0.9	ug/L	196	Standard
>	Ge	72	436281.0	0.8				ug/L	473313	Standard
	As	75	66534.9	0.3	**50.0527**	0.504	1.0	ug/L	-286	Standard
	Se	82	6760.8	0.9	**49.6843**	0.831	1.7	ug/L	-33	Standard
	Se-1	77	5010.8	1.7	**49.4083**	0.845	1.7	ug/L	86	Standard
>	Ga	71	63.3	9.1				mg/L	35	Standard
	Rb	85	1066.7	7.6				ug/L	13	Standard
	Y	89	407346.6	0.6				ug/L	439493	Standard
>	Rh	103	23.3	68.9				ug/L	5	Standard
	Mo	98	370475.3	0.4	**103.9581**	0.398	0.4	ug/L	10	Standard
	Ag	107	316314.8	0.8	**52.4298**	0.417	0.8	ug/L	53	Standard
	Cd	111	99332.3	0.4	**49.6225**	0.163	0.3	mg/L	1	Standard
	Cd	114	250805.7	1.2	**49.4998**	0.408	0.8	ug/L	32	Standard
>	In	115	451393.6	0.4				ug/L	494305	Standard
	Sn	118	60636.8	0.5	**50.6841**	0.082	0.2	ug/L	53	Standard
	Sb	123	121481.0	0.8	**50.1660**	0.314	0.6	ug/L	7	Standard
	Ba	135	83990.5	0.3	**50.1889**	0.196	0.4	ug/L	11	Standard
	Ce	140	95.0	77.9				ug/L	10	Standard
>	Tb	159	467368.9	0.4				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	266364.0	0.3	**49.3382**	0.208	0.4	ug/L	1	Standard
	Tl	205	345266.4	0.8	**51.7954**	0.733	1.4	ug/L	3	Standard
	Pb	206	121523.5	1.3	**52.4589**	0.510	1.0	ug/L	80	Standard
	Pb	207	109149.8	0.9	**52.3034**	0.331	0.6	ug/L	73	Standard
	Pb	208	248064.6	0.9	**48.5681**	0.337	0.7	ug/L	190	Standard
	U	238	161843.5	1.1	**48.6197**	0.577	1.2	ug/L	0	Standard
>	Bi	209	248932.0	0.6				ug/L	276439	Standard

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	Na	23	28.3	20.4	**7.3690**	1.498	20.3	mg/L	2	Standard
	Mg	24	4777.4	4.4	**5.1836**	0.293	5.7	mg/L	37	Standard
	K	39	81.7	19.7	**4.7536**	0.950	20.0	mg/L	3	Standard
	Ca	43	46.7	16.4	**4.1057**	2.283	55.6	mg/L	43	Standard
	Fe	54	11356.8	2.4	**5.7827**	0.055	1.0	mg/L	262	Standard
	Fe	57	3128.7	6.3	**5.6901**	0.353	6.2	mg/L	65	Standard
>	**Sc-1**	45	25127.5	2.1				mg/L	26874	Standard
	Cl	35	147014.5	1.0				ug/L	141022	Standard
	Kr	83	97.3	11.3				ug/L	75	Standard
	Br	81	2923.6	3.6				ug/L	2810	Standard
	P	31	479823.2	1.2				ug/L	458976	Standard
	S	34	135991.0	1.9				ug/L	103378	Standard
	Sr	88	43.3	29.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.4	209.1				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	20.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.024	
	Be	9	101.064		
	Al	27	92.211		
	Sc	45			
	Ti	47	105.254		
	V	51	96.663		
	Cr	52	96.481		
	Cr	53			
	Mn	55	99.815		
	Co	59	94.904		
	Ni	60	98.288		
	Cu	65	100.305		
	Zn	66	99.829		
>	Ge	72		92.176	
	As	75	100.105		
	Se	82	99.369		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.958		
|	Ag	107	104.860		
|	Cd	111	99.245		
|	Cd	114			
|>	In	115		91.319	
|	Sn	118	101.368		
|	Sb	123	100.332		
⌊	Ba	135	100.378		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	98.676		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.136		
|	U	238	97.239		
⌊>	Bi	209		90.049	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 18:07:20
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	236175.1	1.6				ug/L	269614	Standard
	Be	9	53.3	5.4	**0.0045**	0.001	30.9	ug/L	23	Standard
	Al	27	855.0	4.8	**-0.0025**	0.000	7.6	ug/L	1170	Standard
	Sc	45	23989.0	0.2				ug/L	26874	Standard
	Ti	47	11.0	56.8	**-0.0502**	0.028	55.1	ug/L	25	Standard
	V	51	981.5	5.4	**-0.0273**	0.008	28.6	ug/L	1686	Standard
	Cr	52	3426.7	1.6	**-0.1338**	0.007	4.9	ug/L	6098	Standard
	Cr	53	160.0	20.5	**0.0026**	0.030	1125.2	ug/L	193	Standard
	Mn	55	989.4	3.4	**-0.0575**	0.002	4.2	ug/L	1232	Standard
	Co	59	80.0	4.5	**-0.0059**	0.000	7.1	ug/L	106	Standard
	Ni	60	273.7	7.3	**-0.0908**	0.008	8.4	ug/L	556	Standard
	Cu	65	165.0	9.2	**0.0098**	0.006	61.7	ug/L	124	Standard
	Zn	66	466.7	5.5	**0.1631**	0.020	12.1	ug/L	196	Standard
>	**Ge**	72	428559.1	0.5				ug/L	473313	Standard
	As	75	-257.2	18.6	**0.0156**	0.037	238.8	ug/L	-286	Standard
	Se	82	-43.3	18.1	**-0.0210**	0.060	283.3	ug/L	-33	Standard
	Se-1	77	72.0	2.8	**-0.0216**	0.017	79.8	ug/L	86	Standard
>	**Ga**	71	25.0	52.9				mg/L	35	Standard
	Rb	85	15.0	33.3				ug/L	13	Standard
	Y	89	396445.6	1.7				ug/L	439493	Standard
>	**Rh**	103	6.7	114.6				ug/L	5	Standard
	Mo	98	59.7	35.5	**0.0017**	0.006	344.6	ug/L	10	Standard
	Ag	107	56.0	13.9	**-0.0056**	0.001	21.8	ug/L	53	Standard
	Cd	111	4.6	45.5	**-0.0006**	0.001	188.5	mg/L	1	Standard
	Cd	114	13.5	1.6	**-0.0068**	0.000	0.4	ug/L	32	Standard
>	**In**	115	446924.9	0.9				ug/L	494305	Standard
	Sn	118	54.7	14.8	**-0.0102**	0.007	70.1	ug/L	53	Standard
	Sb	123	252.5	35.2	**0.1037**	0.036	35.0	ug/L	7	Standard
	Ba	135	11.3	27.0	**-0.0057**	0.002	33.3	ug/L	11	Standard
	Ce	140	15.0	57.7				ug/L	10	Standard
>	**Tb**	159	458681.6	1.2				ug/L	538219	Standard
	Ho	165	10.0					ug/L	8	Standard
	Tl	203	7.7	19.9	**-0.0007**	0.000	38.5	ug/L	1	Standard
	Tl	205	11.7	65.5	**0.0011**	0.001	107.3	ug/L	3	Standard
	Pb	206	80.7	10.4	**-0.0070**	0.004	52.0	ug/L	80	Standard
	Pb	207	68.3	7.5	**0.0007**	0.002	344.1	ug/L	73	Standard
	Pb	208	166.0	11.9	**-0.0059**	0.004	64.6	ug/L	190	Standard
	U	238	4.7	75.3	**-0.0005**	0.001	227.2	ug/L	0	Standard
>	**Bi**	209	248910.3	0.4				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0525**	0.832	1583.5	mg/L	2	Standard
	Mg	24	33.3	8.7	**0.0062**	0.003	53.5	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2713**	0.190	70.1	mg/L	3	Standard
	Ca	43	20.0	25.0	**-3.8458**	1.615	42.0	mg/L	43	Standard
	Fe	54	316.2	24.2	**0.0458**	0.042	90.9	mg/L	262	Standard
	Fe	57	75.0	6.7	**0.0486**	0.010	20.4	mg/L	65	Standard
>	**Sc-1**	45	23989.0	0.2				mg/L	26874	Standard
	Cl	35	142345.6	1.3				ug/L	141022	Standard
	Kr	83	97.7	4.3				ug/L	75	Standard
	Br	81	2260.2	6.5				ug/L	2810	Standard
	P	31	453923.4	5.4				ug/L	458976	Standard
	S	34	130146.8	2.3				ug/L	103378	Standard
	Sr	88	48.3	15.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	13.2	86.6				mg/L	10	Standard
	Ho-1	165	10.0					mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		87.597	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.545	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.415
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.042
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1311055702
Sample Date/Time: Monday, November 18, 2013 18:10:27
Number of Replicates: 3
Autosampler Position: 235
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	238994.1	4.3				ug/L	269614	Standard
	Be	9	71.7	17.6	**0.0112**	0.005	47.1	ug/L	23	Standard
	Al	27	16136983.9	1.5	**86.8837**	3.876	4.5	ug/L	1170	Standard
	Sc	45	24880.4	1.7				ug/L	26874	Standard
	Ti	47	195.7	46.2	**0.7856**	0.417	53.1	ug/L	25	Standard
	V	51	11112.4	2.1	**1.6092**	0.017	1.0	ug/L	1686	Standard
	Cr	52	6129.9	3.3	**0.3291**	0.046	13.9	ug/L	6098	Standard
	Cr	53	2620.2	17.8	**2.2382**	0.450	20.1	ug/L	193	Standard
	Mn	55	367831.8	0.6	**30.9287**	0.377	1.2	ug/L	1232	Standard
	Co	59	731.4	9.8	**0.0735**	0.009	12.1	ug/L	106	Standard
	Ni	60	3162.3	18.9	**1.1093**	0.255	23.0	ug/L	556	Standard
	Cu	65	1221.4	2.3	**0.4680**	0.017	3.7	ug/L	124	Standard
	Zn	66	6048.5	8.9	**4.5803**	0.448	9.8	ug/L	196	Standard
>	**Ge**	72	419042.6	1.2				ug/L	473313	Standard
	As	75	969.4	1.7	**0.9679**	0.013	1.3	ug/L	-286	Standard
	Se	82	178.2	13.7	**1.6572**	0.200	12.1	ug/L	-33	Standard
	Se-1	77	275.7	14.8	**2.1211**	0.453	21.3	ug/L	86	Standard
>	**Ga**	71	60.0	30.0				mg/L	35	Standard
	Rb	85	7596.9	2.1				ug/L	13	Standard
	Y	89	390024.1	2.0				ug/L	439493	Standard
>	**Rh**	103	80.0	16.5				ug/L	5	Standard
	Mo	98	5829.2	2.2	**1.7089**	0.039	2.3	ug/L	10	Standard
	Ag	107	106.0	6.5	**0.0035**	0.001	34.5	ug/L	53	Standard
	Cd	111	27.3	54.7	**0.0115**	0.008	68.4	mg/L	1	Standard
	Cd	114	100.8	31.8	**0.0115**	0.007	57.7	ug/L	32	Standard
>	**In**	115	428332.8	0.1				ug/L	494305	Standard
	Sn	118	94.3	4.8	**0.0268**	0.004	14.6	ug/L	53	Standard
	Sb	123	347.5	3.9	**0.1497**	0.006	3.9	ug/L	7	Standard
	Ba	135	61144.5	0.6	**38.5012**	0.261	0.7	ug/L	11	Standard
	Ce	140	495.0	23.7				ug/L	10	Standard
>	**Tb**	159	451562.7	2.4				ug/L	538219	Standard
	Ho	165	26.7	28.6				ug/L	8	Standard
	Tl	203	128.0	19.7	**0.0233**	0.005	21.9	ug/L	1	Standard
	Tl	205	225.0	33.6	**0.0355**	0.012	34.8	ug/L	3	Standard
	Pb	206	1371.1	3.5	**0.5928**	0.019	3.3	ug/L	80	Standard
	Pb	207	1168.4	1.8	**0.5683**	0.012	2.1	ug/L	73	Standard
	Pb	208	2780.4	1.2	**0.5455**	0.009	1.7	ug/L	190	Standard
	U	238	3806.5	2.2	**1.2235**	0.022	1.8	ug/L	0	Standard
>	**Bi**	209	232288.4	0.4				ug/L	276439	Standard

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	Na	23	78.3	13.3	**21.3508**	2.631	12.3	mg/L	2	Standard
	Mg	24	35543.3	1.6	**39.1357**	0.418	1.1	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0612**	0.324	528.7	mg/L	3	Standard
	Ca	43	108.3	32.4	**23.4576**	10.583	45.1	mg/L	43	Standard
	Fe	54	447.4	15.3	**0.1084**	0.034	31.2	mg/L	262	Standard
	Fe	57	286.7	28.2	**0.4387**	0.151	34.3	mg/L	65	Standard
>	**Sc-1**	45	24880.4	1.7				mg/L	26874	Standard
	Cl	35	154326.7	1.1				ug/L	141022	Standard
	Kr	83	107.7	12.4				ug/L	75	Standard
	Br	81	28643.7	0.8				ug/L	2810	Standard
	P	31	472303.2	2.6				ug/L	458976	Standard
	S	34	105585.2	3.4				ug/L	103378	Standard
	Sr	88	403.3	22.7				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	28.7	35.7				mg/L	10	Standard
	Ho-1	165	26.7	28.6				mg/L	8	Standard
	Er	166	26.7	57.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		88.643	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		88.534	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	86.653
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.029
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311058401 WG452456-02
Sample Date/Time: Monday, November 18, 2013 18:13:32
Number of Replicates: 3
Autosampler Position: 236
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	248044.3	1.9				ug/L	269614	Standard
	Be	9	36.7	20.8	**-0.0027**	0.003	99.2	ug/L	23	Standard
	Al	27	3347310.2	1.5	**17.3393**	0.131	0.8	ug/L	1170	Standard
	Sc	45	24882.1	1.9				ug/L	26874	Standard
	Ti	47	143.0	15.1	**0.5302**	0.096	18.1	ug/L	25	Standard
	V	51	20600.5	1.2	**3.0582**	0.044	1.4	ug/L	1686	Standard
	Cr	52	12932.5	2.0	**1.4088**	0.045	3.2	ug/L	6098	Standard
	Cr	53	2530.2	2.3	**2.0973**	0.048	2.3	ug/L	193	Standard
	Mn	55	3475.1	13.5	**0.1472**	0.039	26.5	ug/L	1232	Standard
	Co	59	322.0	13.2	**0.0228**	0.005	22.0	ug/L	106	Standard
	Ni	60	1761.4	4.2	**0.5104**	0.030	5.9	ug/L	556	Standard
	Cu	65	665.3	4.1	**0.2206**	0.011	4.9	ug/L	124	Standard
	Zn	66	4696.1	2.0	**3.4210**	0.081	2.4	ug/L	196	Standard
>	Ge	72	429452.8	0.2				ug/L	473313	Standard
	As	75	1260.2	1.5	**1.1709**	0.013	1.1	ug/L	-286	Standard
	Se	82	50.8	19.9	**0.6776**	0.075	11.1	ug/L	-33	Standard
	Se-1	77	146.7	4.8	**0.7364**	0.075	10.2	ug/L	86	Standard
>	Ga	71	48.3	26.0				mg/L	35	Standard
	Rb	85	11017.3	3.8				ug/L	13	Standard
	Y	89	397538.3	1.4				ug/L	439493	Standard
>	Rh	103	80.0	54.5				ug/L	5	Standard
	Mo	98	5996.2	1.0	**1.6907**	0.017	1.0	ug/L	10	Standard
	Ag	107	70.0	5.2	**-0.0032**	0.001	22.1	ug/L	53	Standard
	Cd	111	4.1	50.4	**-0.0008**	0.001	122.9	mg/L	1	Standard
	Cd	114	34.9	22.3	**-0.0025**	0.002	63.9	ug/L	32	Standard
>	In	115	445299.4	1.0				ug/L	494305	Standard
	Sn	118	64.0	10.2	**-0.0021**	0.005	248.4	ug/L	53	Standard
	Sb	123	206.4	6.4	**0.0849**	0.006	7.4	ug/L	7	Standard
	Ba	135	34640.2	1.3	**20.9749**	0.068	0.3	ug/L	11	Standard
	Ce	140	70.0	43.4				ug/L	10	Standard
>	Tb	159	460864.5	1.0				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	40.3	20.8	**0.0054**	0.001	27.0	ug/L	1	Standard
	Tl	205	58.3	21.6	**0.0082**	0.002	24.2	ug/L	3	Standard
	Pb	206	340.3	2.6	**0.1076**	0.003	2.5	ug/L	80	Standard
	Pb	207	283.0	4.8	**0.1059**	0.007	6.2	ug/L	73	Standard
	Pb	208	683.0	6.0	**0.0977**	0.008	8.2	ug/L	190	Standard
	U	238	1029.4	3.3	**0.3127**	0.015	4.6	ug/L	0	Standard
>	Bi	209	244787.1	1.4				ug/L	276439	Standard

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	Na	23	45.0	40.1	**12.0738**	4.991	41.3	mg/L	2	Standard
	Mg	24	7123.3	4.2	**7.8146**	0.181	2.3	mg/L	37	Standard
	K	39	6.7	173.2	**0.0335**	0.718	2142.9	mg/L	3	Standard
	Ca	43	80.0	25.0	**14.6785**	6.389	43.5	mg/L	43	Standard
	Fe	54	298.0	5.8	**0.0301**	0.008	25.7	mg/L	262	Standard
	Fe	57	166.7	20.0	**0.2150**	0.065	30.4	mg/L	65	Standard
>	**Sc-1**	45	24882.1	1.9				mg/L	26874	Standard
	Cl	35	149489.2	0.5				ug/L	141022	Standard
	Kr	83	93.3	12.7				ug/L	75	Standard
	Br	81	9789.8	8.9				ug/L	2810	Standard
	P	31	547322.3	4.4				ug/L	458976	Standard
	S	34	101706.9	1.5				ug/L	103378	Standard
	Sr	88	441.7	1.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	69.3				mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.000	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.733	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.086
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	88.550
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311058402S WG452456-08
Sample Date/Time: Monday, November 18, 2013 18:16:37
Number of Replicates: 3
Autosampler Position: 237
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	244077.2	1.6				ug/L	269614	Standard
	Be	9	66237.9	2.7	**24.6422**	0.829	3.4	ug/L	23	Standard
	Al	27	3279707.8	2.7	**17.2713**	0.713	4.1	ug/L	1170	Standard
	Sc	45	25488.1	0.6				ug/L	26874	Standard
	Ti	47	163.0	5.5	**0.6104**	0.043	7.1	ug/L	25	Standard
	V	51	171996.2	1.1	**26.5766**	0.297	1.1	ug/L	1686	Standard
	Cr	52	157100.0	1.2	**24.5425**	0.171	0.7	ug/L	6098	Standard
	Cr	53	29271.6	2.9	**25.4532**	0.754	3.0	ug/L	193	Standard
	Mn	55	301043.7	0.6	**24.3993**	0.203	0.8	ug/L	1232	Standard
	Co	59	199942.0	0.9	**23.4375**	0.264	1.1	ug/L	106	Standard
	Ni	60	61093.9	1.0	**24.2250**	0.269	1.1	ug/L	556	Standard
	Cu	65	58898.3	0.7	**24.5049**	0.258	1.1	ug/L	124	Standard
	Zn	66	35713.7	1.4	**27.0179**	0.241	0.9	ug/L	196	Standard
>	Ge	72	434182.6	0.6				ug/L	473313	Standard
	As	75	34020.6	0.9	**25.8182**	0.151	0.6	ug/L	-286	Standard
	Se	82	3318.3	1.4	**24.6530**	0.215	0.9	ug/L	-33	Standard
	Se-1	77	2547.2	1.7	**24.8675**	0.395	1.6	ug/L	86	Standard
>	Ga	71	48.3	29.9				mg/L	35	Standard
	Rb	85	10812.2	5.2				ug/L	13	Standard
	Y	89	395339.8	0.7				ug/L	439493	Standard
>	Rh	103	98.3	10.6				ug/L	5	Standard
	Mo	98	6069.0	0.8	**1.7069**	0.019	1.1	ug/L	10	Standard
	Ag	107	151698.3	0.6	**25.4149**	0.242	1.0	ug/L	53	Standard
	Cd	111	47618.9	0.2	**24.0503**	0.167	0.7	mg/L	1	Standard
	Cd	114	118484.3	3.2	**23.6362**	0.635	2.7	ug/L	32	Standard
>	In	115	446463.6	0.6				ug/L	494305	Standard
	Sn	118	1094.0	1.9	**0.8691**	0.012	1.4	ug/L	53	Standard
	Sb	123	58968.5	0.3	**24.6197**	0.086	0.3	ug/L	7	Standard
	Ba	135	74473.3	0.9	**44.9913**	0.182	0.4	ug/L	11	Standard
	Ce	140	85.0	21.2				ug/L	10	Standard
>	Tb	159	466405.2	0.9				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	130299.6	0.7	**24.2560**	0.231	1.0	ug/L	1	Standard
	Tl	205	165708.0	1.5	**24.9832**	0.435	1.7	ug/L	3	Standard
	Pb	206	61193.3	1.1	**26.5296**	0.393	1.5	ug/L	80	Standard
	Pb	207	52134.2	0.2	**25.0919**	0.136	0.5	ug/L	73	Standard
	Pb	208	120090.8	0.7	**23.6117**	0.230	1.0	ug/L	190	Standard
	U	238	78741.4	0.3	**23.7732**	0.165	0.7	ug/L	0	Standard
>	Bi	209	247682.7	0.4				ug/L	276439	Standard

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	Na	23	30.0	16.7	**7.7154**	1.307	16.9	mg/L	2	Standard
	Mg	24	7000.0	5.5	**7.4960**	0.370	4.9	mg/L	37	Standard
	K	39	15.0	120.2	**0.5481**	1.119	204.1	mg/L	3	Standard
	Ca	43	55.0	18.2	**6.4412**	2.997	46.5	mg/L	43	Standard
	Fe	54	275.4	25.1	**0.0150**	0.036	243.4	mg/L	262	Standard
	Fe	57	155.0	6.5	**0.1859**	0.019	10.2	mg/L	65	Standard
>	**Sc-1**	45	25488.1	0.6				mg/L	26874	Standard
	Cl	35	150586.0	0.3				ug/L	141022	Standard
	Kr	83	99.0	9.9				ug/L	75	Standard
	Br	81	7445.2	5.2				ug/L	2810	Standard
	P	31	547541.0	3.6				ug/L	458976	Standard
	S	34	103749.1	1.7				ug/L	103378	Standard
	Sr	88	415.0	18.5				ug/L	30	Standard
	C	12	10.0	100.0				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	10.0	173.2				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	0.0					mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		90.528	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.733	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.321
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.598
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311058403SD WG452456-09
Sample Date/Time: Monday, November 18, 2013 18:19:41
Number of Replicates: 3
Autosampler Position: 238
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	247051.6	1.8				ug/L	269614	Standard
	Be	9	68651.9	0.9	**25.2354**	0.643	2.5	ug/L	23	Standard
	Al	27	3301617.3	0.7	**17.1753**	0.421	2.4	ug/L	1170	Standard
	Sc	45	25680.1	1.5				ug/L	26874	Standard
	Ti	47	160.0	10.8	**0.5985**	0.073	12.2	ug/L	25	Standard
	V	51	175458.3	1.8	**27.1731**	0.484	1.8	ug/L	1686	Standard
	Cr	52	159293.7	0.8	**24.9508**	0.308	1.2	ug/L	6098	Standard
	Cr	53	29446.9	2.6	**25.6621**	0.719	2.8	ug/L	193	Standard
	Mn	55	305768.1	1.3	**24.8369**	0.282	1.1	ug/L	1232	Standard
	Co	59	202583.5	1.4	**23.7968**	0.253	1.1	ug/L	106	Standard
	Ni	60	62044.4	0.3	**24.6576**	0.043	0.2	ug/L	556	Standard
	Cu	65	60471.4	0.0	**25.2143**	0.099	0.4	ug/L	124	Standard
	Zn	66	36877.5	1.6	**27.9647**	0.330	1.2	ug/L	196	Standard
>	Ge	72	433258.6	0.4				ug/L	473313	Standard
	As	75	34398.4	0.6	**26.1585**	0.259	1.0	ug/L	-286	Standard
	Se	82	3436.0	1.4	**25.5729**	0.460	1.8	ug/L	-33	Standard
	Se-1	77	2549.9	1.1	**24.9489**	0.181	0.7	ug/L	86	Standard
>	Ga	71	61.7	18.7				mg/L	35	Standard
	Rb	85	10758.8	2.9				ug/L	13	Standard
	Y	89	401339.6	0.9				ug/L	439493	Standard
>	Rh	103	91.7	36.3				ug/L	5	Standard
	Mo	98	6042.4	2.2	**1.7181**	0.033	1.9	ug/L	10	Standard
	Ag	107	152089.2	0.0	**25.7612**	0.176	0.7	ug/L	53	Standard
	Cd	111	48124.8	0.3	**24.5733**	0.095	0.4	mg/L	1	Standard
	Cd	114	118312.8	0.6	**23.8647**	0.180	0.8	ug/L	32	Standard
>	In	115	441599.2	0.7				ug/L	494305	Standard
	Sn	118	87.0	17.8	**0.0180**	0.014	75.5	ug/L	53	Standard
	Sb	123	59869.0	0.7	**25.2712**	0.187	0.7	ug/L	7	Standard
	Ba	135	75290.6	0.6	**45.9892**	0.573	1.2	ug/L	11	Standard
	Ce	140	100.0	45.8				ug/L	10	Standard
>	Tb	159	457957.9	0.0				ug/L	538219	Standard
	Ho	165	3.3	173.2				ug/L	8	Standard
	Tl	203	131908.7	0.1	**24.8143**	0.169	0.7	ug/L	1	Standard
	Tl	205	168985.8	2.3	**25.7450**	0.563	2.2	ug/L	3	Standard
	Pb	206	61908.9	0.6	**27.1226**	0.083	0.3	ug/L	80	Standard
	Pb	207	52749.0	1.1	**25.6571**	0.419	1.6	ug/L	73	Standard
	Pb	208	123145.1	0.3	**24.4684**	0.066	0.3	ug/L	190	Standard
	U	238	79802.3	0.6	**24.3477**	0.253	1.0	ug/L	0	Standard
>	Bi	209	245100.9	0.5				ug/L	276439	Standard

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	Na	23	58.3	4.9	**15.3088**	1.012	6.6	mg/L	2	Standard
	Mg	24	7386.8	4.1	**7.8570**	0.389	4.9	mg/L	37	Standard
	K	39	13.3	21.7	**0.4421**	0.189	42.7	mg/L	3	Standard
	Ca	43	68.3	21.1	**10.3805**	4.545	43.8	mg/L	43	Standard
	Fe	54	266.8	13.3	**0.0095**	0.020	207.4	mg/L	262	Standard
	Fe	57	148.3	5.1	**0.1717**	0.014	8.1	mg/L	65	Standard
>	**Sc-1**	45	25680.1	1.5				mg/L	26874	Standard
	Cl	35	151503.1	1.2				ug/L	141022	Standard
	Kr	83	92.0	10.5				ug/L	75	Standard
	Br	81	9633.1	9.3				ug/L	2810	Standard
	P	31	546916.8	1.2				ug/L	458976	Standard
	S	34	106585.3	0.9				ug/L	103378	Standard
	Sr	88	463.3	17.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	69.3				mg/L	0	Standard
	Dy	164	6.3	93.2				mg/L	10	Standard
	Ho-1	165	3.3	173.2				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.631	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.537	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		89.337
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		88.664
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311058403SD WG452456-09
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Method 6020 - Summary Report

Sample ID: L1311060001
Sample Date/Time: Monday, November 18, 2013 18:22:46
Number of Replicates: 3
Autosampler Position: 239
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	244387.0	1.2				ug/L	269614	Standard
	Be	9	58.3	27.6	**0.0056**	0.006	103.4	ug/L	23	Standard
	Al	27	639591.7	1.2	**3.3572**	0.064	1.9	ug/L	1170	Standard
	Sc	45	25102.5	2.9				ug/L	26874	Standard
	Ti	47	575.7	4.0	**2.4204**	0.095	3.9	ug/L	25	Standard
	V	51	24144.4	1.5	**3.5972**	0.057	1.6	ug/L	1686	Standard
	Cr	52	58913.3	2.1	**8.8290**	0.157	1.8	ug/L	6098	Standard
	Cr	53	10298.5	1.4	**8.9204**	0.177	2.0	ug/L	193	Standard
	Mn	55	23656.1	1.3	**1.8009**	0.024	1.3	ug/L	1232	Standard
	Co	59	1570.7	4.9	**0.1700**	0.008	4.5	ug/L	106	Standard
	Ni	60	3277.7	2.6	**1.1167**	0.026	2.3	ug/L	556	Standard
	Cu	65	4652.7	3.0	**1.8925**	0.063	3.3	ug/L	124	Standard
	Zn	66	15834.6	0.1	**11.9438**	0.088	0.7	ug/L	196	Standard
>	**Ge**	72	431546.9	0.7				ug/L	473313	Standard
	As	75	298.3	6.2	**0.4378**	0.015	3.3	ug/L	-286	Standard
	Se	82	0.5	297.0	**0.3045**	0.011	3.6	ug/L	-33	Standard
	Se-1	77	94.7	4.3	**0.2029**	0.044	21.9	ug/L	86	Standard
>	**Ga**	71	2708.6	4.4				mg/L	35	Standard
	Rb	85	51151.3	3.4				ug/L	13	Standard
	Y	89	401326.0	1.1				ug/L	439493	Standard
>	**Rh**	103	95.0	13.9				ug/L	5	Standard
	Mo	98	4259.8	1.3	**1.1927**	0.016	1.4	ug/L	10	Standard
	Ag	107	61.7	8.9	**-0.0046**	0.001	19.7	ug/L	53	Standard
	Cd	111	62.8	12.0	**0.0288**	0.004	13.2	mg/L	1	Standard
	Cd	114	191.7	14.5	**0.0288**	0.006	19.4	ug/L	32	Standard
>	**In**	115	446770.9	0.1				ug/L	494305	Standard
	Sn	118	122.0	8.1	**0.0467**	0.008	17.9	ug/L	53	Standard
	Sb	123	524.9	4.9	**0.2175**	0.011	4.9	ug/L	7	Standard
	Ba	135	28644.1	1.1	**17.2852**	0.189	1.1	ug/L	11	Standard
	Ce	140	4233.9	5.0				ug/L	10	Standard
>	**Tb**	159	464531.7	1.8				ug/L	538219	Standard
	Ho	165	93.3	29.5				ug/L	8	Standard
	Tl	203	30.7	27.7	**0.0036**	0.002	42.4	ug/L	1	Standard
	Tl	205	40.0	45.1	**0.0053**	0.003	49.1	ug/L	3	Standard
	Pb	206	447.3	5.5	**0.1533**	0.013	8.6	ug/L	80	Standard
	Pb	207	367.3	3.4	**0.1457**	0.004	2.8	ug/L	73	Standard
	Pb	208	871.7	2.4	**0.1341**	0.004	3.3	ug/L	190	Standard
	U	238	245.7	8.8	**0.0727**	0.007	9.1	ug/L	0	Standard
>	**Bi**	209	246571.4	1.5				ug/L	276439	Standard

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	Na	23	53.3	56.5	**14.1493**	7.979	56.4	mg/L	2	Standard
	Mg	24	3160.3	5.7	**3.4251**	0.292	8.5	mg/L	37	Standard
	K	39	45.0	50.9	**2.4822**	1.542	62.1	mg/L	3	Standard
	Ca	43	66.7	48.2	**10.4629**	10.347	98.9	mg/L	43	Standard
	Fe	54	491.6	10.9	**0.1302**	0.035	26.5	mg/L	262	Standard
	Fe	57	223.3	21.3	**0.3154**	0.078	24.6	mg/L	65	Standard
>	**Sc-1**	45	25102.5	2.9				mg/L	26874	Standard
	Cl	35	145444.1	0.6				ug/L	141022	Standard
	Kr	83	84.7	5.6				ug/L	75	Standard
	Br	81	4427.3	2.8				ug/L	2810	Standard
	P	31	473505.9	4.4				ug/L	458976	Standard
	S	34	113248.3	1.0				ug/L	103378	Standard
	Sr	88	448.3	10.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	117.6	43.8				mg/L	10	Standard
	Ho-1	165	93.3	29.5				mg/L	8	Standard
	Er	166	50.0	20.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		90.643	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.176	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.384
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.196
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311060002
Sample Date/Time: Monday, November 18, 2013 18:25:50
Number of Replicates: 3
Autosampler Position: 240
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	242607.2	1.6				ug/L	269614	Standard
	Be	9	45.0	40.1	**0.0007**	0.006	903.4	ug/L	23	Standard
	Al	27	9614480.2	0.7	**50.9377**	0.710	1.4	ug/L	1170	Standard
	Sc	45	24466.4	1.1				ug/L	26874	Standard
	Ti	47	317.3	9.8	**1.3215**	0.136	10.3	ug/L	25	Standard
	V	51	19218.7	1.2	**2.8950**	0.049	1.7	ug/L	1686	Standard
	Cr	52	38066.8	0.5	**5.6009**	0.015	0.3	ug/L	6098	Standard
	Cr	53	7316.8	1.1	**6.4444**	0.121	1.9	ug/L	193	Standard
	Mn	55	15339.8	0.4	**1.1476**	0.004	0.4	ug/L	1232	Standard
	Co	59	1384.4	2.7	**0.1517**	0.004	2.7	ug/L	106	Standard
	Ni	60	3203.3	0.7	**1.1164**	0.018	1.6	ug/L	556	Standard
	Cu	65	2229.8	1.4	**0.8971**	0.011	1.3	ug/L	124	Standard
	Zn	66	4383.6	1.8	**3.2404**	0.041	1.3	ug/L	196	Standard
>	Ge	72	421914.6	0.7				ug/L	473313	Standard
	As	75	765.0	6.9	**0.8043**	0.038	4.7	ug/L	-286	Standard
	Se	82	84.7	2.3	**0.9406**	0.019	2.0	ug/L	-33	Standard
	Se-1	77	192.7	6.0	**1.2389**	0.111	9.0	ug/L	86	Standard
>	Ga	71	1103.4	3.0				mg/L	35	Standard
	Rb	85	27989.2	0.6				ug/L	13	Standard
	Y	89	391050.9	2.5				ug/L	439493	Standard
>	Rh	103	95.0	19.0				ug/L	5	Standard
	Mo	98	3010.2	3.1	**0.8621**	0.030	3.5	ug/L	10	Standard
	Ag	107	47.3	9.5	**-0.0068**	0.001	11.1	ug/L	53	Standard
	Cd	111	36.5	6.2	**0.0161**	0.001	7.4	mg/L	1	Standard
	Cd	114	111.6	15.9	**0.0134**	0.004	26.9	ug/L	32	Standard
>	In	115	434687.4	0.3				ug/L	494305	Standard
	Sn	118	65.7	22.9	**0.0006**	0.013	2020.2	ug/L	53	Standard
	Sb	123	504.9	6.9	**0.2151**	0.016	7.3	ug/L	7	Standard
	Ba	135	48512.6	1.4	**30.0981**	0.438	1.5	ug/L	11	Standard
	Ce	140	2001.8	1.8				ug/L	10	Standard
>	Tb	159	460284.8	1.7				ug/L	538219	Standard
	Ho	165	55.0	32.8				ug/L	8	Standard
	Tl	203	72.3	11.3	**0.0118**	0.002	13.6	ug/L	1	Standard
	Tl	205	96.7	18.2	**0.0144**	0.003	18.9	ug/L	3	Standard
	Pb	206	249.3	6.4	**0.0698**	0.007	9.4	ug/L	80	Standard
	Pb	207	222.0	3.5	**0.0784**	0.004	5.2	ug/L	73	Standard
	Pb	208	480.3	3.9	**0.0593**	0.004	6.2	ug/L	190	Standard
	U	238	1386.7	1.9	**0.4304**	0.007	1.7	ug/L	0	Standard
>	Bi	209	239924.7	0.5				ug/L	276439	Standard

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	Na	23	56.7	43.5	**15.6365**	7.113	45.5	mg/L	2	Standard
	Mg	24	13577.7	0.8	**15.1845**	0.254	1.7	mg/L	37	Standard
	K	39	35.0	28.6	**1.8786**	0.626	33.3	mg/L	3	Standard
	Ca	43	101.7	24.3	**22.0050**	8.075	36.7	mg/L	43	Standard
	Fe	54	341.1	12.3	**0.0557**	0.021	38.2	mg/L	262	Standard
	Fe	57	205.0	15.2	**0.2929**	0.062	21.0	mg/L	65	Standard
>	**Sc-1**	45	24466.4	1.1				mg/L	26874	Standard
	Cl	35	149409.8	1.3				ug/L	141022	Standard
	Kr	83	103.0	7.8				ug/L	75	Standard
	Br	81	17513.5	2.8				ug/L	2810	Standard
	P	31	462638.6	3.9				ug/L	458976	Standard
	S	34	107367.5	1.3				ug/L	103378	Standard
	Sr	88	366.7	12.2				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	40.9	35.1				mg/L	10	Standard
	Ho-1	165	55.0	32.8				mg/L	8	Standard
	Er	166	50.0	60.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.983	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.141	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	87.939
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	86.791
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311060101
Sample Date/Time: Monday, November 18, 2013 18:28:55
Number of Replicates: 3
Autosampler Position: 241
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	240209.8	2.3				ug/L	269614	Standard
	Be	9	88.3	3.3	**0.0173**	0.001	3.2	ug/L	23	Standard
	Al	27	23844856.3	1.0	**127.6296**	3.226	2.5	ug/L	1170	Standard
	Sc	45	24638.4	2.5				ug/L	26874	Standard
	Ti	47	303.3	22.5	**1.2952**	0.303	23.4	ug/L	25	Standard
	V	51	5395.4	3.1	**0.7056**	0.023	3.3	ug/L	1686	Standard
	Cr	52	5220.2	0.7	**0.1954**	0.012	6.4	ug/L	6098	Standard
	Cr	53	4559.0	5.4	**4.0774**	0.256	6.3	ug/L	193	Standard
	Mn	55	1532196.6	0.4	**131.9427**	1.054	0.8	ug/L	1232	Standard
	Co	59	1028.4	4.0	**0.1122**	0.006	5.3	ug/L	106	Standard
	Ni	60	3740.8	2.7	**1.3799**	0.031	2.3	ug/L	556	Standard
	Cu	65	1354.1	3.3	**0.5373**	0.017	3.2	ug/L	124	Standard
	Zn	66	3856.2	1.0	**2.9105**	0.015	0.5	ug/L	196	Standard
>	**Ge**	72	410551.8	0.8				ug/L	473313	Standard
	As	75	12681.8	1.0	**10.3072**	0.158	1.5	ug/L	-286	Standard
	Se	82	305.7	12.8	**2.6741**	0.310	11.6	ug/L	-33	Standard
	Se-1	77	474.7	2.6	**4.2952**	0.165	3.8	ug/L	86	Standard
>	**Ga**	71	168.3	28.5				mg/L	35	Standard
	Rb	85	2355.2	2.1				ug/L	13	Standard
	Y	89	390053.8	0.8				ug/L	439493	Standard
>	**Rh**	103	118.3	6.5				ug/L	5	Standard
	Mo	98	682.2	2.2	**0.1886**	0.005	2.9	ug/L	10	Standard
	Ag	107	79.0	2.2	**-0.0010**	0.000	16.0	ug/L	53	Standard
	Cd	111	21.4	34.8	**0.0085**	0.004	46.0	mg/L	1	Standard
	Cd	114	55.9	52.7	**0.0023**	0.006	271.0	ug/L	32	Standard
>	**In**	115	424088.0	1.0				ug/L	494305	Standard
	Sn	118	91.0	6.7	**0.0247**	0.006	25.4	ug/L	53	Standard
	Sb	123	400.6	2.9	**0.1746**	0.004	2.5	ug/L	7	Standard
	Ba	135	161956.7	1.1	**103.0247**	1.127	1.1	ug/L	11	Standard
	Ce	140	2381.9	0.9				ug/L	10	Standard
>	**Tb**	159	448560.0	0.9				ug/L	538219	Standard
	Ho	165	40.0	45.1				ug/L	8	Standard
	Tl	203	68.7	14.0	**0.0117**	0.002	16.7	ug/L	1	Standard
	Tl	205	93.3	8.2	**0.0146**	0.001	8.0	ug/L	3	Standard
	Pb	206	121488.5	0.9	**57.1562**	0.105	0.2	ug/L	80	Standard
	Pb	207	101189.1	0.4	**52.8455**	0.589	1.1	ug/L	73	Standard
	Pb	208	239462.6	0.3	**51.0963**	0.254	0.5	ug/L	190	Standard
	U	238	2155.5	1.3	**0.7039**	0.012	1.7	ug/L	0	Standard
>	**Bi**	209	228424.4	0.8				ug/L	276439	Standard

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	Na	23	103.3	19.6	**28.6769**	6.104	21.3	mg/L	2	Standard
	Mg	24	76241.4	2.4	**84.8169**	1.672	2.0	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2760**	0.182	66.0	mg/L	3	Standard
	Ca	43	130.0	7.7	**30.6931**	3.151	10.3	mg/L	43	Standard
	Fe	54	1991.0	1.6	**0.9303**	0.017	1.8	mg/L	262	Standard
	Fe	57	700.0	4.3	**1.2251**	0.091	7.4	mg/L	65	Standard
>	**Sc-1**	45	24638.4	2.5				mg/L	26874	Standard
	Cl	35	140688.2	0.4				ug/L	141022	Standard
	Kr	83	105.3	8.6				ug/L	75	Standard
	Br	81	52892.2	2.8				ug/L	2810	Standard
	P	31	515306.1	1.6				ug/L	458976	Standard
	S	34	106429.2	0.7				ug/L	103378	Standard
	Sr	88	523.3	12.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	47.8	22.4				mg/L	10	Standard
	Ho-1	165	40.0	45.1				mg/L	8	Standard
	Er	166	46.7	32.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.094	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		86.740	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		85.795
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		82.631
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

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Method 6020 - Summary Report

Sample ID: L1311076312
Sample Date/Time: Monday, November 18, 2013 18:32:00
Number of Replicates: 3
Autosampler Position: 242
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	248182.0	2.5				ug/L	269614	Standard
	Be	9	35.0	65.5	**-0.0031**	0.009	278.1	ug/L	23	Standard
	Al	27	3882201.8	1.1	**20.1056**	0.439	2.2	ug/L	1170	Standard
	Sc	45	24810.3	2.2				ug/L	26874	Standard
	Ti	47	169.3	21.5	**0.6359**	0.160	25.2	ug/L	25	Standard
	V	51	1564.6	4.2	**0.0607**	0.010	16.1	ug/L	1686	Standard
	Cr	52	4719.7	0.7	**0.0644**	0.003	4.5	ug/L	6098	Standard
	Cr	53	620.0	8.1	**0.4012**	0.042	10.4	ug/L	193	Standard
	Mn	55	119265.9	0.6	**9.5539**	0.032	0.3	ug/L	1232	Standard
	Co	59	540.7	6.1	**0.0479**	0.004	7.9	ug/L	106	Standard
	Ni	60	2041.8	2.8	**0.6124**	0.025	4.1	ug/L	556	Standard
	Cu	65	1022.0	4.2	**0.3651**	0.019	5.3	ug/L	124	Standard
	Zn	66	3814.8	1.6	**2.7014**	0.042	1.5	ug/L	196	Standard
>	Ge	72	435447.7	0.3				ug/L	473313	Standard
	As	75	24.3	132.5	**0.2302**	0.024	10.5	ug/L	-286	Standard
	Se	82	-7.7	147.9	**0.2447**	0.083	33.9	ug/L	-33	Standard
	Se-1	77	110.3	12.2	**0.3512**	0.134	38.1	ug/L	86	Standard
>	Ga	71	76.7	22.9				mg/L	35	Standard
	Rb	85	4203.9	6.1				ug/L	13	Standard
	Y	89	405980.7	0.7				ug/L	439493	Standard
>	Rh	103	45.0	48.4				ug/L	5	Standard
	Mo	98	549.6	4.5	**0.1390**	0.006	4.4	ug/L	10	Standard
	Ag	107	64.0	5.4	**-0.0044**	0.001	13.6	ug/L	53	Standard
	Cd	111	12.3	8.1	**0.0033**	0.001	15.6	mg/L	1	Standard
	Cd	114	29.9	68.9	**-0.0035**	0.004	116.0	ug/L	32	Standard
>	In	115	451296.0	0.5				ug/L	494305	Standard
	Sn	118	64.7	11.2	**-0.0023**	0.006	275.3	ug/L	53	Standard
	Sb	123	158.0	5.1	**0.0637**	0.003	4.7	ug/L	7	Standard
	Ba	135	30588.2	0.9	**18.2740**	0.144	0.8	ug/L	11	Standard
	Ce	140	1053.4	4.8				ug/L	10	Standard
>	Tb	159	468867.6	0.7				ug/L	538219	Standard
	Ho	165	41.7	61.6				ug/L	8	Standard
	Tl	203	46.3	9.0	**0.0065**	0.001	12.3	ug/L	1	Standard
	Tl	205	75.0	30.6	**0.0106**	0.003	32.4	ug/L	3	Standard
	Pb	206	200.3	8.7	**0.0453**	0.008	17.1	ug/L	80	Standard
	Pb	207	175.3	6.7	**0.0526**	0.006	10.5	ug/L	73	Standard
	Pb	208	418.0	4.7	**0.0441**	0.004	9.0	ug/L	190	Standard
	U	238	187.7	5.5	**0.0549**	0.003	5.8	ug/L	0	Standard
>	Bi	209	247111.8	0.3				ug/L	276439	Standard

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	Na	23	38.3	30.1	**10.2279**	3.042	29.7	mg/L	2	Standard
	Mg	24	6067.9	4.9	**6.6715**	0.230	3.5	mg/L	37	Standard
	K	39	10.0	50.0	**0.2551**	0.311	121.9	mg/L	3	Standard
	Ca	43	71.7	10.7	**12.1598**	2.825	23.2	mg/L	43	Standard
	Fe	54	521.0	5.8	**0.1480**	0.010	6.7	mg/L	262	Standard
	Fe	57	190.0	7.9	**0.2595**	0.034	13.1	mg/L	65	Standard
>	**Sc-1**	45	24810.3	2.2				mg/L	26874	Standard
	Cl	35	154732.8	0.6				ug/L	141022	Standard
	Kr	83	89.0	6.3				ug/L	75	Standard
	Br	81	6781.5	4.3				ug/L	2810	Standard
	P	31	448037.4	1.7				ug/L	458976	Standard
	S	34	108821.1	0.4				ug/L	103378	Standard
	Sr	88	188.3	16.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	77.6	33.5				mg/L	10	Standard
	Ho-1	165	41.7	61.6				mg/L	8	Standard
	Er	166	50.0	69.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.051	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.000	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		91.299
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.391
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311076316
Sample Date/Time: Monday, November 18, 2013 18:35:04
Number of Replicates: 3
Autosampler Position: 243
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	243855.3	1.5				ug/L	269614	Standard
	Be	9	48.3	29.9	**0.0019**	0.005	269.0	ug/L	23	Standard
	Al	27	3686926.5	1.7	**19.4261**	0.097	0.5	ug/L	1170	Standard
	Sc	45	24618.3	1.6				ug/L	26874	Standard
	Ti	47	263.3	59.9	**1.0505**	0.689	65.6	ug/L	25	Standard
	V	51	1530.7	7.8	**0.0570**	0.018	31.7	ug/L	1686	Standard
	Cr	52	5037.2	0.2	**0.1206**	0.002	1.3	ug/L	6098	Standard
	Cr	53	455.0	5.0	**0.2601**	0.020	7.6	ug/L	193	Standard
	Mn	55	205841.2	1.0	**16.6999**	0.207	1.2	ug/L	1232	Standard
	Co	59	595.0	1.9	**0.0547**	0.001	2.1	ug/L	106	Standard
	Ni	60	1841.4	1.3	**0.5373**	0.008	1.4	ug/L	556	Standard
	Cu	65	975.7	3.2	**0.3485**	0.014	4.1	ug/L	124	Standard
	Zn	66	6711.5	1.8	**4.9360**	0.108	2.2	ug/L	196	Standard
>	**Ge**	72	432617.3	0.3				ug/L	473313	Standard
	As	75	-53.5	102.3	**0.1715**	0.041	24.0	ug/L	-286	Standard
	Se	82	-31.6	64.3	**0.0682**	0.149	218.4	ug/L	-33	Standard
	Se-1	77	90.7	12.8	**0.1599**	0.115	71.7	ug/L	86	Standard
>	**Ga**	71	75.0	17.6				mg/L	35	Standard
	Rb	85	4173.9	3.6				ug/L	13	Standard
	Y	89	396723.5	0.6				ug/L	439493	Standard
>	**Rh**	103	26.7	21.7				ug/L	5	Standard
	Mo	98	456.2	6.6	**0.1141**	0.008	7.4	ug/L	10	Standard
	Ag	107	53.7	11.4	**-0.0060**	0.001	17.0	ug/L	53	Standard
	Cd	111	6.4	27.1	**0.0003**	0.001	257.1	mg/L	1	Standard
	Cd	114	26.5	88.0	**-0.0042**	0.005	110.9	ug/L	32	Standard
>	**In**	115	446919.2	0.1				ug/L	494305	Standard
	Sn	118	70.0	18.6	**0.0027**	0.011	397.5	ug/L	53	Standard
	Sb	123	147.6	9.1	**0.0601**	0.006	9.4	ug/L	7	Standard
	Ba	135	33734.5	0.5	**20.3524**	0.080	0.4	ug/L	11	Standard
	Ce	140	1108.4	24.3				ug/L	10	Standard
>	**Tb**	159	463123.3	0.7				ug/L	538219	Standard
	Ho	165	33.3	8.7				ug/L	8	Standard
	Tl	203	33.0	16.0	**0.0041**	0.001	25.5	ug/L	1	Standard
	Tl	205	43.3	26.6	**0.0059**	0.002	29.7	ug/L	3	Standard
	Pb	206	211.7	5.2	**0.0508**	0.005	9.1	ug/L	80	Standard
	Pb	207	159.3	6.9	**0.0454**	0.005	11.0	ug/L	73	Standard
	Pb	208	410.0	7.3	**0.0431**	0.006	15.0	ug/L	190	Standard
	U	238	158.3	5.7	**0.0463**	0.003	5.8	ug/L	0	Standard
>	**Bi**	209	245604.0	0.7				ug/L	276439	Standard

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	Na	23	51.7	24.4	**14.0956**	3.519	25.0	mg/L	2	Standard
	Mg	24	6306.3	2.1	**6.9939**	0.260	3.7	mg/L	37	Standard
	K	39	16.7	34.6	**0.6937**	0.384	55.4	mg/L	3	Standard
	Ca	43	68.3	15.2	**11.2167**	2.921	26.0	mg/L	43	Standard
	Fe	54	614.0	11.5	**0.1999**	0.040	20.1	mg/L	262	Standard
	Fe	57	238.3	9.9	**0.3534**	0.048	13.5	mg/L	65	Standard
>	**Sc-1**	45	24618.3	1.6				mg/L	26874	Standard
	Cl	35	152711.1	1.1				ug/L	141022	Standard
	Kr	83	100.7	21.1				ug/L	75	Standard
	Br	81	4080.6	5.1				ug/L	2810	Standard
	P	31	448924.0	3.0				ug/L	458976	Standard
	S	34	109803.2	1.5				ug/L	103378	Standard
	Sr	88	210.0	4.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	34.6	83.9				mg/L	10	Standard
	Ho-1	165	33.3	8.7				mg/L	8	Standard
	Er	166	43.3	13.3				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		90.446	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.402	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.414
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	88.846
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311063010
Sample Date/Time: Monday, November 18, 2013 18:38:09
Number of Replicates: 3
Autosampler Position: 244
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	215567.8	1.2				ug/L	269614	Standard
	Be	9	23.3	53.9	**-0.0062**	0.005	86.3	ug/L	23	Standard
	Al	27	885635.5	1.1	**5.2744**	0.112	2.1	ug/L	1170	Standard
	Sc	45	21737.2	1.2				ug/L	26874	Standard
	Ti	47	20.0	5.0	**-0.0003**	0.005	1460.4	ug/L	25	Standard
	V	51	-926.0	50.3	**-0.3449**	0.082	23.7	ug/L	1686	Standard
	Cr	52	4364.6	3.4	**0.1021**	0.025	24.2	ug/L	6098	Standard
	Cr	53	7278.4	4.6	**7.0638**	0.310	4.4	ug/L	193	Standard
	Mn	55	46795.2	1.0	**4.1788**	0.051	1.2	ug/L	1232	Standard
	Co	59	312.7	1.6	**0.0261**	0.001	2.8	ug/L	106	Standard
	Ni	60	956.4	2.1	**0.2312**	0.009	4.1	ug/L	556	Standard
	Cu	65	499.0	5.1	**0.1757**	0.012	7.0	ug/L	124	Standard
	Zn	66	15183.9	0.4	**12.9017**	0.079	0.6	ug/L	196	Standard
>	**Ge**	72	383543.2	0.3				ug/L	473313	Standard
	As	75	603.4	6.6	**0.7260**	0.035	4.8	ug/L	-286	Standard
	Se	82	325.5	9.2	**3.0046**	0.243	8.1	ug/L	-33	Standard
	Se-1	77	663.0	4.5	**6.7940**	0.312	4.6	ug/L	86	Standard
>	**Ga**	71	43.3	24.0				mg/L	35	Standard
	Rb	85	2388.5	0.8				ug/L	13	Standard
	Y	89	349525.9	1.1				ug/L	439493	Standard
>	**Rh**	103	51.7	43.6				ug/L	5	Standard
	Mo	98	3268.7	1.7	**1.0347**	0.013	1.2	ug/L	10	Standard
	Ag	107	43.0	18.2	**-0.0068**	0.001	21.7	ug/L	53	Standard
	Cd	111	20.7	31.6	**0.0090**	0.004	42.3	mg/L	1	Standard
	Cd	114	103.3	4.9	**0.0139**	0.001	8.6	ug/L	32	Standard
>	**In**	115	394384.4	0.5				ug/L	494305	Standard
	Sn	118	64.3	5.9	**0.0052**	0.003	64.8	ug/L	53	Standard
	Sb	123	97.5	7.5	**0.0446**	0.003	7.5	ug/L	7	Standard
	Ba	135	28175.2	0.8	**19.2619**	0.070	0.4	ug/L	11	Standard
	Ce	140	38.3	32.8				ug/L	10	Standard
>	**Tb**	159	419406.0	1.2				ug/L	538219	Standard
	Ho	165	3.3	173.2				ug/L	8	Standard
	Tl	203	44.3	46.2	**0.0072**	0.004	59.7	ug/L	1	Standard
	Tl	205	45.0	11.1	**0.0070**	0.001	12.4	ug/L	3	Standard
	Pb	206	109.0	20.2	**0.0119**	0.011	90.8	ug/L	80	Standard
	Pb	207	83.0	5.3	**0.0134**	0.002	17.8	ug/L	73	Standard
	Pb	208	212.0	11.4	**0.0090**	0.005	59.3	ug/L	190	Standard
	U	238	439.0	5.3	**0.1488**	0.008	5.5	ug/L	0	Standard
>	**Bi**	209	217961.2	0.2				ug/L	276439	Standard

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	Na	23	10.0	50.0	**2.7631**	1.620	58.6	mg/L	2	Standard
	Mg	24	62189.0	1.3	**78.4126**	1.434	1.8	mg/L	37	Standard
	K	39	10.0	50.0	**0.3450**	0.357	103.4	mg/L	3	Standard
	Ca	43	40.0	12.5	**3.9700**	1.685	42.4	mg/L	43	Standard
	Fe	54	114.3	37.4	**-0.0576**	0.026	45.2	mg/L	262	Standard
	Fe	57	113.3	9.2	**0.1454**	0.019	13.2	mg/L	65	Standard
>	**Sc-1**	45	21737.2	1.2				mg/L	26874	Standard
	Cl	35	147526.9	2.0				ug/L	141022	Standard
	Kr	83	89.0	3.4				ug/L	75	Standard
	Br	81	63753.9	2.8				ug/L	2810	Standard
	P	31	195224.7	0.9				ug/L	458976	Standard
	S	34	108070.8	1.3				ug/L	103378	Standard
	Sr	88	255.0	13.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	173.2				mg/L	10	Standard
	Ho-1	165	3.3	173.2				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		79.954	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		81.034	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	79.786
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	78.846
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 18:41:16
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	241787.8	2.0				ug/L	269614	Standard
	Be	9	134637.5	2.5	**50.5711**	0.903	1.8	ug/L	23	Standard
	Al	27	8602991.7	1.4	**45.7335**	0.747	1.6	ug/L	1170	Standard
	Sc	45	24531.5	1.3				ug/L	26874	Standard
	Ti	47	23837.1	1.6	**103.9312**	1.326	1.3	ug/L	25	Standard
	V	51	303283.3	1.4	**47.1605**	0.637	1.4	ug/L	1686	Standard
	Cr	52	295857.0	0.5	**46.9922**	0.339	0.7	ug/L	6098	Standard
	Cr	53	55148.5	0.8	**48.2388**	0.196	0.4	ug/L	193	Standard
	Mn	55	602498.8	2.2	**49.1332**	0.823	1.7	ug/L	1232	Standard
	Co	59	399574.9	1.0	**47.0102**	0.281	0.6	ug/L	106	Standard
	Ni	60	121277.1	0.8	**48.4496**	0.196	0.4	ug/L	556	Standard
	Cu	65	118189.5	1.0	**49.3980**	0.347	0.7	ug/L	124	Standard
	Zn	66	65979.0	0.7	**50.2531**	0.421	0.8	ug/L	196	Standard
>	Ge	72	432724.4	0.6				ug/L	473313	Standard
	As	75	65984.9	0.4	**50.0445**	0.091	0.2	ug/L	-286	Standard
	Se	82	6677.5	3.0	**49.4679**	1.219	2.5	ug/L	-33	Standard
	Se-1	77	4953.1	1.2	**49.2365**	0.341	0.7	ug/L	86	Standard
>	Ga	71	61.7	32.8				mg/L	35	Standard
	Rb	85	1040.0	7.7				ug/L	13	Standard
	Y	89	401706.1	1.4				ug/L	439493	Standard
>	Rh	103	23.3	32.7				ug/L	5	Standard
	Mo	98	365396.1	0.4	**103.2545**	0.518	0.5	ug/L	10	Standard
	Ag	107	312911.9	0.6	**52.2306**	0.295	0.6	ug/L	53	Standard
	Cd	111	99242.6	1.4	**49.9257**	0.615	1.2	mg/L	1	Standard
	Cd	114	253117.2	1.3	**50.3105**	0.813	1.6	ug/L	32	Standard
>	In	115	448241.9	0.5				ug/L	494305	Standard
	Sn	118	61082.2	0.5	**51.4168**	0.241	0.5	ug/L	53	Standard
	Sb	123	119941.0	0.5	**49.8786**	0.079	0.2	ug/L	7	Standard
	Ba	135	83750.2	1.0	**50.3967**	0.437	0.9	ug/L	11	Standard
	Ce	140	46.7	12.4				ug/L	10	Standard
>	Tb	159	461235.7	2.2				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	262484.5	0.5	**49.2220**	0.327	0.7	ug/L	1	Standard
	Tl	205	335815.9	0.8	**50.9985**	0.154	0.3	ug/L	3	Standard
	Pb	206	119527.4	1.9	**52.2331**	0.586	1.1	ug/L	80	Standard
	Pb	207	106362.7	0.5	**51.6010**	0.519	1.0	ug/L	73	Standard
	Pb	208	243432.9	0.6	**48.2516**	0.221	0.5	ug/L	190	Standard
	U	238	157981.1	1.1	**48.0451**	0.117	0.2	ug/L	0	Standard
>	Bi	209	245888.9	0.8				ug/L	276439	Standard

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	Na	23	28.3	10.2	**7.5715**	0.853	11.3	mg/L	2	Standard
	Mg	24	4614.0	3.2	**5.1253**	0.176	3.4	mg/L	37	Standard
	K	39	68.3	36.8	**4.0165**	1.590	39.6	mg/L	3	Standard
	Ca	43	50.0	20.0	**5.4970**	3.031	55.1	mg/L	43	Standard
	Fe	54	11100.3	0.9	**5.7899**	0.025	0.4	mg/L	262	Standard
	Fe	57	3102.0	0.2	**5.7803**	0.077	1.3	mg/L	65	Standard
>	**Sc-1**	45	24531.5	1.3				mg/L	26874	Standard
	Cl	35	143796.5	0.5				ug/L	141022	Standard
	Kr	83	85.7	12.6				ug/L	75	Standard
	Br	81	2793.6	13.1				ug/L	2810	Standard
	P	31	487472.7	0.2				ug/L	458976	Standard
	S	34	134297.6	0.9				ug/L	103378	Standard
	Sr	88	56.7	36.7				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	12.5	48.3				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	16.7	34.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.679	
	Be	9	101.142		
	Al	27	91.467		
	Sc	45			
	Ti	47	103.931		
	V	51	94.321		
	Cr	52	93.984		
	Cr	53			
	Mn	55	98.266		
	Co	59	94.020		
	Ni	60	96.899		
	Cu	65	98.796		
	Zn	66	100.506		
>	Ge	72		91.425	
	As	75	100.089		
	Se	82	98.936		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.254		
|	Ag	107	104.461		
|	Cd	111	99.851		
|	Cd	114			
|>	In	115			90.681
|	Sn	118	102.834		
|	Sb	123	99.757		
⌊	Ba	135	100.793		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	98.444		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.503		
|	U	238	96.090		
⌊>	Bi	209			88.949
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 18:44:21
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	242609.1	2.0				ug/L	269614	Standard
	Be	9	85.0	40.8	**0.0157**	0.013	80.7	ug/L	23	Standard
	Al	27	7105.2	131.2	**0.0303**	0.049	161.1	ug/L	1170	Standard
	Sc	45	24369.6	0.4				ug/L	26874	Standard
	Ti	47	17.0	41.2	**-0.0243**	0.031	125.9	ug/L	25	Standard
	V	51	953.3	7.2	**-0.0325**	0.011	32.4	ug/L	1686	Standard
	Cr	52	3338.7	1.3	**-0.1508**	0.008	5.1	ug/L	6098	Standard
	Cr	53	195.0	24.5	**0.0327**	0.042	127.9	ug/L	193	Standard
	Mn	55	992.7	13.0	**-0.0576**	0.011	18.3	ug/L	1232	Standard
	Co	59	91.3	24.6	**-0.0046**	0.003	57.8	ug/L	106	Standard
	Ni	60	372.3	11.8	**-0.0516**	0.017	33.9	ug/L	556	Standard
	Cu	65	164.0	14.8	**0.0090**	0.010	112.0	ug/L	124	Standard
	Zn	66	423.7	9.2	**0.1282**	0.030	23.0	ug/L	196	Standard
>	**Ge**	72	430710.8	0.1				ug/L	473313	Standard
	As	75	-231.4	6.3	**0.0363**	0.011	29.5	ug/L	-286	Standard
	Se	82	-41.9	13.5	**-0.0089**	0.042	476.5	ug/L	-33	Standard
	Se-1	77	78.3	11.6	**0.0390**	0.091	234.3	ug/L	86	Standard
>	**Ga**	71	18.3	31.5				mg/L	35	Standard
	Rb	85	16.7	34.6				ug/L	13	Standard
	Y	89	404420.6	1.7				ug/L	439493	Standard
>	**Rh**	103	5.0	100.0				ug/L	5	Standard
	Mo	98	79.9	46.6	**0.0072**	0.010	144.4	ug/L	10	Standard
	Ag	107	71.0	35.2	**-0.0032**	0.004	126.3	ug/L	53	Standard
	Cd	111	13.9	107.0	**0.0040**	0.007	183.7	mg/L	1	Standard
	Cd	114	39.9	126.2	**-0.0016**	0.010	606.7	ug/L	32	Standard
>	**In**	115	452296.1	0.4				ug/L	494305	Standard
	Sn	118	67.7	16.3	**0.0001**	0.009	11620.8	ug/L	53	Standard
	Sb	123	289.2	44.9	**0.1175**	0.053	45.0	ug/L	7	Standard
	Ba	135	27.3	106.8	**0.0037**	0.017	462.4	ug/L	11	Standard
	Ce	140	15.0	33.3				ug/L	10	Standard
>	**Tb**	159	464981.1	1.3				ug/L	538219	Standard
	Ho	165	3.3	86.6				ug/L	8	Standard
	Tl	203	36.3	86.9	**0.0045**	0.006	127.6	ug/L	1	Standard
	Tl	205	156.7	119.0	**0.0226**	0.028	122.4	ug/L	3	Standard
	Pb	206	91.3	23.6	**-0.0027**	0.009	338.5	ug/L	80	Standard
	Pb	207	81.3	20.9	**0.0067**	0.008	120.6	ug/L	73	Standard
	Pb	208	291.0	68.0	**0.0182**	0.038	211.0	ug/L	190	Standard
	U	238	71.7	118.9	**0.0195**	0.025	130.1	ug/L	0	Standard
>	**Bi**	209	250644.8	0.2				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	63.3	51.4	**0.0394**	0.037	93.0	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	20.0	43.3	**-3.9392**	2.793	70.9	mg/L	43	Standard
	Fe	54	274.4	11.9	**0.0208**	0.018	86.8	mg/L	262	Standard
	Fe	57	61.7	12.4	**0.0208**	0.014	69.1	mg/L	65	Standard
>	**Sc-1**	45	24369.6	0.4				mg/L	26874	Standard
	Cl	35	141705.6	0.9				ug/L	141022	Standard
	Kr	83	88.3	13.6				ug/L	75	Standard
	Br	81	2280.2	10.4				ug/L	2810	Standard
	P	31	477190.6	1.4				ug/L	458976	Standard
	S	34	128724.9	3.5				ug/L	103378	Standard
	Sr	88	38.3	30.1				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	10	Standard
	Ho-1	165	3.3	86.6				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.984	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		90.999	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	91.501
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.669
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: PBS 24 WG452353-02
Sample Date/Time: Monday, November 18, 2013 18:47:27
Number of Replicates: 3
Autosampler Position: 301
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	247610.2	0.4				ug/L	269614	Standard
	Be	9	38.3	52.7	**-0.0020**	0.007	366.7	ug/L	23	Standard
	Al	27	7962.1	6.2	**0.0342**	0.003	7.5	ug/L	1170	Standard
	Sc	45	24291.1	2.3				ug/L	26874	Standard
	Ti	47	18.3	17.5	**-0.0195**	0.014	71.8	ug/L	25	Standard
	V	51	985.3	5.2	**-0.0295**	0.008	26.8	ug/L	1686	Standard
	Cr	52	3604.1	2.1	**-0.1156**	0.013	11.3	ug/L	6098	Standard
	Cr	53	231.7	7.6	**0.0623**	0.016	25.6	ug/L	193	Standard
	Mn	55	1598.8	3.5	**-0.0095**	0.004	39.0	ug/L	1232	Standard
	Co	59	73.0	13.9	**-0.0069**	0.001	16.9	ug/L	106	Standard
	Ni	60	467.7	6.2	**-0.0156**	0.012	76.4	ug/L	556	Standard
	Cu	65	328.0	2.9	**0.0761**	0.003	3.9	ug/L	124	Standard
	Zn	66	2727.6	1.2	**1.8704**	0.031	1.6	ug/L	196	Standard
>	Ge	72	436506.4	0.8				ug/L	473313	Standard
	As	75	-231.0	16.7	**0.0391**	0.027	70.1	ug/L	-286	Standard
	Se	82	-33.0	22.8	**0.0602**	0.053	88.4	ug/L	-33	Standard
	Se-1	77	75.0	9.3	**-0.0050**	0.067	1341.9	ug/L	86	Standard
>	Ga	71	28.3	10.2				mg/L	35	Standard
	Rb	85	31.7	39.7				ug/L	13	Standard
	Y	89	404108.3	0.7				ug/L	439493	Standard
>	Rh	103	5.0	100.0				ug/L	5	Standard
	Mo	98	40.4	14.5	**-0.0039**	0.002	44.1	ug/L	10	Standard
	Ag	107	58.7	15.5	**-0.0053**	0.002	29.3	ug/L	53	Standard
	Cd	111	4.0	43.7	**-0.0009**	0.001	94.3	mg/L	1	Standard
	Cd	114	18.0	27.0	**-0.0059**	0.001	15.6	ug/L	32	Standard
>	In	115	454307.1	0.9				ug/L	494305	Standard
	Sn	118	74.3	7.4	**0.0054**	0.004	77.6	ug/L	53	Standard
	Sb	123	143.5	5.7	**0.0574**	0.004	6.5	ug/L	7	Standard
	Ba	135	50.7	16.1	**0.0176**	0.005	28.1	ug/L	11	Standard
	Ce	140	40.0	69.6				ug/L	10	Standard
>	Tb	159	469242.7	1.2				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	7.0	14.3	**-0.0009**	0.000	21.6	ug/L	1	Standard
	Tl	205	11.7	107.9	**0.0011**	0.002	178.2	ug/L	3	Standard
	Pb	206	122.3	14.5	**0.0105**	0.008	71.6	ug/L	80	Standard
	Pb	207	112.7	4.2	**0.0215**	0.002	10.2	ug/L	73	Standard
	Pb	208	268.7	4.1	**0.0138**	0.002	15.9	ug/L	190	Standard
	U	238	3.3	105.4	**-0.0009**	0.001	120.2	ug/L	0	Standard
>	Bi	209	250890.2	0.2				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	48.3	26.0	**0.0228**	0.015	66.1	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2748**	0.184	67.1	mg/L	3	Standard
	Ca	43	10.0	50.0	**-7.1161**	1.606	22.6	mg/L	43	Standard
	Fe	54	334.3	7.9	**0.0533**	0.011	20.5	mg/L	262	Standard
	Fe	57	75.0	17.6	**0.0469**	0.027	57.1	mg/L	65	Standard
>	**Sc-1**	45	24291.1	2.3				mg/L	26874	Standard
	Cl	35	137511.9	0.4				ug/L	141022	Standard
	Kr	83	85.7	7.6				ug/L	75	Standard
	Br	81	2563.6	4.6				ug/L	2810	Standard
	P	31	461637.6	2.2				ug/L	458976	Standard
	S	34	120574.6	1.2				ug/L	103378	Standard
	Sr	88	50.0	20.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	200.7				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.839	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.224	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	91.908
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.758
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: LCSS 24 WG452353-03
Sample Date/Time: Monday, November 18, 2013 18:50:31
Number of Replicates: 3
Autosampler Position: 302
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	249060.6	1.4				ug/L	269614	Standard
	Be	9	71198.6	2.7	**25.9512**	0.430	1.7	ug/L	23	Standard
	Al	27	9206.1	2.9	**0.0404**	0.001	3.3	ug/L	1170	Standard
	Sc	45	25227.7	2.8				ug/L	26874	Standard
	Ti	47	23.7	23.3	**0.0025**	0.022	874.4	ug/L	25	Standard
	V	51	160749.2	0.7	**24.4901**	0.476	1.9	ug/L	1686	Standard
	Cr	52	158185.2	1.4	**24.3719**	0.245	1.0	ug/L	6098	Standard
	Cr	53	29198.1	1.4	**25.0460**	0.637	2.5	ug/L	193	Standard
	Mn	55	321284.0	1.4	**25.6927**	0.264	1.0	ug/L	1232	Standard
	Co	59	213131.3	0.9	**24.6462**	0.377	1.5	ug/L	106	Standard
	Ni	60	63905.5	0.4	**25.0032**	0.294	1.2	ug/L	556	Standard
	Cu	65	63100.8	0.7	**25.9001**	0.204	0.8	ug/L	124	Standard
	Zn	66	34531.0	0.3	**25.7630**	0.444	1.7	ug/L	196	Standard
>	Ge	72	440179.6	1.4				ug/L	473313	Standard
	As	75	33666.1	1.0	**25.2075**	0.179	0.7	ug/L	-286	Standard
	Se	82	3415.8	1.5	**25.0292**	0.321	1.3	ug/L	-33	Standard
	Se-1	77	2529.2	2.0	**24.3474**	0.824	3.4	ug/L	86	Standard
>	Ga	71	38.3	15.1				mg/L	35	Standard
	Rb	85	76.7	19.9				ug/L	13	Standard
	Y	89	413472.4	2.1				ug/L	439493	Standard
>	Rh	103	10.0	50.0				ug/L	5	Standard
	Mo	98	50.2	19.5	**-0.0014**	0.003	183.3	ug/L	10	Standard
	Ag	107	166430.1	0.9	**26.9389**	0.192	0.7	ug/L	53	Standard
	Cd	111	50591.9	1.0	**24.6859**	0.186	0.8	mg/L	1	Standard
	Cd	114	125806.4	0.8	**24.2497**	0.229	0.9	ug/L	32	Standard
>	In	115	462108.8	0.3				ug/L	494305	Standard
	Sn	118	77.0	7.9	**0.0065**	0.005	78.2	ug/L	53	Standard
	Sb	123	62238.9	0.7	**25.1051**	0.147	0.6	ug/L	7	Standard
	Ba	135	43458.6	0.9	**25.3609**	0.299	1.2	ug/L	11	Standard
	Ce	140	171.7	17.1				ug/L	10	Standard
>	Tb	159	473130.7	1.0				ug/L	538219	Standard
	Ho	165	0.0					ug/L	8	Standard
	Tl	203	139418.9	0.6	**25.1590**	0.227	0.9	ug/L	1	Standard
	Tl	205	181011.6	1.5	**26.4574**	0.629	2.4	ug/L	3	Standard
	Pb	206	65274.0	0.7	**27.4329**	0.196	0.7	ug/L	80	Standard
	Pb	207	55921.7	0.8	**26.0938**	0.443	1.7	ug/L	73	Standard
	Pb	208	129270.0	0.3	**24.6406**	0.284	1.2	ug/L	190	Standard
	U	238	80149.5	1.4	**23.4598**	0.543	2.3	ug/L	0	Standard
>	Bi	209	255511.9	1.0				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	58.3	44.0	**0.0316**	0.028	90.1	mg/L	37	Standard
	K	39	6.7	114.6	**0.0300**	0.463	1542.5	mg/L	3	Standard
	Ca	43	15.0	33.3	**-5.7101**	1.530	26.8	mg/L	43	Standard
	Fe	54	347.6	12.0	**0.0536**	0.021	38.7	mg/L	262	Standard
	Fe	57	75.0	24.0	**0.0418**	0.036	85.9	mg/L	65	Standard
>	**Sc-1**	45	25227.7	2.8				mg/L	26874	Standard
	Cl	35	137416.4	0.8				ug/L	141022	Standard
	Kr	83	96.3	7.4				ug/L	75	Standard
	Br	81	3220.3	1.9				ug/L	2810	Standard
	P	31	460720.5	1.2				ug/L	458976	Standard
	S	34	117729.0	0.6				ug/L	103378	Standard
	Sr	88	55.0	45.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	19.7	53.3				mg/L	10	Standard
	Ho-1	165	0.0					mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.377	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.000	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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	Y	89
>	Rh	103
	Mo	98
	Ag	107
	Cd	111
	Cd	114
>	In	115
	Sn	118
	Sb	123
	Ba	135
	Ce	140
>	Tb	159
	Ho	165
	Tl	203
	Tl	205
	Pb	206
	Pb	207
	Pb	208
	U	238
>	Bi	209
	Na	23
	Mg	24
	K	39
	Ca	43
	Fe	54
	Fe	57
>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

93.486	
92.430	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311039802
Sample Date/Time: Monday, November 18, 2013 18:53:36
Number of Replicates: 3
Autosampler Position: 303
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	223339.2	1.2				ug/L	269614	Standard
	Be	9	81.7	34.8	**0.0171**	0.011	67.0	ug/L	23	Standard
	Al	27	91374.1	7.7	**0.5186**	0.036	7.0	ug/L	1170	Standard
	Sc	45	21602.1	2.6				ug/L	26874	Standard
	Ti	47	154.0	8.1	**0.6381**	0.056	8.8	ug/L	25	Standard
	V	51	3012.0	2.8	**0.3337**	0.017	5.0	ug/L	1686	Standard
	Cr	52	4996.2	0.7	**0.1916**	0.007	3.6	ug/L	6098	Standard
	Cr	53	493.3	14.8	**0.3353**	0.068	20.4	ug/L	193	Standard
	Mn	55	99372.5	1.7	**8.7741**	0.184	2.1	ug/L	1232	Standard
	Co	59	1723.8	3.2	**0.2071**	0.008	4.0	ug/L	106	Standard
	Ni	60	1072.0	5.2	**0.2701**	0.026	9.6	ug/L	556	Standard
	Cu	65	771.0	3.6	**0.2940**	0.015	5.0	ug/L	124	Standard
	Zn	66	3029.3	1.6	**2.3430**	0.045	1.9	ug/L	196	Standard
>	**Ge**	72	394579.6	0.6				ug/L	473313	Standard
	As	75	-183.1	20.1	**0.0602**	0.031	51.5	ug/L	-286	Standard
	Se	82	-33.8	32.3	**0.0278**	0.089	319.1	ug/L	-33	Standard
	Se-1	77	68.3	12.2	**0.0008**	0.089	10572.0	ug/L	86	Standard
>	**Ga**	71	265.0	11.3				mg/L	35	Standard
	Rb	85	3397.0	7.3				ug/L	13	Standard
	Y	89	369144.6	0.8				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	12.4	32.5	**-0.0114**	0.001	11.0	ug/L	10	Standard
	Ag	107	88.7	25.6	**0.0012**	0.004	346.9	ug/L	53	Standard
	Cd	111	26.0	24.0	**0.0114**	0.003	30.0	mg/L	1	Standard
	Cd	114	92.0	11.3	**0.0105**	0.002	21.5	ug/L	32	Standard
>	**In**	115	410319.4	0.2				ug/L	494305	Standard
	Sn	118	51.0	5.9	**-0.0095**	0.003	30.0	ug/L	53	Standard
	Sb	123	85.9	7.3	**0.0375**	0.003	7.5	ug/L	7	Standard
	Ba	135	3144.3	2.1	**2.0549**	0.041	2.0	ug/L	11	Standard
	Ce	140	10678.8	1.8				ug/L	10	Standard
>	**Tb**	159	417675.4	0.4				ug/L	538219	Standard
	Ho	165	173.3	24.5				ug/L	8	Standard
	Tl	203	26.3	11.6	**0.0030**	0.001	20.9	ug/L	1	Standard
	Tl	205	61.7	131.1	**0.0092**	0.013	141.6	ug/L	3	Standard
	Pb	206	963.0	1.6	**0.3986**	0.003	0.7	ug/L	80	Standard
	Pb	207	813.7	4.1	**0.3810**	0.014	3.7	ug/L	73	Standard
	Pb	208	2063.4	5.1	**0.3898**	0.025	6.4	ug/L	190	Standard
	U	238	60.0	83.7	**0.0173**	0.016	94.0	ug/L	0	Standard
>	**Bi**	209	235094.7	1.2				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0937**	0.903	963.7	mg/L	2	Standard
	Mg	24	46.7	37.6	**0.0272**	0.022	80.0	mg/L	37	Standard
	K	39	5.0	173.2	**-0.0238**	0.619	2603.7	mg/L	3	Standard
	Ca	43	20.0	25.0	**-3.1070**	1.943	62.5	mg/L	43	Standard
	Fe	54	435.6	7.0	**0.1371**	0.017	12.1	mg/L	262	Standard
	Fe	57	173.3	6.0	**0.2762**	0.021	7.6	mg/L	65	Standard
>	**Sc-1**	45	21602.1	2.6				mg/L	26874	Standard
	Cl	35	124604.5	2.7				ug/L	141022	Standard
	Kr	83	80.3	6.1				ug/L	75	Standard
	Br	81	1986.8	5.9				ug/L	2810	Standard
	P	31	149415.0	2.3				ug/L	458976	Standard
	S	34	113387.7	1.0				ug/L	103378	Standard
	Sr	88	25.0	91.7				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	249.3	35.6				mg/L	10	Standard
	Ho-1	165	173.3	24.5				mg/L	8	Standard
	Er	166	223.3	14.4				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		82.837	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		83.365	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.009
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.044
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311039803
Sample Date/Time: Monday, November 18, 2013 18:56:41
Number of Replicates: 3
Autosampler Position: 304
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	221409.9	2.3				ug/L	269614	Standard
	Be	9	38.3	15.1	**-0.0004**	0.002	533.3	ug/L	23	Standard
	Al	27	123170.4	2.2	**0.7084**	0.031	4.4	ug/L	1170	Standard
	Sc	45	22159.5	4.4				ug/L	26874	Standard
	Ti	47	1581.4	4.3	**7.4848**	0.268	3.6	ug/L	25	Standard
	V	51	4528.8	1.1	**0.5949**	0.005	0.9	ug/L	1686	Standard
	Cr	52	16530.7	3.7	**2.2361**	0.087	3.9	ug/L	6098	Standard
	Cr	53	2646.9	0.2	**2.4127**	0.023	1.0	ug/L	193	Standard
	Mn	55	372064.3	4.7	**33.2950**	1.294	3.9	ug/L	1232	Standard
	Co	59	2984.0	5.3	**0.3705**	0.018	5.0	ug/L	106	Standard
	Ni	60	8145.2	2.7	**3.3892**	0.085	2.5	ug/L	556	Standard
	Cu	65	57397.0	4.6	**26.3321**	1.045	4.0	ug/L	124	Standard
	Zn	66	121967.0	3.4	**102.2823**	2.752	2.7	ug/L	196	Standard
>	**Ge**	72	393751.0	0.9				ug/L	473313	Standard
	As	75	187.9	29.1	**0.3675**	0.044	11.9	ug/L	-286	Standard
	Se	82	-42.4	29.5	**-0.0428**	0.104	242.4	ug/L	-33	Standard
	Se-1	77	73.3	21.9	**0.0575**	0.175	303.7	ug/L	86	Standard
>	**Ga**	71	786.7	9.9				mg/L	35	Standard
	Rb	85	2006.8	2.9				ug/L	13	Standard
	Y	89	364738.4	1.3				ug/L	439493	Standard
>	**Rh**	103	15.0	33.3				ug/L	5	Standard
	Mo	98	1991.7	3.9	**0.5981**	0.026	4.4	ug/L	10	Standard
	Ag	107	5101.2	4.7	**0.9130**	0.048	5.2	ug/L	53	Standard
	Cd	111	3475.1	4.2	**1.9021**	0.090	4.7	mg/L	1	Standard
	Cd	114	9104.9	3.9	**1.9627**	0.089	4.6	ug/L	32	Standard
>	**In**	115	411464.5	0.6				ug/L	494305	Standard
	Sn	118	1474.4	2.4	**1.2971**	0.031	2.4	ug/L	53	Standard
	Sb	123	243.8	6.8	**0.1090**	0.008	7.5	ug/L	7	Standard
	Ba	135	26035.4	4.1	**17.0612**	0.769	4.5	ug/L	11	Standard
	Ce	140	8545.7	3.7				ug/L	10	Standard
>	**Tb**	159	424141.4	0.6				ug/L	538219	Standard
	Ho	165	85.0	15.6				ug/L	8	Standard
	Tl	203	18.3	69.3	**0.0015**	0.003	171.4	ug/L	1	Standard
	Tl	205	20.0	25.0	**0.0025**	0.001	31.8	ug/L	3	Standard
	Pb	206	109816.2	3.7	**50.4446**	1.458	2.9	ug/L	80	Standard
	Pb	207	93311.7	3.7	**47.5798**	1.426	3.0	ug/L	73	Standard
	Pb	208	221734.8	3.7	**46.1971**	1.426	3.1	ug/L	190	Standard
	U	238	33.0	3.0	**0.0087**	0.000	4.7	ug/L	0	Standard
>	**Bi**	209	233894.9	1.0				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.1200**	0.949	790.6	mg/L	2	Standard
	Mg	24	63.3	22.8	**0.0464**	0.017	36.3	mg/L	37	Standard
	K	39	3.3	173.2	**-0.1510**	0.399	264.1	mg/L	3	Standard
	Ca	43	25.0	0.0	**-1.5453**	0.391	25.3	mg/L	43	Standard
	Fe	54	3405.8	3.2	**1.8850**	0.090	4.8	mg/L	262	Standard
	Fe	57	971.7	11.7	**1.9461**	0.276	14.2	mg/L	65	Standard
>	**Sc-1**	45	22159.5	4.4				mg/L	26874	Standard
	Cl	35	127747.0	0.9				ug/L	141022	Standard
	Kr	83	95.0	11.6				ug/L	75	Standard
	Br	81	2290.2	14.5				ug/L	2810	Standard
	P	31	152227.9	2.6				ug/L	458976	Standard
	S	34	120527.6	1.6				ug/L	103378	Standard
	Sr	88	45.0	33.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	126.7	18.2				mg/L	0	Standard
	Dy	164	192.0	13.8				mg/L	10	Standard
	Ho-1	165	85.0	15.6				mg/L	8	Standard
	Er	166	96.7	41.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		82.121	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		83.190	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.241
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.610
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311039804
Sample Date/Time: Monday, November 18, 2013 18:59:46
Number of Replicates: 3
Autosampler Position: 305
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	216416.3	0.7				ug/L	269614	Standard
	Be	9	41.7	18.3	**0.0014**	0.003	221.4	ug/L	23	Standard
	Al	27	193458.9	0.3	**1.1419**	0.010	0.9	ug/L	1170	Standard
	Sc	45	22555.1	2.9				ug/L	26874	Standard
	Ti	47	1699.4	1.0	**7.9250**	0.118	1.5	ug/L	25	Standard
	V	51	4092.3	6.2	**0.5091**	0.043	8.5	ug/L	1686	Standard
	Cr	52	34370.6	2.0	**5.3012**	0.126	2.4	ug/L	6098	Standard
	Cr	53	6276.3	6.5	**5.8158**	0.360	6.2	ug/L	193	Standard
	Mn	55	233323.2	1.9	**20.5035**	0.347	1.7	ug/L	1232	Standard
	Co	59	2377.9	3.8	**0.2873**	0.011	3.7	ug/L	106	Standard
	Ni	60	5906.5	1.4	**2.3618**	0.048	2.0	ug/L	556	Standard
	Cu	65	40679.5	0.5	**18.3553**	0.017	0.1	ug/L	124	Standard
	Zn	66	68519.2	0.4	**56.4802**	0.213	0.4	ug/L	196	Standard
>	**Ge**	72	400007.2	0.5				ug/L	473313	Standard
	As	75	157.2	12.6	**0.3404**	0.017	4.9	ug/L	-286	Standard
	Se	82	-35.2	12.7	**0.0207**	0.034	166.2	ug/L	-33	Standard
	Se-1	77	62.7	14.3	**-0.0712**	0.096	134.7	ug/L	86	Standard
>	**Ga**	71	686.7	2.8				mg/L	35	Standard
	Rb	85	2211.8	2.6				ug/L	13	Standard
	Y	89	370529.4	0.8				ug/L	439493	Standard
>	**Rh**	103	13.3	57.3				ug/L	5	Standard
	Mo	98	574.1	2.0	**0.1591**	0.004	2.4	ug/L	10	Standard
	Ag	107	5948.5	1.6	**1.0521**	0.007	0.7	ug/L	53	Standard
	Cd	111	3907.1	3.7	**2.1092**	0.081	3.8	mg/L	1	Standard
	Cd	114	9902.4	1.2	**2.1058**	0.035	1.6	ug/L	32	Standard
>	**In**	115	417189.1	0.9				ug/L	494305	Standard
	Sn	118	839.7	4.8	**0.7037**	0.029	4.2	ug/L	53	Standard
	Sb	123	170.5	5.4	**0.0747**	0.003	4.7	ug/L	7	Standard
	Ba	135	21430.8	1.1	**13.8471**	0.118	0.9	ug/L	11	Standard
	Ce	140	8090.5	4.5				ug/L	10	Standard
>	**Tb**	159	426189.4	0.6				ug/L	538219	Standard
	Ho	165	103.3	11.2				ug/L	8	Standard
	Tl	203	21.0	66.0	**0.0020**	0.003	138.6	ug/L	1	Standard
	Tl	205	11.7	137.8	**0.0012**	0.003	218.2	ug/L	3	Standard
	Pb	206	121388.4	1.6	**55.5051**	0.428	0.8	ug/L	80	Standard
	Pb	207	102205.9	1.4	**51.8761**	0.461	0.9	ug/L	73	Standard
	Pb	208	242164.2	1.2	**50.2226**	0.475	0.9	ug/L	190	Standard
	U	238	33.0	18.4	**0.0086**	0.002	23.4	ug/L	0	Standard
>	**Bi**	209	235012.0	0.9				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	1.7	173.2	**0.0974**	0.909	933.8	mg/L	2	Standard
	Mg	24	48.3	21.5	**0.0271**	0.014	52.7	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0261**	0.353	1352.8	mg/L	3	Standard
	Ca	43	18.3	56.8	**-4.0101**	3.611	90.0	mg/L	43	Standard
	Fe	54	1729.6	5.4	**0.8759**	0.038	4.4	mg/L	262	Standard
	Fe	57	530.0	9.8	**0.9939**	0.076	7.7	mg/L	65	Standard
>	**Sc-1**	45	22555.1	2.9				mg/L	26874	Standard
	Cl	35	126612.9	1.2				ug/L	141022	Standard
	Kr	83	87.7	4.3				ug/L	75	Standard
	Br	81	1976.8	10.7				ug/L	2810	Standard
	P	31	151493.8	2.1				ug/L	458976	Standard
	S	34	117283.9	1.4				ug/L	103378	Standard
	Sr	88	51.7	48.7				ug/L	30	Standard
	C	12	6.7	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	103.3	5.6				mg/L	0	Standard
	Dy	164	139.5	14.8				mg/L	10	Standard
	Ho-1	165	103.3	11.2				mg/L	8	Standard
	Er	166	150.0	11.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		80.269	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.512	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.399
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.014
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311039805
Sample Date/Time: Monday, November 18, 2013 19:02:50
Number of Replicates: 3
Autosampler Position: 306
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	223053.3	1.2				ug/L	269614	Standard
	Be	9	53.3	23.6	**0.0056**	0.005	89.0	ug/L	23	Standard
	Al	27	140414.3	1.1	**0.8022**	0.018	2.3	ug/L	1170	Standard
	Sc	45	21887.5	1.6				ug/L	26874	Standard
	Ti	47	1123.4	3.7	**5.2738**	0.220	4.2	ug/L	25	Standard
	V	51	2649.6	3.3	**0.2712**	0.014	5.1	ug/L	1686	Standard
	Cr	52	19386.1	0.5	**2.7321**	0.026	0.9	ug/L	6098	Standard
	Cr	53	3493.7	5.3	**3.2195**	0.190	5.9	ug/L	193	Standard
	Mn	55	307835.6	1.1	**27.4475**	0.368	1.3	ug/L	1232	Standard
	Co	59	2157.5	2.0	**0.2628**	0.006	2.2	ug/L	106	Standard
	Ni	60	5537.0	0.9	**2.2323**	0.024	1.1	ug/L	556	Standard
	Cu	65	81662.8	1.3	**37.3855**	0.600	1.6	ug/L	124	Standard
	Zn	66	76420.6	0.8	**63.8313**	0.750	1.2	ug/L	196	Standard
>	**Ge**	72	394921.6	0.4				ug/L	473313	Standard
	As	75	219.2	9.7	**0.3933**	0.018	4.5	ug/L	-286	Standard
	Se	82	-33.5	1.8	**0.0305**	0.005	17.1	ug/L	-33	Standard
	Se-1	77	63.3	4.8	**-0.0548**	0.036	65.7	ug/L	86	Standard
>	**Ga**	71	606.7	1.3				mg/L	35	Standard
	Rb	85	1600.1	6.5				ug/L	13	Standard
	Y	89	362428.6	0.6				ug/L	439493	Standard
>	**Rh**	103	23.3	86.6				ug/L	5	Standard
	Mo	98	1305.6	1.2	**0.3837**	0.007	1.9	ug/L	10	Standard
	Ag	107	1269.4	2.3	**0.2141**	0.007	3.1	ug/L	53	Standard
	Cd	111	3475.7	2.6	**1.8874**	0.054	2.9	mg/L	1	Standard
	Cd	114	8703.2	0.2	**1.8608**	0.009	0.5	ug/L	32	Standard
>	**In**	115	414677.3	0.6				ug/L	494305	Standard
	Sn	118	1402.7	1.5	**1.2214**	0.025	2.1	ug/L	53	Standard
	Sb	123	219.9	2.5	**0.0973**	0.002	1.9	ug/L	7	Standard
	Ba	135	20658.7	0.6	**13.4285**	0.005	0.0	ug/L	11	Standard
	Ce	140	6227.9	2.6				ug/L	10	Standard
>	**Tb**	159	423227.8	2.0				ug/L	538219	Standard
	Ho	165	66.7	8.7				ug/L	8	Standard
	Tl	203	10.7	35.5	**-0.0001**	0.001	1174.5	ug/L	1	Standard
	Tl	205	10.0	50.0	**0.0009**	0.001	88.3	ug/L	3	Standard
	Pb	206	102808.6	0.8	**46.6946**	0.251	0.5	ug/L	80	Standard
	Pb	207	86147.6	1.3	**43.4323**	0.493	1.1	ug/L	73	Standard
	Pb	208	206360.6	0.9	**42.5088**	0.262	0.6	ug/L	190	Standard
	U	238	21.0	37.8	**0.0048**	0.003	53.0	ug/L	0	Standard
>	**Bi**	209	236570.9	0.3				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	70.0	18.9	**0.0560**	0.018	32.2	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2624**	0.206	78.4	mg/L	3	Standard
	Ca	43	13.3	21.7	**-5.5878**	1.039	18.6	mg/L	43	Standard
	Fe	54	3012.2	13.9	**1.6719**	0.238	14.2	mg/L	262	Standard
	Fe	57	945.0	1.9	**1.9103**	0.061	3.2	mg/L	65	Standard
>	**Sc-1**	45	21887.5	1.6				mg/L	26874	Standard
	Cl	35	123424.8	1.8				ug/L	141022	Standard
	Kr	83	85.0	4.1				ug/L	75	Standard
	Br	81	2146.8	0.7				ug/L	2810	Standard
	P	31	151626.8	1.9				ug/L	458976	Standard
	S	34	116099.8	1.3				ug/L	103378	Standard
	Sr	88	53.3	39.0				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	60.0	66.7				mg/L	0	Standard
	Dy	164	115.2	16.4				mg/L	10	Standard
	Ho-1	165	66.7	8.7				mg/L	8	Standard
	Er	166	100.0	36.1				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		82.731	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		83.438	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.891
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.578
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311039806
Sample Date/Time: Monday, November 18, 2013 19:05:55
Number of Replicates: 3
Autosampler Position: 307
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	226766.2	1.3				ug/L	269614	Standard
	Be	9	51.7	39.1	**0.0046**	0.008	173.9	ug/L	23	Standard
	Al	27	109617.0	3.2	**0.6141**	0.012	2.0	ug/L	1170	Standard
	Sc	45	22458.3	1.7				ug/L	26874	Standard
	Ti	47	914.7	6.5	**4.2223**	0.287	6.8	ug/L	25	Standard
	V	51	4135.0	1.9	**0.5167**	0.020	3.9	ug/L	1686	Standard
	Cr	52	12766.0	3.5	**1.5351**	0.058	3.8	ug/L	6098	Standard
	Cr	53	2018.5	5.3	**1.7766**	0.078	4.4	ug/L	193	Standard
	Mn	55	208370.6	2.5	**18.3030**	0.235	1.3	ug/L	1232	Standard
	Co	59	2218.2	5.3	**0.2671**	0.013	4.9	ug/L	106	Standard
	Ni	60	3866.2	3.3	**1.4768**	0.044	3.0	ug/L	556	Standard
	Cu	65	50658.3	2.6	**22.8815**	0.382	1.7	ug/L	124	Standard
	Zn	66	47364.3	1.4	**38.9993**	0.163	0.4	ug/L	196	Standard
>	**Ge**	72	399819.4	1.3				ug/L	473313	Standard
	As	75	-36.2	68.2	**0.1825**	0.020	10.8	ug/L	-286	Standard
	Se	82	-49.9	7.2	**-0.0967**	0.027	28.0	ug/L	-33	Standard
	Se-1	77	61.0	6.6	**-0.0885**	0.052	58.4	ug/L	86	Standard
>	**Ga**	71	468.3	19.8				mg/L	35	Standard
	Rb	85	2296.8	2.6				ug/L	13	Standard
	Y	89	370196.4	0.7				ug/L	439493	Standard
>	**Rh**	103	15.0	33.3				ug/L	5	Standard
	Mo	98	525.6	8.0	**0.1435**	0.011	7.3	ug/L	10	Standard
	Ag	107	6851.9	2.7	**1.2080**	0.020	1.6	ug/L	53	Standard
	Cd	111	2180.2	3.4	**1.1697**	0.030	2.5	mg/L	1	Standard
	Cd	114	5564.4	4.1	**1.1731**	0.043	3.7	ug/L	32	Standard
>	**In**	115	419257.6	1.5				ug/L	494305	Standard
	Sn	118	683.3	2.7	**0.5592**	0.009	1.7	ug/L	53	Standard
	Sb	123	162.5	10.4	**0.0708**	0.007	10.3	ug/L	7	Standard
	Ba	135	15392.2	2.8	**9.8916**	0.167	1.7	ug/L	11	Standard
	Ce	140	10788.8	3.1				ug/L	10	Standard
>	**Tb**	159	431049.1	0.8				ug/L	538219	Standard
	Ho	165	108.3	30.7				ug/L	8	Standard
	Tl	203	18.0	68.3	**0.0014**	0.002	175.1	ug/L	1	Standard
	Tl	205	30.0	116.7	**0.0040**	0.005	135.8	ug/L	3	Standard
	Pb	206	64558.0	2.9	**29.2555**	0.538	1.8	ug/L	80	Standard
	Pb	207	53967.3	2.6	**27.1489**	0.297	1.1	ug/L	73	Standard
	Pb	208	129752.8	2.0	**26.6702**	0.311	1.2	ug/L	190	Standard
	U	238	33.0	18.4	**0.0085**	0.002	21.9	ug/L	0	Standard
>	**Bi**	209	236959.2	1.6				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	40.0	25.0	**0.0170**	0.013	74.7	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	10.0	50.0	**-6.8597**	1.760	25.7	mg/L	43	Standard
	Fe	54	1616.1	6.8	**0.8138**	0.048	5.9	mg/L	262	Standard
	Fe	57	543.3	13.2	**1.0271**	0.143	13.9	mg/L	65	Standard
>	**Sc-1**	45	22458.3	1.7				mg/L	26874	Standard
	Cl	35	122367.7	2.3				ug/L	141022	Standard
	Kr	83	93.0	3.7				ug/L	75	Standard
	Br	81	2150.2	3.3				ug/L	2810	Standard
	P	31	156241.6	1.7				ug/L	458976	Standard
	S	34	113003.3	1.9				ug/L	103378	Standard
	Sr	88	48.3	41.8				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	36.7	41.7				mg/L	0	Standard
	Dy	164	176.8	3.0				mg/L	10	Standard
	Ho-1	165	108.3	30.7				mg/L	8	Standard
	Er	166	136.7	16.9				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		84.108	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.472	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.818
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.718
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311039807
Sample Date/Time: Monday, November 18, 2013 19:09:00
Number of Replicates: 3
Autosampler Position: 308
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	230767.5	0.7				ug/L	269614	Standard
	Be	9	61.7	48.9	**0.0083**	0.012	145.7	ug/L	23	Standard
	Al	27	156512.6	0.7	**0.8647**	0.011	1.3	ug/L	1170	Standard
	Sc	45	22748.7	1.0				ug/L	26874	Standard
	Ti	47	1562.4	0.7	**7.1092**	0.062	0.9	ug/L	25	Standard
	V	51	4089.8	2.3	**0.4929**	0.020	4.1	ug/L	1686	Standard
	Cr	52	19822.3	2.2	**2.6857**	0.081	3.0	ug/L	6098	Standard
	Cr	53	3383.7	6.6	**2.9997**	0.232	7.7	ug/L	193	Standard
	Mn	55	302163.7	1.6	**25.9815**	0.195	0.7	ug/L	1232	Standard
	Co	59	3817.8	4.2	**0.4595**	0.015	3.4	ug/L	106	Standard
	Ni	60	13965.4	2.5	**5.7200**	0.119	2.1	ug/L	556	Standard
	Cu	65	83536.4	2.0	**36.8889**	0.489	1.3	ug/L	124	Standard
	Zn	66	171804.1	2.9	**138.6444**	2.723	2.0	ug/L	196	Standard
>	**Ge**	72	409379.8	1.0				ug/L	473313	Standard
	As	75	659.7	11.3	**0.7382**	0.055	7.4	ug/L	-286	Standard
	Se	82	-46.6	13.9	**-0.0625**	0.054	86.2	ug/L	-33	Standard
	Se-1	77	72.7	15.7	**0.0207**	0.127	616.9	ug/L	86	Standard
>	**Ga**	71	926.7	9.7				mg/L	35	Standard
	Rb	85	3155.3	6.4				ug/L	13	Standard
	Y	89	374303.7	0.2				ug/L	439493	Standard
>	**Rh**	103	25.0	40.0				ug/L	5	Standard
	Mo	98	1920.2	3.4	**0.5535**	0.015	2.7	ug/L	10	Standard
	Ag	107	4963.5	1.1	**0.8537**	0.013	1.5	ug/L	53	Standard
	Cd	111	4654.3	2.8	**2.4518**	0.086	3.5	mg/L	1	Standard
	Cd	114	11774.3	3.5	**2.4435**	0.067	2.7	ug/L	32	Standard
>	**In**	115	427662.4	0.8				ug/L	494305	Standard
	Sn	118	1006.0	1.0	**0.8322**	0.016	2.0	ug/L	53	Standard
	Sb	123	225.4	8.7	**0.0967**	0.008	8.2	ug/L	7	Standard
	Ba	135	27737.0	1.4	**17.4853**	0.112	0.6	ug/L	11	Standard
	Ce	140	9834.9	1.0				ug/L	10	Standard
>	**Tb**	159	438770.4	1.8				ug/L	538219	Standard
	Ho	165	103.3	10.1				ug/L	8	Standard
	Tl	203	29.3	64.5	**0.0035**	0.004	103.5	ug/L	1	Standard
	Tl	205	25.0	52.9	**0.0032**	0.002	63.6	ug/L	3	Standard
	Pb	206	156730.7	2.0	**70.0610**	0.555	0.8	ug/L	80	Standard
	Pb	207	132969.6	1.0	**65.9822**	0.475	0.7	ug/L	73	Standard
	Pb	208	315356.0	1.5	**63.9379**	0.431	0.7	ug/L	190	Standard
	U	238	34.0	5.1	**0.0087**	0.000	4.4	ug/L	0	Standard
>	**Bi**	209	240435.7	1.6				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	5.0	0.0	**1.0941**	0.015	1.3	mg/L	2	Standard
	Mg	24	66.7	24.1	**0.0484**	0.019	39.0	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0318**	0.352	1105.1	mg/L	3	Standard
	Ca	43	26.7	28.6	**-1.1995**	2.698	224.9	mg/L	43	Standard
	Fe	54	5249.8	6.2	**2.8898**	0.162	5.6	mg/L	262	Standard
	Fe	57	1470.1	4.4	**2.9061**	0.118	4.1	mg/L	65	Standard
>	**Sc-1**	45	22748.7	1.0				mg/L	26874	Standard
	Cl	35	125203.3	2.3				ug/L	141022	Standard
	Kr	83	103.0	1.0				ug/L	75	Standard
	Br	81	2166.8	6.2				ug/L	2810	Standard
	P	31	160407.4	4.3				ug/L	458976	Standard
	S	34	116798.5	1.6				ug/L	103378	Standard
	Sr	88	53.3	14.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	116.7	35.7				mg/L	0	Standard
	Dy	164	131.9	29.2				mg/L	10	Standard
	Ho-1	165	103.3	10.1				mg/L	8	Standard
	Er	166	100.0	26.5				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		85.592	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		86.492	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
| >	In	115		86.518
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		86.976
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Zn 66 Upper, S, EEE	Zn	66	

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Method 6020 - Summary Report

Sample ID: L1311039807PS WG452574-03
Sample Date/Time: Monday, November 18, 2013 19:12:05
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	260125.9	1.4				ug/L	269614	Standard
	Be	9	144421.8	1.5	**50.4242**	0.812	1.6	ug/L	23	Standard
	Al	27	157241.8	1.1	**0.7700**	0.019	2.5	ug/L	1170	Standard
	Sc	45	26127.5	2.0				ug/L	26874	Standard
	Ti	47	1711.1	1.6	**6.8582**	0.144	2.1	ug/L	25	Standard
	V	51	329417.3	0.5	**47.7212**	0.478	1.0	ug/L	1686	Standard
	Cr	52	339654.6	0.5	**50.3045**	0.522	1.0	ug/L	6098	Standard
	Cr	53	62818.3	1.2	**51.1977**	0.854	1.7	ug/L	193	Standard
	Mn	55	952689.3	0.6	**72.4445**	0.739	1.0	ug/L	1232	Standard
	Co	59	439678.7	0.6	**48.1883**	0.069	0.1	ug/L	106	Standard
	Ni	60	145793.2	1.5	**54.2807**	0.733	1.4	ug/L	556	Standard
	Cu	65	212514.5	1.4	**82.7797**	0.796	1.0	ug/L	124	Standard
	Zn	66	215391.5	0.4	**153.2235**	0.185	0.1	ug/L	196	Standard
>	Ge	72	464523.4	0.5				ug/L	473313	Standard
	As	75	71299.8	0.3	**50.3734**	0.402	0.8	ug/L	-286	Standard
	Se	82	7126.1	0.3	**49.1844**	0.235	0.5	ug/L	-33	Standard
	Se-1	77	5286.3	1.4	**48.9488**	0.807	1.6	ug/L	86	Standard
>	Ga	71	1051.7	10.5				mg/L	35	Standard
	Rb	85	3343.7	1.7				ug/L	13	Standard
	Y	89	431895.2	1.7				ug/L	439493	Standard
>	Rh	103	36.7	20.8				ug/L	5	Standard
	Mo	98	2107.9	3.5	**0.5427**	0.017	3.1	ug/L	10	Standard
	Ag	107	351120.9	0.5	**54.8979**	0.514	0.9	ug/L	53	Standard
	Cd	111	109750.6	1.0	**51.7157**	0.528	1.0	mg/L	1	Standard
	Cd	114	271437.1	1.4	**50.5379**	1.134	2.2	ug/L	32	Standard
>	In	115	478561.5	0.8				ug/L	494305	Standard
	Sn	118	1252.1	2.7	**0.9320**	0.034	3.7	ug/L	53	Standard
	Sb	123	126806.1	0.3	**49.3945**	0.407	0.8	ug/L	7	Standard
	Ba	135	117418.2	0.2	**66.1868**	0.491	0.7	ug/L	11	Standard
	Ce	140	9299.5	2.2				ug/L	10	Standard
>	Tb	159	484823.1	0.5				ug/L	538219	Standard
	Ho	165	108.3	18.7				ug/L	8	Standard
	Tl	203	278488.6	1.2	**49.1275**	0.529	1.1	ug/L	1	Standard
	Tl	205	369264.1	0.7	**52.7550**	0.069	0.1	ug/L	3	Standard
	Pb	206	282862.6	0.2	**116.3481**	0.834	0.7	ug/L	80	Standard
	Pb	207	247034.0	0.6	**112.7785**	0.471	0.4	ug/L	73	Standard
	Pb	208	562889.4	0.1	**105.0083**	0.851	0.8	ug/L	190	Standard
	U	238	160753.6	0.6	**45.9923**	0.103	0.2	ug/L	0	Standard
>	Bi	209	261378.0	0.8				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	68.3	11.2	**0.0398**	0.007	17.9	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	30.0	16.7	**-1.3784**	1.671	121.2	mg/L	43	Standard
	Fe	54	5369.5	2.4	**2.5612**	0.083	3.2	mg/L	262	Standard
	Fe	57	1460.1	10.1	**2.4979**	0.217	8.7	mg/L	65	Standard
>	**Sc-1**	45	26127.5	2.0				mg/L	26874	Standard
	Cl	35	137624.2	0.9				ug/L	141022	Standard
	Kr	83	97.3	13.0				ug/L	75	Standard
	Br	81	2650.2	9.8				ug/L	2810	Standard
	P	31	479198.3	1.9				ug/L	458976	Standard
	S	34	119916.2	2.2				ug/L	103378	Standard
	Sr	88	50.0	45.8				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	120.0	44.1				mg/L	0	Standard
	Dy	164	168.5	23.1				mg/L	10	Standard
	Ho-1	165	108.3	18.7				mg/L	8	Standard
	Er	166	100.0	30.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.481	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.143	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.815
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.552
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Zn 66 Upper, S, EEE	Zn	66	
Pb 206 Upper, S, EEE	Pb	206	
Pb 207 Upper, S, EEE	Pb	207	
Pb 208 Upper, S, EEE	Pb	208	

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Method 6020 - Summary Report

Sample ID: L1311039807SDL WG452574-04
Sample Date/Time: Monday, November 18, 2013 19:15:10
Number of Replicates: 3
Autosampler Position: 310
Sample Description: 500
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	226028.8	1.9				ug/L	269614	Standard
	Be	9	75.0	30.6	**0.0140**	0.009	62.6	ug/L	23	Standard
	Al	27	32017.1	3.1	**0.1749**	0.003	1.8	ug/L	1170	Standard
	Sc	45	22550.1	2.8				ug/L	26874	Standard
	Ti	47	320.3	3.7	**1.4020**	0.046	3.3	ug/L	25	Standard
	V	51	1392.8	4.7	**0.0514**	0.011	21.1	ug/L	1686	Standard
	Cr	52	5940.5	3.5	**0.3367**	0.043	12.7	ug/L	6098	Standard
	Cr	53	823.4	8.1	**0.6366**	0.068	10.7	ug/L	193	Standard
	Mn	55	59555.5	1.5	**5.0909**	0.118	2.3	ug/L	1232	Standard
	Co	59	782.7	5.3	**0.0835**	0.005	6.4	ug/L	106	Standard
	Ni	60	2993.6	4.2	**1.0878**	0.056	5.1	ug/L	556	Standard
	Cu	65	16329.8	1.9	**7.2778**	0.197	2.7	ug/L	124	Standard
	Zn	66	34914.2	2.3	**28.4694**	0.866	3.0	ug/L	196	Standard
>	**Ge**	72	403040.4	0.8				ug/L	473313	Standard
	As	75	-5.3	593.2	**0.2076**	0.026	12.4	ug/L	-286	Standard
	Se	82	-27.4	30.5	**0.0842**	0.065	77.5	ug/L	-33	Standard
	Se-1	77	70.7	9.2	**0.0103**	0.067	652.7	ug/L	86	Standard
>	**Ga**	71	188.3	6.1				mg/L	35	Standard
	Rb	85	666.7	8.8				ug/L	13	Standard
	Y	89	367389.4	0.9				ug/L	439493	Standard
>	**Rh**	103	5.0	0.0				ug/L	5	Standard
	Mo	98	349.2	4.6	**0.0908**	0.005	5.1	ug/L	10	Standard
	Ag	107	989.7	3.7	**0.1624**	0.006	3.8	ug/L	53	Standard
	Cd	111	939.2	3.2	**0.5044**	0.017	3.4	mg/L	1	Standard
	Cd	114	2346.4	6.7	**0.4914**	0.034	6.9	ug/L	32	Standard
>	**In**	115	417508.4	0.3				ug/L	494305	Standard
	Sn	118	203.0	10.2	**0.1273**	0.019	15.0	ug/L	53	Standard
	Sb	123	211.7	13.4	**0.0930**	0.012	13.4	ug/L	7	Standard
	Ba	135	5417.0	2.2	**3.4881**	0.085	2.4	ug/L	11	Standard
	Ce	140	1805.1	11.4				ug/L	10	Standard
>	**Tb**	159	429834.3	1.5				ug/L	538219	Standard
	Ho	165	30.0	28.9				ug/L	8	Standard
	Tl	203	16.3	49.5	**0.0010**	0.002	153.3	ug/L	1	Standard
	Tl	205	16.7	45.8	**0.0019**	0.001	62.8	ug/L	3	Standard
	Pb	206	31045.1	2.4	**14.0177**	0.398	2.8	ug/L	80	Standard
	Pb	207	26357.9	1.6	**13.2162**	0.300	2.3	ug/L	73	Standard
	Pb	208	62168.5	2.8	**12.7310**	0.415	3.3	ug/L	190	Standard
	U	238	13.7	42.2	**0.0024**	0.002	75.2	ug/L	0	Standard
>	**Bi**	209	237493.6	0.7				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0853**	0.889	1041.1	mg/L	2	Standard
	Mg	24	43.3	35.3	**0.0212**	0.020	95.0	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0273**	0.361	1318.4	mg/L	3	Standard
	Ca	43	26.7	28.6	**-1.1423**	2.603	227.9	mg/L	43	Standard
	Fe	54	935.6	8.5	**0.4171**	0.061	14.7	mg/L	262	Standard
	Fe	57	288.3	16.4	**0.4992**	0.109	21.9	mg/L	65	Standard
>	**Sc-1**	45	22550.1	2.8				mg/L	26874	Standard
	Cl	35	122492.0	2.6				ug/L	141022	Standard
	Kr	83	75.3	18.6				ug/L	75	Standard
	Br	81	2053.5	6.6				ug/L	2810	Standard
	P	31	149332.3	0.9				ug/L	458976	Standard
	S	34	112967.9	1.1				ug/L	103378	Standard
	Sr	88	30.0	28.9				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	36.7	15.7				mg/L	0	Standard
	Dy	164	25.1	63.8				mg/L	10	Standard
	Ho-1	165	30.0	28.9				mg/L	8	Standard
	Er	166	33.3	45.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		83.834	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.153	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.464
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.912
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311039807SDL WG452574-04
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 19:18:17
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	248635.2	0.9				ug/L	269614	Standard
	Be	9	137465.8	1.0	**50.2141**	0.851	1.7	ug/L	23	Standard
	Al	27	8753615.2	2.3	**45.2529**	1.400	3.1	ug/L	1170	Standard
	Sc	45	25281.1	1.5				ug/L	26874	Standard
	Ti	47	24716.8	0.6	**104.9317**	0.839	0.8	ug/L	25	Standard
	V	51	308919.4	0.4	**46.7702**	0.340	0.7	ug/L	1686	Standard
	Cr	52	301440.1	0.4	**46.6143**	0.682	1.5	ug/L	6098	Standard
	Cr	53	56578.8	0.5	**48.1878**	0.521	1.1	ug/L	193	Standard
	Mn	55	611213.6	0.4	**48.5337**	0.595	1.2	ug/L	1232	Standard
	Co	59	411321.7	0.3	**47.1192**	0.428	0.9	ug/L	106	Standard
	Ni	60	125910.4	0.7	**48.9774**	0.192	0.4	ug/L	556	Standard
	Cu	65	122864.2	1.3	**49.9972**	0.133	0.3	ug/L	124	Standard
	Zn	66	66651.0	1.3	**49.4211**	0.315	0.6	ug/L	196	Standard
>	Ge	72	444448.9	1.0				ug/L	473313	Standard
	As	75	67641.1	1.4	**49.9482**	0.588	1.2	ug/L	-286	Standard
	Se	82	6827.2	0.8	**49.2493**	0.114	0.2	ug/L	-33	Standard
	Se-1	77	5064.2	0.9	**49.0104**	0.079	0.2	ug/L	86	Standard
>	Ga	71	56.7	18.4				mg/L	35	Standard
	Rb	85	995.0	11.9				ug/L	13	Standard
	Y	89	408782.1	1.8				ug/L	439493	Standard
>	Rh	103	23.3	32.7				ug/L	5	Standard
	Mo	98	375126.7	1.5	**103.1553**	1.026	1.0	ug/L	10	Standard
	Ag	107	320823.8	0.5	**52.1147**	0.373	0.7	ug/L	53	Standard
	Cd	111	101049.6	0.1	**49.4721**	0.281	0.6	mg/L	1	Standard
	Cd	114	256813.1	0.9	**49.6751**	0.653	1.3	ug/L	32	Standard
>	In	115	460601.1	0.5				ug/L	494305	Standard
	Sn	118	61301.4	1.3	**50.2144**	0.549	1.1	ug/L	53	Standard
	Sb	123	120990.2	0.4	**48.9661**	0.437	0.9	ug/L	7	Standard
	Ba	135	84593.2	1.0	**49.5381**	0.438	0.9	ug/L	11	Standard
	Ce	140	56.7	5.1				ug/L	10	Standard
>	Tb	159	467194.7	1.5				ug/L	538219	Standard
	Ho	165	5.0	100.0				ug/L	8	Standard
	Tl	203	263537.5	0.5	**48.9696**	0.353	0.7	ug/L	1	Standard
	Tl	205	339859.5	0.7	**51.1442**	0.459	0.9	ug/L	3	Standard
	Pb	206	121030.5	0.1	**52.4130**	0.105	0.2	ug/L	80	Standard
	Pb	207	108705.9	0.5	**52.2569**	0.344	0.7	ug/L	73	Standard
	Pb	208	244901.2	0.6	**48.1006**	0.198	0.4	ug/L	190	Standard
	U	238	156159.6	0.5	**47.0602**	0.121	0.3	ug/L	0	Standard
>	Bi	209	248143.1	0.2				ug/L	276439	Standard

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	Na	23	23.3	32.7	**5.9669**	2.095	35.1	mg/L	2	Standard
	Mg	24	4612.4	3.1	**4.9721**	0.227	4.6	mg/L	37	Standard
	K	39	70.0	24.7	**3.9944**	1.048	26.2	mg/L	3	Standard
	Ca	43	31.7	63.8	**-0.6192**	6.114	987.4	mg/L	43	Standard
	Fe	54	11574.1	4.0	**5.8619**	0.313	5.3	mg/L	262	Standard
	Fe	57	3098.7	1.4	**5.5995**	0.055	1.0	mg/L	65	Standard
>	**Sc-1**	45	25281.1	1.5				mg/L	26874	Standard
	Cl	35	141167.3	0.3				ug/L	141022	Standard
	Kr	83	90.3	9.2				ug/L	75	Standard
	Br	81	2426.9	4.0				ug/L	2810	Standard
	P	31	470673.2	1.5				ug/L	458976	Standard
	S	34	128262.3	0.7				ug/L	103378	Standard
	Sr	88	51.7	81.2				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.9	202.3				mg/L	10	Standard
	Ho-1	165	5.0	100.0				mg/L	8	Standard
	Er	166	10.0					mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.219	
	Be	9	100.428		
	Al	27	90.506		
	Sc	45			
	Ti	47	104.932		
	V	51	93.540		
	Cr	52	93.229		
	Cr	53			
	Mn	55	97.067		
	Co	59	94.238		
	Ni	60	97.955		
	Cu	65	99.994		
	Zn	66	98.842		
>	Ge	72		93.902	
	As	75	99.896		
	Se	82	98.499		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.155		
|	Ag	107	104.229		
|	Cd	111	98.944		
|	Cd	114			
|>	In	115			93.181
|	Sn	118	100.429		
|	Sb	123	97.932		
⌊	Ba	135	99.076		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	97.939		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.201		
|	U	238	94.120		
⌊>	Bi	209			89.764
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 19:21:21
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	245701.2	0.7				ug/L	269614	Standard
	Be	9	51.7	14.8	**0.0030**	0.003	96.6	ug/L	23	Standard
	Al	27	993.4	10.1	**-0.0019**	0.001	28.7	ug/L	1170	Standard
	Sc	45	24177.6	1.4				ug/L	26874	Standard
	Ti	47	10.0	26.5	**-0.0557**	0.011	20.3	ug/L	25	Standard
	V	51	986.3	7.9	**-0.0300**	0.012	39.3	ug/L	1686	Standard
	Cr	52	3472.4	3.0	**-0.1389**	0.017	12.6	ug/L	6098	Standard
	Cr	53	116.7	20.3	**-0.0383**	0.020	51.2	ug/L	193	Standard
	Mn	55	964.7	5.9	**-0.0613**	0.004	6.7	ug/L	1232	Standard
	Co	59	111.0	30.8	**-0.0025**	0.004	160.5	ug/L	106	Standard
	Ni	60	340.7	2.1	**-0.0667**	0.003	4.5	ug/L	556	Standard
	Cu	65	102.7	10.4	**-0.0175**	0.005	26.8	ug/L	124	Standard
	Zn	66	355.3	3.0	**0.0710**	0.006	8.3	ug/L	196	Standard
>	**Ge**	72	438299.2	1.0				ug/L	473313	Standard
	As	75	-255.7	2.9	**0.0212**	0.007	32.8	ug/L	-286	Standard
	Se	82	-49.1	14.7	**-0.0562**	0.054	96.9	ug/L	-33	Standard
	Se-1	77	75.0	3.5	**-0.0080**	0.020	251.4	ug/L	86	Standard
>	**Ga**	71	15.0	33.3				mg/L	35	Standard
	Rb	85	13.3	78.1				ug/L	13	Standard
	Y	89	398027.4	1.2				ug/L	439493	Standard
>	**Rh**	103	3.3	86.6				ug/L	5	Standard
	Mo	98	83.6	40.7	**0.0083**	0.010	116.6	ug/L	10	Standard
	Ag	107	87.0	35.7	**-0.0005**	0.005	1069.8	ug/L	53	Standard
	Cd	111	13.5	117.4	**0.0039**	0.008	204.7	mg/L	1	Standard
	Cd	114	49.9	128.9	**0.0005**	0.013	2646.1	ug/L	32	Standard
>	**In**	115	450616.2	1.1				ug/L	494305	Standard
	Sn	118	66.7	5.3	**-0.0005**	0.003	483.6	ug/L	53	Standard
	Sb	123	270.3	24.2	**0.1102**	0.026	23.7	ug/L	7	Standard
	Ba	135	22.7	55.2	**0.0011**	0.008	693.7	ug/L	11	Standard
	Ce	140	13.3	57.3				ug/L	10	Standard
>	**Tb**	159	466910.0	1.9				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	45.0	82.6	**0.0061**	0.007	111.3	ug/L	1	Standard
	Tl	205	16.7	62.4	**0.0018**	0.002	86.3	ug/L	3	Standard
	Pb	206	117.3	30.1	**0.0083**	0.015	180.9	ug/L	80	Standard
	Pb	207	98.3	19.1	**0.0146**	0.009	60.5	ug/L	73	Standard
	Pb	208	215.0	0.9	**0.0033**	0.000	8.5	ug/L	190	Standard
	U	238	7.3	92.8	**0.0003**	0.002	640.9	ug/L	0	Standard
>	**Bi**	209	251374.8	0.3				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	33.3	22.9	**0.0059**	0.008	143.6	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2706**	0.191	70.8	mg/L	3	Standard
	Ca	43	8.3	34.6	**-7.6531**	0.903	11.8	mg/L	43	Standard
	Fe	54	347.8	12.2	**0.0616**	0.022	36.4	mg/L	262	Standard
	Fe	57	111.7	17.0	**0.1179**	0.036	30.5	mg/L	65	Standard
>	**Sc-1**	45	24177.6	1.4				mg/L	26874	Standard
	Cl	35	136948.9	1.5				ug/L	141022	Standard
	Kr	83	95.7	7.0				ug/L	75	Standard
	Br	81	2230.2	2.5				ug/L	2810	Standard
	P	31	450147.9	2.3				ug/L	458976	Standard
	S	34	119521.3	1.9				ug/L	103378	Standard
	Sr	88	48.3	31.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	3.3	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.131	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.602	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
> Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
> In	115	91.161
Sn	118	
Sb	123	
Ba	135	
Ce	140	
> Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
> Bi	209	90.933
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
> Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1311039808
Sample Date/Time: Monday, November 18, 2013 19:24:28
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	226277.4	1.7				ug/L	269614	Standard
	Be	9	68.3	29.6	**0.0113**	0.008	67.6	ug/L	23	Standard
	Al	27	108374.6	1.2	**0.6085**	0.007	1.1	ug/L	1170	Standard
	Sc	45	22004.3	2.0				ug/L	26874	Standard
	Ti	47	1012.7	3.7	**4.7190**	0.191	4.0	ug/L	25	Standard
	V	51	3219.4	2.6	**0.3657**	0.013	3.5	ug/L	1686	Standard
	Cr	52	10587.4	1.7	**1.1684**	0.020	1.7	ug/L	6098	Standard
	Cr	53	1630.1	8.1	**1.4188**	0.114	8.0	ug/L	193	Standard
	Mn	55	137884.4	2.1	**12.1514**	0.161	1.3	ug/L	1232	Standard
	Co	59	2354.8	2.8	**0.2867**	0.006	2.3	ug/L	106	Standard
	Ni	60	4946.1	2.6	**1.9610**	0.050	2.6	ug/L	556	Standard
	Cu	65	36082.9	2.1	**16.3971**	0.231	1.4	ug/L	124	Standard
	Zn	66	44360.5	1.2	**36.7730**	0.138	0.4	ug/L	196	Standard
>	**Ge**	72	397005.6	0.8				ug/L	473313	Standard
	As	75	3.2	1231.7	**0.2147**	0.032	15.1	ug/L	-286	Standard
	Se	82	-38.4	34.3	**-0.0067**	0.104	1546.1	ug/L	-33	Standard
	Se-1	77	70.3	8.7	**0.0181**	0.061	333.8	ug/L	86	Standard
>	**Ga**	71	560.0	12.0				mg/L	35	Standard
	Rb	85	2783.6	0.7				ug/L	13	Standard
	Y	89	366153.4	1.0				ug/L	439493	Standard
>	**Rh**	103	8.3	91.7				ug/L	5	Standard
	Mo	98	444.2	1.1	**0.1208**	0.002	1.9	ug/L	10	Standard
	Ag	107	2184.8	4.8	**0.3801**	0.016	4.3	ug/L	53	Standard
	Cd	111	1550.2	5.3	**0.8418**	0.040	4.8	mg/L	1	Standard
	Cd	114	3888.8	4.4	**0.8280**	0.034	4.1	ug/L	32	Standard
>	**In**	115	413767.8	0.6				ug/L	494305	Standard
	Sn	118	312.0	6.4	**0.2284**	0.018	8.0	ug/L	53	Standard
	Sb	123	209.6	4.3	**0.0929**	0.004	4.5	ug/L	7	Standard
	Ba	135	14076.5	1.3	**9.1659**	0.069	0.8	ug/L	11	Standard
	Ce	140	10263.5	2.5				ug/L	10	Standard
>	**Tb**	159	428205.1	0.8				ug/L	538219	Standard
	Ho	165	106.7	9.8				ug/L	8	Standard
	Tl	203	20.7	35.0	**0.0019**	0.001	74.4	ug/L	1	Standard
	Tl	205	15.0	0.0	**0.0017**	0.000	1.0	ug/L	3	Standard
	Pb	206	52412.5	0.8	**23.7410**	0.120	0.5	ug/L	80	Standard
	Pb	207	43900.9	1.4	**22.0763**	0.222	1.0	ug/L	73	Standard
	Pb	208	104587.3	1.7	**21.4866**	0.422	2.0	ug/L	190	Standard
	U	238	32.3	4.7	**0.0083**	0.000	5.9	ug/L	0	Standard
>	**Bi**	209	237009.4	0.7				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0848**	0.888	1047.0	mg/L	2	Standard
	Mg	24	45.0	29.4	**0.0244**	0.017	71.5	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	15.0	66.7	**-5.0186**	3.591	71.6	mg/L	43	Standard
	Fe	54	2144.7	7.1	**1.1478**	0.087	7.6	mg/L	262	Standard
	Fe	57	641.7	5.8	**1.2592**	0.093	7.4	mg/L	65	Standard
>	**Sc-1**	45	22004.3	2.0				mg/L	26874	Standard
	Cl	35	119158.1	1.8				ug/L	141022	Standard
	Kr	83	89.3	17.9				ug/L	75	Standard
	Br	81	2050.1	2.5				ug/L	2810	Standard
	P	31	150369.3	1.8				ug/L	458976	Standard
	S	34	111013.7	2.2				ug/L	103378	Standard
	Sr	88	25.0	40.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	30.0	57.7				mg/L	0	Standard
	Dy	164	134.6	14.6				mg/L	10	Standard
	Ho-1	165	106.7	9.8				mg/L	8	Standard
	Er	166	113.3	41.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		83.926	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		83.878	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.707
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.737
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311039808
Report Date/Time: Monday, November 18, 2013 19:26:41
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Method 6020 - Summary Report

Sample ID: L1311039809
Sample Date/Time: Monday, November 18, 2013 19:27:33
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	224529.8	0.6				ug/L	269614	Standard
	Be	9	60.0	22.0	**0.0082**	0.005	64.8	ug/L	23	Standard
	Al	27	83305.1	1.1	**0.4698**	0.008	1.7	ug/L	1170	Standard
	Sc	45	22338.1	0.2				ug/L	26874	Standard
	Ti	47	767.4	2.2	**3.4656**	0.091	2.6	ug/L	25	Standard
	V	51	2632.8	11.0	**0.2556**	0.051	19.8	ug/L	1686	Standard
	Cr	52	35347.9	1.7	**5.3720**	0.132	2.5	ug/L	6098	Standard
	Cr	53	6456.4	5.4	**5.8893**	0.346	5.9	ug/L	193	Standard
	Mn	55	111089.5	1.0	**9.5303**	0.117	1.2	ug/L	1232	Standard
	Co	59	1753.8	1.6	**0.2043**	0.004	2.2	ug/L	106	Standard
	Ni	60	3012.6	1.9	**1.0845**	0.016	1.5	ug/L	556	Standard
	Cu	65	23820.7	1.2	**10.5492**	0.157	1.5	ug/L	124	Standard
	Zn	66	42287.6	1.5	**34.2169**	0.633	1.8	ug/L	196	Standard
>	**Ge**	72	406596.2	0.7				ug/L	473313	Standard
	As	75	23.6	75.0	**0.2309**	0.014	6.2	ug/L	-286	Standard
	Se	82	-45.2	18.0	**-0.0529**	0.062	116.9	ug/L	-33	Standard
	Se-1	77	76.7	2.7	**0.0683**	0.025	36.9	ug/L	86	Standard
>	**Ga**	71	470.0	18.7				mg/L	35	Standard
	Rb	85	2290.2	4.3				ug/L	13	Standard
	Y	89	372856.1	1.6				ug/L	439493	Standard
>	**Rh**	103	6.7	43.3				ug/L	5	Standard
	Mo	98	296.2	4.7	**0.0738**	0.004	5.3	ug/L	10	Standard
	Ag	107	1891.5	2.1	**0.3209**	0.006	1.9	ug/L	53	Standard
	Cd	111	1193.3	4.8	**0.6357**	0.032	5.1	mg/L	1	Standard
	Cd	114	2923.9	1.0	**0.6088**	0.008	1.3	ug/L	32	Standard
>	**In**	115	421437.2	0.3				ug/L	494305	Standard
	Sn	118	238.0	5.9	**0.1569**	0.012	7.6	ug/L	53	Standard
	Sb	123	138.8	7.0	**0.0599**	0.004	7.4	ug/L	7	Standard
	Ba	135	9277.8	0.7	**5.9272**	0.063	1.1	ug/L	11	Standard
	Ce	140	6508.1	3.1				ug/L	10	Standard
>	**Tb**	159	431231.2	1.2				ug/L	538219	Standard
	Ho	165	80.0	21.7				ug/L	8	Standard
	Tl	203	19.0	48.2	**0.0015**	0.002	117.0	ug/L	1	Standard
	Tl	205	20.0	43.3	**0.0024**	0.001	55.2	ug/L	3	Standard
	Pb	206	54399.5	0.9	**24.4331**	0.107	0.4	ug/L	80	Standard
	Pb	207	45891.7	0.9	**22.8853**	0.397	1.7	ug/L	73	Standard
	Pb	208	109180.1	1.4	**22.2423**	0.456	2.1	ug/L	190	Standard
	U	238	23.7	36.4	**0.0055**	0.003	47.4	ug/L	0	Standard
>	**Bi**	209	239041.0	1.0				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	33.3	22.9	**0.0090**	0.009	104.5	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2630**	0.205	77.9	mg/L	3	Standard
	Ca	43	10.0	50.0	**-6.8476**	1.734	25.3	mg/L	43	Standard
	Fe	54	1431.2	12.8	**0.7114**	0.109	15.3	mg/L	262	Standard
	Fe	57	428.3	5.3	**0.7944**	0.048	6.1	mg/L	65	Standard
>	**Sc-1**	45	22338.1	0.2				mg/L	26874	Standard
	Cl	35	122773.6	2.6				ug/L	141022	Standard
	Kr	83	85.3	13.5				ug/L	75	Standard
	Br	81	1963.5	2.1				ug/L	2810	Standard
	P	31	152041.2	3.1				ug/L	458976	Standard
	S	34	111062.4	2.5				ug/L	103378	Standard
	Sr	88	35.0	51.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	34.6				mg/L	0	Standard
	Dy	164	126.8	20.9				mg/L	10	Standard
	Ho-1	165	80.0	21.7				mg/L	8	Standard
	Er	166	66.7	45.8				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		83.278	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.904	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.258
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	86.471
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311039810
Sample Date/Time: Monday, November 18, 2013 19:30:38
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	226940.6	1.8				ug/L	269614	Standard
	Be	9	41.7	30.2	**0.0006**	0.005	852.7	ug/L	23	Standard
	Al	27	149694.2	0.6	**0.8408**	0.012	1.4	ug/L	1170	Standard
	Sc	45	22904.0	0.4				ug/L	26874	Standard
	Ti	47	1154.4	4.2	**5.3050**	0.191	3.6	ug/L	25	Standard
	V	51	3905.1	1.6	**0.4720**	0.014	3.0	ug/L	1686	Standard
	Cr	52	43430.2	0.7	**6.8176**	0.067	1.0	ug/L	6098	Standard
	Cr	53	7823.7	0.7	**7.2236**	0.059	0.8	ug/L	193	Standard
	Mn	55	67045.7	0.8	**5.7432**	0.044	0.8	ug/L	1232	Standard
	Co	59	1557.4	2.6	**0.1812**	0.004	2.5	ug/L	106	Standard
	Ni	60	1609.8	0.8	**0.4912**	0.010	2.0	ug/L	556	Standard
	Cu	65	3747.8	1.1	**1.6226**	0.020	1.2	ug/L	124	Standard
	Zn	66	6877.9	1.5	**5.4449**	0.112	2.1	ug/L	196	Standard
>	**Ge**	72	403370.6	0.7				ug/L	473313	Standard
	As	75	-126.5	40.9	**0.1095**	0.042	37.9	ug/L	-286	Standard
	Se	82	-43.2	28.2	**-0.0406**	0.096	235.6	ug/L	-33	Standard
	Se-1	77	66.0	6.6	**-0.0404**	0.052	128.1	ug/L	86	Standard
>	**Ga**	71	450.0	20.8				mg/L	35	Standard
	Rb	85	7368.5	2.9				ug/L	13	Standard
	Y	89	378579.8	0.8				ug/L	439493	Standard
>	**Rh**	103	6.7	43.3				ug/L	5	Standard
	Mo	98	56.9	6.4	**0.0018**	0.001	57.6	ug/L	10	Standard
	Ag	107	188.3	5.5	**0.0183**	0.002	12.1	ug/L	53	Standard
	Cd	111	118.9	12.4	**0.0604**	0.007	12.3	mg/L	1	Standard
	Cd	114	291.8	25.0	**0.0520**	0.016	30.8	ug/L	32	Standard
>	**In**	115	423792.0	1.4				ug/L	494305	Standard
	Sn	118	58.3	8.6	**-0.0044**	0.004	89.8	ug/L	53	Standard
	Sb	123	84.9	14.8	**0.0358**	0.006	15.6	ug/L	7	Standard
	Ba	135	5562.0	2.0	**3.5285**	0.064	1.8	ug/L	11	Standard
	Ce	140	12753.7	1.7				ug/L	10	Standard
>	**Tb**	159	425609.0	1.4				ug/L	538219	Standard
	Ho	165	161.7	14.6				ug/L	8	Standard
	Tl	203	23.0	24.2	**0.0023**	0.001	46.3	ug/L	1	Standard
	Tl	205	43.3	29.0	**0.0062**	0.002	32.3	ug/L	3	Standard
	Pb	206	6011.9	2.6	**2.6932**	0.072	2.7	ug/L	80	Standard
	Pb	207	4980.5	1.3	**2.4827**	0.032	1.3	ug/L	73	Standard
	Pb	208	11740.8	1.4	**2.3842**	0.035	1.5	ug/L	190	Standard
	U	238	56.7	9.7	**0.0161**	0.002	10.9	ug/L	0	Standard
>	**Bi**	209	236392.1	0.0				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0766**	0.873	1140.4	mg/L	2	Standard
	Mg	24	53.3	28.6	**0.0319**	0.018	56.5	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2666**	0.198	74.4	mg/L	3	Standard
	Ca	43	21.7	35.3	**-2.9802**	2.556	85.8	mg/L	43	Standard
	Fe	54	782.4	10.7	**0.3201**	0.046	14.4	mg/L	262	Standard
	Fe	57	335.0	13.7	**0.5833**	0.096	16.4	mg/L	65	Standard
>	**Sc-1**	45	22904.0	0.4				mg/L	26874	Standard
	Cl	35	123412.8	2.7				ug/L	141022	Standard
	Kr	83	93.7	7.9				ug/L	75	Standard
	Br	81	2150.2	9.8				ug/L	2810	Standard
	P	31	151830.4	1.3				ug/L	458976	Standard
	S	34	110310.2	1.7				ug/L	103378	Standard
	Sr	88	58.3	4.9				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	232.5	16.0				mg/L	10	Standard
	Ho-1	165	161.7	14.6				mg/L	8	Standard
	Er	166	156.7	24.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		84.172	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.223	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.735
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.513
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045201
Sample Date/Time: Monday, November 18, 2013 19:33:43
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	226922.4	2.5				ug/L	269614	Standard
	Be	9	85.0	62.0	**0.0181**	0.021	117.2	ug/L	23	Standard
	Al	27	79326.0	6.3	**0.4423**	0.028	6.3	ug/L	1170	Standard
	Sc	45	22201.3	0.4				ug/L	26874	Standard
	Ti	47	921.7	2.3	**4.2657**	0.141	3.3	ug/L	25	Standard
	V	51	3819.3	2.7	**0.4648**	0.021	4.5	ug/L	1686	Standard
	Cr	52	5100.2	1.9	**0.2003**	0.019	9.3	ug/L	6098	Standard
	Cr	53	496.7	15.7	**0.3331**	0.070	21.0	ug/L	193	Standard
	Mn	55	84762.1	0.2	**7.3814**	0.084	1.1	ug/L	1232	Standard
	Co	59	1124.4	0.4	**0.1282**	0.001	0.6	ug/L	106	Standard
	Ni	60	1187.4	6.9	**0.3152**	0.038	12.0	ug/L	556	Standard
	Cu	65	2887.6	1.7	**1.2510**	0.028	2.3	ug/L	124	Standard
	Zn	66	5209.9	2.4	**4.1246**	0.121	2.9	ug/L	196	Standard
>	Ge	72	398898.7	0.9				ug/L	473313	Standard
	As	75	-199.7	8.3	**0.0484**	0.013	25.9	ug/L	-286	Standard
	Se	82	-42.9	19.8	**-0.0416**	0.069	165.0	ug/L	-33	Standard
	Se-1	77	71.3	2.1	**0.0259**	0.023	89.2	ug/L	86	Standard
>	Ga	71	336.7	9.0				mg/L	35	Standard
	Rb	85	3325.4	1.4				ug/L	13	Standard
	Y	89	372712.7	1.7				ug/L	439493	Standard
>	Rh	103	3.3	86.6				ug/L	5	Standard
	Mo	98	48.2	15.8	**-0.0005**	0.002	477.4	ug/L	10	Standard
	Ag	107	334.0	6.2	**0.0453**	0.004	7.9	ug/L	53	Standard
	Cd	111	123.6	10.6	**0.0643**	0.007	11.0	mg/L	1	Standard
	Cd	114	337.0	8.1	**0.0629**	0.006	9.6	ug/L	32	Standard
>	In	115	414836.3	0.5				ug/L	494305	Standard
	Sn	118	51.0	16.0	**-0.0100**	0.008	76.2	ug/L	53	Standard
	Sb	123	80.0	6.3	**0.0344**	0.002	6.8	ug/L	7	Standard
	Ba	135	5227.9	0.3	**3.3876**	0.020	0.6	ug/L	11	Standard
	Ce	140	9182.8	1.7				ug/L	10	Standard
>	Tb	159	427136.8	1.9				ug/L	538219	Standard
	Ho	165	111.7	17.0				ug/L	8	Standard
	Tl	203	30.0	66.6	**0.0038**	0.004	103.8	ug/L	1	Standard
	Tl	205	26.7	28.6	**0.0036**	0.001	33.7	ug/L	3	Standard
	Pb	206	3684.1	0.7	**1.6581**	0.021	1.3	ug/L	80	Standard
	Pb	207	3104.0	2.0	**1.5576**	0.040	2.5	ug/L	73	Standard
	Pb	208	7426.0	2.8	**1.5158**	0.052	3.4	ug/L	190	Standard
	U	238	54.3	68.9	**0.0156**	0.012	77.7	ug/L	0	Standard
>	Bi	209	233077.4	0.5				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	41.7	56.7	**0.0196**	0.029	149.4	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0240**	0.358	1489.5	mg/L	3	Standard
	Ca	43	16.7	17.3	**-4.4908**	1.007	22.4	mg/L	43	Standard
	Fe	54	590.8	2.1	**0.2214**	0.007	3.1	mg/L	262	Standard
	Fe	57	235.0	14.0	**0.3953**	0.070	17.8	mg/L	65	Standard
>	**Sc-1**	45	22201.3	0.4				mg/L	26874	Standard
	Cl	35	122084.0	1.7				ug/L	141022	Standard
	Kr	83	88.7	8.5				ug/L	75	Standard
	Br	81	2186.8	8.3				ug/L	2810	Standard
	P	31	148475.6	0.4				ug/L	458976	Standard
	S	34	111372.8	0.1				ug/L	103378	Standard
	Sr	88	36.7	56.8				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	182.2	29.0				mg/L	10	Standard
	Ho-1	165	111.7	17.0				mg/L	8	Standard
	Er	166	163.3	31.4				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		84.166	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.278	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.923
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.314
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045202
Sample Date/Time: Monday, November 18, 2013 19:36:47
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	218220.5	1.6				ug/L	269614	Standard
	Be	9	43.3	58.1	**0.0021**	0.011	520.3	ug/L	23	Standard
	Al	27	77986.9	0.4	**0.4523**	0.009	2.0	ug/L	1170	Standard
	Sc	45	22888.9	1.2				ug/L	26874	Standard
	Ti	47	549.7	4.3	**2.4790**	0.119	4.8	ug/L	25	Standard
	V	51	3209.9	1.9	**0.3564**	0.013	3.6	ug/L	1686	Standard
	Cr	52	7292.4	0.4	**0.5714**	0.004	0.7	ug/L	6098	Standard
	Cr	53	931.7	6.3	**0.7389**	0.054	7.3	ug/L	193	Standard
	Mn	55	67433.7	0.4	**5.7867**	0.045	0.8	ug/L	1232	Standard
	Co	59	933.0	6.5	**0.1026**	0.008	7.4	ug/L	106	Standard
	Ni	60	1139.0	1.5	**0.2894**	0.010	3.5	ug/L	556	Standard
	Cu	65	5611.7	0.8	**2.4632**	0.014	0.6	ug/L	124	Standard
	Zn	66	7146.4	1.1	**5.6739**	0.044	0.8	ug/L	196	Standard
>	**Ge**	72	402736.7	0.5				ug/L	473313	Standard
	As	75	-194.1	7.0	**0.0543**	0.012	21.8	ug/L	-286	Standard
	Se	82	-40.5	22.7	**-0.0197**	0.074	375.3	ug/L	-33	Standard
	Se-1	77	63.0	4.2	**-0.0722**	0.025	34.6	ug/L	86	Standard
>	**Ga**	71	256.7	6.8				mg/L	35	Standard
	Rb	85	2861.9	5.2				ug/L	13	Standard
	Y	89	369348.4	1.7				ug/L	439493	Standard
>	**Rh**	103	8.3	91.7				ug/L	5	Standard
	Mo	98	42.2	7.2	**-0.0025**	0.001	37.8	ug/L	10	Standard
	Ag	107	264.7	3.2	**0.0320**	0.001	3.7	ug/L	53	Standard
	Cd	111	150.6	8.7	**0.0777**	0.008	10.0	mg/L	1	Standard
	Cd	114	397.1	13.4	**0.0743**	0.010	13.9	ug/L	32	Standard
>	**In**	115	421863.4	1.0				ug/L	494305	Standard
	Sn	118	48.0	25.3	**-0.0134**	0.011	81.9	ug/L	53	Standard
	Sb	123	71.6	14.0	**0.0301**	0.004	14.5	ug/L	7	Standard
	Ba	135	4671.4	0.9	**2.9753**	0.051	1.7	ug/L	11	Standard
	Ce	140	8567.4	2.6				ug/L	10	Standard
>	**Tb**	159	422932.0	1.2				ug/L	538219	Standard
	Ho	165	93.3	11.2				ug/L	8	Standard
	Tl	203	15.3	26.4	**0.0008**	0.001	92.7	ug/L	1	Standard
	Tl	205	20.0	0.0	**0.0025**	0.000	0.2	ug/L	3	Standard
	Pb	206	6181.9	1.0	**2.7670**	0.026	0.9	ug/L	80	Standard
	Pb	207	5163.5	1.0	**2.5719**	0.021	0.8	ug/L	73	Standard
	Pb	208	12387.3	0.9	**2.5144**	0.023	0.9	ug/L	190	Standard
	U	238	27.7	14.6	**0.0069**	0.001	18.7	ug/L	0	Standard
>	**Bi**	209	236685.7	0.2				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0814**	0.882	1083.4	mg/L	2	Standard
	Mg	24	38.3	37.7	**0.0141**	0.017	124.1	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0382**	0.341	893.3	mg/L	3	Standard
	Ca	43	28.3	27.0	**-0.7144**	2.527	353.8	mg/L	43	Standard
	Fe	54	560.4	3.5	**0.1937**	0.015	7.5	mg/L	262	Standard
	Fe	57	208.3	14.5	**0.3258**	0.056	17.2	mg/L	65	Standard
>	**Sc-1**	45	22888.9	1.2				mg/L	26874	Standard
	Cl	35	122572.0	2.2				ug/L	141022	Standard
	Kr	83	83.7	12.1				ug/L	75	Standard
	Br	81	1956.8	5.9				ug/L	2810	Standard
	P	31	148255.4	2.5				ug/L	458976	Standard
	S	34	108916.9	2.1				ug/L	103378	Standard
	Sr	88	35.0	65.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	34.6				mg/L	0	Standard
	Dy	164	98.4	31.0				mg/L	10	Standard
	Ho-1	165	93.3	11.2				mg/L	8	Standard
	Er	166	103.3	5.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		80.938	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.089	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		85.345
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		85.619
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045203
Sample Date/Time: Monday, November 18, 2013 19:39:52
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	224679.0	1.8				ug/L	269614	Standard
	Be	9	36.7	31.5	**-0.0012**	0.005	376.2	ug/L	23	Standard
	Al	27	103190.2	0.9	**0.5834**	0.014	2.4	ug/L	1170	Standard
	Sc	45	21979.3	2.5				ug/L	26874	Standard
	Ti	47	955.0	2.1	**4.4007**	0.066	1.5	ug/L	25	Standard
	V	51	4347.9	2.8	**0.5508**	0.026	4.8	ug/L	1686	Standard
	Cr	52	12370.7	2.8	**1.4609**	0.052	3.6	ug/L	6098	Standard
	Cr	53	1918.5	5.5	**1.6783**	0.115	6.8	ug/L	193	Standard
	Mn	55	196734.3	1.7	**17.2302**	0.174	1.0	ug/L	1232	Standard
	Co	59	2407.9	3.7	**0.2905**	0.009	3.0	ug/L	106	Standard
	Ni	60	4638.7	0.9	**1.8074**	0.021	1.2	ug/L	556	Standard
	Cu	65	37694.8	1.3	**16.9689**	0.085	0.5	ug/L	124	Standard
	Zn	66	54650.1	1.0	**44.9148**	0.121	0.3	ug/L	196	Standard
>	Ge	72	400826.2	0.8				ug/L	473313	Standard
	As	75	81.5	33.5	**0.2782**	0.022	7.8	ug/L	-286	Standard
	Se	82	-45.9	16.3	**-0.0640**	0.061	95.8	ug/L	-33	Standard
	Se-1	77	65.0	13.8	**-0.0471**	0.097	205.1	ug/L	86	Standard
>	Ga	71	443.3	7.5				mg/L	35	Standard
	Rb	85	2660.2	3.3				ug/L	13	Standard
	Y	89	366069.6	0.7				ug/L	439493	Standard
>	Rh	103	13.3	57.3				ug/L	5	Standard
	Mo	98	531.8	5.4	**0.1455**	0.010	7.1	ug/L	10	Standard
	Ag	107	2704.6	0.6	**0.4677**	0.005	1.0	ug/L	53	Standard
	Cd	111	1725.8	6.7	**0.9248**	0.056	6.0	mg/L	1	Standard
	Cd	114	4431.9	3.3	**0.9324**	0.040	4.3	ug/L	32	Standard
>	In	115	419407.6	1.2				ug/L	494305	Standard
	Sn	118	328.0	5.0	**0.2390**	0.013	5.4	ug/L	53	Standard
	Sb	123	133.0	11.3	**0.0576**	0.007	12.7	ug/L	7	Standard
	Ba	135	17749.4	1.8	**11.4048**	0.073	0.6	ug/L	11	Standard
	Ce	140	6409.7	2.1				ug/L	10	Standard
>	Tb	159	427433.6	0.4				ug/L	538219	Standard
	Ho	165	85.0	17.6				ug/L	8	Standard
	Tl	203	9.7	26.0	**-0.0003**	0.000	181.6	ug/L	1	Standard
	Tl	205	8.3	91.7	**0.0006**	0.001	192.0	ug/L	3	Standard
	Pb	206	46410.0	1.3	**21.0848**	0.237	1.1	ug/L	80	Standard
	Pb	207	39071.7	1.8	**19.7073**	0.281	1.4	ug/L	73	Standard
	Pb	208	92418.8	0.7	**19.0430**	0.187	1.0	ug/L	190	Standard
	U	238	18.7	22.3	**0.0040**	0.001	32.2	ug/L	0	Standard
>	Bi	209	236259.6	1.3				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.1086**	0.929	855.1	mg/L	2	Standard
	Mg	24	65.0	7.7	**0.0493**	0.008	15.7	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1437**	0.206	143.2	mg/L	3	Standard
	Ca	43	13.3	43.3	**-5.6411**	1.900	33.7	mg/L	43	Standard
	Fe	54	2844.4	5.6	**1.5673**	0.128	8.2	mg/L	262	Standard
	Fe	57	786.7	8.6	**1.5656**	0.116	7.4	mg/L	65	Standard
>	**Sc-1**	45	21979.3	2.5				mg/L	26874	Standard
	Cl	35	120694.2	1.4				ug/L	141022	Standard
	Kr	83	89.3	9.1				ug/L	75	Standard
	Br	81	1770.1	11.3				ug/L	2810	Standard
	P	31	145697.2	0.7				ug/L	458976	Standard
	S	34	109613.5	1.4				ug/L	103378	Standard
	Sr	88	45.0	29.4				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	117.6	8.1				mg/L	10	Standard
	Ho-1	165	85.0	17.6				mg/L	8	Standard
	Er	166	50.0	40.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		83.333	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.685	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.848
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.465
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045204
Sample Date/Time: Monday, November 18, 2013 19:42:57
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	229133.3	1.8				ug/L	269614	Standard
	Be	9	66.7	30.3	**0.0104**	0.008	80.7	ug/L	23	Standard
	Al	27	134545.0	2.7	**0.7479**	0.029	3.9	ug/L	1170	Standard
	Sc	45	21959.2	2.2				ug/L	26874	Standard
	Ti	47	1036.0	1.7	**4.6883**	0.058	1.2	ug/L	25	Standard
	V	51	4082.0	2.3	**0.4926**	0.015	3.0	ug/L	1686	Standard
	Cr	52	67850.6	1.2	**10.8864**	0.096	0.9	ug/L	6098	Standard
	Cr	53	12862.1	5.3	**11.8053**	0.575	4.9	ug/L	193	Standard
	Mn	55	115134.5	1.5	**9.8302**	0.110	1.1	ug/L	1232	Standard
	Co	59	2209.8	6.0	**0.2600**	0.016	6.0	ug/L	106	Standard
	Ni	60	5540.3	2.8	**2.1514**	0.054	2.5	ug/L	556	Standard
	Cu	65	42184.7	2.3	**18.6297**	0.369	2.0	ug/L	124	Standard
	Zn	66	58657.0	0.2	**47.2900**	0.172	0.4	ug/L	196	Standard
>	**Ge**	72	408704.4	0.5				ug/L	473313	Standard
	As	75	17.0	281.4	**0.2256**	0.038	17.0	ug/L	-286	Standard
	Se	82	-47.6	25.3	**-0.0701**	0.092	131.7	ug/L	-33	Standard
	Se-1	77	67.3	5.6	**-0.0359**	0.037	103.7	ug/L	86	Standard
>	**Ga**	71	463.3	17.9				mg/L	35	Standard
	Rb	85	3713.8	4.4				ug/L	13	Standard
	Y	89	369120.6	0.7				ug/L	439493	Standard
>	**Rh**	103	20.0	50.0				ug/L	5	Standard
	Mo	98	1007.2	11.2	**0.2866**	0.031	10.9	ug/L	10	Standard
	Ag	107	2428.5	6.8	**0.4150**	0.026	6.3	ug/L	53	Standard
	Cd	111	2050.2	2.2	**1.0912**	0.021	1.9	mg/L	1	Standard
	Cd	114	5180.0	4.4	**1.0829**	0.047	4.4	ug/L	32	Standard
>	**In**	115	422563.8	1.0				ug/L	494305	Standard
	Sn	118	344.0	11.0	**0.2509**	0.031	12.4	ug/L	53	Standard
	Sb	123	194.2	23.2	**0.0841**	0.019	22.7	ug/L	7	Standard
	Ba	135	16742.9	1.5	**10.6773**	0.098	0.9	ug/L	11	Standard
	Ce	140	7160.0	3.9				ug/L	10	Standard
>	**Tb**	159	433807.8	0.7				ug/L	538219	Standard
	Ho	165	95.0	24.1				ug/L	8	Standard
	Tl	203	38.0	91.5	**0.0052**	0.007	128.3	ug/L	1	Standard
	Tl	205	81.7	120.2	**0.0121**	0.015	126.6	ug/L	3	Standard
	Pb	206	183336.2	2.0	**82.9958**	1.432	1.7	ug/L	80	Standard
	Pb	207	143049.5	0.8	**71.8792**	0.672	0.9	ug/L	73	Standard
	Pb	208	351554.8	0.9	**72.1795**	0.316	0.4	ug/L	190	Standard
	U	238	51.0	97.0	**0.0141**	0.015	109.3	ug/L	0	Standard
>	**Bi**	209	237442.8	0.8				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	43.3	33.3	**0.0220**	0.017	77.4	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2620**	0.206	78.8	mg/L	3	Standard
	Ca	43	23.3	32.7	**-2.0978**	2.581	123.0	mg/L	43	Standard
	Fe	54	2299.4	4.5	**1.2439**	0.092	7.4	mg/L	262	Standard
	Fe	57	671.7	2.8	**1.3253**	0.055	4.1	mg/L	65	Standard
>	**Sc-1**	45	21959.2	2.2				mg/L	26874	Standard
	Cl	35	120311.2	1.6				ug/L	141022	Standard
	Kr	83	100.0	8.2				ug/L	75	Standard
	Br	81	1893.5	9.9				ug/L	2810	Standard
	P	31	155134.9	5.2				ug/L	458976	Standard
	S	34	109217.4	2.3				ug/L	103378	Standard
	Sr	88	58.3	17.8				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	99.5	15.7				mg/L	10	Standard
	Ho-1	165	95.0	24.1				mg/L	8	Standard
	Er	166	80.0	25.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		84.986	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		86.350	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.486
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.893
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045205
Sample Date/Time: Monday, November 18, 2013 19:46:02
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	229077.9	2.7				ug/L	269614	Standard
	Be	9	38.3	19.9	**-0.0008**	0.003	414.5	ug/L	23	Standard
	Al	27	75764.1	2.9	**0.4180**	0.008	1.9	ug/L	1170	Standard
	Sc	45	22127.8	2.5				ug/L	26874	Standard
	Ti	47	604.0	4.4	**2.7183**	0.122	4.5	ug/L	25	Standard
	V	51	3240.1	7.1	**0.3584**	0.037	10.4	ug/L	1686	Standard
	Cr	52	7282.8	1.6	**0.5629**	0.016	2.8	ug/L	6098	Standard
	Cr	53	976.7	4.1	**0.7764**	0.034	4.4	ug/L	193	Standard
	Mn	55	65354.7	0.8	**5.5731**	0.061	1.1	ug/L	1232	Standard
	Co	59	1023.4	2.2	**0.1133**	0.002	2.1	ug/L	106	Standard
	Ni	60	1245.7	0.7	**0.3324**	0.003	0.8	ug/L	556	Standard
	Cu	65	6750.8	1.2	**2.9591**	0.034	1.2	ug/L	124	Standard
	Zn	66	8479.0	1.1	**6.7315**	0.081	1.2	ug/L	196	Standard
>	**Ge**	72	404911.2	0.4				ug/L	473313	Standard
	As	75	-187.1	9.5	**0.0609**	0.015	24.4	ug/L	-286	Standard
	Se	82	-41.9	16.6	**-0.0288**	0.056	194.2	ug/L	-33	Standard
	Se-1	77	64.0	7.8	**-0.0651**	0.051	78.5	ug/L	86	Standard
>	**Ga**	71	300.0	5.0				mg/L	35	Standard
	Rb	85	2376.9	7.9				ug/L	13	Standard
	Y	89	375391.0	1.8				ug/L	439493	Standard
>	**Rh**	103	8.3	91.7				ug/L	5	Standard
	Mo	98	45.9	27.7	**-0.0014**	0.004	264.1	ug/L	10	Standard
	Ag	107	307.7	3.3	**0.0396**	0.002	4.5	ug/L	53	Standard
	Cd	111	167.9	3.9	**0.0868**	0.004	4.1	mg/L	1	Standard
	Cd	114	654.8	6.2	**0.1288**	0.009	6.6	ug/L	32	Standard
>	**In**	115	422130.9	0.0				ug/L	494305	Standard
	Sn	118	2741.2	0.6	**2.3965**	0.015	0.6	ug/L	53	Standard
	Sb	123	68.1	11.6	**0.0286**	0.003	12.2	ug/L	7	Standard
	Ba	135	5469.0	0.5	**3.4829**	0.018	0.5	ug/L	11	Standard
	Ce	140	7291.8	2.3				ug/L	10	Standard
>	**Tb**	159	430084.1	1.1				ug/L	538219	Standard
	Ho	165	66.7	8.7				ug/L	8	Standard
	Tl	203	12.0	8.3	**0.0002**	0.000	101.9	ug/L	1	Standard
	Tl	205	16.7	17.3	**0.0019**	0.000	23.1	ug/L	3	Standard
	Pb	206	7291.8	2.7	**3.2628**	0.091	2.8	ug/L	80	Standard
	Pb	207	6060.5	0.8	**3.0164**	0.036	1.2	ug/L	73	Standard
	Pb	208	14450.0	1.1	**2.9318**	0.042	1.4	ug/L	190	Standard
	U	238	27.0	22.2	**0.0067**	0.002	29.1	ug/L	0	Standard
>	**Bi**	209	237304.9	0.5				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	1.7	173.2	**0.0928**	0.901	971.7	mg/L	2	Standard
	Mg	24	36.7	41.7	**0.0139**	0.020	144.1	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2623**	0.206	78.5	mg/L	3	Standard
	Ca	43	25.0	40.0	**-1.5064**	3.690	244.9	mg/L	43	Standard
	Fe	54	578.8	13.1	**0.2164**	0.053	24.7	mg/L	262	Standard
	Fe	57	261.7	11.2	**0.4541**	0.076	16.7	mg/L	65	Standard
>	**Sc-1**	45	22127.8	2.5				mg/L	26874	Standard
	Cl	35	119124.5	1.7				ug/L	141022	Standard
	Kr	83	90.0	3.3				ug/L	75	Standard
	Br	81	2053.5	2.0				ug/L	2810	Standard
	P	31	149598.3	1.3				ug/L	458976	Standard
	S	34	107228.1	0.3				ug/L	103378	Standard
	Sr	88	48.3	51.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	20.0	86.6				mg/L	0	Standard
	Dy	164	149.0	30.7				mg/L	10	Standard
	Ho-1	165	66.7	8.7				mg/L	8	Standard
	Er	166	90.0	40.1				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		84.965	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.548	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.399
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.843
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045206 WG452353-01
Sample Date/Time: Monday, November 18, 2013 19:49:06
Number of Replicates: 3
Autosampler Position: 319
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	222775.9	1.1				ug/L	269614	Standard
	Be	9	43.3	33.3	**0.0016**	0.006	364.7	ug/L	23	Standard
	Al	27	104979.1	1.1	**0.5986**	0.012	2.1	ug/L	1170	Standard
	Sc	45	21970.9	2.6				ug/L	26874	Standard
	Ti	47	1321.1	2.1	**6.0906**	0.136	2.2	ug/L	25	Standard
	V	51	4363.6	2.2	**0.5493**	0.018	3.3	ug/L	1686	Standard
	Cr	52	11880.3	0.9	**1.3640**	0.012	0.9	ug/L	6098	Standard
	Cr	53	1823.4	3.0	**1.5781**	0.056	3.6	ug/L	193	Standard
	Mn	55	78304.5	0.7	**6.7357**	0.021	0.3	ug/L	1232	Standard
	Co	59	1620.8	6.4	**0.1894**	0.012	6.5	ug/L	106	Standard
	Ni	60	3111.0	2.0	**1.1381**	0.026	2.3	ug/L	556	Standard
	Cu	65	12700.7	1.5	**5.6456**	0.085	1.5	ug/L	124	Standard
	Zn	66	33521.0	0.3	**27.3183**	0.103	0.4	ug/L	196	Standard
>	Ge	72	403091.3	0.4				ug/L	473313	Standard
	As	75	-49.9	123.8	**0.1714**	0.050	29.3	ug/L	-286	Standard
	Se	82	-33.0	55.3	**0.0400**	0.144	361.0	ug/L	-33	Standard
	Se-1	77	73.7	13.6	**0.0430**	0.110	255.0	ug/L	86	Standard
>	Ga	71	438.3	3.7				mg/L	35	Standard
	Rb	85	2695.2	1.1				ug/L	13	Standard
	Y	89	365670.1	0.8				ug/L	439493	Standard
>	Rh	103	15.0	33.3				ug/L	5	Standard
	Mo	98	178.6	5.9	**0.0396**	0.003	8.2	ug/L	10	Standard
	Ag	107	4358.6	1.3	**0.7753**	0.010	1.3	ug/L	53	Standard
	Cd	111	888.5	7.5	**0.4825**	0.036	7.5	mg/L	1	Standard
	Cd	114	2370.8	3.9	**0.5024**	0.020	3.9	ug/L	32	Standard
>	In	115	412742.2	0.0				ug/L	494305	Standard
	Sn	118	100.7	10.6	**0.0357**	0.010	27.5	ug/L	53	Standard
	Sb	123	96.2	11.4	**0.0420**	0.005	11.9	ug/L	7	Standard
	Ba	135	15200.3	0.6	**9.9235**	0.052	0.5	ug/L	11	Standard
	Ce	140	9204.5	0.7				ug/L	10	Standard
>	Tb	159	424975.8	2.0				ug/L	538219	Standard
	Ho	165	100.0	26.5				ug/L	8	Standard
	Tl	203	12.7	38.9	**0.0004**	0.001	248.6	ug/L	1	Standard
	Tl	205	16.7	45.8	**0.0020**	0.001	62.7	ug/L	3	Standard
	Pb	206	21507.9	0.9	**10.0198**	0.173	1.7	ug/L	80	Standard
	Pb	207	18107.8	1.1	**9.3689**	0.102	1.1	ug/L	73	Standard
	Pb	208	42951.3	0.6	**9.0748**	0.151	1.7	ug/L	190	Standard
	U	238	30.0	8.8	**0.0079**	0.001	12.2	ug/L	0	Standard
>	Bi	209	229915.1	1.2				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	51.7	24.4	**0.0327**	0.016	49.8	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2610**	0.208	79.7	mg/L	3	Standard
	Ca	43	11.7	49.5	**-6.2267**	1.978	31.8	mg/L	43	Standard
	Fe	54	972.6	8.0	**0.4519**	0.034	7.6	mg/L	262	Standard
	Fe	57	330.0	14.6	**0.6033**	0.118	19.6	mg/L	65	Standard
>	**Sc-1**	45	21970.9	2.6				mg/L	26874	Standard
	Cl	35	118538.6	1.2				ug/L	141022	Standard
	Kr	83	81.7	21.1				ug/L	75	Standard
	Br	81	1976.8	8.7				ug/L	2810	Standard
	P	31	150415.0	2.8				ug/L	458976	Standard
	S	34	105138.6	2.1				ug/L	103378	Standard
	Sr	88	40.0	25.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	106.7	67.8				mg/L	0	Standard
	Dy	164	159.5	41.6				mg/L	10	Standard
	Ho-1	165	100.0	26.5				mg/L	8	Standard
	Er	166	80.0	25.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		82.628	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.164	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		83.499
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		83.170
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045207S WG452353-04
Sample Date/Time: Monday, November 18, 2013 19:52:11
Number of Replicates: 3
Autosampler Position: 320
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	224942.5	3.9				ug/L	269614	Standard
	Be	9	788.4	2.4	**0.3027**	0.016	5.4	ug/L	23	Standard
	Al	27	84686.1	2.2	**0.4774**	0.026	5.4	ug/L	1170	Standard
	Sc	45	22206.3	1.2				ug/L	26874	Standard
	Ti	47	601.3	3.7	**2.7324**	0.092	3.4	ug/L	25	Standard
	V	51	5240.0	1.0	**0.7005**	0.013	1.8	ug/L	1686	Standard
	Cr	52	10694.8	0.5	**1.1682**	0.010	0.8	ug/L	6098	Standard
	Cr	53	1596.8	0.7	**1.3721**	0.015	1.1	ug/L	193	Standard
	Mn	55	83665.4	1.8	**7.2428**	0.100	1.4	ug/L	1232	Standard
	Co	59	3500.1	2.8	**0.4291**	0.015	3.4	ug/L	106	Standard
	Ni	60	3540.7	1.9	**1.3309**	0.035	2.6	ug/L	556	Standard
	Cu	65	14506.6	1.0	**6.4897**	0.092	1.4	ug/L	124	Standard
	Zn	66	32210.2	0.4	**26.3748**	0.212	0.8	ug/L	196	Standard
>	Ge	72	401088.2	0.5				ug/L	473313	Standard
	As	75	213.6	4.9	**0.3860**	0.009	2.4	ug/L	-286	Standard
	Se	82	-13.8	74.5	**0.1911**	0.081	42.6	ug/L	-33	Standard
	Se-1	77	91.3	12.0	**0.2392**	0.119	49.8	ug/L	86	Standard
>	Ga	71	410.0	5.3				mg/L	35	Standard
	Rb	85	2265.2	6.4				ug/L	13	Standard
	Y	89	365981.2	1.4				ug/L	439493	Standard
>	Rh	103	8.3	124.9				ug/L	5	Standard
	Mo	98	170.8	9.9	**0.0371**	0.005	13.8	ug/L	10	Standard
	Ag	107	5584.0	1.2	**0.9950**	0.018	1.8	ug/L	53	Standard
	Cd	111	1365.2	1.1	**0.7411**	0.013	1.7	mg/L	1	Standard
	Cd	114	3485.7	4.6	**0.7412**	0.038	5.1	ug/L	32	Standard
>	In	115	413824.4	0.6				ug/L	494305	Standard
	Sn	118	111.7	10.8	**0.0455**	0.011	23.3	ug/L	53	Standard
	Sb	123	127.9	11.0	**0.0561**	0.007	11.7	ug/L	7	Standard
	Ba	135	14491.6	0.7	**9.4359**	0.120	1.3	ug/L	11	Standard
	Ce	140	10378.6	3.7				ug/L	10	Standard
>	Tb	159	422748.2	0.5				ug/L	538219	Standard
	Ho	165	115.0	31.4				ug/L	8	Standard
	Tl	203	1241.7	0.8	**0.2427**	0.003	1.4	ug/L	1	Standard
	Tl	205	1671.8	6.1	**0.2662**	0.013	5.0	ug/L	3	Standard
	Pb	206	20051.6	0.1	**9.1810**	0.119	1.3	ug/L	80	Standard
	Pb	207	16992.9	0.3	**8.6424**	0.096	1.1	ug/L	73	Standard
	Pb	208	40171.8	0.7	**8.3423**	0.160	1.9	ug/L	190	Standard
	U	238	729.0	3.5	**0.2313**	0.009	3.8	ug/L	0	Standard
>	Bi	209	233840.5	1.3				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0938**	0.903	962.7	mg/L	2	Standard
	Mg	24	46.7	24.7	**0.0258**	0.015	57.4	mg/L	37	Standard
	K	39	6.7	86.6	**0.0969**	0.414	427.2	mg/L	3	Standard
	Ca	43	15.0	33.3	**-5.0879**	1.687	33.2	mg/L	43	Standard
	Fe	54	715.3	8.8	**0.2945**	0.034	11.7	mg/L	262	Standard
	Fe	57	243.3	5.2	**0.4127**	0.031	7.5	mg/L	65	Standard
>	**Sc-1**	45	22206.3	1.2				mg/L	26874	Standard
	Cl	35	119971.2	1.6				ug/L	141022	Standard
	Kr	83	87.0	6.4				ug/L	75	Standard
	Br	81	2020.1	3.9				ug/L	2810	Standard
	P	31	143432.5	1.4				ug/L	458976	Standard
	S	34	105668.9	0.2				ug/L	103378	Standard
	Sr	88	80.0	16.5				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	100.0	26.5				mg/L	0	Standard
	Dy	164	178.2	23.4				mg/L	10	Standard
	Ho-1	165	115.0	31.4				mg/L	8	Standard
	Er	166	106.7	39.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		83.431	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.741	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.718
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.590
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311045207S WG452353-04
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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 19:55:18
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	250901.3	2.6				ug/L	269614	Standard
	Be	9	138898.8	0.5	**50.2941**	1.107	2.2	ug/L	23	Standard
	Al	27	8819062.1	0.9	**45.1865**	0.843	1.9	ug/L	1170	Standard
	Sc	45	25306.1	0.5				ug/L	26874	Standard
	Ti	47	24739.8	0.5	**104.7903**	1.229	1.2	ug/L	25	Standard
	V	51	310127.2	1.2	**46.8425**	0.127	0.3	ug/L	1686	Standard
	Cr	52	305214.3	0.8	**47.0924**	0.189	0.4	ug/L	6098	Standard
	Cr	53	56933.5	1.6	**48.3782**	0.876	1.8	ug/L	193	Standard
	Mn	55	616166.1	1.1	**48.8108**	0.126	0.3	ug/L	1232	Standard
	Co	59	410797.5	0.5	**46.9495**	0.268	0.6	ug/L	106	Standard
	Ni	60	124875.2	1.1	**48.4597**	0.214	0.4	ug/L	556	Standard
	Cu	65	121639.7	1.1	**49.3856**	0.355	0.7	ug/L	124	Standard
	Zn	66	66859.9	1.0	**49.4632**	0.343	0.7	ug/L	196	Standard
>	Ge	72	445473.6	1.0				ug/L	473313	Standard
	As	75	68343.0	0.9	**50.3481**	0.089	0.2	ug/L	-286	Standard
	Se	82	6973.1	0.8	**50.1801**	0.189	0.4	ug/L	-33	Standard
	Se-1	77	5029.8	0.3	**48.5613**	0.429	0.9	ug/L	86	Standard
>	Ga	71	50.0	34.6				mg/L	35	Standard
	Rb	85	1053.4	2.4				ug/L	13	Standard
	Y	89	405347.9	1.4				ug/L	439493	Standard
>	Rh	103	31.7	9.1				ug/L	5	Standard
	Mo	98	379270.3	0.6	**104.6854**	0.708	0.7	ug/L	10	Standard
	Ag	107	322958.2	0.9	**52.6543**	0.275	0.5	ug/L	53	Standard
	Cd	111	101465.5	0.3	**49.8596**	0.341	0.7	mg/L	1	Standard
	Cd	114	260209.5	1.4	**50.5193**	0.907	1.8	ug/L	32	Standard
>	In	115	458903.0	0.5				ug/L	494305	Standard
	Sn	118	62173.6	1.0	**51.1200**	0.615	1.2	ug/L	53	Standard
	Sb	123	121208.9	0.3	**49.2355**	0.309	0.6	ug/L	7	Standard
	Ba	135	84743.7	0.5	**49.8101**	0.206	0.4	ug/L	11	Standard
	Ce	140	45.0	44.4				ug/L	10	Standard
>	Tb	159	467537.3	0.3				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	266550.7	1.1	**50.0561**	0.484	1.0	ug/L	1	Standard
	Tl	205	348534.7	2.5	**53.0066**	1.223	2.3	ug/L	3	Standard
	Pb	206	120588.1	2.0	**52.7767**	0.985	1.9	ug/L	80	Standard
	Pb	207	108931.2	1.5	**52.9227**	0.747	1.4	ug/L	73	Standard
	Pb	208	242823.1	0.5	**48.2006**	0.161	0.3	ug/L	190	Standard
	U	238	155202.2	0.9	**47.2696**	0.302	0.6	ug/L	0	Standard
>	Bi	209	245527.7	0.2				ug/L	276439	Standard

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	Na	23	16.7	17.3	**4.1294**	0.766	18.5	mg/L	2	Standard
	Mg	24	4732.4	0.8	**5.0951**	0.018	0.4	mg/L	37	Standard
	K	39	81.7	14.1	**4.7252**	0.733	15.5	mg/L	3	Standard
	Ca	43	35.0	37.8	**0.4297**	4.093	952.6	mg/L	43	Standard
	Fe	54	11270.3	1.4	**5.6967**	0.105	1.8	mg/L	262	Standard
	Fe	57	3270.4	2.8	**5.9089**	0.163	2.8	mg/L	65	Standard
>	**Sc-1**	45	25306.1	0.5				mg/L	26874	Standard
	Cl	35	140939.8	0.8				ug/L	141022	Standard
	Kr	83	95.3	5.4				ug/L	75	Standard
	Br	81	2493.5	1.5				ug/L	2810	Standard
	P	31	453645.4	1.6				ug/L	458976	Standard
	S	34	124517.9	1.0				ug/L	103378	Standard
	Sr	88	31.7	32.9				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	6.3	99.7				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.059	
	Be	9	100.588		
	Al	27	90.373		
	Sc	45			
	Ti	47	104.790		
	V	51	93.685		
	Cr	52	94.185		
	Cr	53			
	Mn	55	97.622		
	Co	59	93.899		
	Ni	60	96.919		
	Cu	65	98.771		
	Zn	66	98.926		
>	Ge	72		94.118	
	As	75	100.696		
	Se	82	100.360		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	104.685		
|	Ag	107	105.309		
|	Cd	111	99.719		
|	Cd	114			
|>	In	115		92.838	
|	Sn	118	102.240		
|	Sb	123	98.471		
⌊	Ba	135	99.620		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	100.112		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.401		
|	U	238	94.539		
⌊>	Bi	209		88.818	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 19:58:23
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	255057.1	3.3				ug/L	269614	Standard
	Be	9	48.3	11.9	**0.0012**	0.002	208.5	ug/L	23	Standard
	Al	27	1025.0	24.1	**-0.0020**	0.001	54.5	ug/L	1170	Standard
	Sc	45	24633.3	1.8				ug/L	26874	Standard
	Ti	47	16.0	18.8	**-0.0299**	0.013	44.8	ug/L	25	Standard
	V	51	964.6	7.5	**-0.0335**	0.012	34.5	ug/L	1686	Standard
	Cr	52	3457.1	2.5	**-0.1420**	0.015	10.4	ug/L	6098	Standard
	Cr	53	140.0	12.9	**-0.0181**	0.016	86.3	ug/L	193	Standard
	Mn	55	906.7	2.7	**-0.0660**	0.002	3.4	ug/L	1232	Standard
	Co	59	83.0	22.9	**-0.0057**	0.002	38.9	ug/L	106	Standard
	Ni	60	345.0	6.5	**-0.0652**	0.008	12.6	ug/L	556	Standard
	Cu	65	100.0	14.8	**-0.0187**	0.006	30.6	ug/L	124	Standard
	Zn	66	353.0	5.1	**0.0689**	0.012	17.4	ug/L	196	Standard
>	**Ge**	72	438793.5	0.9				ug/L	473313	Standard
	As	75	-270.6	13.8	**0.0103**	0.029	280.0	ug/L	-286	Standard
	Se	82	-41.6	21.2	**-0.0013**	0.066	5101.2	ug/L	-33	Standard
	Se-1	77	72.0	9.6	**-0.0390**	0.062	159.3	ug/L	86	Standard
>	**Ga**	71	26.7	10.8				mg/L	35	Standard
	Rb	85	15.0	33.3				ug/L	13	Standard
	Y	89	405311.8	1.2				ug/L	439493	Standard
>	**Rh**	103	1.7	173.2				ug/L	5	Standard
	Mo	98	63.5	23.7	**0.0024**	0.004	161.8	ug/L	10	Standard
	Ag	107	78.3	5.3	**-0.0021**	0.000	22.6	ug/L	53	Standard
	Cd	111	6.6	70.1	**0.0004**	0.002	613.0	mg/L	1	Standard
	Cd	114	23.3	41.3	**-0.0049**	0.002	37.0	ug/L	32	Standard
>	**In**	115	456317.4	1.6				ug/L	494305	Standard
	Sn	118	62.0	21.8	**-0.0052**	0.010	202.0	ug/L	53	Standard
	Sb	123	250.5	31.6	**0.1005**	0.031	30.4	ug/L	7	Standard
	Ba	135	9.7	15.8	**-0.0068**	0.001	14.5	ug/L	11	Standard
	Ce	140	10.0	50.0				ug/L	10	Standard
>	**Tb**	159	464767.5	0.8				ug/L	538219	Standard
	Ho	165	1.7	173.2				ug/L	8	Standard
	Tl	203	15.3	66.6	**0.0007**	0.002	281.3	ug/L	1	Standard
	Tl	205	18.3	15.7	**0.0020**	0.000	22.3	ug/L	3	Standard
	Pb	206	99.3	11.1	**0.0005**	0.004	863.1	ug/L	80	Standard
	Pb	207	71.0	10.6	**0.0016**	0.004	239.3	ug/L	73	Standard
	Pb	208	190.7	6.8	**-0.0015**	0.002	159.1	ug/L	190	Standard
	U	238	10.0	95.4	**0.0011**	0.003	256.5	ug/L	0	Standard
>	**Bi**	209	251853.1	1.1				ug/L	276439	Standard

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Kym H. Rhoden

	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	31.7	39.7	**0.0034**	0.014	413.2	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2751**	0.184	66.8	mg/L	3	Standard
	Ca	43	20.0	25.0	**-4.0306**	1.483	36.8	mg/L	43	Standard
	Fe	54	287.4	10.7	**0.0262**	0.017	64.2	mg/L	262	Standard
	Fe	57	66.7	24.1	**0.0294**	0.033	111.8	mg/L	65	Standard
>	**Sc-1**	45	24633.3	1.8				mg/L	26874	Standard
	Cl	35	136499.2	3.2				ug/L	141022	Standard
	Kr	83	93.3	7.3				ug/L	75	Standard
	Br	81	2233.5	6.8				ug/L	2810	Standard
	P	31	448393.2	2.8				ug/L	458976	Standard
	S	34	116796.9	2.3				ug/L	103378	Standard
	Sr	88	48.3	46.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	93.2				mg/L	10	Standard
	Ho-1	165	1.7	173.2				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		94.601	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.707	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	92.315
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	91.106
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
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Method 6020 - Summary Report

Sample ID: L1311045208SD WG452353-05
Sample Date/Time: Monday, November 18, 2013 20:01:29
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	219889.8	2.5				ug/L	269614	Standard
	Be	9	735.0	3.8	**0.2878**	0.015	5.3	ug/L	23	Standard
	Al	27	109353.2	1.2	**0.6325**	0.024	3.8	ug/L	1170	Standard
	Sc	45	21822.4	2.2				ug/L	26874	Standard
	Ti	47	1552.1	4.6	**7.1990**	0.325	4.5	ug/L	25	Standard
	V	51	6026.3	2.1	**0.8316**	0.025	3.0	ug/L	1686	Standard
	Cr	52	14349.1	1.2	**1.8002**	0.028	1.5	ug/L	6098	Standard
	Cr	53	2300.2	0.7	**2.0350**	0.030	1.5	ug/L	193	Standard
	Mn	55	92527.7	0.6	**8.0139**	0.014	0.2	ug/L	1232	Standard
	Co	59	3554.4	2.0	**0.4353**	0.006	1.3	ug/L	106	Standard
	Ni	60	4174.2	2.1	**1.6027**	0.047	3.0	ug/L	556	Standard
	Cu	65	14880.6	1.7	**6.6488**	0.077	1.2	ug/L	124	Standard
	Zn	66	37451.6	1.2	**30.6559**	0.313	1.0	ug/L	196	Standard
>	Ge	72	401637.2	0.7				ug/L	473313	Standard
	As	75	311.1	17.3	**0.4648**	0.042	9.1	ug/L	-286	Standard
	Se	82	4.6	194.9	**0.3369**	0.070	20.8	ug/L	-33	Standard
	Se-1	77	91.3	8.2	**0.2383**	0.088	37.1	ug/L	86	Standard
>	Ga	71	561.7	11.3				mg/L	35	Standard
	Rb	85	2713.6	4.7				ug/L	13	Standard
	Y	89	366762.6	0.5				ug/L	439493	Standard
>	Rh	103	15.0	0.0				ug/L	5	Standard
	Mo	98	283.8	4.3	**0.0712**	0.003	4.6	ug/L	10	Standard
	Ag	107	3837.8	1.5	**0.6756**	0.016	2.3	ug/L	53	Standard
	Cd	111	1610.4	3.8	**0.8701**	0.034	3.9	mg/L	1	Standard
	Cd	114	3934.3	2.4	**0.8332**	0.014	1.7	ug/L	32	Standard
>	In	115	415995.2	0.8				ug/L	494305	Standard
	Sn	118	106.3	12.2	**0.0401**	0.011	28.5	ug/L	53	Standard
	Sb	123	121.9	3.6	**0.0531**	0.002	3.7	ug/L	7	Standard
	Ba	135	17240.8	1.3	**11.1700**	0.204	1.8	ug/L	11	Standard
	Ce	140	9666.4	2.2				ug/L	10	Standard
>	Tb	159	427476.9	1.2				ug/L	538219	Standard
	Ho	165	131.7	7.9				ug/L	8	Standard
	Tl	203	1245.1	1.9	**0.2429**	0.006	2.5	ug/L	1	Standard
	Tl	205	1691.8	6.7	**0.2688**	0.017	6.1	ug/L	3	Standard
	Pb	206	26345.6	1.8	**12.0490**	0.154	1.3	ug/L	80	Standard
	Pb	207	22163.2	0.3	**11.2575**	0.094	0.8	ug/L	73	Standard
	Pb	208	53075.0	0.5	**11.0096**	0.071	0.6	ug/L	190	Standard
	U	238	750.4	2.9	**0.2376**	0.005	2.3	ug/L	0	Standard
>	Bi	209	234328.5	0.6				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	56.7	36.7	**0.0397**	0.028	70.3	mg/L	37	Standard
	K	39	0.0		**-0.3812**	0.000	0.0	mg/L	3	Standard
	Ca	43	11.7	65.5	**-6.2084**	2.617	42.2	mg/L	43	Standard
	Fe	54	927.4	6.8	**0.4299**	0.050	11.7	mg/L	262	Standard
	Fe	57	281.7	10.2	**0.5033**	0.063	12.4	mg/L	65	Standard
>	**Sc-1**	45	21822.4	2.2				mg/L	26874	Standard
	Cl	35	117032.4	2.3				ug/L	141022	Standard
	Kr	83	77.3	19.8				ug/L	75	Standard
	Br	81	1910.1	13.5				ug/L	2810	Standard
	P	31	145127.0	2.5				ug/L	458976	Standard
	S	34	105761.2	0.4				ug/L	103378	Standard
	Sr	88	46.7	27.0				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	100.0	36.1				mg/L	0	Standard
	Dy	164	222.0	13.7				mg/L	10	Standard
	Ho-1	165	131.7	7.9				mg/L	8	Standard
	Er	166	96.7	23.9				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		81.557	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.857	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.158
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.767
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1311045208SD WG452353-05
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Method 6020 - Summary Report

Sample ID: L1311045209
Sample Date/Time: Monday, November 18, 2013 20:04:34
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	225404.3	0.3				ug/L	269614	Standard
	Be	9	63.3	31.9	**0.0094**	0.008	85.6	ug/L	23	Standard
	Al	27	61262.0	2.9	**0.3422**	0.011	3.1	ug/L	1170	Standard
	Sc	45	22411.6	3.1				ug/L	26874	Standard
	Ti	47	672.3	0.2	**3.0650**	0.038	1.2	ug/L	25	Standard
	V	51	3373.5	4.7	**0.3856**	0.021	5.5	ug/L	1686	Standard
	Cr	52	8250.9	1.0	**0.7423**	0.022	3.0	ug/L	6098	Standard
	Cr	53	1118.4	7.9	**0.9182**	0.075	8.1	ug/L	193	Standard
	Mn	55	75932.8	1.0	**6.5566**	0.096	1.5	ug/L	1232	Standard
	Co	59	1522.7	3.8	**0.1779**	0.009	5.2	ug/L	106	Standard
	Ni	60	2263.2	2.2	**0.7771**	0.013	1.7	ug/L	556	Standard
	Cu	65	14637.1	1.8	**6.5435**	0.063	1.0	ug/L	124	Standard
	Zn	66	35062.5	0.9	**28.7085**	0.332	1.2	ug/L	196	Standard
>	**Ge**	72	401367.7	1.0				ug/L	473313	Standard
	As	75	-148.7	47.3	**0.0910**	0.057	62.5	ug/L	-286	Standard
	Se	82	-46.1	32.9	**-0.0647**	0.119	184.5	ug/L	-33	Standard
	Se-1	77	65.7	4.4	**-0.0407**	0.031	76.1	ug/L	86	Standard
>	**Ga**	71	461.7	5.0				mg/L	35	Standard
	Rb	85	1876.8	3.4				ug/L	13	Standard
	Y	89	364421.4	1.8				ug/L	439493	Standard
>	**Rh**	103	6.7	43.3				ug/L	5	Standard
	Mo	98	210.5	26.2	**0.0489**	0.017	33.8	ug/L	10	Standard
	Ag	107	4512.3	2.1	**0.7974**	0.018	2.3	ug/L	53	Standard
	Cd	111	897.1	4.7	**0.4838**	0.025	5.2	mg/L	1	Standard
	Cd	114	2147.6	5.1	**0.4507**	0.020	4.4	ug/L	32	Standard
>	**In**	115	415745.4	1.0				ug/L	494305	Standard
	Sn	118	96.0	17.8	**0.0308**	0.015	49.1	ug/L	53	Standard
	Sb	123	122.6	13.9	**0.0535**	0.008	14.7	ug/L	7	Standard
	Ba	135	12121.5	1.2	**7.8537**	0.050	0.6	ug/L	11	Standard
	Ce	140	6974.9	2.4				ug/L	10	Standard
>	**Tb**	159	420806.0	1.5				ug/L	538219	Standard
	Ho	165	70.0	25.8				ug/L	8	Standard
	Tl	203	40.7	128.5	**0.0059**	0.010	175.5	ug/L	1	Standard
	Tl	205	18.3	56.8	**0.0022**	0.002	74.4	ug/L	3	Standard
	Pb	206	19245.2	1.7	**8.8000**	0.135	1.5	ug/L	80	Standard
	Pb	207	16247.7	1.4	**8.2526**	0.098	1.2	ug/L	73	Standard
	Pb	208	37999.5	1.1	**7.8796**	0.054	0.7	ug/L	190	Standard
	U	238	31.7	14.9	**0.0082**	0.001	17.3	ug/L	0	Standard
>	**Bi**	209	234085.5	0.9				ug/L	276439	Standard

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	Na	23	3.3	173.2	**0.5678**	1.724	303.7	mg/L	2	Standard
	Mg	24	43.3	43.7	**0.0207**	0.021	102.6	mg/L	37	Standard
	K	39	5.0	100.0	**-0.0262**	0.362	1380.0	mg/L	3	Standard
	Ca	43	13.3	21.7	**-5.7125**	0.922	16.1	mg/L	43	Standard
	Fe	54	895.7	6.0	**0.3958**	0.020	5.0	mg/L	262	Standard
	Fe	57	335.0	5.4	**0.5990**	0.056	9.3	mg/L	65	Standard
>	**Sc-1**	45	22411.6	3.1				mg/L	26874	Standard
	Cl	35	117411.9	0.8				ug/L	141022	Standard
	Kr	83	95.0	18.5				ug/L	75	Standard
	Br	81	2083.5	6.0				ug/L	2810	Standard
	P	31	144514.6	2.8				ug/L	458976	Standard
	S	34	104809.6	0.8				ug/L	103378	Standard
	Sr	88	48.3	15.8				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	70.0	28.6				mg/L	0	Standard
	Dy	164	110.9	42.8				mg/L	10	Standard
	Ho-1	165	70.0	25.8				mg/L	8	Standard
	Er	166	50.0	34.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		83.602	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.800	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.107
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.679
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045211
Sample Date/Time: Monday, November 18, 2013 20:07:39
Number of Replicates: 3
Autosampler Position: 323
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	223242.7	0.8				ug/L	269614	Standard
	Be	9	50.0	36.1	**0.0043**	0.007	172.1	ug/L	23	Standard
	Al	27	78730.7	1.3	**0.4462**	0.005	1.2	ug/L	1170	Standard
	Sc	45	22186.2	1.3				ug/L	26874	Standard
	Ti	47	409.7	4.3	**1.8435**	0.111	6.0	ug/L	25	Standard
	V	51	3363.8	4.1	**0.3882**	0.026	6.7	ug/L	1686	Standard
	Cr	52	5455.0	1.5	**0.2633**	0.028	10.6	ug/L	6098	Standard
	Cr	53	545.0	10.8	**0.3803**	0.062	16.2	ug/L	193	Standard
	Mn	55	79037.3	2.0	**6.8790**	0.094	1.4	ug/L	1232	Standard
	Co	59	1313.1	9.2	**0.1526**	0.018	11.6	ug/L	106	Standard
	Ni	60	1494.1	4.4	**0.4494**	0.035	7.8	ug/L	556	Standard
	Cu	65	4994.8	1.8	**2.2094**	0.009	0.4	ug/L	124	Standard
	Zn	66	14384.2	1.1	**11.7446**	0.048	0.4	ug/L	196	Standard
>	Ge	72	398555.9	1.4				ug/L	473313	Standard
	As	75	-157.9	11.7	**0.0823**	0.017	20.9	ug/L	-286	Standard
	Se	82	-39.5	11.8	**-0.0153**	0.039	253.1	ug/L	-33	Standard
	Se-1	77	66.0	9.2	**-0.0313**	0.077	247.6	ug/L	86	Standard
>	Ga	71	286.7	2.7				mg/L	35	Standard
	Rb	85	2385.2	6.5				ug/L	13	Standard
	Y	89	370872.6	0.6				ug/L	439493	Standard
>	Rh	103	3.3	86.6				ug/L	5	Standard
	Mo	98	177.2	76.4	**0.0389**	0.042	107.2	ug/L	10	Standard
	Ag	107	1931.8	6.8	**0.3334**	0.023	7.0	ug/L	53	Standard
	Cd	111	462.9	1.7	**0.2486**	0.004	1.8	mg/L	1	Standard
	Cd	114	1164.6	3.2	**0.2406**	0.007	3.1	ug/L	32	Standard
>	In	115	415043.9	1.5				ug/L	494305	Standard
	Sn	118	79.7	6.9	**0.0161**	0.004	24.4	ug/L	53	Standard
	Sb	123	122.6	39.3	**0.0536**	0.022	40.8	ug/L	7	Standard
	Ba	135	7288.1	1.7	**4.7250**	0.019	0.4	ug/L	11	Standard
	Ce	140	8220.6	2.5				ug/L	10	Standard
>	Tb	159	418085.4	1.4				ug/L	538219	Standard
	Ho	165	101.7	34.5				ug/L	8	Standard
	Tl	203	43.0	116.8	**0.0065**	0.010	157.1	ug/L	1	Standard
	Tl	205	145.0	127.7	**0.0228**	0.030	132.7	ug/L	3	Standard
	Pb	206	7287.4	1.6	**3.3142**	0.040	1.2	ug/L	80	Standard
	Pb	207	6196.6	2.2	**3.1354**	0.076	2.4	ug/L	73	Standard
	Pb	208	14661.4	1.2	**3.0242**	0.054	1.8	ug/L	190	Standard
	U	238	60.0	73.7	**0.0175**	0.015	83.3	ug/L	0	Standard
>	Bi	209	233535.0	1.6				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0936**	0.903	964.7	mg/L	2	Standard
	Mg	24	26.7	47.2	**0.0009**	0.015	1627.3	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2609**	0.208	79.9	mg/L	3	Standard
	Ca	43	30.0	16.7	**0.2011**	1.890	939.6	mg/L	43	Standard
	Fe	54	530.9	16.0	**0.1869**	0.054	29.0	mg/L	262	Standard
	Fe	57	200.0	8.7	**0.3222**	0.036	11.2	mg/L	65	Standard
>	**Sc-1**	45	22186.2	1.3				mg/L	26874	Standard
	Cl	35	119121.5	3.6				ug/L	141022	Standard
	Kr	83	88.0	1.1				ug/L	75	Standard
	Br	81	2066.8	7.9				ug/L	2810	Standard
	P	31	145702.2	0.4				ug/L	458976	Standard
	S	34	107048.6	2.0				ug/L	103378	Standard
	Sr	88	43.3	35.3				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	43.3	48.0				mg/L	0	Standard
	Dy	164	140.3	29.1				mg/L	10	Standard
	Ho-1	165	101.7	34.5				mg/L	8	Standard
	Er	166	63.3	32.9				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		82.801	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.206	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.965
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.480
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: L1311045212
Sample Date/Time: Monday, November 18, 2013 20:10:44
Number of Replicates: 3
Autosampler Position: 324
Sample Description: 100
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	221920.2	1.2				ug/L	269614	Standard
	Be	9	40.0	50.0	**0.0004**	0.008	2257.0	ug/L	23	Standard
	Al	27	87228.7	0.6	**0.4982**	0.009	1.7	ug/L	1170	Standard
	Sc	45	22611.9	2.8				ug/L	26874	Standard
	Ti	47	683.0	2.3	**3.1031**	0.108	3.5	ug/L	25	Standard
	V	51	2877.8	14.0	**0.3002**	0.065	21.8	ug/L	1686	Standard
	Cr	52	48734.3	1.0	**7.7435**	0.090	1.2	ug/L	6098	Standard
	Cr	53	9142.8	1.7	**8.4733**	0.080	0.9	ug/L	193	Standard
	Mn	55	154085.2	0.4	**13.3943**	0.143	1.1	ug/L	1232	Standard
	Co	59	1699.1	3.6	**0.1993**	0.006	2.8	ug/L	106	Standard
	Ni	60	10644.7	1.4	**4.3840**	0.034	0.8	ug/L	556	Standard
	Cu	65	45391.9	0.6	**20.3389**	0.158	0.8	ug/L	124	Standard
	Zn	66	45263.5	0.6	**36.9705**	0.277	0.7	ug/L	196	Standard
>	**Ge**	72	402969.0	1.3				ug/L	473313	Standard
	As	75	-56.0	11.0	**0.1665**	0.004	2.7	ug/L	-286	Standard
	Se	82	-36.4	20.1	**0.0133**	0.058	431.6	ug/L	-33	Standard
	Se-1	77	73.3	10.6	**0.0397**	0.085	213.6	ug/L	86	Standard
>	**Ga**	71	363.3	7.1				mg/L	35	Standard
	Rb	85	1901.8	1.9				ug/L	13	Standard
	Y	89	367999.4	1.6				ug/L	439493	Standard
>	**Rh**	103	18.3	56.8				ug/L	5	Standard
	Mo	98	376.1	3.8	**0.0982**	0.004	4.2	ug/L	10	Standard
	Ag	107	3967.9	2.4	**0.6915**	0.016	2.3	ug/L	53	Standard
	Cd	111	6625.9	1.2	**3.5522**	0.052	1.5	mg/L	1	Standard
	Cd	114	16448.4	2.0	**3.4775**	0.057	1.6	ug/L	32	Standard
>	**In**	115	420312.7	0.3				ug/L	494305	Standard
	Sn	118	205.0	5.1	**0.1278**	0.009	7.0	ug/L	53	Standard
	Sb	123	115.5	10.8	**0.0497**	0.006	11.1	ug/L	7	Standard
	Ba	135	10822.2	0.9	**6.9344**	0.081	1.2	ug/L	11	Standard
	Ce	140	6821.5	4.9				ug/L	10	Standard
>	**Tb**	159	434327.3	0.6				ug/L	538219	Standard
	Ho	165	73.3	25.8				ug/L	8	Standard
	Tl	203	9.0	22.2	**-0.0004**	0.000	106.3	ug/L	1	Standard
	Tl	205	16.7	17.3	**0.0019**	0.000	22.9	ug/L	3	Standard
	Pb	206	81560.3	1.5	**37.1193**	0.613	1.7	ug/L	80	Standard
	Pb	207	66276.0	0.7	**33.4814**	0.169	0.5	ug/L	73	Standard
	Pb	208	158884.8	0.6	**32.7940**	0.189	0.6	ug/L	190	Standard
	U	238	25.3	26.3	**0.0062**	0.002	35.0	ug/L	0	Standard
>	**Bi**	209	236046.9	0.8				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	40.0	21.7	**0.0167**	0.011	66.9	mg/L	37	Standard
	K	39	1.7	173.2	**-0.2630**	0.205	77.8	mg/L	3	Standard
	Ca	43	15.0	57.7	**-5.1126**	3.072	60.1	mg/L	43	Standard
	Fe	54	1494.4	8.2	**0.7392**	0.093	12.5	mg/L	262	Standard
	Fe	57	476.7	3.7	**0.8834**	0.045	5.1	mg/L	65	Standard
>	**Sc-1**	45	22611.9	2.8				mg/L	26874	Standard
	Cl	35	122584.0	1.8				ug/L	141022	Standard
	Kr	83	88.0	2.0				ug/L	75	Standard
	Br	81	2276.8	7.2				ug/L	2810	Standard
	P	31	148508.6	7.4				ug/L	458976	Standard
	S	34	108843.0	2.5				ug/L	103378	Standard
	Sr	88	60.0	8.3				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	20.0	50.0				mg/L	0	Standard
	Dy	164	89.8	17.6				mg/L	10	Standard
	Ho-1	165	73.3	25.8				mg/L	8	Standard
	Er	166	73.3	15.7				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		82.310	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		85.138	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.031
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.388
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, November 18, 2013 20:13:49
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	244929.9	2.8				ug/L	269614	Standard
	Be	9	137257.3	1.0	**50.9194**	1.517	3.0	ug/L	23	Standard
	Al	27	8821376.8	1.6	**46.2985**	0.762	1.6	ug/L	1170	Standard
	Sc	45	25341.2	1.5				ug/L	26874	Standard
	Ti	47	24937.2	2.2	**105.4018**	1.866	1.8	ug/L	25	Standard
	V	51	309612.1	1.0	**46.6708**	0.423	0.9	ug/L	1686	Standard
	Cr	52	303602.1	0.9	**46.7431**	0.129	0.3	ug/L	6098	Standard
	Cr	53	57311.5	1.9	**48.5968**	0.638	1.3	ug/L	193	Standard
	Mn	55	610664.3	0.9	**48.2767**	0.354	0.7	ug/L	1232	Standard
	Co	59	409466.9	1.2	**46.7055**	0.861	1.8	ug/L	106	Standard
	Ni	60	126827.3	0.7	**49.1214**	0.288	0.6	ug/L	556	Standard
	Cu	65	123683.4	0.5	**50.1152**	0.191	0.4	ug/L	124	Standard
	Zn	66	67314.2	0.4	**49.7006**	0.345	0.7	ug/L	196	Standard
>	Ge	72	446377.2	0.9				ug/L	473313	Standard
	As	75	68536.0	1.0	**50.3882**	0.321	0.6	ug/L	-286	Standard
	Se	82	6919.3	0.1	**49.6972**	0.442	0.9	ug/L	-33	Standard
	Se-1	77	5060.2	2.0	**48.7546**	0.820	1.7	ug/L	86	Standard
>	Ga	71	46.7	16.4				mg/L	35	Standard
	Rb	85	1060.0	7.9				ug/L	13	Standard
	Y	89	401359.7	2.1				ug/L	439493	Standard
>	Rh	103	25.0	52.9				ug/L	5	Standard
	Mo	98	380640.1	0.5	**104.8827**	0.974	0.9	ug/L	10	Standard
	Ag	107	326644.1	1.1	**53.1641**	0.653	1.2	ug/L	53	Standard
	Cd	111	101468.7	0.9	**49.7753**	0.641	1.3	mg/L	1	Standard
	Cd	114	261437.0	0.3	**50.6674**	0.267	0.5	ug/L	32	Standard
>	In	115	459701.9	0.5				ug/L	494305	Standard
	Sn	118	62233.6	3.3	**51.0784**	1.632	3.2	ug/L	53	Standard
	Sb	123	122567.8	0.3	**49.7008**	0.268	0.5	ug/L	7	Standard
	Ba	135	85622.3	1.2	**50.2414**	0.818	1.6	ug/L	11	Standard
	Ce	140	48.3	33.3				ug/L	10	Standard
>	Tb	159	471877.1	0.2				ug/L	538219	Standard
	Ho	165	6.7	43.3				ug/L	8	Standard
	Tl	203	266840.6	0.8	**49.6193**	0.396	0.8	ug/L	1	Standard
	Tl	205	345768.1	1.5	**52.0699**	0.696	1.3	ug/L	3	Standard
	Pb	206	121937.7	0.9	**52.8440**	0.272	0.5	ug/L	80	Standard
	Pb	207	109846.1	0.1	**52.8439**	0.167	0.3	ug/L	73	Standard
	Pb	208	245452.0	0.4	**48.2444**	0.175	0.4	ug/L	190	Standard
	U	238	157210.4	0.5	**47.4115**	0.054	0.1	ug/L	0	Standard
>	Bi	209	247962.2	0.4				ug/L	276439	Standard

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	Na	23	15.0	33.3	**3.6594**	1.308	35.8	mg/L	2	Standard
	Mg	24	4574.0	3.8	**4.9155**	0.111	2.2	mg/L	37	Standard
	K	39	76.7	10.0	**4.4010**	0.403	9.2	mg/L	3	Standard
	Ca	43	36.7	39.4	**0.9674**	4.560	471.4	mg/L	43	Standard
	Fe	54	11587.1	2.8	**5.8515**	0.119	2.0	mg/L	262	Standard
	Fe	57	3297.0	1.3	**5.9508**	0.136	2.3	mg/L	65	Standard
>	**Sc-1**	45	25341.2	1.5				mg/L	26874	Standard
	Cl	35	137277.8	1.1				ug/L	141022	Standard
	Kr	83	104.0	1.7				ug/L	75	Standard
	Br	81	2410.2	8.4				ug/L	2810	Standard
	P	31	466482.7	2.9				ug/L	458976	Standard
	S	34	123153.5	0.9				ug/L	103378	Standard
	Sr	88	60.0	54.6				ug/L	30	Standard
	C	12	0.0					mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	186.3				mg/L	10	Standard
	Ho-1	165	6.7	43.3				mg/L	8	Standard
	Er	166	6.7	86.6				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		90.845	
	Be	9	101.839		
	Al	27	92.597		
	Sc	45			
	Ti	47	105.402		
	V	51	93.342		
	Cr	52	93.486		
	Cr	53			
	Mn	55	96.553		
	Co	59	93.411		
	Ni	60	98.243		
	Cu	65	100.230		
	Zn	66	99.401		
>	Ge	72		94.309	
	As	75	100.776		
	Se	82	99.394		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	104.883		
|	Ag	107	106.328		
|	Cd	111	99.551		
|	Cd	114			
|>	In	115			93.000
|	Sn	118	102.157		
|	Sb	123	99.402		
⌊	Ba	135	100.483		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	99.239		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	96.489		
|	U	238	94.823		
⌊>	Bi	209			89.699
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, November 18, 2013 20:16:54
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	250988.0	4.6				ug/L	269614	Standard
	Be	9	41.7	18.3	**-0.0009**	0.003	361.3	ug/L	23	Standard
	Al	27	896.7	10.7	**-0.0025**	0.000	12.1	ug/L	1170	Standard
	Sc	45	24728.5	0.9				ug/L	26874	Standard
	Ti	47	12.3	18.7	**-0.0459**	0.010	21.6	ug/L	25	Standard
	V	51	979.3	3.8	**-0.0319**	0.005	16.4	ug/L	1686	Standard
	Cr	52	3416.4	1.9	**-0.1508**	0.009	6.1	ug/L	6098	Standard
	Cr	53	113.3	9.2	**-0.0416**	0.009	20.5	ug/L	193	Standard
	Mn	55	938.7	2.0	**-0.0638**	0.001	1.6	ug/L	1232	Standard
	Co	59	82.0	11.6	**-0.0059**	0.001	19.6	ug/L	106	Standard
	Ni	60	331.7	6.4	**-0.0710**	0.008	10.9	ug/L	556	Standard
	Cu	65	102.3	7.5	**-0.0179**	0.003	16.1	ug/L	124	Standard
	Zn	66	333.0	8.7	**0.0529**	0.023	42.6	ug/L	196	Standard
>	Ge	72	440657.2	0.6				ug/L	473313	Standard
	As	75	-266.7	4.0	**0.0141**	0.007	47.3	ug/L	-286	Standard
	Se	82	-48.4	14.2	**-0.0491**	0.048	96.9	ug/L	-33	Standard
	Se-1	77	68.7	19.6	**-0.0751**	0.129	172.2	ug/L	86	Standard
>	Ga	71	21.7	66.6				mg/L	35	Standard
	Rb	85	13.3	57.3				ug/L	13	Standard
	Y	89	407852.6	1.8				ug/L	439493	Standard
>	Rh	103	0.0					ug/L	5	Standard
	Mo	98	58.1	31.1	**0.0009**	0.005	582.4	ug/L	10	Standard
	Ag	107	57.7	32.5	**-0.0056**	0.003	54.9	ug/L	53	Standard
	Cd	111	3.6	43.1	**-0.0011**	0.001	68.0	mg/L	1	Standard
	Cd	114	10.1	160.3	**-0.0075**	0.003	42.1	ug/L	32	Standard
>	In	115	458064.9	0.1				ug/L	494305	Standard
	Sn	118	58.7	10.8	**-0.0080**	0.005	64.8	ug/L	53	Standard
	Sb	123	272.9	28.2	**0.1096**	0.031	28.6	ug/L	7	Standard
	Ba	135	10.0	10.0	**-0.0066**	0.001	8.9	ug/L	11	Standard
	Ce	140	13.3	21.7				ug/L	10	Standard
>	Tb	159	467056.5	1.0				ug/L	538219	Standard
	Ho	165	0.0					ug/L	8	Standard
	Tl	203	12.3	46.1	**0.0001**	0.001	818.6	ug/L	1	Standard
	Tl	205	23.3	32.7	**0.0028**	0.001	40.4	ug/L	3	Standard
	Pb	206	98.3	5.2	**0.0003**	0.002	743.4	ug/L	80	Standard
	Pb	207	73.7	5.5	**0.0030**	0.003	85.0	ug/L	73	Standard
	Pb	208	179.7	13.1	**-0.0035**	0.004	121.3	ug/L	190	Standard
	U	238	5.0	40.0	**-0.0004**	0.001	153.6	ug/L	0	Standard
>	Bi	209	250849.6	1.8				ug/L	276439	Standard

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	Na	23	1.7	173.2	**0.0346**	0.801	2313.8	mg/L	2	Standard
	Mg	24	30.0	76.4	**0.0013**	0.025	1939.6	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1681**	0.185	109.8	mg/L	3	Standard
	Ca	43	5.0	100.0	**-8.7476**	1.574	18.0	mg/L	43	Standard
	Fe	54	302.9	20.7	**0.0335**	0.032	94.5	mg/L	262	Standard
	Fe	57	73.3	15.7	**0.0411**	0.022	52.5	mg/L	65	Standard
>	**Sc-1**	45	24728.5	0.9				mg/L	26874	Standard
	Cl	35	132341.5	0.9				ug/L	141022	Standard
	Kr	83	97.0	10.7				ug/L	75	Standard
	Br	81	2103.5	6.6				ug/L	2810	Standard
	P	31	431121.5	4.3				ug/L	458976	Standard
	S	34	114565.0	2.1				ug/L	103378	Standard
	Sr	88	60.0	38.2				ug/L	30	Standard
	C	12	6.7	86.6				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	10	Standard
	Ho-1	165	0.0					mg/L	8	Standard
	Er	166	10.0	100.0				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.091	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.101	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.668
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.743
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

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Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, November 18, 2013 20:20:00
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: SLP user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	252251.4	2.1				ug/L	269614	Standard
	Be	9	565.0	5.4	**0.1873**	0.008	4.1	ug/L	23	Standard
	Al	27	1055.0	20.5	**-0.0018**	0.001	56.3	ug/L	1170	Standard
	Sc	45	25429.7	5.1				ug/L	26874	Standard
	Ti	47	14.3	16.1	**-0.0381**	0.010	25.5	ug/L	25	Standard
	V	51	3372.6	1.9	**0.3288**	0.012	3.5	ug/L	1686	Standard
	Cr	52	8343.3	1.2	**0.6132**	0.010	1.6	ug/L	6098	Standard
	Cr	53	1041.7	7.3	**0.7476**	0.067	9.0	ug/L	193	Standard
	Mn	55	7177.0	2.4	**0.4304**	0.013	3.0	ug/L	1232	Standard
	Co	59	3373.0	3.2	**0.3698**	0.013	3.5	ug/L	106	Standard
	Ni	60	4280.6	2.6	**1.4646**	0.045	3.1	ug/L	556	Standard
	Cu	65	2011.5	2.7	**0.7568**	0.020	2.7	ug/L	124	Standard
	Zn	66	9558.7	1.4	**6.8945**	0.090	1.3	ug/L	196	Standard
>	**Ge**	72	445972.3	0.4				ug/L	473313	Standard
	As	75	218.4	22.2	**0.3720**	0.036	9.7	ug/L	-286	Standard
	Se	82	-4.1	267.0	**0.2717**	0.078	28.7	ug/L	-33	Standard
	Se-1	77	108.7	5.4	**0.3088**	0.053	17.2	ug/L	86	Standard
>	**Ga**	71	15.0	33.3				mg/L	35	Standard
	Rb	85	13.3	108.3				ug/L	13	Standard
	Y	89	412223.5	1.7				ug/L	439493	Standard
>	**Rh**	103	3.3	86.6				ug/L	5	Standard
	Mo	98	41.7	54.0	**-0.0038**	0.006	158.9	ug/L	10	Standard
	Ag	107	2613.2	2.1	**0.4105**	0.009	2.3	ug/L	53	Standard
	Cd	111	467.0	1.1	**0.2262**	0.005	2.2	mg/L	1	Standard
	Cd	114	1126.9	9.5	**0.2089**	0.019	9.1	ug/L	32	Standard
>	**In**	115	459673.4	1.6				ug/L	494305	Standard
	Sn	118	56.0	9.3	**-0.0104**	0.004	34.5	ug/L	53	Standard
	Sb	123	1024.6	5.9	**0.4138**	0.018	4.4	ug/L	7	Standard
	Ba	135	1249.4	3.4	**0.7209**	0.025	3.5	ug/L	11	Standard
	Ce	140	5.0	100.0				ug/L	10	Standard
>	**Tb**	159	474341.8	1.6				ug/L	538219	Standard
	Ho	165	8.3	69.3				ug/L	8	Standard
	Tl	203	419.3	10.2	**0.0747**	0.007	9.8	ug/L	1	Standard
	Tl	205	553.3	4.5	**0.0815**	0.003	4.0	ug/L	3	Standard
	Pb	206	608.3	2.8	**0.2183**	0.007	3.0	ug/L	80	Standard
	Pb	207	493.3	6.7	**0.2021**	0.015	7.4	ug/L	73	Standard
	Pb	208	1173.7	3.1	**0.1893**	0.005	2.7	ug/L	190	Standard
	U	238	1277.4	1.3	**0.3781**	0.003	0.9	ug/L	0	Standard
>	**Bi**	209	251409.1	0.8				ug/L	276439	Standard

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	Na	23	0.0		**-0.4277**	0.000	0.0	mg/L	2	Standard
	Mg	24	26.7	60.3	**-0.0027**	0.019	690.0	mg/L	37	Standard
	K	39	3.3	86.6	**-0.1746**	0.180	102.8	mg/L	3	Standard
	Ca	43	15.0	33.3	**-5.6823**	1.749	30.8	mg/L	43	Standard
	Fe	54	295.5	9.3	**0.0253**	0.009	37.4	mg/L	262	Standard
	Fe	57	88.3	18.2	**0.0659**	0.037	55.8	mg/L	65	Standard
>	**Sc-1**	45	25429.7	5.1				mg/L	26874	Standard
	Cl	35	132442.3	0.1				ug/L	141022	Standard
	Kr	83	97.7	8.0				ug/L	75	Standard
	Br	81	2366.9	10.5				ug/L	2810	Standard
	P	31	443500.6	2.0				ug/L	458976	Standard
	S	34	110414.2	1.3				ug/L	103378	Standard
	Sr	88	35.0	28.6				ug/L	30	Standard
	C	12	3.3	173.2				mg/L	3	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	186.4				mg/L	10	Standard
	Ho-1	165	8.3	69.3				mg/L	8	Standard
	Er	166	6.7	173.2				mg/L	10	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.560	
	Be	9	93.671		
	Al	27			
	Sc	45			
	Ti	47			
	V	51	82.210		
	Cr	52	76.655		
	Cr	53			
	Mn	55	86.075		
	Co	59	92.456		
	Ni	60	91.538		
	Cu	65	94.599		
	Zn	66	110.311		
>	Ge	72		94.224	
	As	75	93.005		
	Se	82	67.937		
	Se-1	77			
>	Ga	71			
	Rb	85			

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⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107	102.632	
|	Cd	111	94.267	
|	Cd	114		
|>	In	115		92.994
|	Sn	118		
|	Sb	123	103.456	
⌊	Ba	135	96.115	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	93.420	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	94.642	
|	U	238	94.525	
⌊>	Bi	209		90.946
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Se	82	

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2.1.3 Metals CVAA Data (Mercury)

2.1.3.1 Summary Data

Login Number: L13110465
Department: Metals - AA
Analyst: Pierce Morris

METHOD

Preparation: SW-846 7470

Analysis: SW-846 7470

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG452436 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 74481
Approved By: Sheri Pfalzgraf

Microbac

Lab Report #: L13110465
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	CVAA1
Client ID:	MPL 29-1113-1	**Prep Method:**	7470A	**Prep Date:**	11/11/2013 09:26
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	11/12/2013 14:20
Workgroup #:	WG452436	**Analyst:**	PDM	**Run Date:**	11/12/2013 15:39
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	M7.111213.153959
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	CVAA1
Client ID:	MPL 7-1113-1	**Prep Method:**	7470A	**Prep Date:**	11/11/2013 09:26
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	11/12/2013 14:20
Workgroup #:	WG452436	**Analyst:**	PDM	**Run Date:**	11/12/2013 15:42
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	M7.111213.154231
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	CVAA1
Client ID:	MPL 5-1113-1	**Prep Method:**	7470A	**Prep Date:**	11/11/2013 09:26
Matrix:	Water	**Analytical Method:**	7470A	**Cal Date:**	11/12/2013 14:20
Workgroup #:	WG452436	**Analyst:**	PDM	**Run Date:**	11/12/2013 15:45
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	M7.111213.154502
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6		U	0.000200	0.000100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.1.3.2 QC Summary

Example Cold Vapor Mercury Calculations
Hydra AA Mercury Analyzer / CETAC M-7600 Quick Trace Mercury Analyzer

1.0 Initial Calibration (ICAL) Parameters
The system performs linear regression from data consisting of a blank and five standards.

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

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

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted to Volume (mL)	40
Vi = Aliquot Volume (mL)	40
D = Manual dilution factor, if required (10X = 10)	1
Cx = Concentration of element in ppb (ug/L)	0.1

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

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

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Diluted to volume (mL)	40
Ws = Aliquot weight (g)	0.6
D = Manual dilution factor	1
Cx = Concentration of element in ug/kg	6.67

4.0 Adjusting the concentration to dry weight:

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

1 Cx = Concentration calculated as received (wet basis)	6.67
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (ug/kg)	8.33

8.33 ug/kg = 0.00833 mg/kg

Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG452170
Analyst: REK
Spike Analyst: REK
Method: 7470A
Run Date: 11/11/2013 09:26
Hotblock Start Temp: 94.8 @ 09:20
Hotblock End Temp: 94.7 @ 11:20
Instrument: HB6

SOP: ME404 Revison 15
Spike Solution: STD61272
Spike Witness: ERP
HNO3 Lot #: COA16631
Digestion Tubes Lot #: COA16971
H2SO4 Lot #: COA16973
K2S2O8 1:1 Lot #: RGT28479
KMnO4 1:1 Lot #: RGT28547
Mercury Water ICV Lot #: STD61274
HG H2O STDS 10PPM Lot #: STD61280

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG452170-03	BLANK	1	40 mL	40 mL		
2	WG452170-05	FLT_BLK	1	40 mL	40 mL		
3	WG452170-04	LCS	1	40 mL	40 mL	4 mL	
4	L13110363-01	SAMP	1	40 mL	40 mL		11/15/13
5	L13110363-02	SAMP	1	40 mL	40 mL		11/15/13
6	WG452170-01	REF	1	40 mL	40 mL		
7	L13110363-03	SAMP	1	40 mL	40 mL		11/15/13
8	L13110363-04	SAMP	1	40 mL	40 mL		11/15/13
9	L13110363-05	SAMP	1	40 mL	40 mL		11/15/13
10	L13110363-06	SAMP	1	40 mL	40 mL		11/15/13
11	L13110363-07	SAMP	1	40 mL	40 mL		11/15/13
12	L13110363-08	SAMP	1	40 mL	40 mL		11/15/13
13	L13110465-01	SAMP	1	40 mL	40 mL		11/19/13
14	L13110465-02	SAMP	1	40 mL	40 mL		11/19/13
15	L13110465-03	SAMP	1	40 mL	40 mL		11/19/13
16	WG452170-02	REF	2	40 mL	40 mL		
17	L13110472-01	SAMP	2	40 mL	40 mL		11/15/13
18	L13110476-01	SAMP	1	40 mL	40 mL		11/19/13
19	L13110508-01	SAMP	2	40 mL	40 mL		11/15/13
20	L13110518-03	SAMP	1	40 mL	40 mL		11/18/13
21	WG452170-06	MS	1	36 mL	40 mL	4 mL	
22	WG452170-07	MSD	1	36 mL	40 mL	4 mL	
23	WG452170-08	DUP	1	40 mL	40 mL		

Analyst:

Reviewer:

*** All calibration and check standards are prepared and digested with sample batch following the procedures in section 7.0 of SOP ME404/ME405.**

HB_DIG - Modified 07/26/2012
PDF ID: 3194626
Report generated: 11/11/2013 12:32

Microbac Laboratories Inc.

Instrument Run Log

Instrument: CVAA1 Dataset: 111213E.CSV
Analyst1: PDM Analyst2: N/A
Method: 7470/245.1 SOP: ME404 Rev: 15
Maintenance Log ID: 48143

Calibration Std: STD61280 ICV Std: STD61274 Post Spike: STD61280
ICSA: N/A ICSAB: N/A Int. Std:
CCV: LLCCV: Tuning Sol :
Stannous : RGT27563 Hydroxylamine : RGT27561

Workgroups: 452436

Comments: Sequences 11 through 17 were not reported due to LCS noncompliance.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	M7.111213.140805	WG452870-01	Calibration Point		1		11/12/13 14:08
2	M7.111213.141037	WG452870-02	Calibration Point		1		11/12/13 14:10
3	M7.111213.141308	WG452870-03	Calibration Point		1		11/12/13 14:13
4	M7.111213.141541	WG452870-04	Calibration Point		1		11/12/13 14:15
5	M7.111213.141814	WG452870-05	Calibration Point		1		11/12/13 14:18
6	M7.111213.142048	WG452870-06	Calibration Point		1		11/12/13 14:20
7	M7.111213.142322	WG452870-07	Initial Calibration Verification		1		11/12/13 14:23
8	M7.111213.142553	WG452870-08	Initial Calib Blank		1		11/12/13 14:25
9	M7.111213.142825	WG452870-09	CCV		1		11/12/13 14:28
10	M7.111213.143056	WG452870-10	CCB		1		11/12/13 14:30
11	M7.111213.143327	WG452170-03	Method/Prep Blank		1		11/12/13 14:33
12	M7.111213.143558	WG452170-04	Laboratory Control S		1		11/12/13 14:35
13	M7.111213.143830	WG452170-05	Filter Blank		1		11/12/13 14:38
14	M7.111213.144101	L13110363-01	FLUME		1		11/12/13 14:41
15	M7.111213.144333	WG452436-01	Post Digestion Spike		1	L13110363-01	11/12/13 14:43
16	M7.111213.144606	L13110363-02	FLUME		1		11/12/13 14:46
17	M7.111213.144838	WG452170-01	Reference Sample		1	L13110363-03	11/12/13 14:48
18	M7.111213.145425	WG452870-11	CCV		1		11/12/13 14:54
19	M7.111213.145655	WG452870-12	CCB		1		11/12/13 14:56
20	M7.111213.145926	WG452170-03	Method/Prep Blank	40/40	1		11/12/13 14:59
21	M7.111213.150157	WG452170-04	Laboratory Control S	40/40	1		11/12/13 15:01
22	M7.111213.150429	WG452170-05	Filter Blank		1		11/12/13 15:04
23	M7.111213.150701	L13110363-01	FLUME	40/40	1		11/12/13 15:07
24	M7.111213.150933	WG452436-01	Post Digestion Spike		1	L13110363-01	11/12/13 15:09
25	M7.111213.151205	L13110363-02	FLUME	40/40	1		11/12/13 15:12
26	M7.111213.151437	WG452170-01	Reference Sample	40/40	1	L13110363-03	11/12/13 15:14
27	M7.111213.151710	WG452170-06	Matrix Spike	36/40	1	L13110363-03	11/12/13 15:17
28	M7.111213.151943	WG452170-07	Matrix Spike Duplica	36/40	1	L13110363-03	11/12/13 15:19
29	M7.111213.152217	L13110363-04	201-EFF	40/40	1		11/12/13 15:22
30	M7.111213.152449	WG452870-13	CCV		1		11/12/13 15:24
31	M7.111213.152720	WG452870-14	CCB		1		11/12/13 15:27
32	M7.111213.152954	L13110363-05	202-EFF	40/40	1		11/12/13 15:29
33	M7.111213.153228	L13110363-06	202-EFF	40/40	1		11/12/13 15:32
34	M7.111213.153458	L13110363-07	EMERGENCY BASIN	40/40	1		11/12/13 15:34

Page: 1 Approved: November 15, 2013

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: CVAA1 Dataset: 111213E.CSV

Analyst1: PDM Analyst2: N/A

Method: 7470/245.1 SOP: ME404 Rev: 15

Maintenance Log ID: 48143

Calibration Std: STD61280 ICV Std: STD61274 Post Spike: STD61280

ICSA: N/A ICSAB: N/A Int. Std:

CCV: LLCCV: Tuning Sol :

Stannous : RGT27563 Hydroxylamine : RGT27561

Workgroups: 452436

Comments: Sequences 11 through 17 were not reported due to LCS noncompliance.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	M7.111213.153729	L13110363-08	EMERGENCY BASIN	40/40	1		11/12/13 15:37
36	M7.111213.153959	L13110465-01	MPL 29-1113-1	40/40	1		11/12/13 15:39
37	M7.111213.154231	L13110465-02	MPL 7-1113-1	40/40	1		11/12/13 15:42
38	M7.111213.154502	L13110465-03	MPL 5-1113-1	40/40	1		11/12/13 15:45
39	M7.111213.154734	WG452170-02	Reference Sample	40/40	1	L13110472-01	11/12/13 15:47
40	M7.111213.155006	WG452170-08	Duplicate	40/40	1	L13110472-01	11/12/13 15:50
41	M7.111213.155238	L13110476-01	13029-FT2-03	40/40	1		11/12/13 15:52
42	M7.111213.155510	WG452870-15	CCV		1		11/12/13 15:55
43	M7.111213.155741	WG452870-16	CCB		1		11/12/13 15:57
44	M7.111213.160014	L13110508-01	1311-112-1	40/40	1		11/12/13 16:00
45	M7.111213.160247	L13110518-03	AV-OU7-EB1-110713	40/40	1		11/12/13 16:02
46	M7.111213.160520	WG452870-17	CCV		1		11/12/13 16:05
47	M7.111213.160750	WG452870-18	CCB		1		11/12/13 16:07

Comments

Seq.	Rerun	Dil.	Reason	Analytes
45			Edited due to typographical error.	

Page: 2 Approved: November 15, 2013

Maren Berry

Microbac Laboratories Inc.

Data Checklist

Date: 12-NOV-2013
Analyst: PDM
Analyst: NA
Method: 7470/245.1
Instrument: CVAA1
Curve Workgroup: 452870
Runlog ID: 57100
Analytical Workgroups: 452436

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0465,0518
Client Forms	X
Level X	
Level 3	
Level 4	0465,0518
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
14-NOV-2013
Pierce Morris

Secondary Reviewer:
15-NOV-2013
Maren Berry

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-15-2013 14:40:00

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 7470A **AAB#:** WG452436

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/11/2013	3.9	28		11/12/13	5.2	28	
MPL 7-1113-1	02	11/07/13					11/11/2013	3.8	28		11/12/13	5.1	28	
MPL 5-1113-1	03	11/07/13					11/11/2013	3.8	28		11/12/13	5	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3203491
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG452436
Blank File ID:	M7.111213.145926	Blank Sample ID:	WG452170-03
Prep Date:	11/11/13 09:26	Instrument ID:	CVAA1
Analyzed Date:	11/12/13 14:59	Method:	7470A
Analyst:	PDM		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452170-04	M7.111213.150157	11/12/13 15:01	01
FLT_BLK	WG452170-05	M7.111213.150429	11/12/13 15:04	01
MPL 29-1113-1	L13110465-01	M7.111213.153959	11/12/13 15:39	01
MPL 7-1113-1	L13110465-02	M7.111213.154231	11/12/13 15:42	01
MPL 5-1113-1	L13110465-03	M7.111213.154502	11/12/13 15:45	01
DUP	WG452170-08	M7.111213.155006	11/12/13 15:50	01

Report Name: BLANK_SUMMARY
PDF File ID: 3203492
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/11/13 09:26 Sample ID: WG452170-03
Instrument ID: CVAA1 Run Date: 11/12/13 14:59 Prep Method: 7470A
File ID: M7.111213.145926 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG452436 Matrix: Water Units: mg/L
Contract #: Cal ID: CVAA1-12-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Mercury	0.000100	0.000200	0.000100	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3203493
14-NOV-2013 14:03

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452170-04
Instrument ID: CVAA1 Run Time: 15:01 Prep Method: 7470A
File ID: M7.111213.150157 Analyst: PDM Method: 7470A
Workgroup (AAB#): WG452436 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD61272 Cal ID: CVAA1-12-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury	0.00400	0.00396	99.1	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 3203494
Report generated: 11/14/2013 14:03

Microbac Laboratories Inc.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L13110465 Cal ID: CVAA1 - Worknum: WG452436

Instrument ID: CVAA1 Contract #: Method: 7470A

Parent ID: WG452170-01 File ID: M7.111213.151437 Dil: 1 Matrix: WATER

Sample ID: WG452170-06 MS File ID: M7.111213.151710 Dil: 1 Units: mg/L

Sample ID: WG452170-07 MSD File ID: M7.111213.151943 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Mercury	ND	0.00444	0.00411	92.5	0.00444	0.00416	93.6	1.21	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

WG_MS_MSD_DRYWT - Modified 05/26/2011

PDF File ID: 3206612

Report generated 11/15/2013 14:43

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L13110465 **Worknum:** WG452436
Instrument ID: CVAA1 **Method:** 7470A
Post Spike ID: WG452436-01 **File ID:** M7.111213.150933 **Dil:** 1 **Units:** ug/L
Sample ID: L13110363-01 **File ID:** M7.111213.150701 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
MERCURY	1.07		0	U	1	107.3	85 - 115	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 3203490
Report generated: 11/14/2013 14:09

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L13110465
Analytical Method: 7470A
ICAL Worknum: WG452870

Workgroup (AAB#): WG452436
Instrument ID: CVAA1
Initial Calibration Date: 11/12/2013 14:20

Analyte	WG452870-01		WG452870-02		WG452870-03		WG452870-04		WG452870-05		WG452870-06	
	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT
Mercury	0	26.16	0.200	1843	1.00	9625	2.00	18840	5.00	48090	10.0	96970

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_HG_FU - Modified 03/06/2008
PDF File ID: 3203495
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L13110465
Analytical Method: 7470A
ICAL Worknum: WG452870

Workgroup (AAB#): WG452436
Instrument ID: CVAA1
Initial Calibration Date: 11/12/2013 14:20

Analyte	R	Q
Mercury	1.000	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995

INT_CAL_HG_FU - Modified 03/06/2008
PDF File ID: 3203495
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452870-08
Instrument ID: CVAA1 Run Time: 14:25 Method: 7470A
File ID: M7.111213.142553 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG452436 Cal ID: CVAA1 - 12-NOV-13
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
MERCURY	.1	.2	.1	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3203497
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L13110465	Run Date:	11/12/2013	Sample ID:	WG452870-10
Instrument ID:	CVAA1	Run Time:	14:30	Method:	7470A
File ID:	M7.111213.143056	Analyst:	PDM	Units:	ug/L
Workgroup (AAB#):	WG452436	Cal ID:	CVAA1 - 12-NOV-13		
Matrix:	WATER	QAPP:	DOD4_NOFLAG		

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3203499
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L13110465	Run Date:	11/12/2013	Sample ID:	WG452870-12
Instrument ID:	CVAA1	Run Time:	14:56	Method:	7470A
File ID:	M7.111213.145655	Analyst:	PDM	Units:	ug/L
Workgroup (AAB#):	WG452436	Cal ID:	CVAA1 - 12-NOV-13		
Matrix:	WATER	QAPP:	DOD4_NOFLAG		

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3203499
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L13110465	Run Date:	11/12/2013	Sample ID:	WG452870-14
Instrument ID:	CVAA1	Run Time:	15:27	Method:	7470A
File ID:	M7.111213.152720	Analyst:	PDM	Units:	ug/L
Workgroup (AAB#):	WG452436	Cal ID:	CVAA1 - 12-NOV-13		
Matrix:	WATER	QAPP:	DOD4_NOFLAG		

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3203499
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L13110465	Run Date:	11/12/2013	Sample ID:	WG452870-16
Instrument ID:	CVAA1	Run Time:	15:57	Method:	7470A
File ID:	M7.111213.155741	Analyst:	PDM	Units:	ug/L
Workgroup (AAB#):	WG452436	Cal ID:	CVAA1 - 12-NOV-13		
Matrix:	WATER	QAPP:	DOD4_NOFLAG		

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3203499
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452870-07
Instrument ID: CVAA1 Run Time: 14:23 Method: 7470A
File ID: M7.111213.142322 Analyst: PDM Units: ug/L
Workgroup (AAB#): WG452436 Cal ID: CVAA1 - 12-NOV-13
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Mercury		2	1.93	96.6	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3203496
Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452870-09

Instrument ID: CVAA1 Run Time: 14:28 Method: 7470A

File ID: M7.111213.142825 Analyst: PDM QC Key: DOD4

Workgroup (AAB#): WG452436 Cal ID: CVAA1 - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00194	mg/L	96.9	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3203498

Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452870-11

Instrument ID: CVAA1 Run Time: 14:54 Method: 7470A

File ID: M7.111213.145425 Analyst: PDM QC Key: DOD4

Workgroup (AAB#): WG452436 Cal ID: CVAA1 - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00195	mg/L	97.6	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3203498

Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452870-13

Instrument ID: CVAA1 Run Time: 15:24 Method: 7470A

File ID: M7.111213.152449 Analyst: PDM QC Key: DOD4

Workgroup (AAB#): WG452436 Cal ID: CVAA1 - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00198	mg/L	99.0	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3203498

Report generated 11/14/2013 14:03

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/12/2013 Sample ID: WG452870-15

Instrument ID: CVAA1 Run Time: 15:55 Method: 7470A

File ID: M7.111213.155510 Analyst: PDM QC Key: DOD4

Workgroup (AAB#): WG452436 Cal ID: CVAA1 - 12-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Mercury, Total		0.00200	0.00197	mg/L	98.4	80 - 120		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3203498

Report generated 11/14/2013 14:03

2.1.3.3 Raw Data

PDM

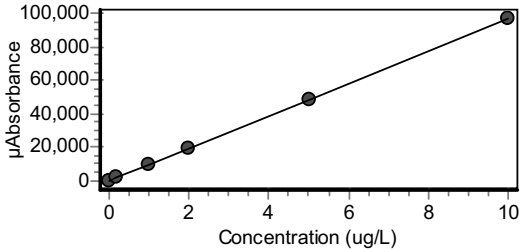
Report Generated By CETAC QuickTrace
Analyst: Mercury Analyzer
Worksheet file: C:\Program Files\QuickTrace\Worksheets\111213E.wsz
Date Started: 11/12/2013 2:05:14 PM
Comment:

Results

Sample Name					Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Flags	DF
Standard #0					STD	11/12/13 02:08:05 pm	0.0000	26	42.41		1.00
Replicates	18.5	36.3	35.0	14.8							
Standard #1 (0.2 ug/L)					STD	11/12/13 02:10:37 pm	0.2000	1843	3.42		1.00
Replicates	1794.4	1807.7	1835.0	1933.9							
Standard #2 (1.0 ug/L)					STD	11/12/13 02:13:08 pm	1.0000	9625	0.37		1.00
Replicates	9583.1	9616.1	9633.2	9667.6							
Standard #3 (2.0 ug/L)					STD	11/12/13 02:15:41 pm	2.0000	18836	0.23		1.00
Replicates	18793.6	18816.4	18841.1	18892.7							
Standard #4 (5.0 ug/L)					STD	11/12/13 02:18:14 pm	5.0000	48093	0.39		1.00
Replicates	47898.0	47994.9	48155.1	48325.8							
Standard #5 (10.0 ug/L)					STD	11/12/13 02:20:48 pm	10.0000	96970	0.44		1.00
Replicates	96485.7	96795.2	97119.2	97480.4							

Calibration

Equation: A = -188.015 + 9698.984C
R2: 0.99996
SEE: 265.0058
Flags:



ICV					ICV	11/12/13 02:23:22 pm	1.9310	18542	0.32		1.00
Replicates	18466.0	18527.7	18580.5	18594.7							
% Recovery	96.56										

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Sample Name					Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Flags	DF
ICB					ICB	11/12/13 02:25:53 pm	0.0212	17	28.62		1.00
	Replicates	23.4	14.6	19.1	12.1						
CCV					CCV	11/12/13 02:28:25 pm	1.9370	18600	0.43		1.00
	Replicates	18507.1	18581.5	18612.0	18699.3						
	% Recovery	96.86									
CCB					CCB	11/12/13 02:30:56 pm	0.0205	11	61.09		1.00
	Replicates	18.1	3.8	6.9	14.6						
WG452170-03					MB	11/12/13 02:33:27 pm	0.0226	31	32.28		1.00
	Replicates	25.4	22.7	45.2	31.1						
WG452170-04					LCS	11/12/13 02:35:58 pm	3.1080	29952	0.11	L	1.00
	Replicates	29926.4	29971.9	29987.5	29924.0						
	% Recovery	77.69									
WG452170-05					UNK	11/12/13 02:38:30 pm	0.0177	-16	73.95		1.00
	Replicates	-11.2	-6.0	-14.5	-33.6						
L1311036301					UNK	11/12/13 02:41:01 pm	0.0220	26	33.98		1.00
	Replicates	21.4	32.8	15.5	33.2						
WG452436-01					SPK	11/12/13 02:43:33 pm	1.0430	9932	0.45		1.00
	Replicates	9867.7	9934.9	9969.1	9954.6						
	% Recovery	102.13									
L1311036302					UNK	11/12/13 02:46:06 pm	0.0221	26	44.00		1.00
	Replicates	30.0	9.4	30.3	35.8						
L1311036303					UNK	11/12/13 02:48:38 pm	0.0259	63	9.22		1.00
	Replicates	61.9	61.7	71.0	57.2						
CCV					CCV	11/12/13 02:54:25 pm	1.9520	18745	0.72		1.00
	Replicates	18591.4	18689.6	18792.4	18906.8						
	% Recovery	97.60									
CCB					CCB	11/12/13 02:56:55 pm	0.0185	-9	208.75		1.00
	Replicates	1.7	10.4	-17.1	-29.9						

Reanalzyed with compliant LCS

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Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Flags	DF
WG452170-03				MB	11/12/13 02:59:26 pm	0.0175	-19	114.64		1.00
Replicates	13.2	-30.9	-29.3	-27.1						
WG452170-04				LCS	11/12/13 03:01:57 pm	3.9640	38257	0.14		1.00
Replicates	38266.2	38202.4	38232.1	38326.7						
% Recovery	99.10									
WG452170-05				UNK	11/12/13 03:04:29 pm	0.0176	-17	62.79		1.00
Replicates	-15.7	-18.0	-4.0	-30.0						
L1311036301				UNK	11/12/13 03:07:01 pm	0.0225	30	55.08		1.00
Replicates	25.5	25.9	15.4	54.0						
WG452436-01				SPK	11/12/13 03:09:33 pm	1.0730	10224	0.31		1.00
Replicates	10193.0	10204.9	10233.3	10263.1						
% Recovery	105.10									
L1311036302				UNK	11/12/13 03:12:05 pm	0.0221	26	37.37		1.00
Replicates	24.7	40.3	23.3	17.2						
L1311036303				UNK	11/12/13 03:14:37 pm	0.0231	36	48.42		1.00
Replicates	41.1	57.5	16.5	29.2						
WG452170-06				MSK	11/12/13 03:17:10 pm	3.7010	35703	0.13		1.00
Replicates	35693.8	35679.3	35667.8	35771.5						
% Recovery	91.93									
WG452170-07				MSDUP	11/12/13 03:19:43 pm	3.7460	36144	0.29		1.00
Replicates	36042.9	36087.3	36167.1	36278.8						
% Recovery	93.07	RPD 1.22								
L1311036304				UNK	11/12/13 03:22:17 pm	0.0192	-2	632.20		1.00
Replicates	15.6	-4.6	-17.8	-1.9						
CCV				CCV	11/12/13 03:24:49 pm	1.9800	19019	0.40		1.00
Replicates	18942.1	18984.1	19032.6	19118.4						
% Recovery	99.02									
CCB				CCB	11/12/13 03:27:20 pm	0.0226	31	26.17		1.00
Replicates	28.3	26.7	25.3	42.7						

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Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Flags	DF
L1311036305				UNK	11/12/13 03:29:54 pm	0.0243	48	17.45		1.00
Replicates	55.2	35.9	51.3	49.6						
L1311036306				UNK	11/12/13 03:32:28 pm	0.0204	10	79.07		1.00
Replicates	19.7	7.9	12.7	0.5						
L1311036307				UNK	11/12/13 03:34:58 pm	0.0259	63	28.21		1.00
Replicates	58.5	43.2	65.1	86.2						
L1311036308				UNK	11/12/13 03:37:29 pm	0.0894	679	2.66		1.00
Replicates	687.8	665.2	663.5	700.7						
L1311046501				UNK	11/12/13 03:39:59 pm	0.0212	17	105.31		1.00
Replicates	8.6	35.0	-4.0	29.5						
L1311046502				UNK	11/12/13 03:42:31 pm	0.0221	26	52.83		1.00
Replicates	16.2	41.5	12.9	34.0						
L1311046503				UNK	11/12/13 03:45:02 pm	0.0223	29	51.87		1.00
Replicates	38.1	6.6	33.1	36.6						
L1311047201				UNK	11/12/13 03:47:34 pm	0.0206	12	114.02		1.00
Replicates	-0.3	0.8	21.8	25.1						
WG452170-08				UNK	11/12/13 03:50:06 pm	0.0216	22	67.56		1.00
Replicates	24.3	19.2	40.2	4.2						
L1311047601				UNK	11/12/13 03:52:38 pm	0.5220	4875	0.82		1.00
Replicates	4829.0	4854.6	4914.1	4902.9						
CCV				CCV	11/12/13 03:55:10 pm	1.9680	18901	0.23		1.00
Replicates	18858.1	18877.3	18913.6	18956.6						
% Recovery	98.41									
CCB				CCB	11/12/13 03:57:41 pm	0.0200	6	118.33		1.00
Replicates	14.3	0.2	0.4	8.0						

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Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Flags	DF
L1311050801				UNK	11/12/13 04:00:14 pm	0.0277	80	14.22		1.00
Replicates	95.8	80.5	75.3	69.2						
~~L1311058103~~ L1311051803				UNK	11/12/13 04:02:47 pm	0.0212	18	79.51		1.00
Replicates	9.4	6.0	37.7	18.4						
CCV				CCV	11/12/13 04:05:20 pm	1.9980	19192	0.21		1.00
Replicates	19191.9	19143.8	19190.5	19241.5						
% Recovery	99.91									
CCB				CCB	11/12/13 04:07:50 pm	0.0209	14	115.69		1.00
Replicates	-2.3	13.5	37.0	8.9						

Approved: 11/14/2013 14:21

Pierce Morris

2.2 General Chemistry Data

2.2.1 Method 9056

2.2.1.1 Summary Data

Login Number: L13110465
Department: General Chromatography
Analyst: Jeremy Kinney

METHOD

Analysis EPA300.0/SW846 9056

HOLDING TIMES

Sample Analysis: Hold times for NO2 and NO3 are 48 hours and the hold times for F, Cl, Br, and SO4 are 28 days. The hold time forms calculate the hold time based on 48 hours. All samples were analyzed in hold.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Samples: All fractions were analyzed at dilutions only due to one or more of the target analyte(s) being near or greater than the ICAL.

MANUAL INTEGRATION: No manual integration was required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74802
Approved By: Eric Lawson

Microbac

Lab Report #: L13110465
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL 29-1113-1	**Prep Method:**	300.0	**Prep Date:**	11/19/2013 09:16
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	11/05/2013 14:51
Workgroup #:	WG453381	**Analyst:**	JBK	**Run Date:**	11/19/2013 14:43
Collect Date:	11/07/2013 11:00	**Dilution:**	5	**File ID:**	I2_111913-22
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	54.7		1.00	0.500
Fluoride	16984-48-8		U	1.00	0.500
Sulfate	14808-79-8	122		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL 7-1113-1	**Prep Method:**	300.0	**Prep Date:**	11/19/2013 09:16
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	11/05/2013 14:51
Workgroup #:	WG453381	**Analyst:**	JBK	**Run Date:**	11/19/2013 15:00
Collect Date:	11/07/2013 13:05	**Dilution:**	5	**File ID:**	I2_111913-23
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	111		1.00	0.500
Fluoride	16984-48-8		U	1.00	0.500
Sulfate	14808-79-8	136		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	IC2
Client ID:	MPL 5-1113-1	**Prep Method:**	300.0	**Prep Date:**	11/19/2013 09:16
Matrix:	Water	**Analytical Method:**	300.0	**Cal Date:**	11/05/2013 14:51
Workgroup #:	WG453381	**Analyst:**	JBK	**Run Date:**	11/19/2013 15:17
Collect Date:	11/07/2013 15:00	**Dilution:**	2	**File ID:**	I2_111913-24
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	44.3		0.400	0.200
Fluoride	16984-48-8	0.402		0.400	0.200
Sulfate	14808-79-8	51.0		2.00	1.00

2.2.1.2 QC Summary Data

Example Calculations - Ion Chromatography

A. Methods 9056/300.0 (Quadratic with Offset)

1. Retrieve Curve Data from the ICAL Curve

c2 = the value of curve constant
c1= the curve slope
c0 = the curve offset

2. Obtain the area, y , from the instrument raw data

3. Calculate the concentration of the analyte, f(y), where:

$$f(y) = \frac{1}{2 * c_2} * \left(- c_1 \pm \sqrt{c_1^2 - 4 * c_2 * (c_0 - y)} \right)$$

Example Calculation:

Value of constant, c2, (curve):	0.0003
Value of curve constant, c1, (slope):	0.0869
Value of curve constant, c0, (offset):	-0.0103
Area of target analyte, y, (uS*min):	2.993
Calculated concentration, f(y), (mg/L):	31.1998864
or:	-40.1161215 *
Dilution factor (D):	1.00
Concentration of analyte in sample (mg/L):	31.200

* There are two possible solutions, but only one is valid.

B. Method 314.0 - Perchlorate (Linear)

Retrieve Curve Data from Linear Plot

c1 = the curve slope

Obtain the area, y , from the quantitation report

Calculate the concentration of the analyte, f(y), where:

f (y) = y / c1

Example Calculation:

Value of c1, slope:	0.0034
Area of target analyte, y:	0.083
Calculated concentration:	24.4117647
Dilution Factor:	1
Concentration in sample:	24.4117647

Microbac Laboratories Inc.

Instrument Run Log

Instrument: IC2 Dataset: 110513 ICAL IC2.SEQ
Analyst1: JBK Analyst2: NA
Method: 300/9056 SOP: IC01 Rev: 14

Maintenance Log ID: 48061 Syringe Filter Lot#: 00166429
Eluent ID#: RGT28541

Workgroups: Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM
WG451652 (ICAL) WG451655 (LOD/LOQ)

Internal STD: NA Surrogate STD: NA Calibration STD STD60856
CCV STD: STD60856 LCS STD: STD60857 MS/MSD STD: NA

Comments: WG451652 300/9056 ICAL
Q4 2013 WATER LOD/LOQ Verification

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I2_110513-01	WG451652-01 STD \#6	1	1		11/05/13 13:25
2	I2_110513-02	WG451652-02 STD \#5	1	1		11/05/13 13:42
3	I2_110513-03	WG451652-03 STD \#4	1	1		11/05/13 13:59
4	I2_110513-04	WG451652-04 STD \#3	1	1		11/05/13 14:17
5	I2_110513-05	WG451652-05 STD \#2	1	1		11/05/13 14:34
6	I2_110513-06	WG451652-06 STD \#1	1	1		11/05/13 14:51
7	I2_110513-07	WG451652-07 ALT SOURCE	1	1		11/05/13 15:08
8	I2_110513-08	L13100001-01 (F,CL,BR,SO4) LOD	1	1		11/05/13 15:26
9	I2_110513-09	L13100003-01 (F,CL,BR,SO4) LOQ	1	1		11/05/13 15:43
10	I2_110513-10	L13100001-01 (NO2,NO3) LOD	1	1		11/05/13 16:00
11	I2_110513-11	L13100003-01 (NO2,NO3) LOQ	1	1		11/05/13 16:17
12	I2_110513-12	LEVEL 4 (CCV/LCS)	1	1		11/05/13 16:34
13	I2_110513-13	LEVEL 6 (LCR)	1	1		11/05/13 16:52
14	I2_110513-14	WG451655-01 BLANK	1	1		11/05/13 17:09
15	I2_110513-15	END	1	1		11/05/13 17:26

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 1 Approved: 07-NOV-13

Microbac Laboratories Inc.

Instrument Run Log

Instrument: IC2 Dataset: 111913 IC2.SEQ
Analyst1: JBK Analyst2: NA
Method: 300/9056 SOP: IC01 Rev: 14

Maintenance Log ID: Syringe Filter Lot#: 0016900
Eluent ID#: RGT28739
Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM
Workgroups: WG453381 WG453383
Internal STD: NA Surrogate STD: NA Calibration STD STD60856 (11/05/13)
CCV STD: STD60856 LCS STD: STD60857 MS/MSD STD: STD60856

Comments: L13110507 (ALL)m L13110683-01, and L13110465 (ALL) dilutions due to concentrations of one or more of the target analyte(s) being near or greater than the ICAL.
I2_111913-53 - I2_111913-61 were all ran at incorrect dilutions and need RR.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
8	I2_111913-01	ELUENT	1	1		11/19/13 08:41
9	I2_111913-02	DI WATER	1	1		11/19/13 08:58
10	I2_111913-03	WG453582-01 ANION CCV	1	1		11/19/13 09:16
11	I2_111913-04	WG453582-02 ANION CCB	1	1		11/19/13 09:33
12	I2_111913-05	WG453381-01 ANION BLANK	1	1		11/19/13 09:50
13	I2_111913-06	WG453381-02 ANION LCS	1	1		11/19/13 10:07
1	I2_111913-07	L13110683-01 1/2 (CL,SO4)	1	2		11/19/13 10:24
2	I2_111913-08	L13110683-02 (CL,SO4)	1	1		11/19/13 10:42
3	I2_111913-09	L13110683-03 (CL,SO4)	1	1		11/19/13 10:59
4	I2_111913-10	L13110507-01 1/50 (SO4)	2	50		11/19/13 11:16
5	I2_111913-11	L13110507-03 1/50 (SO4)	2	50		11/19/13 11:33
6	I2_111913-12	L13110507-05 1/50 (SO4)	2	50		11/19/13 11:51
7	I2_111913-13	L13110507-07 1/50 (SO4)	2	50		11/19/13 12:08
14	I2_111913-14	L13110940-03 1/100 SO4	1	100		11/19/13 12:25
15	I2_111913-15	WG453582-03 ANION CCV	1	1		11/19/13 12:42
16	I2_111913-16	WG453582-04 ANION CCB	1	1		11/19/13 12:59
17	I2_111913-17	L13110940-04 1/100 SO4	1	100		11/19/13 13:17
18	I2_111913-18	L13110940-05 1/100 SO4	1	100		11/19/13 13:34
19	I2_111913-19	L13110940-06 1/50 SO4	1	50		11/19/13 13:51
20	I2_111913-20	L13110940-07 1/50 SO4	1	50		11/19/13 14:08
21	I2_111913-21	L13110940-08 1/100 SO4	1	100		11/19/13 14:26
22	I2_111913-22	L13110465-01 1/5 (F,CL,SO4)	1	1		11/19/13 14:43
23	I2_111913-23	L13110465-02 1/5 (F,CL,SO4)	1	1		11/19/13 15:00
24	I2_111913-24	L13110465-03 1/2 (F,CL,SO4)	1	1		11/19/13 15:17
25	I2_111913-25	L13110584-01 (F,CL,SO4)	1	1		11/19/13 15:34
26	I2_111913-26	WG453381-04 DUP 584-01	1	1		11/19/13 15:52
27	I2_111913-27	WG453582-05 ANION CCV	1	1		11/19/13 16:09
28	I2_111913-28	WG453582-06 ANION CCB	1	1		11/19/13 16:26
29	I2_111913-29	L13110584-02 MS	1	1		11/19/13 16:43
30	I2_111913-30	L13110584-03 SD	1	1		11/19/13 17:01
31	I2_111913-31	L13110744-01 1/5 (SO4)	2	5		11/19/13 17:18
32	I2_111913-32	L13110749-14 1/5 (SO4)	2	5		11/19/13 17:35
33	I2_111913-33	L13110749-15 (SO4)	2	1		11/19/13 17:52

Page: 1 Approved: 20-NOV-13

Microbac Laboratories Inc.

Instrument Run Log

Instrument: IC2 Dataset: 111913 IC2.SEQ

Analyst1: JBK Analyst2: NA

Method: 300/9056 SOP: IC01 Rev: 14

Maintenance Log ID: Syringe Filter Lot#: 0016900

Eluent ID#: RGT28739

Column 1 ID: AG14A-4MM Column 2 ID: AS14A-4MM

Workgroups: WG453381 WG453383

Internal STD: NA Surrogate STD: NA STD60856 (11/05/13)

CCV STD: STD60856 LCS STD: STD60857 STD60856

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
34	I2_111913-34	WG453383-01 ANION BLANK	2	1		11/19/13 18:09
35	I2_111913-35	WG453383-02 ANION LCS	2	1		11/19/13 18:27
36	I2_111913-36	L13110749-16 (SO4)	2	1		11/19/13 18:44
37	I2_111913-37	L13110749-18 1/5 (SO4)	2	5		11/19/13 19:01
38	I2_111913-38	L13110749-19 1/2 (SO4)	2	2		11/19/13 19:18
39	I2_111913-39	WG453582-07 ANION CCV	1	1		11/19/13 19:36
40	I2_111913-40	WG453582-08 ANION CCB	1	1		11/19/13 19:53
41	I2_111913-41	L13110749-23 (SO4)	2	1		11/19/13 20:10
42	I2_111913-42	L13110749-24 (SO4)	2	1		11/19/13 20:27
43	I2_111913-43	L13110749-25 1/10 (SO4)	2	10		11/19/13 20:44
44	I2_111913-44	L13110776-01 1/20 (SO4)	2	20		11/19/13 21:02
45	I2_111913-45	L13110777-01 (SO4)	2	1		11/19/13 21:19
46	I2_111913-46	L13110777-02 (SO4)	2	1		11/19/13 21:36
47	I2_111913-47	L13110777-03 (SO4)	2	1		11/19/13 21:53
48	I2_111913-48	L13110777-04 (SO4)	2	1		11/19/13 22:11
49	I2_111913-49	L13110777-05 (SO4)	2	1		11/19/13 22:28
50	I2_111913-50	L13110777-06 (SO4)	2	1		11/19/13 22:45
51	I2_111913-51	WG453582-09 ANION CCV	1	1		11/19/13 23:02
52	I2_111913-52	WG453582-10 ANION CCB	1	1		11/19/13 23:19
53	I2_111913-53	L13110781-01 (SO4)	2	1		11/19/13 23:37
54	I2_111913-54	L13110783-01 (SO4)	2	1		11/19/13 23:54
55	I2_111913-55	WG453383-03 REF	2	1		11/20/13 00:11
56	I2_111913-56	WG453383-04 DUP	2	1		11/20/13 00:28
57	I2_111913-57	WG453383-05 MS	2	1		11/20/13 00:46
58	I2_111913-58	WG453383-06 MSD	2	1		11/20/13 01:03
59	I2_111913-59	L13110787-01 1/20 (SO4)	2	20		11/20/13 01:20
60	I2_111913-60	L13110810-11 1/20 (SO4)	2	20		11/20/13 01:37
61	I2_111913-61	L13110810-12 1/20 (SO4)	2	20		11/20/13 01:54
62	I2_111913-62	COLUMN RINSE	1	1		11/20/13 02:12
63	I2_111913-63	WG453582-11 ANION CCV	1	1		11/20/13 02:29
64	I2_111913-64	WG453582-12 ANION CCB	1	1		11/20/13 02:46
65	I2_111913-65	END	1	1		11/20/13 03:03

Comments

Seq.	Rerun	Dil.	Reason	Analytes

Page: 2 Approved: 20-NOV-13

Microbac Laboratories Inc.

Data Checklist

Date: 05-NOV-2013
Analyst: JBK
Analyst: NA
Method: 300/9056
Instrument: IC2
Curve Workgroup: NA
Runlog ID: 56901
Analytical Workgroups: WG451652 (ICAL) WG451655 (LOD/LOQ)

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	NA
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	X
Window standard (FID)	NA
Initial Calibration	WG451652
Average RF	NA
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	X
Special standards	NA
Blanks	X
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual Integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	JBK
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
06-NOV-2013

Secondary Reviewer:
07-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-07-2013 12:45:40

Microbac Laboratories Inc.

Data Checklist

Date: 19-NOV-2013
Analyst: JBK
Analyst: NA
Method: 300/9056
Instrument: IC2
Curve Workgroup: NA
Runlog ID: 57188
Analytical Workgroups: 11-465, 507, 584, 683, 744, 749, 776, 777, 940

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	NA
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	X
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	X
Special standards	NA
Blanks	X
TCL hits	NA
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual Integrations	NA
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	JBK
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
20-NOV-2013

Secondary Reviewer:
20-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-20-2013 12:56:11

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 300.0 AAB#: WG453381

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/19/2013	11.9	2	*	11/19/13	12.2	2	*
MPL 7-1113-1	02	11/07/13					11/19/2013	11.8	2	*	11/19/13	12.1	2	*
MPL 5-1113-1	03	11/07/13					11/19/2013	11.8	2	*	11/19/13	12	2	*

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3215017
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG453381
Blank File ID:	I2_111913-05	Blank Sample ID:	WG453381-01
Prep Date:	11/19/13 09:16	Instrument ID:	IC2
Analyzed Date:	11/19/13 09:50	Method:	300.0
Analyst:	JBK		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG453381-02	I2_111913-06	11/19/13 10:07	01
MPL 29-1113-1	L13110465-01	I2_111913-22	11/19/13 14:43	DL01
MPL 7-1113-1	L13110465-02	I2_111913-23	11/19/13 15:00	DL01
MPL 5-1113-1	L13110465-03	I2_111913-24	11/19/13 15:17	DL01
DUP	WG453381-04	I2_111913-26	11/19/13 15:52	01

Report Name: BLANK_SUMMARY
PDF File ID: 3215018
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/19/13 09:16 Sample ID: WG453381-01
Instrument ID: IC2 Run Date: 11/19/13 09:50 Prep Method: 300.0
File ID: I2 111913-05 Analyst: JBK Method: 300.0
Workgroup (AAB#): WG453381 Matrix: Water Units: mg/L
Contract #: Cal ID: IC2-05-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Chloride	0.100	0.200	0.100	1	U
Fluoride	0.100	0.200	0.100	1	U
Sulfate	0.500	1.00	0.500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3215019
20-NOV-2013 16:19

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Run Date:** 11/19/2013 **Sample ID:** WG453381-02
Instrument ID: IC2 **Run Time:** 10:07 **Prep Method:** 300.0
File ID: I2_111913-06 **Analyst:** JBK **Method:** 300.0
Workgroup (AAB#): WG453381 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD60856 **Cal ID:** IC2-05-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Chloride	8.00	7.83	97.8	90 - 110	
Fluoride	8.00	7.37	92.1	90 - 110	
Sulfate	40.0	39.4	98.6	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 3215020
Report generated: 11/20/2013 16:19

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L13110465
Analytical Method: 300.0
ICAL Workgroup: WG451652

Instrument ID: IC2
Initial Calibration Date: 05-NOV-13 14:51
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
Chloride		5.744	6.74	0.99900	
Fluoride		4.192	10.5	1.00000	
Sulfate		7.667	11.6	0.99800	

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 3215021
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L13110465
Analytical Method: 300.0
Instrument ID: IC2
Initial Calibration Date: 05-NOV-13 14:51
Column ID: F

Analyte	WG451652-01			WG451652-02			WG451652-03		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	24.0	4.68300000	5.125	12.0	2.15200000	5.576	8.00	1.38300000	5.785
Fluoride	24.0	6.40600000	3.746	12.0	3.07900000	3.897	8.00	1.99600000	4.008
Sulfate	120	18.5690000	6.462	60.0	8.43100000	7.117	40.0	5.37100000	7.447

INT_CAL - Modified 03/06/2008
PDF File ID: 3215021
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L13110465
Analytical Method: 300.0
Instrument ID: IC2
Initial Calibration Date: 05-NOV-13 14:51
Column ID: F

Analyte	WG451652-04			WG451652-05			WG451652-06		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	4.00	0.684000000	5.848	1.00	0.170000000	5.882	0.200	0.0320000000	6.250
Fluoride	4.00	0.980000000	4.082	1.00	0.233000000	4.292	0.200	0.0390000000	5.128
Sulfate	20.0	2.58700000	7.731	5.00	0.613000000	8.157	1.00	0.110000000	9.091

INT_CAL - Modified 03/06/2008
PDF File ID: 3215021
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L13110465 Run Date: 11/05/2013 Sample ID: WG451652-07
Instrument ID: IC2 Run Time: 15:08 Method: 300.0
File ID: I2_110513-07 Analyst: JBK QC Key: DOD4
ICal Workgroup: WG451652 Cal ID: IC2 - 05-NOV-13

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloride		8.00	7.83	mg/L	5.75	2.10	10	
Fluoride		8.00	7.97	mg/L	3.98	0.400	10	
Sulfate		40.0	39.4	mg/L	7.45	1.50	10	

* Exceeds %D Limit

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 3215022
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/19/2013 Sample ID: WG453582-02
Instrument ID: IC2 Run Time: 09:33 Method: 300.0
File ID: I2_111913-04 Analyst: JBK Units: mg/L
Workgroup (AAB#): WG453381 Cal ID: IC2 - 05-NOV-13
Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3215024
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/19/2013 Sample ID: WG453582-04

Instrument ID: IC2 Run Time: 12:59 Method: 300.0

File ID: I2_111913-16 Analyst: JBK Units: mg/L

Workgroup (AAB#): WG453381 Cal ID: IC2 - 05-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3215024
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L13110465 Run Date: 11/19/2013 Sample ID: WG453582-06

Instrument ID: IC2 Run Time: 16:26 Method: 300.0

File ID: I2_111913-28 Analyst: JBK Units: mg/L

Workgroup (AAB#): WG453381 Cal ID: IC2 - 05-NOV-13

Matrix: WATER QAPP: DOD4_NOFLAG

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3215024
Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/19/2013 Sample ID: WG453582-01

Instrument ID: IC2 Run Time: 09:16 Method: 300.0

File ID: I2_111913-03 Analyst: JBK QC Key: DOD4

Workgroup (AAB#): WG453381 Cal ID: IC2 - 05-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.78	mg/L	5.78	2.71	10	
Fluoride		8.00	7.26	mg/L	4.37	9.21	10	
Sulfate		40.0	39.6	mg/L	7.42	1.11	10	

* Exceeds %D Criteria

CCV - Modified 03/05/2008

PDF File ID: 3215023

Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/19/2013 Sample ID: WG453582-03

Instrument ID: IC2 Run Time: 12:42 Method: 300.0

File ID: I2_111913-15 Analyst: JBK QC Key: DOD4

Workgroup (AAB#): WG453381 Cal ID: IC2 - 05-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.87	mg/L	5.72	1.60	10	
Fluoride		8.00	7.58	mg/L	4.19	5.29	10	
Sulfate		40.0	39.9	mg/L	7.36	0.308	10	

* Exceeds %D Criteria

CCV - Modified 03/05/2008

PDF File ID: 3215023

Report generated 11/20/2013 16:19

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L13110465 Run Date: 11/19/2013 Sample ID: WG453582-05

Instrument ID: IC2 Run Time: 16:09 Method: 300.0

File ID: I2_111913-27 Analyst: JBK QC Key: DOD4

Workgroup (AAB#): WG453381 Cal ID: IC2 - 05-NOV-13

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		8.00	7.87	mg/L	5.72	1.64	10	
Fluoride		8.00	7.66	mg/L	4.15	4.31	10	
Sulfate		40.0	39.7	mg/L	7.39	0.683	10	

* Exceeds %D Criteria

CCV - Modified 03/05/2008

PDF File ID: 3215023

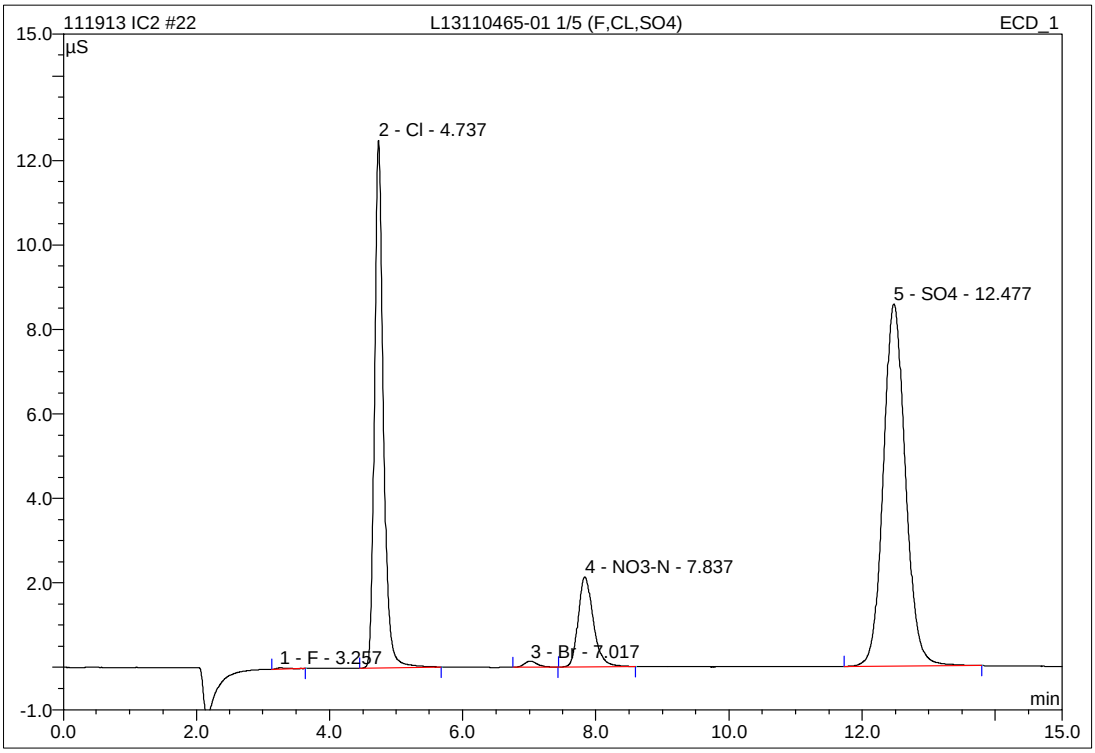
Report generated 11/20/2013 16:19

2.2.1.3 Sample Data

22 L13110465-01 1/5 (F,CL,SO4)

1,1 JBK

Sample Name:	**L13110465-01 1/5 (F,CL,SO4)**	*Injection Volume:*	**25.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 14:43**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

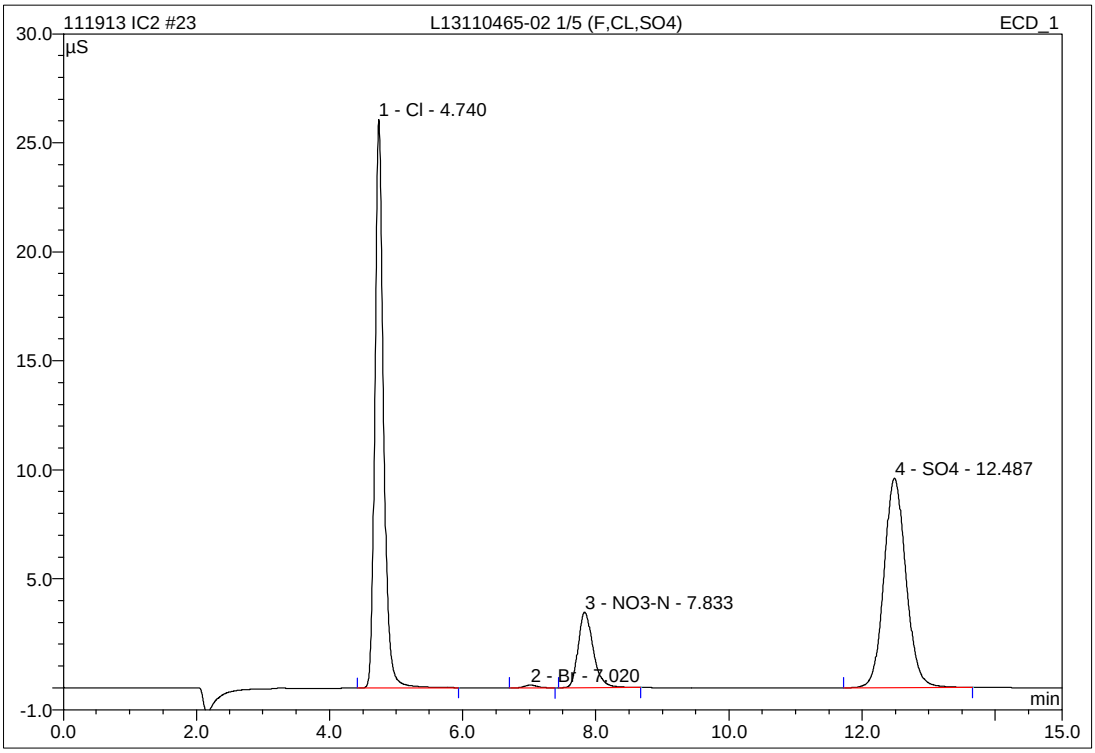


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.26	F	0.033	0.006	0.10	0.071	BMB
2	4.74	Cl	12.490	1.946	33.25	10.941	BMB
3	7.02	Br	0.142	0.033	0.56	0.480	BMB
4	7.84	NO3-N	2.128	0.561	9.60	1.300	BMB
5	12.48	SO4	8.576	3.305	56.49	24.323	BMB
Total:			23.369	5.851	100.00	37.115	

23 L13110465-02 1/5 (F,CL,SO4)

1,1 JBK

Sample Name:	**L13110465-02 1/5 (F,CL,SO4)**	*Injection Volume:*	**25.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 15:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

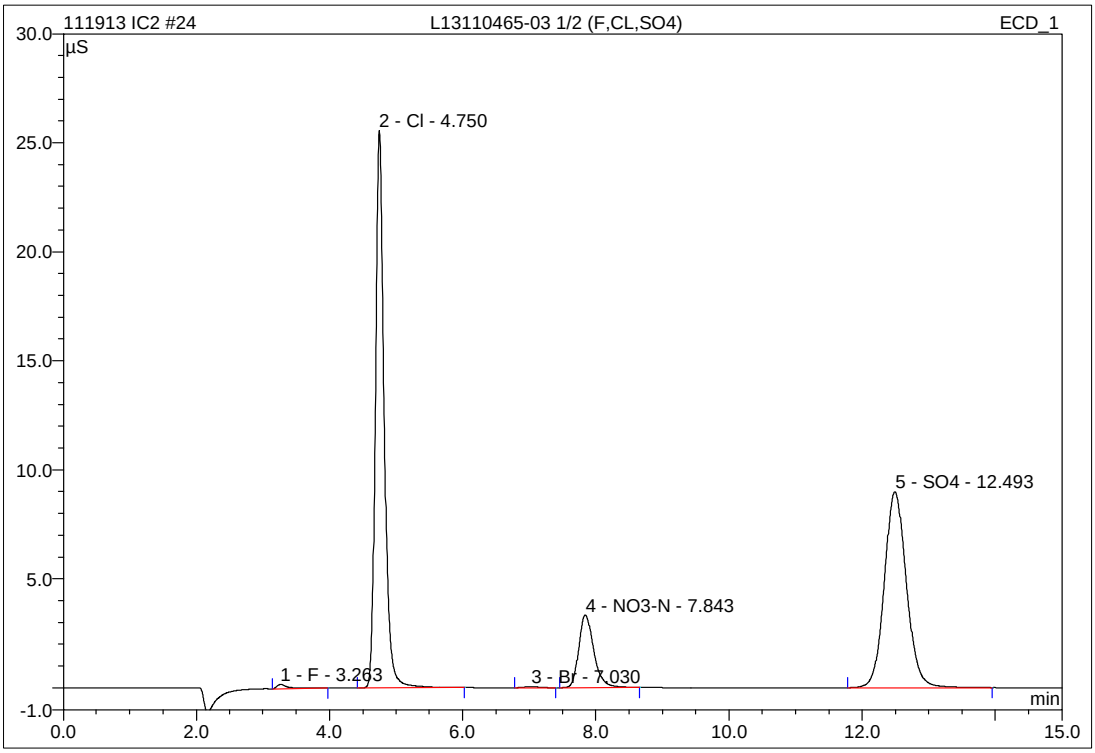


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	4.74	Cl	26.065	3.969	46.17	22.296	BMB
2	7.02	Br	0.126	0.028	0.33	0.419	BMB
3	7.83	NO3-N	3.464	0.911	10.60	2.098	BMB
4	12.49	SO4	9.605	3.688	42.90	27.117	BMB
Total:			39.261	8.596	100.00	51.930	

24 L13110465-03 1/2 (F,CL,SO4)

1,1 JBK

Sample Name:	**L13110465-03 1/2 (F,CL,SO4)**	*Injection Volume:*	**25.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 15:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



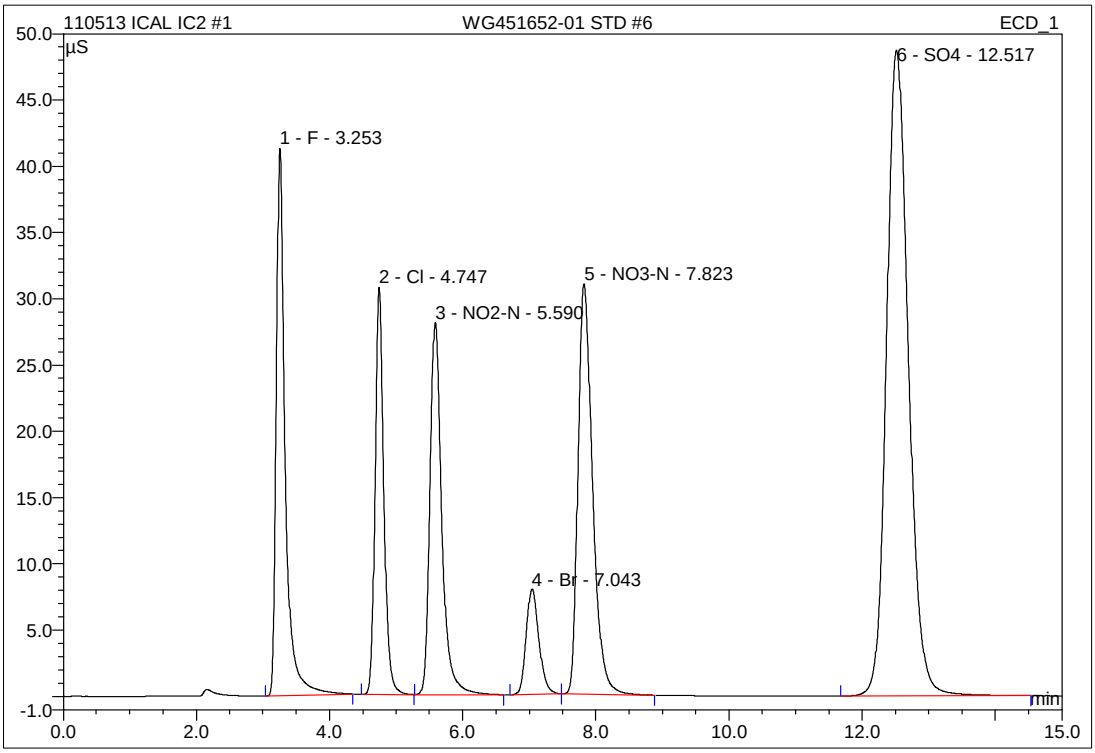
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.26	F	0.207	0.039	0.47	0.201	BMB
2	4.75	Cl	25.553	3.939	47.27	22.132	BMB
3	7.03	Br	0.055	0.013	0.15	0.200	BMB
4	7.84	NO3-N	3.335	0.874	10.49	2.013	BMB
5	12.49	SO4	8.990	3.469	41.62	25.518	BMB
Total:			38.140	8.334	100.00	50.065	

2.2.1.4 Standards Data

1 WG451652-01 STD #6

1,1 JBK STD60856

Sample Name:	**WG451652-01 STD #6**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 13:25**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

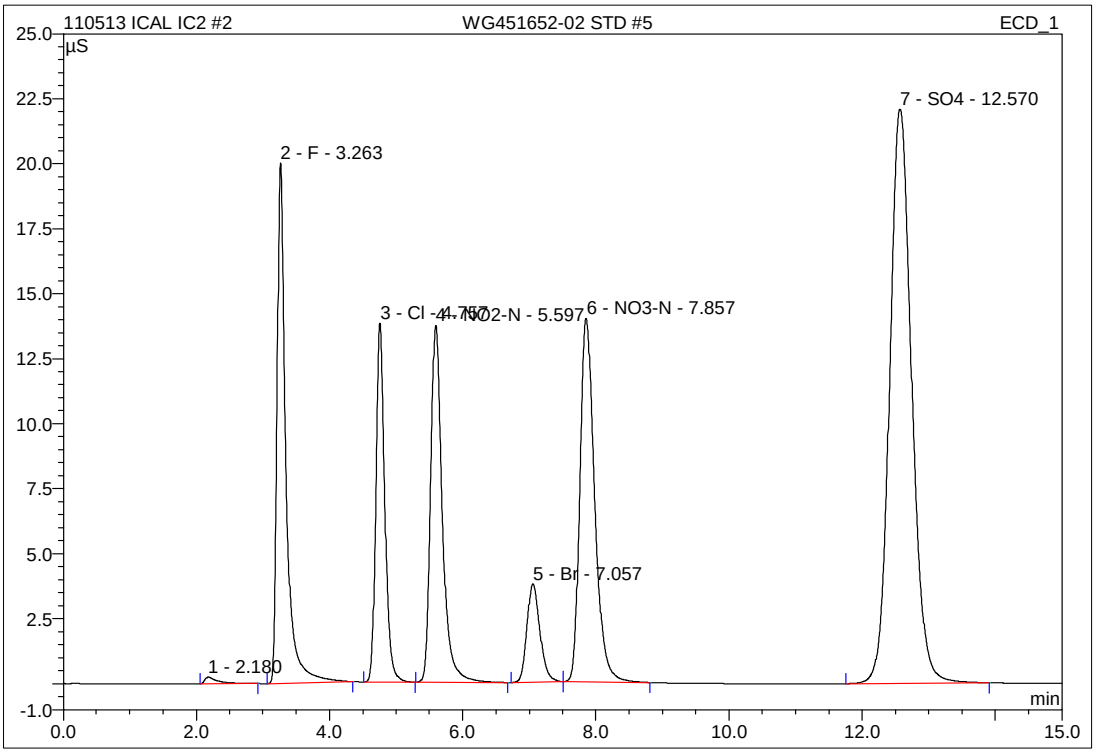


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.25	F	41.303	6.406	14.21	25.300	BMB
2	4.75	Cl	30.728	4.683	10.39	26.307	BMB
3	5.59	NO2-N	28.064	5.798	12.86	15.422	BMB
4	7.04	Br	7.961	1.773	3.93	24.982	BMb
5	7.82	NO3-N	30.966	7.847	17.41	17.918	bMB
6	12.52	SO4	48.745	18.569	41.19	135.697	BMB
Total:			187.767	45.076	100.00	245.626	

2 WG451652-02 STD #5

1,1 JBK STD60856

Sample Name:	**WG451652-02 STD #5**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 13:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

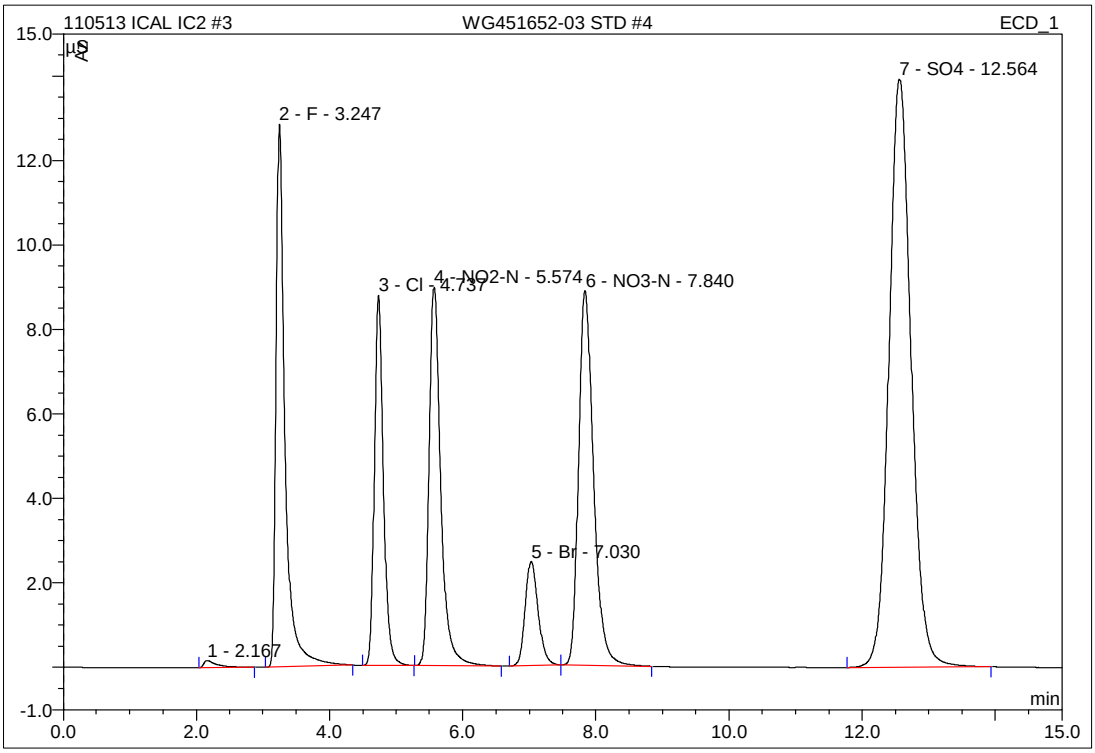


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.18	n.a.	0.260	0.058	0.28	n.a.	BMB
2	3.26	F	20.009	3.079	14.69	12.186	BMB
3	4.76	Cl	13.818	2.152	10.27	12.101	BMB
4	5.60	NO2-N	13.730	2.806	13.38	7.473	BMB
5	7.06	Br	3.779	0.855	4.08	12.058	BMb
6	7.86	NO3-N	13.987	3.584	17.09	8.194	bMB
7	12.57	SO4	22.080	8.431	40.21	61.723	BMB
Total:			87.664	20.966	100.00	113.735	

3 WG451652-03 STD #4

1,1 JBK STD60856

Sample Name:	**WG451652-03 STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 13:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

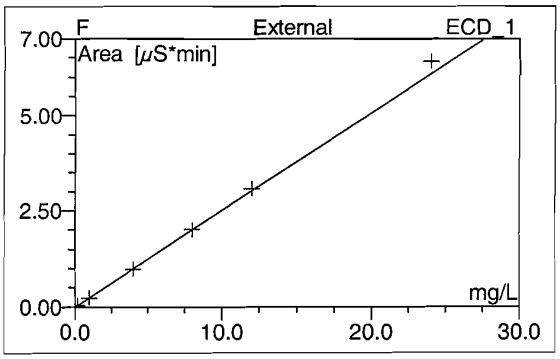


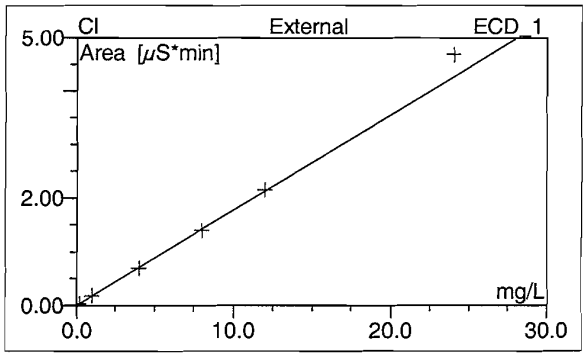
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.17	n.a.	0.167	0.038	0.28	n.a.	BMB
2	3.25	F	12.845	1.996	14.81	7.916	BMB
3	4.74	Cl	8.763	1.383	10.26	7.782	BMB
4	5.57	NO2-N	8.957	1.821	13.51	4.855	BMB
5	7.03	Br	2.466	0.561	4.16	7.918	BMb
6	7.84	NO3-N	8.875	2.307	17.12	5.283	bMB
7	12.56	SO4	13.920	5.371	39.85	39.396	BMB
Total:			55.994	13.476	100.00	73.150	

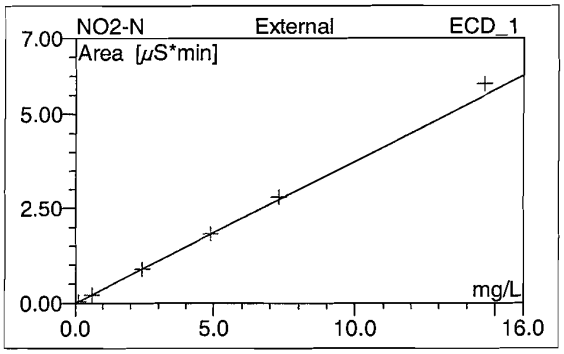
3 WG451652-03 STD #4

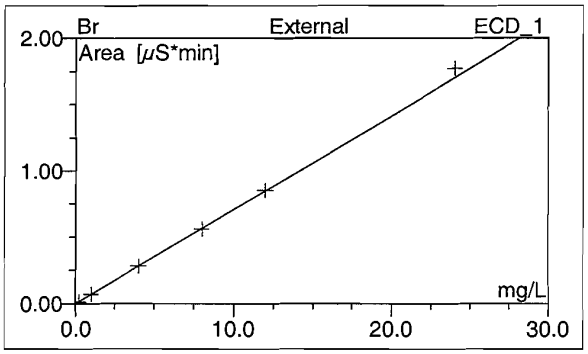
1,1 JBK STD60856

Sample Name:	**WG451652-03 STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 13:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**







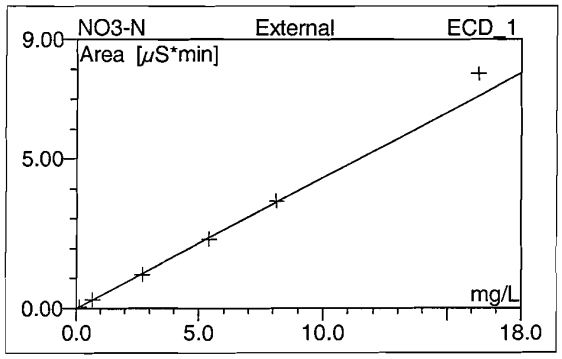


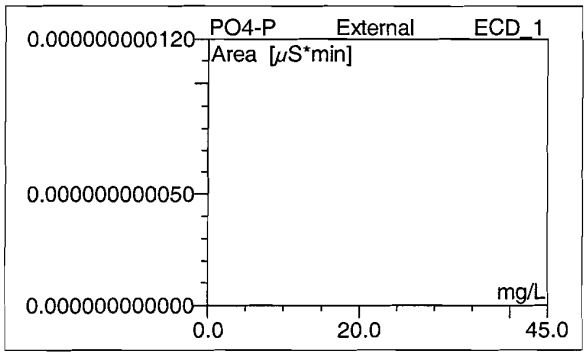
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.17	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	3.25	F	YYLOff	6	99.9470	-0.0122	0.2537	0.0000
3	4.74	Cl	YYLOff	6	99.8787	-0.0036	0.1782	0.0000
4	5.57	NO2-N	YYLOff	6	99.9222	-0.0069	0.3764	0.0000
5	7.03	Br	YYLOff	6	99.9712	-0.0014	0.0710	0.0000
6	7.84	NO3-N	YYLOff	6	99.8674	-0.0084	0.4384	0.0000
7	12.56	SO4	YYLOff	6	99.7509	-0.0283	0.1370	0.0000
Average:					99.8896	-0.0101	0.2425	0.0000

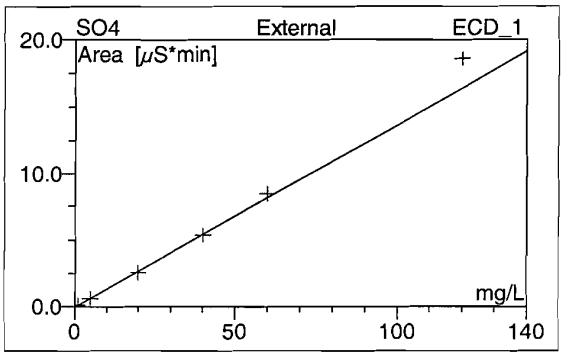
3 WG451652-03 STD #4

1,1 JBK STD60856

Sample Name:	**WG451652-03 STD #4**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 13:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**





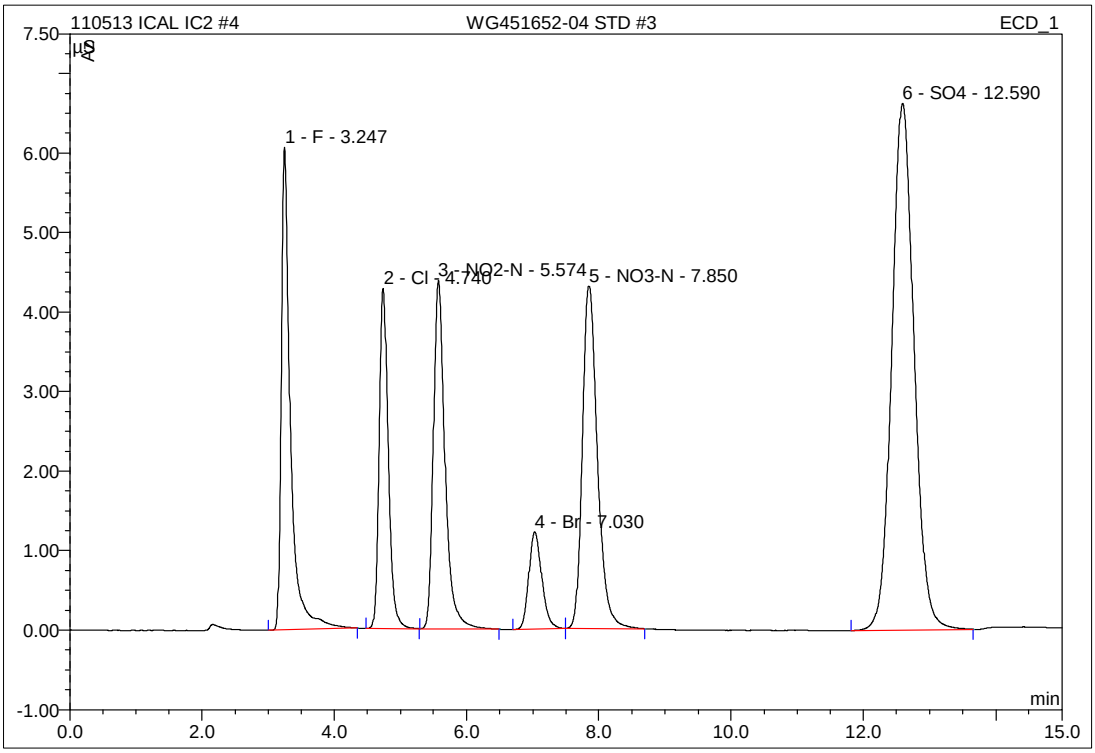


No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	2.17	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	3.25	F	YYLOff	6	99.9470	-0.0122	0.2537	0.0000
3	4.74	Cl	YYLOff	6	99.8787	-0.0036	0.1782	0.0000
4	5.57	NO2-N	YYLOff	6	99.9222	-0.0069	0.3764	0.0000
5	7.03	Br	YYLOff	6	99.9712	-0.0014	0.0710	0.0000
6	7.84	NO3-N	YYLOff	6	99.8674	-0.0084	0.4384	0.0000
7	12.56	SO4	YYLOff	6	99.7509	-0.0283	0.1370	0.0000
Average:					99.8896	-0.0101	0.2425	0.0000

4 WG451652-04 STD #3

1,1 JBK STD60856

Sample Name:	**WG451652-04 STD #3**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 14:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

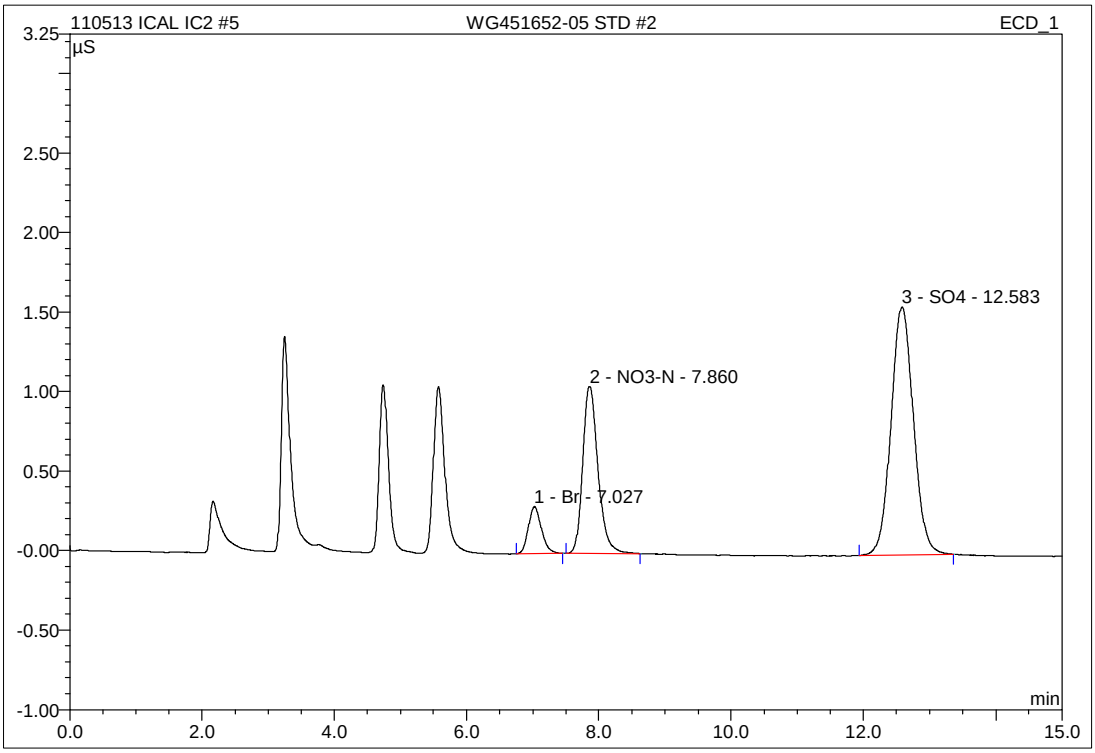


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.25	F	6.072	0.980	14.94	3.910	BMB
2	4.74	Cl	4.273	0.684	10.43	3.861	BMB
3	5.57	NO2-N	4.380	0.893	13.62	2.391	BMB
4	7.03	Br	1.223	0.280	4.27	3.963	BMB
5	7.85	NO3-N	4.307	1.134	17.29	2.606	BMB
6	12.59	SO4	6.622	2.587	39.45	19.084	BMB
Total:			26.878	6.559	100.00	35.816	

5 WG451652-05 STD #2

1,1 JBK STD60856

Sample Name:	**WG451652-05 STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 14:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

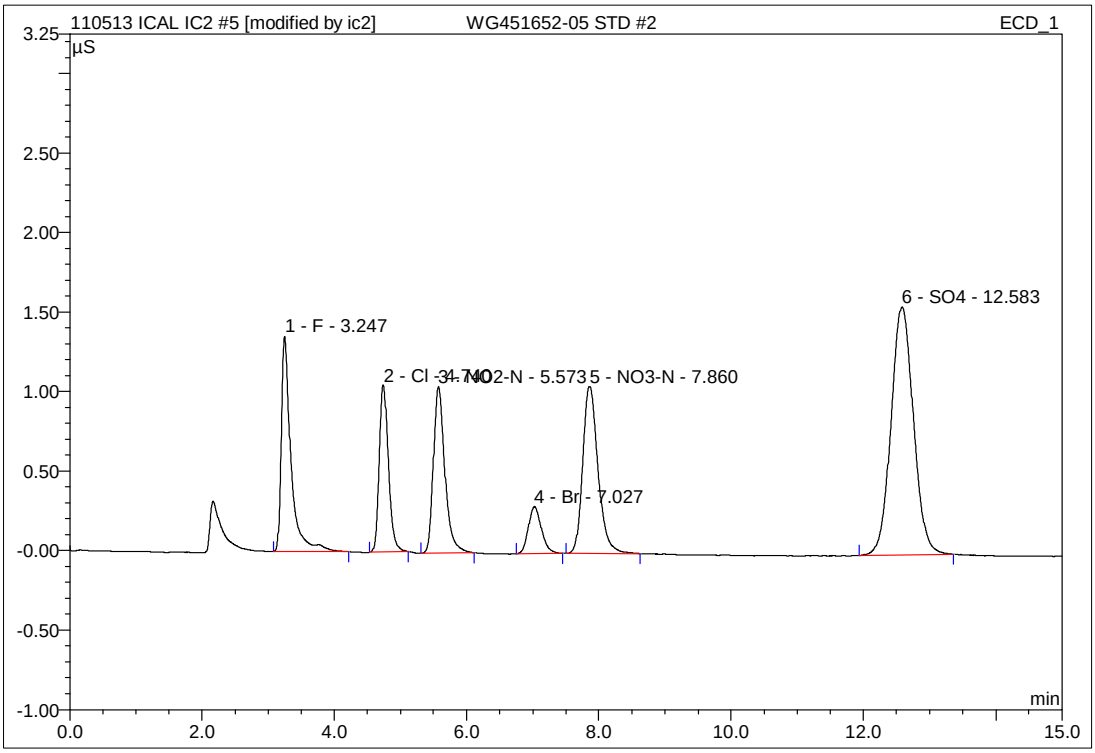


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	7.03	Br	0.296	0.068	7.05	0.974	BMB
2	7.86	NO3-N	1.050	0.281	29.20	0.659	BMB
3	12.58	SO4	1.559	0.613	63.75	4.678	BMB
Total:			2.904	0.961	100.00	6.311	

5 WG451652-05 STD #2

1,1 JBK STD60856

Sample Name:	**WG451652-05 STD #2**	*Injection Volume:*	**25.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 14:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.25	F	1.355	0.233	14.82	0.968	BMB*
2	4.74	Cl	1.052	0.170	10.78	0.973	BMB*
3	5.57	NO2-N	1.046	0.210	13.36	0.577	BMB*
4	7.03	Br	0.296	0.068	4.30	0.974	BMB
5	7.86	NO3-N	1.050	0.281	17.82	0.659	BMB
6	12.58	SO4	1.559	0.613	38.91	4.678	BMB
Total:			6.357	1.575	100.00	8.830	

Chromeleon (c) Dionex 1996-2001
Version 6.80 SP1 Build 2238

IC/Integration

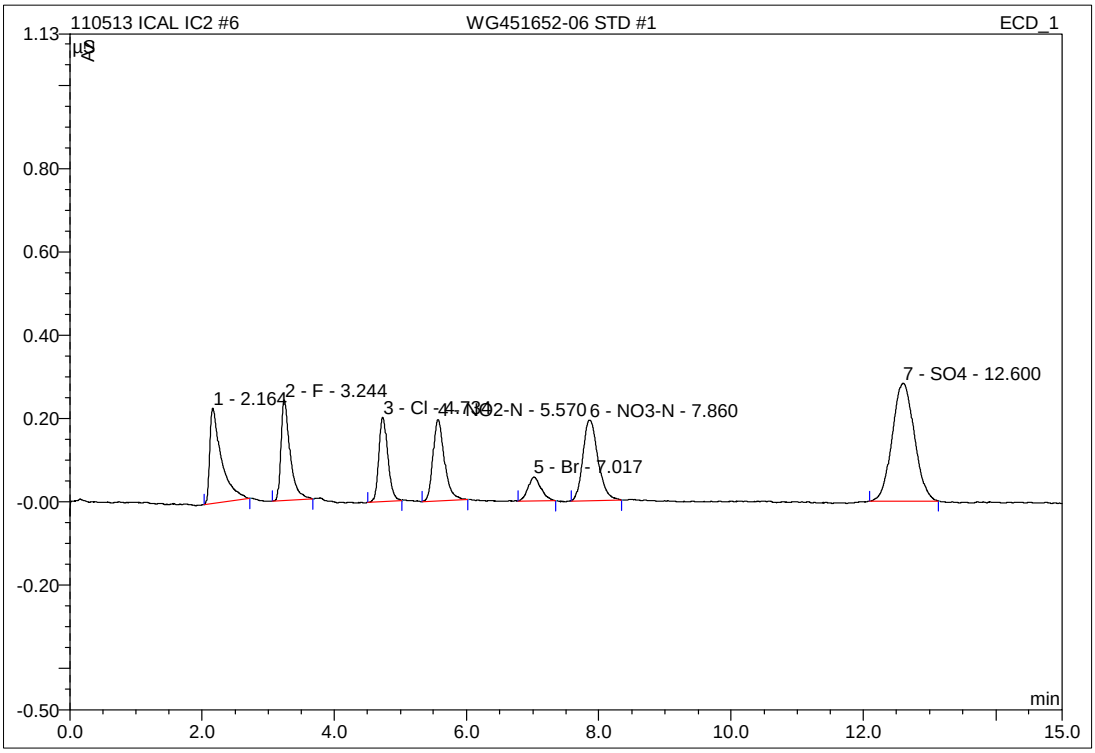
Analyst: 11/06/2013 08:21 Supervisor: 11/07/2013 12:49

#1 - Data system fails to select correct peak

6 WG451652-06 STD #1

1,1 JBK STD60856

Sample Name:	**WG451652-06 STD #1**	*Injection Volume:*	**25.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 14:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

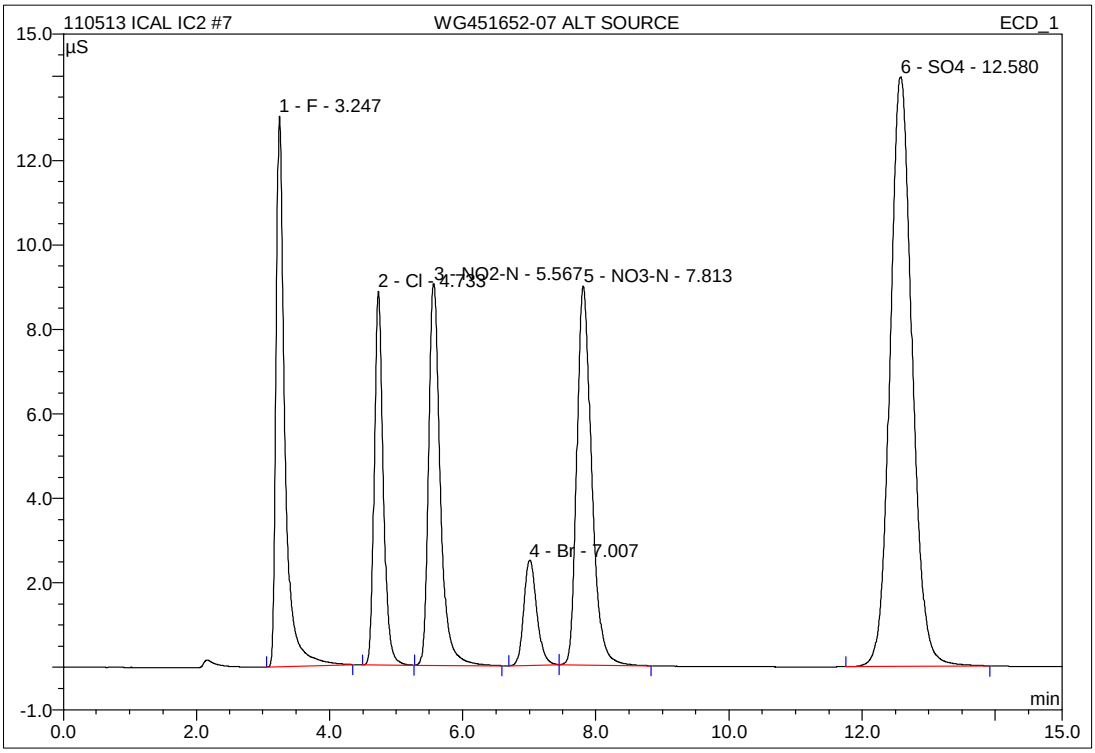


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.16	n.a.	0.229	0.048	14.28	n.a.	BMB
2	3.24	F	0.242	0.039	11.67	0.201	BMB
3	4.73	Cl	0.203	0.032	9.70	0.201	BMB
4	5.57	NO2-N	0.196	0.039	11.84	0.123	BMB
5	7.02	Br	0.057	0.013	3.88	0.201	BMB
6	7.86	NO3-N	0.194	0.051	15.45	0.136	BMB
7	12.60	SO4	0.284	0.110	33.18	1.012	BMB
Total:			1.403	0.333	100.00	1.874	

7 WG451652-07 ALT SOURCE

1,1 JBK STD60857

Sample Name:	**WG451652-07 ALT SOURCE**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 15:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.25	F	13.032	2.009	14.91	7.966	BMB
2	4.73	Cl	8.843	1.391	10.32	7.830	BMB
3	5.57	NO2-N	9.027	1.834	13.61	4.890	BMB
4	7.01	Br	2.487	0.560	4.15	7.901	BMB
5	7.81	NO3-N	8.964	2.312	17.15	5.292	bMB
6	12.58	SO4	13.961	5.370	39.85	39.392	BMB
Total:			56.315	13.476	100.00	73.272	

7 WG451652-07 ALT SOURCE

1,1 JBK STD60857

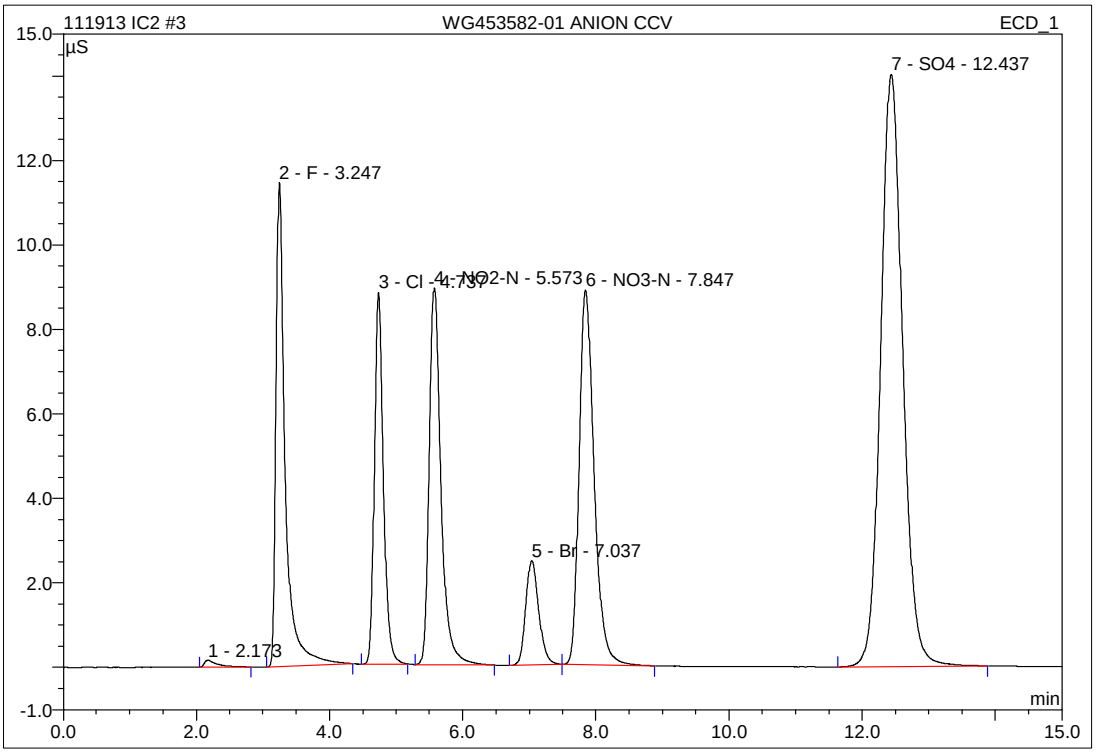
Sample Name:	**WG451652-07 ALT SOURCE**	*Injection Volume:*	**25.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/5/2013 15:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

WG451652-07 ALT	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.9663	-0.42	PASS
Cl	8	7.8299	-2.13	PASS
NO2-N	4.8714	4.8902	0.39	PASS
NO3-N	5.4216	5.2923	-2.39	PASS
Br	8	7.9011	-1.24	PASS
SO4	40	39.3923	-1.52	PASS
PO4-P	13.0456	n.a.	#VALUE!	#VALUE!

3 WG453582-01 ANION CCV

1,1 JBK STD60856 _____ psi @_____

Sample Name:	**WG453582-01 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 9:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.17	n.a.	0.166	0.037	0.28	n.a.	BMB
2	3.25	F	11.456	1.831	13.72	7.263	BMB
3	4.74	Cl	8.791	1.383	10.36	7.783	BMB
4	5.57	NO2-N	8.915	1.822	13.65	4.859	BMB
5	7.04	Br	2.473	0.564	4.22	7.958	BMB
6	7.85	NO3-N	8.873	2.317	17.36	5.304	BMB
7	12.44	SO4	14.023	5.393	40.41	39.555	BMB
Total:			54.698	13.345	100.00	72.721	

3 WG453582-01 ANION CCV

1,1 JBK STD60856 _____ psi @_____

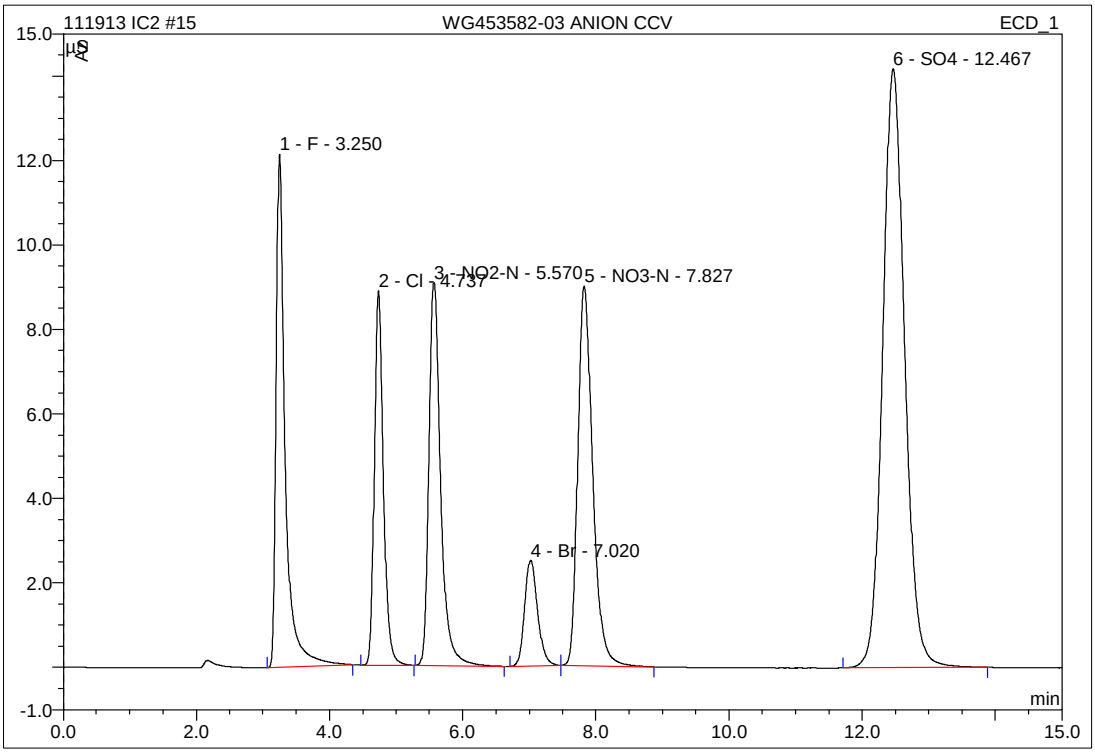
Sample Name:	**WG453582-01 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 9:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

WG453582-01 ANI	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.2632	-9.21	PASS
Cl	8	7.7826	-2.72	PASS
NO2-N	4.8714	4.8587	-0.26	PASS
NO3-N	5.4216	5.3035	-2.18	PASS
Br	8	7.9579	-0.53	PASS
SO4	40	39.5546	-1.11	PASS
PO4-P	13.0456	n.a.	#VALUE!	#VALUE!

15 WG453582-03 ANION CCV

1,1 JBK STD60856

Sample Name:	**WG453582-03 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 12:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.25	F	12.138	1.910	14.16	7.577	BMB
2	4.74	Cl	8.860	1.399	10.37	7.872	BMB
3	5.57	NO2-N	9.070	1.845	13.68	4.921	BMB
4	7.02	Br	2.501	0.566	4.19	7.985	BMb
5	7.83	NO3-N	8.987	2.334	17.30	5.342	bMB
6	12.47	SO4	14.176	5.437	40.30	39.877	BMB
Total:			55.732	13.491	100.00	73.575	

15 WG453582-03 ANION CCV

1,1 JBK STD60856

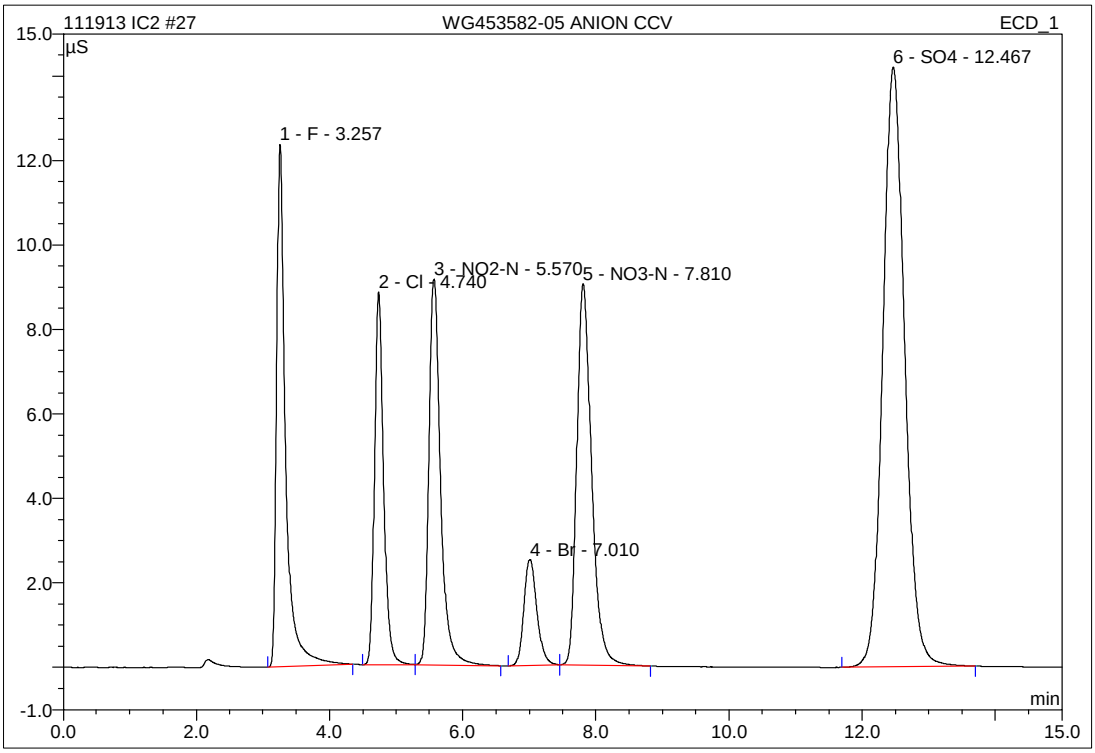
Sample Name:	**WG453582-03 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 12:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

WG453582-03 ANI	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.5774	-5.28	PASS
Cl	8	7.8725	-1.59	PASS
NO2-N	4.8714	4.9210	1.02	PASS
NO3-N	5.4216	5.3420	-1.47	PASS
Br	8	7.9850	-0.19	PASS
SO4	40	39.8771	-0.31	PASS
PO4-P	13.0456	n.a.	#VALUE!	#VALUE!

27 WG453582-05 ANION CCV

1,1 JBK STD60856

Sample Name:	**WG453582-05 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 16:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	3.26	F	12.361	1.930	14.32	7.655	BMB
2	4.74	Cl	8.826	1.398	10.38	7.869	BMB
3	5.57	NO2-N	9.124	1.840	13.65	4.907	BMB
4	7.01	Br	2.510	0.566	4.20	7.989	BMb
5	7.81	NO3-N	9.025	2.325	17.25	5.322	bMB
6	12.47	SO4	14.199	5.416	40.19	39.727	BMB
Total:			56.044	13.475	100.00	73.469	

27 WG453582-05 ANION CCV

1,1 JBK STD60856

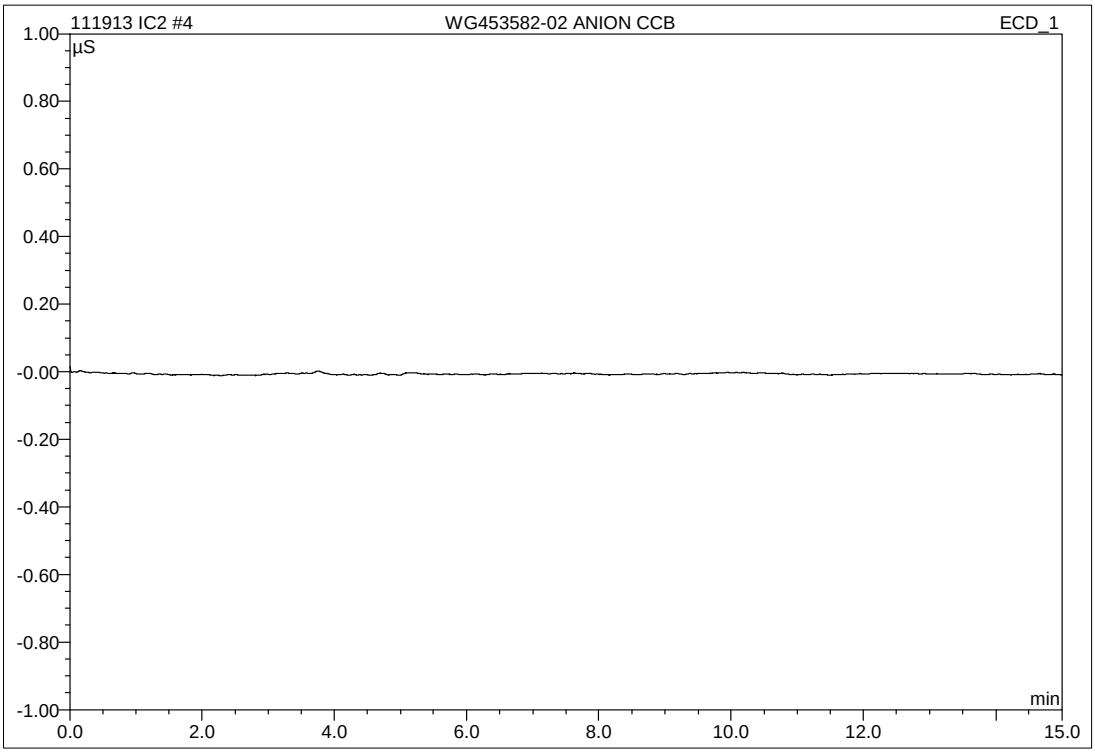
Sample Name:	**WG453582-05 ANION CCV**	*Injection Volume:*	**25.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 16:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

WG453582-05 ANI	Actual mg/L	Recovered mg/L	%Difference	
F	8.00	7.6554	-4.31	PASS
Cl	8	7.8687	-1.64	PASS
NO2-N	4.8714	4.9066	0.72	PASS
NO3-N	5.4216	5.3225	-1.83	PASS
Br	8	7.9890	-0.14	PASS
SO4	40	39.7265	-0.68	PASS
PO4-P	13.0456	n.a.	#VALUE!	#VALUE!

4 WG453582-02 ANION CCB

1,1 JBK

Sample Name:	**WG453582-02 ANION CCB**	*Injection Volume:*	**25.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 9:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

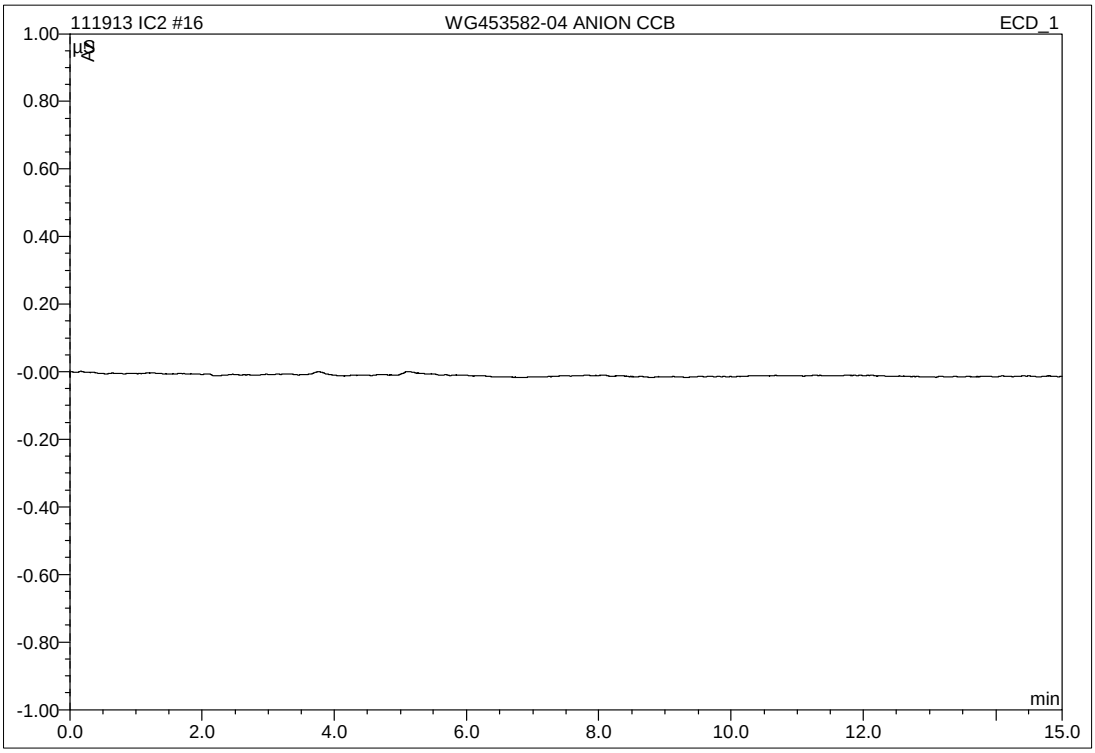


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

16 WG453582-04 ANION CCB

1,1 JBK

Sample Name:	**WG453582-04 ANION CCB**	*Injection Volume:*	**25.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 12:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

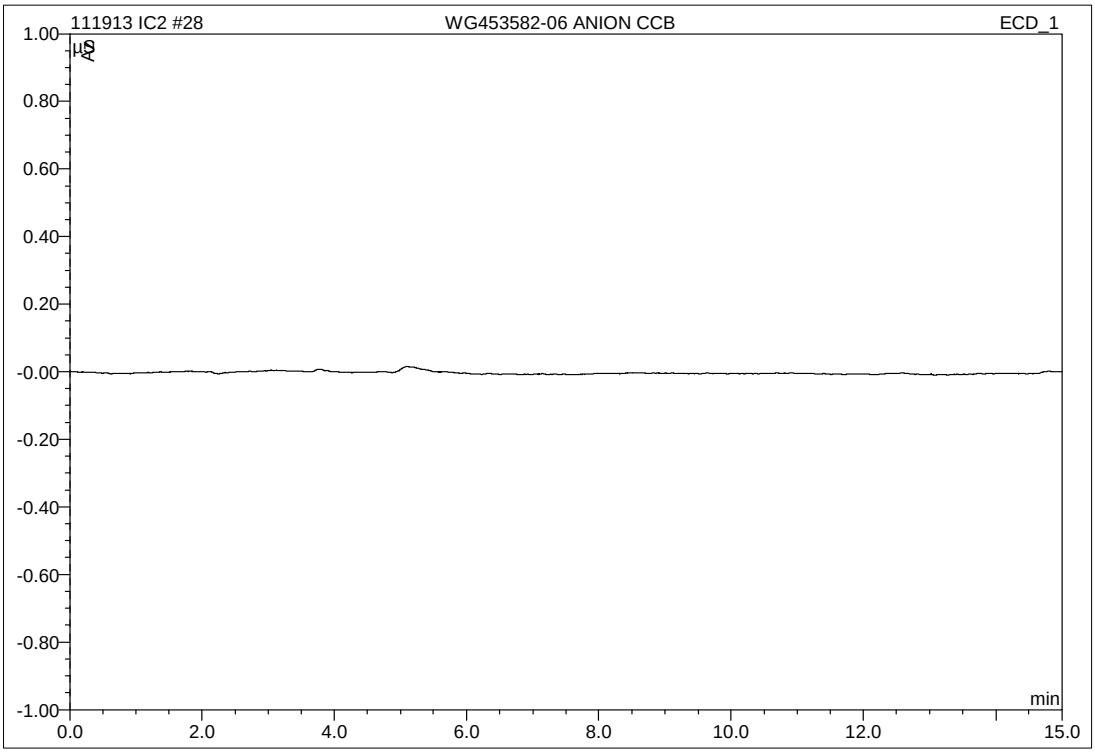


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

28 WG453582-06 ANION CCB

1,1 JBK

Sample Name:	**WG453582-06 ANION CCB**	*Injection Volume:*	**25.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 16:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

RETENTION TIME WINDOWS

Lab Name: MICROBAC Laboratories, Inc.

Instrument ID: IC1

IC Column: AG14A-SC/AS14A-SC

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/5/2013	6/5/2013	6/6/2013
File #	WG432976-05	WG432976-07	WG433275-01
Time	16:16	18:25	16:50

COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	3.41	3.40	3.41	0.017
Cl	4.87	4.87	4.88	0.017
NO2-N	5.67	5.66	5.67	0.017
Br	7.01	6.99	7.02	0.046
NO3-N	7.76	7.74	7.77	0.046
SO4	13.35	13.35	13.35	0.000

Instrument ID: IC2

IC Column: AG14A-SC/AS14A-SC

	STANDARD #1	STANDARD #2	STANDARD #3
Date Run	6/6/2013	6/6/2013	6/7/2013
File #	WG433163-01	WG433163-05	WG433448-01
Time	12:58	18:54	12:23

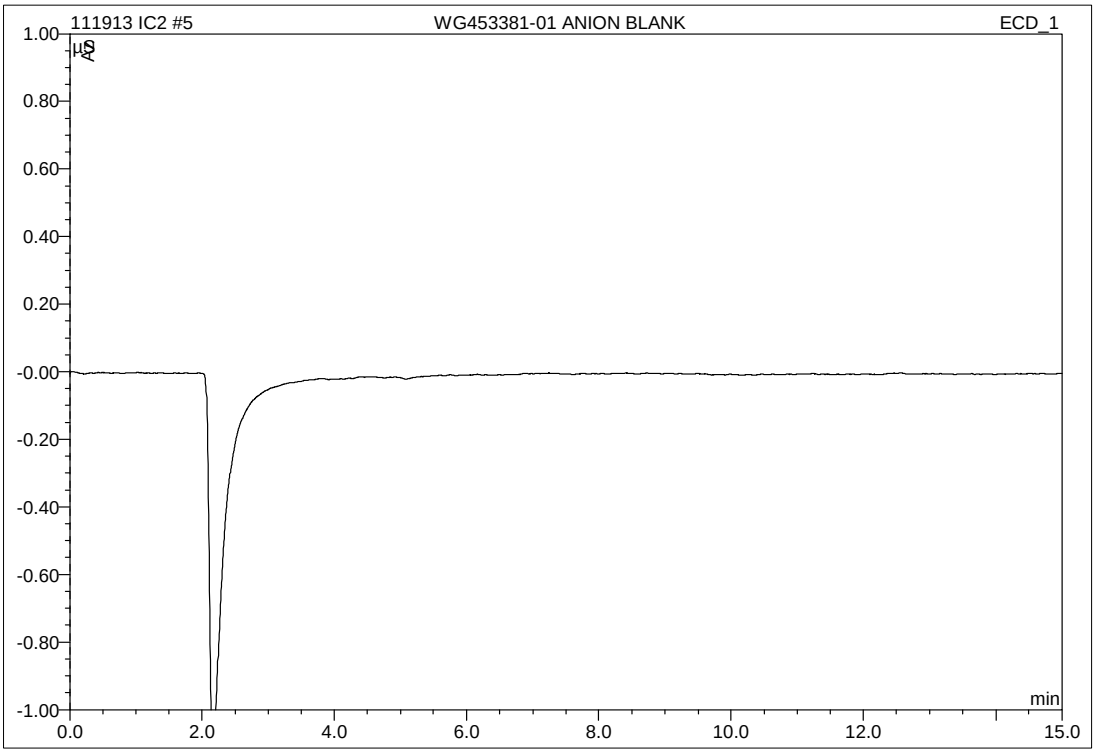
COMPOUND	STD #1 RT	STD #2 RT	STD #3 RT	RT WIN
F	3.31	3.30	3.31	0.017
Cl	4.90	4.89	4.92	0.046
NO2-N	5.79	5.78	5.83	0.079
Br	7.34	7.31	7.43	0.187
NO3-N	8.21	8.18	8.32	0.221
SO4	13.74	13.74	13.67	0.121

2.2.1.5 Raw QC Data

5 WG453381-01 ANION BLANK

1,1 JBK

Sample Name:	**WG453381-01 ANION BLANK**	*Injection Volume:*	**25.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 9:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**

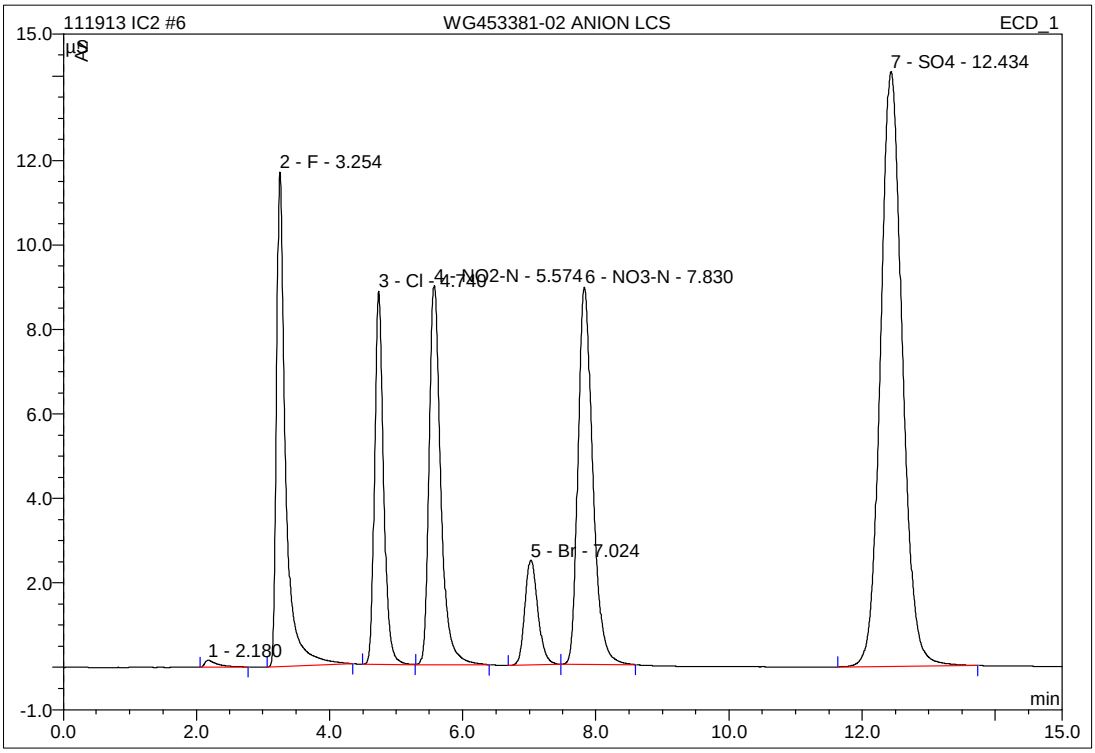


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
Total:			0.000	0.000	0.00	0.000	

6 WG453381-02 ANION LCS

1,1 JBK

Sample Name:	**WG453381-02 ANION LCS**	*Injection Volume:*	**25.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**9056**	*Bandwidth:*	**n.a.**
Quantif. Method:	**9056_300**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/19/2013 10:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**15.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount mg/L	Type
1	2.18	n.a.	0.168	0.036	0.27	n.a.	BMB
2	3.25	F	11.703	1.856	13.92	7.365	BMB
3	4.74	Cl	8.824	1.391	10.43	7.826	BMB
4	5.57	NO2-N	8.977	1.822	13.67	4.860	BMB
5	7.02	Br	2.487	0.564	4.23	7.957	BMB
6	7.83	NO3-N	8.929	2.291	17.18	5.246	BMB
7	12.43	SO4	14.078	5.374	40.30	39.421	BMB
Total:			55.166	13.335	100.00	72.675	

2.2.2 PH Data

2.2.2.1 Summary Data

Certificate of Analysis

Sample #: L13110465-01 **PrePrep Method:** N/A **Instrument:** ORION-4STAR
Client ID: MPL 29-1113-1 **Prep Method:** 9040C **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9040C **Cal Date:**
Workgroup #: WG452038 **Analyst:** EPT **Run Date:** 11/08/2013 16:24
Collect Date: 11/07/2013 11:00 **Dilution:** 1 **File ID:** OS13111111390701
Sample Tag: **Units:** UNITS

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	8.26		0.000	0.000
Temperature At Determination (C)		20.8		0.000	0.000

Sample #: L13110465-02 **PrePrep Method:** N/A **Instrument:** ORION-4STAR
Client ID: MPL 7-1113-1 **Prep Method:** 9040C **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9040C **Cal Date:**
Workgroup #: WG452038 **Analyst:** EPT **Run Date:** 11/08/2013 16:25
Collect Date: 11/07/2013 13:05 **Dilution:** 1 **File ID:** OS13111111391701
Sample Tag: **Units:** UNITS

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.69		0.000	0.000
Temperature At Determination (C)		20.3		0.000	0.000

Sample #: L13110465-03 **PrePrep Method:** N/A **Instrument:** ORION-4STAR
Client ID: MPL 5-1113-1 **Prep Method:** 9040C **Prep Date:** N/A
Matrix: Water **Analytical Method:** 9040C **Cal Date:**
Workgroup #: WG452038 **Analyst:** EPT **Run Date:** 11/08/2013 16:26
Collect Date: 11/07/2013 15:00 **Dilution:** 1 **File ID:** OS13111111392501
Sample Tag: **Units:** UNITS

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	8.23		0.000	0.000
Temperature At Determination (C)		20.1		0.000	0.000

2.2.2.2 QC Summary Data

Example pH Calculations
(Direct Readout Parameter)

Readout from instrument = result in S.U.

where:

Readout = direct readout from the instrument

Microbac Laboratories Inc.

Data Checklist

Date: 08-NOV-2013
Analyst: EPT
Analyst: TMM
Method: PH
Instrument: ORION 4-STAR
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452038

Calibration/Linearity	11/08/13
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	
LCS/LCS Dup	
MS/MSD	
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	
Primary Reviewer	EPT
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
11-NOV-2013

Secondary Reviewer:
11-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-11-2013 14:57:38

2.2.2.3 Raw Data

WORKGROUP: WG452038

pH
(pH2)

B,C) SW846 9045D
A) SM 4500-H(+)-B
A) EPA 150.1
A) SW846 9040C
SOP K1501, Rev 13

Instrument
- [x] Orion 4-Star
- [ ] Orion 710A #1
- [ ] Orion 710A #2

Sample	Calibration Buffers	Time of Calibration	A Water Misc. Liquid	B 50% Slurry of Solid	C 50% Water Org. Liq. Mix	Time Analyzed	Temp (°C)
LCS 6: Std 59686	7,4,10	1600	6.02			1614	22.4
11-0286-01			5.43			1615	22.4
-02			9.30			1616	22.4
-03			6.15			1618	22.4
-04			8.35			1619	22.4
-05			5.55			1620	22.4
-06			11.80			1622	22.4
11-0465-01			8.26			1624	20.8
-02			7.69			1625	20.3
-03			8.23			1626	20.1
11-0476-02			10.44			1627	19.9
DUP: 11-0286-01			5.42			1630	17.0
LCS 9: Std 59687			8.95			1631	17.5

Analyst: Ethan Tidd / Tammy Moran Date: 11/8/13

DCN#98735

MICROBAC

TCLP Work Group Daily Log

Date: 11/7/13

#	Microbac Sample #	Due Date	Me	SV	Pest	Herb	Voa	PAH	pH-L	Comments
1	11-334-1	11/12	✓				✓			Filter
2	11-335-1	11/13		✓	✓	✓	✓			Filter
3	11-313-2	"					✓			Filter
4	11-341-1	11/11	✓	✓	✓		✓			*comp 5) encores for 1 Sx
5	2	"	✓	✓	✓		✓			"
6	11-286-1	11/11	✓						✓	
7	3		✓						✓	
8	5	"	✓						✓	F2
9	11-310-2	11/13					✓			see cmts
10	11-309-2	11/13					✓			
11	11-312-2	"					✓			bag 11/7/13
12	~~11-334-1~~		✓				✓			
13	11-359-2	11/14	☆	✓	✓	✓	✓			
14										
15										
16										
17										
18										
19										
20										
21										
22										

Agitated	Work Group	Run ID
Me	451936	
SV	451931	
Pest	451933	
Herb	451934	
Voa	451935	
PAH		
pH-L	451937	

Filtered	Work Group	Run ID
Me	451869	
SV	451870	
Pest	451871	
Herb	451872	
Voa	451873	
pH-L		

√ = Perform analysis
☆ = Perform analysis and spike sample

Comments: 11-310-2 Sx consisted of gloves, strip of cloth + a lid. 11-309-2 Sx consisted of cardboard, gloves, paint cup + strip of cloth. 11-312-2 Sx consisted of trash. Id on bag "plant trash".

Peer Reviewed by: _____ Date: _____

L13110465 / Revision: 0 / 2219 total pages

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Generated: 11/20/2013 17:09

MICROBAC

SPLP Work Group Daily Log

Date : 11/7/13

#	Microbac Sample #	Due Date	Me	SV	Pest	Herb	Voa	PAH	pH-L							Comments
1	11-286-2	11/11	✓						✓							West
2	4	↓	✓						✓							↓
3	6	↓	✓						✓							↓
4	SP Blnk		✓													
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																

Agitated	Work Group	Run ID
Me	451926	
SV		
Pest		
Herb		
Voa		
PAH		
pH-L	451925	

Filtered	Work Group	Run ID
Me		
SV		
Pest		
Herb		
Voa		
pH-L		

√ = Perform analysis
☆ = Perform analysis and spike sample

Comments: _____

_____

Peer Reviewed by: _____ Date: _____

2.2.3 Alkalinity Data

2.2.3.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 310.2 (Alkalinity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74770
Approved By: Deanna Hesson

Certificate of Analysis

Sample #: L13110465-01 **PrePrep Method:** N/A **Instrument:** SMARTCHEM2
Client ID: MPL 29-1113-1 **Prep Method:** 310.2 **Prep Date:** 11/12/2013 16:58
Matrix: Water **Analytical Method:** 310.2 **Cal Date:** 11/12/2013 16:51
Workgroup #: WG452340 **Analyst:** DIH **Run Date:** 11/12/2013 16:58
Collect Date: 11/07/2013 11:00 **Dilution:** 1 **File ID:** S2131112003.019
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)	11-43-8	144		20.0	10.0

Sample #: L13110465-02 **PrePrep Method:** N/A **Instrument:** SMARTCHEM2
Client ID: MPL 7-1113-1 **Prep Method:** 310.2 **Prep Date:** 11/12/2013 16:58
Matrix: Water **Analytical Method:** 310.2 **Cal Date:** 11/12/2013 16:51
Workgroup #: WG452340 **Analyst:** DIH **Run Date:** 11/12/2013 16:58
Collect Date: 11/07/2013 13:05 **Dilution:** 1 **File ID:** S2131112003.020
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)	11-43-8	120		20.0	10.0

Sample #: L13110465-03 **PrePrep Method:** N/A **Instrument:** SMARTCHEM2
Client ID: MPL 5-1113-1 **Prep Method:** 310.2 **Prep Date:** 11/12/2013 17:00
Matrix: Water **Analytical Method:** 310.2 **Cal Date:** 11/12/2013 16:51
Workgroup #: WG452340 **Analyst:** DIH **Run Date:** 11/12/2013 17:00
Collect Date: 11/07/2013 15:00 **Dilution:** 1 **File ID:** S2131112003.023
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)	11-43-8	89.2		20.0	10.0

2.2.3.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 12-NOV-2013
Analyst: DCM
Analyst: NA
Method: ALK
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452340 WG452424

Calibration/Linearity	11/12/2013
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DCM
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
13-NOV-2013

Secondary Reviewer:
15-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-15-2013 15:15:58

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 310.2 AAB#: WG452340

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/12/2013	5.2	14		11/12/13	5.2	14	
MPL 7-1113-1	02	11/07/13					11/12/2013	5.2	14		11/12/13	5.2	14	
MPL 5-1113-1	03	11/07/13					11/12/2013	5.1	14		11/12/13	5.1	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3206476
Report generated 11/15/2013 14:30

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L13110465
Work Group: WG452340
Blank File ID: S2131112001.012
Blank Sample ID: WG452340-01
Prep Date: 11/12/13 11:43
Instrument ID: SMARTCHEM2
Analyzed Date: 11/12/13 11:43
Method: 310.2
Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452340-02	S2131112001.013	11/12/13 11:43	01
LCS2	WG452340-03	S2131112001.014	11/12/13 11:44	01
DUP	WG452340-05	S2131112001.035	11/12/13 11:56	01
MPL 29-1113-1	L13110465-01	S2131112003.019	11/12/13 16:58	01
MPL 7-1113-1	L13110465-02	S2131112003.020	11/12/13 16:58	01
MPL 5-1113-1	L13110465-03	S2131112003.023	11/12/13 17:00	01

Report Name: BLANK_SUMMARY
PDF File ID: 3206477
Report generated 11/15/2013 14:30

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/12/13 11:43 Sample ID: WG452340-01
Instrument ID: SMARTCHEM2 Run Date: 11/12/13 11:43 Prep Method: 310.2
File ID: S2131112001.012 Analyst: DIH Method: 310.2
Workgroup (AAB#): WG452340 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC-12-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Alkalinity, Total (as CaCO3)	10.0	20.0	10.0	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3206478
15-NOV-2013 14:30

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 Analyst: DIH Prep Method: 310.2
Instrument ID: SMARTCHEM2 Matrix: Water Method: 310.2
Workgroup (AAB#): WG452340 Units: mg/L
QC Key: DOD4 Lot #: STD61146

Sample ID: WG452340-02 LCS File ID: S2131112001.013 Run Date: 11/12/2013 11:43
Sample ID: WG452340-03 LCS2 File ID: S2131112001.014 Run Date: 11/12/2013 11:44

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Alkalinity, Total (as CaCO3)	200	198	98.9	200	201	100	1.49	85 - 115	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3206479
Report generated: 11/15/2013 14:30

2.2.3.3 Raw Data

SMARTCHEM RUN LOG

(smartchem2, smartchem3)

WORKGROUP: WG452340

452424

Daily Check

- [x] Lamp On
- [x] Probe Rinse Full
- [x] DI Water > ½ Full
- [x] Wash Solution > ½ Full
- [ ] NO3 Reagent bottle connected / purged
- [ ] NO3 pH adj to pH 5-9

Syringe filter lot # _____

- [x] WBL Run
- [x] Reagents Full
- [x] Dilution H_2O Full
- [x] Waste Container Check

1) **Workgroup** 452340
Plan # 20131112001
2) **Workgroup** 452424
Plan # 20131112003
3) **Workgroup** _____
Plan # _____
Instrument: SC1 ☐ SC2 ☑

	Analyte	1	2	3
		Alk		
		Dilution		
SC Prepared Curve				
Position				
1-1	ICV			
1-2	Blk			
1-3	LCS			
1-4	LCSDUP			
1-5	11-469-01			
1-6	02	1/2		
1-7	03			
1-8	04	1/2		
1-9	11-462-02	1/5		color
1-10	03	1/5		↓
1-11	05	1/5		
1-12	06	1/5		
1-13	08	1/5		
1-14	09	1/5		
1-15	11-465-01			
1-16	02			
1-17	03			
1-18	11-584-01			
1-19	MS 02			
1-20	MSD 03			
1-21	DUP 11-584-01			
1-22				
2-1				
2-2				
2-3				

Position	Analyte	1	2	3
2-4 1	ICV			
2-5 2	Blk			
2-6 3	LCS			
2-7 4	LCSDUP			
2-8 5	11-462-05	1/5		color
2-9 6	06	1/5		↓
2-10 7	08	1/5		
2-11 8	09	1/5		
2-12 9	11-465-01			
2-13 10	02			
2-14 11	03			
2-15 12	11-584-01			
2-16 13	MS 02			
2-17 14	MSD 03			
2-18 15	DUP 11-584-01			
2-19 16	11-643-01			
2-20 17	02			
2-21 18	03			
2-22	Blk			
2-23				
2-24				
2-25				
2-26				
3-1				
3-2				

NOTES:
* Run NO2 std on NO3 runs
* LCSD must be run if no MS or Duplicate
*MS(10% sample): NO3, TKN, NH3, PHOS

DCN#98781

SMARTCHEM RUN LOG

(smartchem2, smartchem3)

WORKGROUP: WG452340

Position	Analyte	1	2	3
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9				
3-10				
3-11				
3-12				
3-13				
3-14				
3-15				

Position	Analyte	1	2	3
3-16				
3-17				
3-18				
3-19				
3-20				
3-21				
3-22				
3-23				
3-24				
3-25				
3-26				
3-27				
3-28				

	Chloride	EPA 325.2/SM 4500-CI E-2000
	Nitrate-Nitrite	EPA 353.2/SM 4500-NO3 F-2000
✓	Alkalinity	EPA 310.2
	Sulfate	EPA 375.4/SM 426C (15th)/ SM4500-504 E-1997

	Ammonia	EPA 350.1/SM 4500-NH3 B-1997
	TKN	EPA 351.2
	Phos	EPA 365.4

Analyte	ALK		Reagents
SOP & Revision	K3102 R 15		RGT 28637
Curve Stock (SC made)	Std 59625		
NO2 STD			
ICV	Std 61145		
CCV	Std 60881		
LCS	Std 61196		
MS	dcw 11/12/13 NA Dilution	std 60183 0.4/10 (2500)=	100

Comments: All pH < 8.3

Analyst: David Merckle Date: 11/12/13

DCN#98781

MICROBAC (OVD)
SMARTCHEM200 INST2 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK -Unit [mg/L] - ALKALINITY EPA 310.2

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0	0.5685	0.00		11:34:44 AM
DIL-1	RBL	0.0	0.5709	0.00		11:35:02 AM
DIL-1	RBL	0.0	0.5755	0.00		11:35:56 AM
DIL-1	Std-1	0.0	0.0046	0.00	INV	11:36:14 AM
SR5-1	Std-2	10.0	-0.0068	0.00		11:37:08 AM
SR5-2	Std-3	20.0	-0.0183	0.00		11:37:26 AM
SR5-3	Std-4	50.0	-0.0474	0.00		11:38:20 AM
SR5-4	Std-5	100.0	-0.1090	0.00		11:38:38 AM
SR5-5	Std-6	200.0	-0.2362	0.00		11:39:32 AM
SR5-6	Std-7	250.0	-0.3183	0.00		11:39:50 AM
SR5-7	Std-8	300.0	-0.3663	0.00		11:40:44 AM
ST-3	1CCV (150 mg/L)	151.6	-0.1756	101.10		11:41:02 AM
ST-2	2CCB (0 mg/L)	7.5	-0.0024	0.00		11:41:56 AM
1	ICV	244.8	-0.2980	0.00		11:42:14 AM
2	WG452340-01 BLK	8.2	-0.0032	0.00		11:43:08 AM
3	WG452340-02 LCS	197.8	-0.2351	0.00		11:43:26 AM
4	WG452340-03 LCSDUP	200.8	-0.2390	0.00		11:44:20 AM
5	L13110469-01	185.1	-0.2185	0.00		11:44:38 AM
6	L13110469-02	214.9	-0.2577	0.00		11:45:32 AM
7	L13110469-03	272.4	-0.3362	0.00		11:45:50 AM
8	L13110469-04	196.3	-0.2331	0.00		11:46:44 AM
9	L13110462-02 (5)	177.0	-0.2080	0.00		11:47:02 AM
10	L13110462-03 (5)	124.7	-0.1419	0.00		11:47:56 AM
ST-3	1CCV (150 mg/L)	157.1	-0.1825	104.73		11:48:14 AM
ST-2	2CCB (0 mg/L)	16.4	-0.0126	0.00		11:49:08 AM
11	L13110462-05 (5)	X 155.6	-0.1806	0.00		11:49:26 AM
12	L13110462-06 (5)	94.8	-0.1052	0.00		11:50:20 AM
13	L13110462-08 (5)	198.8	-0.2364	0.00		11:50:39 AM
14	L13110462-09 (5)	84.9	-0.0933	0.00		11:51:33 AM
15	L13110465-01	140.5	-0.1615	0.00		11:51:50 AM
16	L13110465-02	120.9	-0.1372	0.00		11:52:45 AM
17	L13110465-03	97.4	-0.1084	0.00		11:53:03 AM

Report Date :11/12/2013 **Run Date :11/12/2013** **Operator : WESTCO** **Plan # :20131112001**

Plan Description : ALK-A2-DCM/11/12/2013

MICROBAC (OVD)
SMARTCHEM200 INST2 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK -Unit [mg/L] - ALKALINITY EPA 310.2

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
18	L13110584-01 REF	98.3	-0.1095	0.00		11:53:57 AM
19	L13110584-02 MS	179.6	-0.2113	0.00		11:54:15 AM
20	L13110584-03 MSD	182.9	-0.2156	0.00		11:55:09 AM
ST-3	1CCV (150 mg/L)	165.7	-0.1935	110.48		11:55:27 AM
ST-2	2CCB (0 mg/L)	25.5	-0.0231	0.00		11:56:21 AM
21	WG452340-05 DUP	102.4	-0.1145	0.00		11:56:39 AM
22	ID 22	25.8	-0.0235	0.00		11:57:33 AM
ST-3	1CCV (150 mg/L)	163.7	-0.1909	109.12		11:57:51 AM
ST-2	2CCB (0 mg/L)	26.9	-0.0248	0.00		11:58:45 AM
6-[1/2]	L13110469-02	265.2	-0.1517	0.00		12:06:25 PM
8-[1/2]	L13110469-04	245.1	-0.1392	0.00		12:07:37 PM
ST-3	1CCV (150 mg/L)	168.1	-0.1966	112.09		12:07:37 PM
ST-2	2CCB (0 mg/L)	37.6	-0.0372	0.00		12:08:31 PM

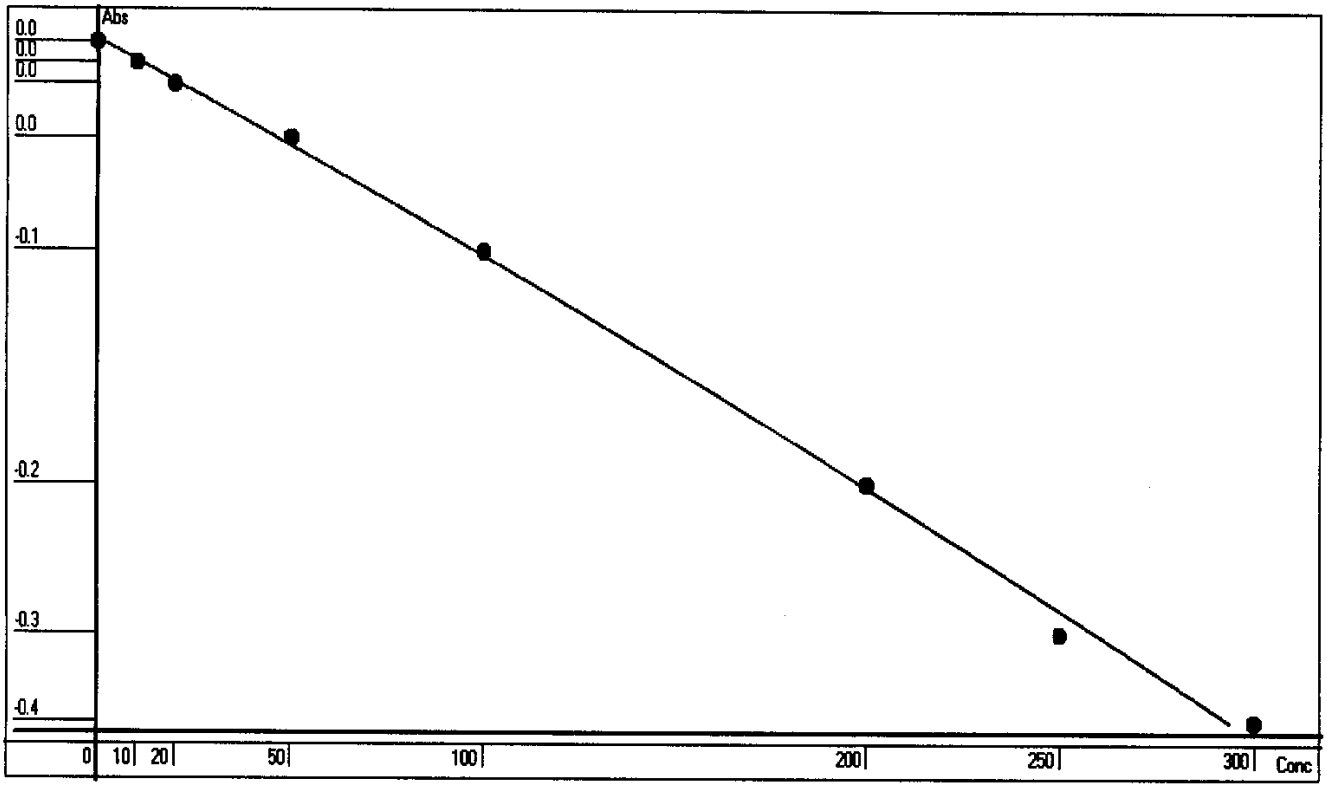
Report Date :11/12/2013 **Run Date :11/12/2013** **Operator : WESTCO** **Plan # :20131112001**

Plan Description : ALK-A2-DCM/11/12/2013

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan # : 20131112001 Description : [ALK-A2-DCM/11/12/2013] Unit



Point	OD	Conc	Recalc Conc	% Error
1	0.0046	0	1.3366	133.66
2	-0.0068	10	11.3112	13.11
3	-0.0183	20	21.3096	6.55
4	-0.0474	50	46.3241	-7.35
5	-0.1090	100	97.9239	-2.08
6	-0.2362	200	198.6640	-0.67
7	-0.3183	250	259.5284	3.81
8	-0.3663	300	293.6021	-2.13
				RBL 0.5697 0

Conc= -241.9365*Abso^2 -875.4985*Abso +5.369 R^2=0.9984

Report Date 11/12/2013 Run Date 11/12/2013

MICROBAC (OVD)
SMARTCHEM200 INST2 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK -Unit [mg/L] - ALKALINITY EPA 310.2

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0	0.6270	0.00		4:42:46 PM
DIL-1	RBL	0.0	0.6244	0.00		4:43:04 PM
DIL-1	RBL	0.0	0.6186	0.00		4:46:58 PM
DIL-1	Std-1	0.0	-0.0102	0.00		4:47:16 PM
SR5-1	Std-2	10.0	-0.0235	0.00		4:48:10 PM
SR5-2	Std-3	20.0	-0.0329	0.00		4:48:28 PM
SR5-3	Std-4	50.0	-0.0775	0.00		4:49:22 PM
SR5-4	Std-5	100.0	-0.1338	0.00		4:49:40 PM
SR5-5	Std-6	200.0	-0.2758	0.00		4:50:34 PM
SR5-6	Std-7	250.0	-0.3413	0.00		4:50:52 PM
SR5-7	Std-8	300.0	-0.4047	0.00		4:51:46 PM
ST-3	1CCV (150 mg/L)	151.0	-0.2073	100.65		4:52:04 PM
ST-2	2CCB (0 mg/L)	9.7	-0.0217	0.00		4:52:58 PM
1	ICV	254.5	-0.3456	0.00		4:53:16 PM
2	WG452424-01 BLK	6.0	-0.0170	0.00		4:54:10 PM
3	WG452424-02 LCS	192.8	-0.2629	0.00		4:54:28 PM
4	WG452424-03 LCSDUP	194.5	-0.2652	0.00		4:55:22 PM
5	L13110462-05 (5)	148.1	-0.2035	0.00		4:55:40 PM
6	L13110462-06 (5)	93.4	-0.1313	0.00		4:56:34 PM
7	L13110462-08 (5)	196.5	-0.2678	0.00		4:56:52 PM
8	L13110462-09 (5)	80.3	-0.1141	0.00		4:57:46 PM
9	L13110465-01	143.6	-0.1975	0.00		4:58:04 PM
10	L13110465-02	119.5	-0.1657	0.00		4:58:58 PM
ST-3	1CCV (150 mg/L)	153.1	-0.2101	102.06		4:59:16 PM
ST-2	2CCB (0 mg/L)	15.8	-0.0297	0.00		5:00:10 PM
11	L13110465-03	89.2	-0.1257	0.00		5:00:28 PM
12	L13110584-01	107.6	-0.1499	0.00		5:01:22 PM
13	L13110584-02 MS	162.8	-0.2230	0.00		5:01:40 PM
14	L13110584-03 MSD	163.3	-0.2237	0.00		5:02:34 PM
15 dan 11/13/13	WG452424-07 DUP	97.0	-0.1360	0.00		5:02:52 PM
16	L13110643-01	272.1	-0.3692	0.00		5:03:46 PM
17	L13110643-02	168.5	-0.2305	0.00		5:04:04 PM

Report Date :11/12/2013 **Run Date :11/12/2013** **Operator : WESTCO** **Plan # :20131112003**

Plan Description : ALK-B2-DCM/11/12/2013

MICROBAC (OVD)
SMARTCHEM200 INST2 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WALK -Unit [mg/L] - ALKALINITY EPA 310.2

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
18	L13110643-03	260.1	-0.3531	0.00		5:04:58 PM
19	ID 19 blk	17.6	-0.0320	0.00		5:05:16 PM
ST-3	1CCV (150 mg/L)	153.4	-0.2105	102.26		5:06:11 PM
ST-2	2CCB (0 mg/L)	20.9	-0.0363	0.00		5:06:28 PM

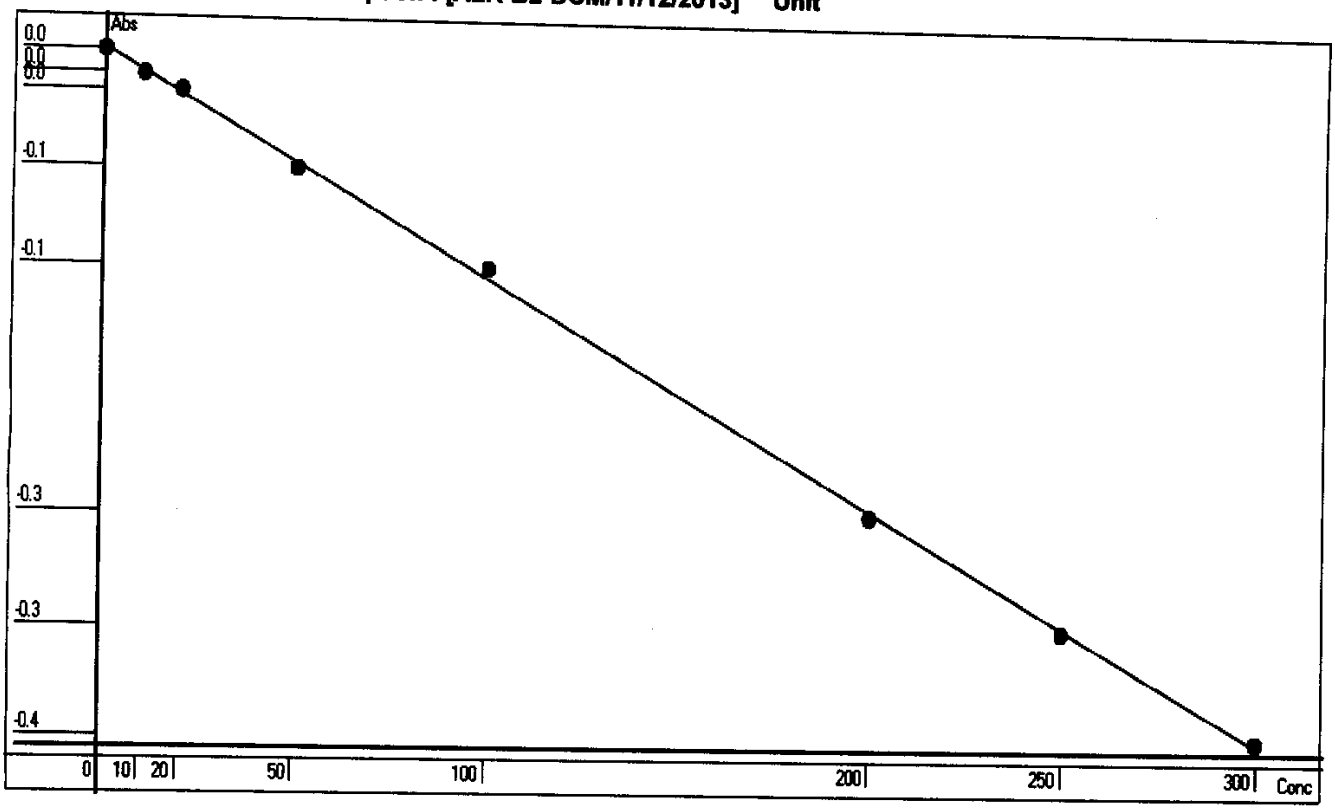
Report Date :11/12/2013 **Run Date :11/12/2013** **Operator : WESTCO** **Plan # :20131112003**

Plan Description : ALK-B2-DCM/11/12/2013

Calibrant Report - WALK -

Calib Lot #:010104 Exp Date:6/21/2020 User:MICROBAC

Plan # : 20131112003 Description : [ALK-B2-DCM/11/12/2013] Unit



Point	OD	Conc	Recalc Conc	% Error
1	-0.0102	0	0.8103	81.03
2	-0.0235	10	11.0387	10.39
3	-0.0329	20	18.2596	-8.70
4	-0.0775	50	52.4261	4.85
5	-0.1338	100	95.3339	-4.67
6	-0.2758	200	202.4571	1.23
7	-0.3413	250	251.3391	0.54
8	-0.4047	300	298.3349	-0.56

Conc= -39.0284*Abso^2 -770.3745*Abso -7.0435 R^2=0.9996

RBL
0.6257
0

Report Date 11/12/2013 Run Date 11/12/2013

2.2.4 Cyanide Data

2.2.4.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst:

METHOD

Analysis SW846 9014/9010C/SM4500-CN-C,E-20th (Cyanide)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Cyanide-Ammenable is the difference between the total cyanide and the treated cyanide. The LCS is analyzed to show that all of the cyanide is ammenable (the treated portion is ND). The LCS forms cannot calculate cyanide ammenable. The LCS is acceptable.

Sample #	Analyte	Date	Result	Lower	Upper	Type
WG452812-02	Cyanide	2013-11-14 15:45:03	1.00	90	110	Recovery

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74622

Approved By: Deanna Hesson

Deanna Hesson

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	11/14/2013 11:20
Workgroup #:	WG452580	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:30
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311141530-22
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.306		0.0100	0.00500

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	SM4500-CN-C,G-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G-1999	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452812	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:45
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311141545-07
Sample Tag:	DL02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.306	U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452581	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:50
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311141550-07
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.0261		0.0100	0.00500

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	11/14/2013 11:20
Workgroup #:	WG452580	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:30
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311141530-23
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.373		0.0100	0.00500

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	SM4500-CN-C,G-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G-1999	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452812	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:45
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311141545-08
Sample Tag:	DL02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.372	U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452581	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:50
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311141550-08
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.0408		0.0100	0.00500

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	9014-9010C	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	9014-9010C	**Cal Date:**	11/14/2013 11:20
Workgroup #:	WG452580	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:30
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311141530-24
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.0736		0.0100	0.00500

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	SM4500-CN-C,G-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-C,G-1999	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452812	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:45
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311141545-09
Sample Tag:	DL02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.0736	U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	SM4500-CN-I	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-CN-I	**Cal Date:**	11/14/2013 11:30
Workgroup #:	WG452581	**Analyst:**	DCM	**Run Date:**	11/14/2013 15:50
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311141550-09
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.0106		0.0100	0.00500

2.2.4.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 14-NOV-2013
Analyst: DCM
Analyst: NA
Method: CN
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452580

Calibration/Linearity	11/14/2013
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DCM
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
15-NOV-2013

Secondary Reviewer:
17-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-17-2013 15:20:22

Microbac Laboratories Inc.

Data Checklist

Date: 14-NOV-2013
Analyst: DCM
Analyst: NA
Method: CN
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452581

Calibration/Linearity	11/14/2013
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DCM
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
15-NOV-2013

Secondary Reviewer:
17-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-17-2013 15:20:21

Microbac Laboratories Inc.

Data Checklist

Date: 14-NOV-2013
Analyst: DCM
Analyst: NA
Method: CN
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452812

Calibration/Linearity	11/14/2013
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DCM
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
15-NOV-2013

Secondary Reviewer:
17-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-17-2013 15:20:20

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 9014-9010C AAB#: WG452580

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/14/2013	7.2	14		11/14/13	7.2	14	
MPL 7-1113-1	02	11/07/13					11/14/2013	7.1	14		11/14/13	7.1	14	
MPL 5-1113-1	03	11/07/13					11/14/2013	7	14		11/14/13	7	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3207816
Report generated 11/17/2013 15:15

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-CN-C,G-19 **AAB#:** WG452812

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/14/2013	7.2	14		11/14/13	7.2	14	
MPL 7-1113-1	02	11/07/13					11/14/2013	7.1	14		11/14/13	7.1	14	
MPL 5-1113-1	03	11/07/13					11/14/2013	7	14		11/14/13	7	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3207774
Report generated 11/17/2013 15:13

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-CN-I AAB#: WG452581

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/14/2013	7.2	14		11/14/13	7.2	14	
MPL 7-1113-1	02	11/07/13					11/14/2013	7.1	14		11/14/13	7.1	14	
MPL 5-1113-1	03	11/07/13					11/14/2013	7	14		11/14/13	7	14	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3207786
Report generated 11/17/2013 15:14

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG452580
Blank File ID:	1V.1311141530-03	Blank Sample ID:	WG452580-01
Prep Date:	11/14/13 15:30	Instrument ID:	UV-120-1V
Analyzed Date:	11/14/13 15:30	Method:	9014-9010C
Analyst:	DCM		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452580-02	1V.1311141530-04	11/14/13 15:30	
LCS	WG452580-03	1V.1311141530-05	11/14/13 15:30	
MPL 29-1113-1	L13110465-01	1V.1311141530-22	11/14/13 15:30	
MPL 7-1113-1	L13110465-02	1V.1311141530-23	11/14/13 15:30	
MPL 5-1113-1	L13110465-03	1V.1311141530-24	11/14/13 15:30	
DUP	WG452580-08	1V.1311141530-25	11/14/13 15:30	

Report Name: BLANK_SUMMARY
PDF File ID: 3207817
Report generated 11/17/2013 15:15

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG452812
Blank File ID:	1V.1311141545-02	Blank Sample ID:	WG452812-01
Prep Date:	11/14/13 15:45	Instrument ID:	UV-120-1V
Analyzed Date:	11/14/13 15:45	Method:	SM4500-CN-C,G-19
Analyst:	DCM		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452812-02	1V.1311141545-03	11/14/13 15:45	
MPL 29-1113-1	L13110465-01	1V.1311141545-07	11/14/13 15:45	DL02
MPL 7-1113-1	L13110465-02	1V.1311141545-08	11/14/13 15:45	DL02
MPL 5-1113-1	L13110465-03	1V.1311141545-09	11/14/13 15:45	DL02
DUP	WG452812-07	1V.1311141545-13	11/14/13 15:45	DL02

Report Name: BLANK_SUMMARY
PDF File ID: 3207775
Report generated 11/17/2013 15:13

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG452581
Blank File ID:	1V.1311141550-02	Blank Sample ID:	WG452581-01
Prep Date:	11/14/13 15:50	Instrument ID:	UV-120-1V
Analyzed Date:	11/14/13 15:50	Method:	SM4500-CN-I
Analyst:	DCM		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452581-03	1V.1311141550-03	11/14/13 15:50	
MPL 29-1113-1	L13110465-01	1V.1311141550-07	11/14/13 15:50	DL01
MPL 7-1113-1	L13110465-02	1V.1311141550-08	11/14/13 15:50	DL01
MPL 5-1113-1	L13110465-03	1V.1311141550-09	11/14/13 15:50	DL01
DUP	WG452581-08	1V.1311141550-15	11/14/13 15:50	

Report Name: BLANK_SUMMARY
PDF File ID: 3207787
Report generated 11/17/2013 15:14

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/14/13 15:30 Sample ID: WG452580-01
Instrument ID: UV-120-1V Run Date: 11/14/13 15:30 Prep Method: 9014-9010C
File ID: 1V.1311141530-03 Analyst: DCM Method: 9014-9010C
Workgroup (AAB#): WG452580 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120-14-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Cyanide	0.00500	0.0100	0.00500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3207818
17-NOV-2013 15:15

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/14/13 15:45 Sample ID: WG452812-01
Instrument ID: UV-120-1V Run Date: 11/14/13 15:45 Prep Method: SM4500-CN-C,G-1
File ID: 1V.1311141545-02 Analyst: DCM Method: SM4500-CN-C,G-1
Workgroup (AAB#): WG452812 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120-14-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Cyanide, Amenable to Chlor.	0.00500	0.0100	0.00500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3207776
17-NOV-2013 15:13

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/14/13 15:50 Sample ID: WG452581-01
Instrument ID: UV-120-1V Run Date: 11/14/13 15:50 Prep Method: SM4500-CN-I
File ID: 1V.1311141550-02 Analyst: DCM Method: SM4500-CN-I
Workgroup (AAB#): WG452581 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120-14-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Cyanide, Weak/Dissociable	0.00500	0.0100	0.00500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3207788
17-NOV-2013 15:14

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Run Date:** 11/14/2013 **Sample ID:** WG452580-02
Instrument ID: UV-120-1V **Run Time:** 15:30 **Prep Method:** 9014-9010C
File ID: 1V.1311141530-04 **Analyst:** DCM **Method:** 9014-9010C
Workgroup (AAB#): WG452580 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD60204 **Cal ID:** UV-120-14-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide	0.200	0.194	96.8	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 3207819
Report generated: 11/17/2013 15:15

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Run Date:** 11/14/2013 **Sample ID:** WG452580-03
Instrument ID: UV-120-1V **Run Time:** 15:30 **Prep Method:** 9014-9010C
File ID: 1V.1311141530-05 **Analyst:** DCM **Method:** 9014-9010C
Workgroup (AAB#): WG452580 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD60204 **Cal ID:** UV-120-14-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide	0.0400	0.0376	94.1	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 3207819
Report generated: 11/17/2013 15:15

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Run Date:** 11/14/2013 **Sample ID:** WG452812-02
Instrument ID: UV-120-1V **Run Time:** 15:45 **Prep Method:** SM4500-CN-C,G-1
File ID: 1V.1311141545-03 **Analyst:** DCM **Method:** SM4500-CN-C,G-1
Workgroup (AAB#): WG452812 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD60204 **Cal ID:** UV-120-14-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide, Amenable to Chlor.	0.0400	0.000277	0.692	90 - 110	*

LCS - Modified 03/06/2008
PDF File ID: 3207777
Report generated: 11/17/2013 15:13

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Run Date:** 11/14/2013 **Sample ID:** WG452581-03
Instrument ID: UV-120-1V **Run Time:** 15:50 **Prep Method:** SM4500-CN-I
File ID: 1V.1311141550-03 **Analyst:** DCM **Method:** SM4500-CN-I
Workgroup (AAB#): WG452581 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD60204 **Cal ID:** UV-120-14-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Cyanide, Weak/Dissociable	0.0400	0.0382	95.4	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 3207789
Report generated: 11/17/2013 15:14

2.2.4.3 Raw Data

WG 452777

Curves

Parameter: CN - Low

Spectrophotometer: UV-120-1V

Calibration (Curve) standard stock: std 60203

Concentration: 1016 mg/L

Recipe for preparation of curve standards found in:
SOP: K3354 Revision: 14 Page: 15

Second Source Stock: std 60204 (concentration: 1000mg/L)

Daily Preparation: 5(1000)/250 = 20
10(20)/100 = 2

concentration = 1(2)/50 = 0.04

Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
std 5 0.0508	50	5cm	578	0.380
std 6 0.04064				0.310
std 7 0.03048				0.233
std 8 0.02032				0.159
std 9 0.01016				0.075
std 10 0.00508				0.038
std 11 0.00				0.000
2nd source 0.04				0.304

Analyst: David Merckle
Christy Payne

Date/Time: 11/14/13 1130

DCN#98859

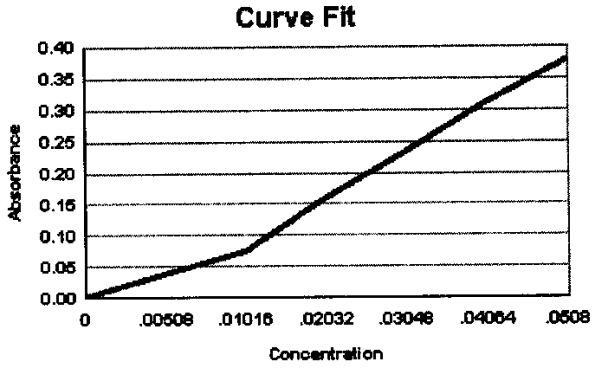
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup:WG452777
Analytical Method:300
Instrument ID:UV-120-1V

Analyst:DCM
Initial Calibration Date:11/14/2013

Analyte: CYANIDE
Number of Points: 7
Slope: 7.54784
Y-Intercept: 0.000909556
Coef. Of Correlation (R^2): 0.999514
Coef. Of Correlation (R): 0.999757

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	0.000909556
0.00508	0.0380	0.0000258	0.000193	0.0392526
0.0102	0.0750	0.000103	0.000762	0.0775956
0.0203	0.159	0.000413	0.00323	0.154282
0.0305	0.233	0.000929	0.00710	0.230968
0.0406	0.310	0.00165	0.0126	0.307654
0.0508	0.380	0.00258	0.0193	0.384340



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 11/14/2013 12:08

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG452777
File ID: 1V.1311141130-08
CCV ID: WG452777-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 11:30
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13 11:30:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.04	0.0402	7.60	0.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 11/14/2013 12:08

[redacted]

WG 452775

Curves

Parameter: CN - High

Spectrophotometer: UV-120-1V

Calibration (Curve) standard stock: Std 60203

Concentration: 1016 mg/L

Recipe for preparation of curve standards found in:
SOP: K3354 Revision: 14 Page: 15

Second Source Stock: Std 60204 (concentration: 1000 mg/L)

Daily Preparation: 5(1000)/250 = 20
10(20)/100 = 2

concentration = 5(2)/50 = 0.2

Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
Std 1 0.4064	50	1 cm	578	0.615
Std 2 0.3048				0.461
Std 3 0.2032				0.295
Std 4 0.1016				0.144
Std 6 0.04064				0.063
Std 8 0.02032				0.033
Std 11 0.00				0.000
2nd Source 0.2				0.294

Analyst: David Merckle
Dorothy Rupp

Date/Time: 11/14/13 6:20

DCN#98858

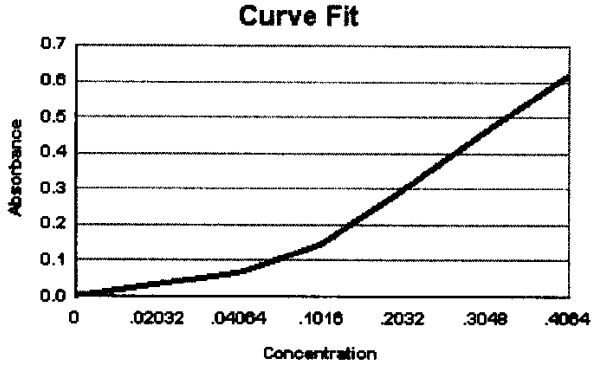
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup:WG452775
Analytical Method:300
Instrument ID:UV-120-1V

Analyst:DCM
Initial Calibration Date:11/14/2013

Analyte: CYANIDE
Number of Points: 7
Slope: 1.50907
Y-Intercept: -0.00203029
Coef. Of Correlation (R^2): 0.999381
Coef. Of Correlation (R): 0.999691

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	-0.00203029
0.0203	0.0330	0.000413	0.000671	0.0286341
0.0406	0.0630	0.00165	0.00256	0.0592985
0.102	0.144	0.0103	0.0146	0.151292
0.203	0.295	0.0413	0.0599	0.304613
0.305	0.461	0.0929	0.141	0.457935
0.406	0.615	0.165	0.250	0.611257



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 11/14/2013 12:04

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG452775
File ID: 1V.1311141120-08
CCV ID: WG452775-08
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 11:20
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13 11:20:07

Analyte	Expected	Found	RF	%D	Q
Cyanide	.2	0.196	1.47	2.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 11/14/2013 12:03

[redacted]

WORKGROUP: WG452812

Cyanide
(cyanide3)

☐ Total method 9010B/9014
SM4500 CN C,E
EPA 335.2

☑ CN – Ameanable (same as total methods)

☐ WD method SM4500 CN I

SOP: K3354 Rev 14
Spec: UV-120-IV
Instrument: Easy-Dist
Matrix: Liquid (mg/L) Soil (mg/kg)

Curve ID: WG452777 11/14/13

CCV: std 60203

True Value: 1016 mg/L

Daily Dilution: 5(1000)/250 = 20
10(20)/100 = 2
10(2)/100 = 0.2

LCS: std 60204

True Value: 1000 mg/L

Daily Dilution: 5(1000)/250 = 20
10(20)/100 = 2
5(2)/50 = 0.2
1(2)/50 = 0.04

Spike: std 60204

True Value: 1000 mg/L

Daily Dilution: 1(2)/50 = 0.04

Distillation Reagents

RGT 28264
RGT 28477
RGT 28561
COA 17124

Colorimetric Reagents

RGT 28657
RGT 28659
RGT 28599

DCN#98864

WORKGROUP: WG452812

Cyanide
(cyanide3)

Sample	Volume mL/grams	pH > 12	Sulfide Presense	Dilution	Cell Size (cm)	Absorbance λ = 578 nm
CCV(high): ppm						
CCV(low): 0.0203 ppm	50	✓	No		5	0.148
Blank	50	✓	No		5	0.000
LCS: ppm						
LCS: 0.04 ppm	50	✓	No		5	0.003
11-337-01	50	✓				0.000
02		✓				0.004
03		✓				0.005
11-465-01		✓				0.000
02		✓				0.010
03		✓				0.000
11-584-01		✓				0.000
MS 02		✓				0.000
MSD 03		✓				0.000
distilled ccv 0.2032	50	✓	No		~~5~~ 1	0.280
distilled ccv 0.02032	50	✓	No		5	0.143
Duplicate: 11-465-01	50	✓	No		5	0.009
MS: (ppm)						
MSD: (ppm)						
CCV high: (ppm)						
CCV low: (0.02032 ppm)	50	✓	No		5	0.149

dcm 11/14/13

Analyst: David Merckle
Christy Pauper

Date/Time (on) 11/14/13 0950
(off) 1120
(color) 1545

Page 2 of 2

DCN#98864

Cyanide, Amenable to Chlorination (mg/L)
CN (Total) - CN (Treated) = CN-A

SAMPLE	11/6/2013 CN (Total)	11/8/2013 CN (Treated)	CN-A
WG452812-01	0	0	0
WG452812-02	0.037639	0.00027696	0.037362
L13110337-01	0.29822	0	0.29822
L13110337-02	0.13388	0.00040945	0.133471
L13110337-03	0.00040945	0.0054194	-0.00501
L13110465-01	0.30617	0	0.30617
L13110465-02	0.3731	0.0012044	0.371896
L13110465-03	0.073575	0	0.073575
L13110584-01	0.0033242	0	0.003324
L13110584-02	0.036049	0	0.036049
L13110584-03	0.037374	0	0.037374
WG452812-05	0.30617	0	0.30617

Cyanide, Amenable to Chlorination (CN-A) is the difference between the total cyanide and the treated cyanide. The LCS is analyzed to verify that all of the cyanide in the spike solution is amenable (the treated portion is ND)

Microbac Laboratories Inc.
SAMPLE REPORT

Treated

Workgroup: WG452812
Analyte: CYANIDE

Analyst: DCM
Date: 11/14/2013

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG452812-01	50	50	0	7.548	0.0009096	-0.00012051	-0.00012051	1	mg/L
WG452812-02	50	50	0.00300	7.548	0.0009096	0.00027696	0.00027696	1	mg/L
L13110337-01	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
L13110337-02	50	50	0.00400	7.548	0.0009096	0.00040945	ND	1	mg/L
L13110337-03	50	50	0.00500	7.548	0.0009096	0.00054194	ND	1	mg/L
L13110465-01	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
WG452812-06	50	50	0	7.548	0.0009096	-0.00012051	-0.00012051	1	mg/L
L13110465-02	50	50	0.0100	7.548	0.0009096	0.0012044	ND	1	mg/L
L13110465-03	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
L13110584-01	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
WG452812-03	50	50	0	7.548	0.0009096	-0.00012051	-0.00012051	1	mg/L
L13110584-02	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
WG452812-04	50	50	0	7.548	0.0009096	-0.00012051	-0.00012051	1	mg/L
L13110584-03	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
WG452812-05	50	50	0	7.548	0.0009096	-0.00012051	-0.00012051	1	mg/L
WG452812-07	50	50	0.00900	7.548	0.0009096	0.0010719	0.0010719	1	mg/L

[redacted]

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 11/15/2013 11:54

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG453001
File ID: 1V.1311141545-01
CCV ID: WG453001-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:45
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0195	7.28	3.9	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 11:52

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG453001
File ID: 1V.1311141545-14
CCV ID: WG453001-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:45
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0196	7.33	3.4	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 11:52

[redacted]

WORKGROUP: WG452581

Cyanide
(cyanide3)

☐ Total method 9010B/9014
SM4500 CN C,E
EPA 335.2

☐ CN – Ameanable (same as total methods)

☑ WD method SM4500 CN I

SOP: K3354 Rev 14
Spec: UV-120-IV
Instrument: Easy-Dist
Matrix: Liquid (mg/L) Soil (mg/kg)

Curve ID: WG 452777
11/14/13

CCV: Std 60203

True Value: 1016 mg/L

LCS: Std 60204

True Value: 1000 mg/L

Spike: Std 60204

True Value: 1000 mg/L

Daily Dilution: 5(1000)/250 = 20
10(20)/100 = 2
10(2)/100 = 0.2

Daily Dilution: 5(1000)/250 = 20
10(20)/100 = 2
5(2)/50 = 0.2
1(2)/50 = 0.04

Daily Dilution: 1(2)/50 = 0.04

Distillation Reagents

RGT 28119
RGT 28115
RGT 28447
RGT 28647
RGT 28561

Colorimetric Reagents

RGT 28657
RGT 28659
RGT 28599

DCN#98828

Cyanide
(cyanide3)

Sample	Volume mL/grams	pH > 12	Sulfide Presense	Dilution	Cell Size (cm)	Absorbance λ = 578 nm
CCV(high): ppm						
CCV(low): 0.02032 ppm	50	✓	No		5	0.147
Blank	50	✓	No		5	0.005
LCS: ppm						
LCS: 0.04 ppm	50	✓	No		5	~~0.288~~ 0.289 dcm 11/14/13
11-537-01		✓				0.167
02		✓				0.117
03		✓				0.000
11-466-01		✓				0.198
02		✓				0.309
03		✓				0.081
11-502-01		✓				0.083
11-584-01		✓				0.000
MS 02		✓				0.292
MSD 03		✓				0.283
11-690-02	〃	✓	〃		〃	0.009
distilled ccv 0.2032	50	✓	No		1	0.280
distilled ccv 0.02032	50	✓	No		5	0.143
Duplicate: 11-690-02	50	✓	No		5	0.009
MS: (ppm)						
MSD: (ppm)						
CCV high: (ppm)						
CCV low: (0.02032 ppm)	50	✓	No		5	0.149

Analyst: David Merkle Dorothy Ryan Date/Time (on) 11/13/13 1350

(off) 1520

(color) 11/14/13 1550

DCN#98828

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG452581
Analyte: CYANIDE

Analyst: DCM
Date: 11/14/2013

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG452581-01	50	50	0.00500	7.548	0.0009096	0.00054194	0.00054194	1	mg/L
WG452581-03	50	50	0.289	7.548	0.0009096	0.038169	0.038169	1	mg/L
L13110337-01	50	50	0.167	7.548	0.0009096	0.022005	0.022005	1	mg/L
L13110337-02	50	50	0.117	7.548	0.0009096	0.015381	0.015381	1	mg/L
L13110337-03	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
L13110465-01	50	50	0.198	7.548	0.0009096	0.026112	0.026112	1	mg/L
L13110465-02	50	50	0.309	7.548	0.0009096	0.040818	0.040818	1	mg/L
L13110465-03	50	50	0.0810	7.548	0.0009096	0.010611	0.010611	1	mg/L
L13110502-01	50	50	0.0830	7.548	0.0009096	0.010876	10.876	1	ug/L
L13110584-01	50	50	0	7.548	0.0009096	-0.00012051	ND	1	mg/L
WG452581-04	50	50	0	7.548	0.0009096	-0.00012051	-0.00012051	1	mg/L
L13110584-02	50	50	0.292	7.548	0.0009096	0.038566	0.038566	1	mg/L
WG452581-05	50	50	0.292	7.548	0.0009096	0.038566	0.038566	1	mg/L
L13110584-03	50	50	0.283	7.548	0.0009096	0.037374	0.037374	1	mg/L
WG452581-06	50	50	0.283	7.548	0.0009096	0.037374	0.037374	1	mg/L
L13110690-02	50	50	0.00900	7.548	0.0009096	0.0010719	ND	1	mg/L
WG452581-07	50	50	0.00900	7.548	0.0009096	0.0010719	0.0010719	1	mg/L
WG452581-08	50	50	0.00900	7.548	0.0009096	0.0010719	0.0010719	1	mg/L

[redacted]

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 11/15/2013 11:42

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452997
File ID: 1V.1311141550-01
CCV ID: WG452997-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:50
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0194	7.23	4.4	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 11:39

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452997
File ID: 1V.1311141550-16
CCV ID: WG452997-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:50
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0196	7.33	3.4	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 11:39

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG452997
File ID: 1V.1311141550-17
CCV ID: WG452997-03
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:50
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.203	0.187	1.38	7.9	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 11/15/2013 11:45

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG452997
File ID: 1V.1311141550-18
CCV ID: WG452997-04
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:50
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0188	7.04	7.4	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 11/15/2013 11:45

[redacted]

Cyanide
(cyanide3)

☑ Total method 9010B/9014
SM4500 CN C,E
EPA 335.2

SOP: K3354 Rev 14
Spec: UV-120-IV
Instrument: Easy-Dist
Matrix: Liquid (mg/L) Soil (mg/kg)

☐ CN – Ameanable (same as total methods)

☐ WD method SM4500 CN I

Curve ID: WG452777 / WG452775 11/14/13

CCV: Std 60203

True Value: 1016 mg/L

Daily Dilution: 5(1000)/250 = 20
10(20)/100 = 2
10(2)/100 = ~~0.02~~ 0.2

LCS: Std 60204

True Value: 1000 mg/L

Daily Dilution: 5(1000)/250 = 20
10(20)/100 = 2
5(2)/50 = 0.2
1(2)/50 = 0.04

Spike: Std 60204

True Value: 1000 mg/L

Daily Dilution: 1(2)/50 = 0.04

Distillation Reagents

RGT 28264
RGT 28477
RGT 28561
CoA 17124

Colorimetric Reagents

RGT 28657
RGT 28659
RGT 28599

DCN#98827

Cyanide
(cyanide3)

Sample	Volume mL/grams	pH > 12	Sulfide Presense	Dilution	Cell Size (cm)	Absorbance λ = 578 nm
CCV(high): 0.2032 ppm	50	✓	ND		1	0.295
CCV(low): 0.02032 ppm	50	✓			5	0.159
Blank	50	✓			5	0.003
LCS: 0.2 ppm	50	✓			1	0.290
LCS: 0.04 ppm	50	✓			5	0.285
11-701-01	50	✓			5	0.026
11-337-01	50	✓			1	0.448
02	50	✓			1	0.RCX)
03	50	✓			5	0.004
11-379-01	50	✓			1	0.186
04	50	✓			5	0.348
11-432-02	50	✓			5	0.013
11-584-01	50	✓			5	0.026
MS 02	50	✓			5	0.273
MSD 03	50	✓			5	0.283
11-502-01	50	✓			5	0.082
11-692-02	50	✓			5	0.011
11-704-01	50	✓			5	0.132
02	50	✓			5	0.145
03	50	✓			5	0.047
04	50	✓			5	0.131
11-465-01	50	✓			1	0.460
02	50	✓			1	0.561
03	50	✓			1	0.109
	50					
Duplicate: 11-701-01	50	✓			5	0.025
MS: (ppm)						
MSD: (ppm)						
CCV high: (0.2032 ppm)	50	✓			1	0.298
CCV low: (0.02032 ppm)	50	✓			5	0.158

Analyst: David Merckle Date/Time (on) 11/13/13 1015

(off) 1245

(color) 11/14/13 1530

distilled CCV 0.2	0.280
distilled CCV 0.02	0.143

DCN#98827

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG452580 **Analyst:** DCM
Analyte: CYANIDE **Date:** 11/14/2013

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG452580-01	50	50	0.00300	7.548	0.0009096	0.00027696	0.00027696	1	mg/L
WG452580-02	50	50	0.290	1.509	-0.002030	0.19352	0.19352	1	mg/L
WG452580-03	50	50	0.285	7.548	0.0009096	0.037639	0.037639	1	mg/L
L13110701-01	50	50	0.0260	7.548	0.0009096	0.0033242	ND	1	mg/L
WG452580-07	50	50	0.0260	7.548	0.0009096	0.0033242	0.0033242	1	mg/L
L13110337-01	50	50	0.448	1.509	-0.002030	0.29822	0.29822	1	mg/L
L13110337-02	50	50	0.200	1.509	-0.002030	0.13388	0.13388	1	mg/L
L13110337-03	50	50	0.00400	7.548	0.0009096	0.00040945	ND	1	mg/L
L13110579-01	50	50	0.186	1.509	-0.002030	0.12460	0.12460	1	mg/L
L13110579-04	50	50	0.348	7.548	0.0009096	0.045985	0.045985	1	mg/L
L13110432-02	50	50	0.0130	7.548	0.0009096	0.0016018	ND	1	mg/L
L13110584-01	50	50	0.0260	7.548	0.0009096	0.0033242	ND	1	mg/L
WG452580-04	50	50	0.0260	7.548	0.0009096	0.0033242	0.0033242	1	mg/L
L13110584-02	50	50	0.273	7.548	0.0009096	0.036049	0.036049	1	mg/L
WG452580-05	50	50	0.273	7.548	0.0009096	0.036049	0.036049	1	mg/L
L13110584-03	50	50	0.283	7.548	0.0009096	0.037374	0.037374	1	mg/L
WG452580-06	50	50	0.283	7.548	0.0009096	0.037374	0.037374	1	mg/L
L13110502-01	50	50	0.0820	7.548	0.0009096	0.010744	10.744	1	ug/L
L13110692-02	50	50	0.0110	7.548	0.0009096	0.0013369	ND	1	mg/L
L13110704-01	50	50	0.132	7.548	0.0009096	0.017368	0.017368	1	mg/L
L13110704-02	50	50	0.145	7.548	0.0009096	0.019090	0.019090	1	mg/L
L13110704-03	50	50	0.0470	7.548	0.0009096	0.0061064	ND	1	mg/L
L13110704-04	50	50	0.131	7.548	0.0009096	0.017235	0.017235	1	mg/L
L13110465-01	50	50	0.460	1.509	-0.002030	0.30617	0.30617	1	mg/L
L13110465-02	50	50	0.561	1.509	-0.002030	0.37310	0.37310	1	mg/L
L13110465-03	50	50	0.109	1.509	-0.002030	0.073575	0.073575	1	mg/L
WG452580-08	50	50	0.0250	7.548	0.0009096	0.0031917	0.0031917	1	mg/L

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated **11/15/2013 11:15**

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452980
File ID: 1V.1311141530-01
CCV ID: WG452980-01
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:30
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.203	0.197	1.45	3.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 10:34

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452980
File ID: 1V.1311141530-02
CCV ID: WG452980-02
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:30
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0209	7.82	3.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 10:34

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452980
File ID: 1V.1311141530-26
CCV ID: WG452980-03
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:30
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.203	0.199	1.47	2.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 10:34

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452980
File ID: 1V.1311141530-27
CCV ID: WG452980-04
Units: mg/L
Analyte: CYANIDE

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:30
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0208	7.78	2.5	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/15/2013 10:34

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG452980
File ID: 1V.1311141530-29
CCV ID: WG452980-06
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:30
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.0203	0.0188	7.04	7.4	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 11/15/2013 11:22

[redacted]

Microbac Laboratories Inc.
DISTILLED STANDARD REPORT

Workgroup #: WG452980
File ID: 1V.1311141530-28
CCV ID: WG452980-05
Units: mg/L

Instrument ID: UV-120-1V
Run Date: 11/14/2013
Run Time: 15:30
Analyst: DCM
Cal ID: UV-120 - 14-NOV-13

Analyte	Expected	Found	RF	%D	Q
Cyanide	.203	0.187	1.38	7.9	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WG_CCV_LCS - Modified 03/06/2008
Report generated 11/15/2013 11:22

[redacted]

2.2.5 Conductivity Data

2.2.5.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis EPA 120.1/SM2510 B (Conductivity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

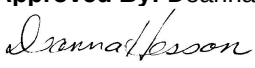
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74771
Approved By: Deanna Hesson



2.2.5.2 QC Summary Data

(Readout)/(dilution) = mg/L

where:

Readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 07-NOV-2013
Analyst: DIH
Analyst: NA
Method: PH/COND/ALK
Instrument: TIAMO
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452026

Calibration/Linearity	11/8/13
Second Source Check	X
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
17-NOV-2013
Dianna Ibsson

Secondary Reviewer:
17-NOV-2013
Dianna Ibsson

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-17-2013 14:18:33

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 120.1 **AAB#:** WG452034

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/08/2013	1.4	28		11/08/13	1.4	28	
MPL 7-1113-1	02	11/07/13					11/08/2013	1.4	28		11/08/13	1.4	28	
MPL 5-1113-1	03	11/07/13					11/08/2013	1.3	28		11/08/13	1.3	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3203826
Report generated 11/14/2013 14:28

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L13110465
Work Group: WG452034
Blank File ID: TI.110813.1943CO
Blank Sample ID: WG452034-01
Prep Date: 11/08/13 19:43
Instrument ID: TIAMO1
Analyzed Date: 11/08/13 19:43
Method: 120.1
Analyst: DIH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452034-02	TI.110813.1945CO	11/08/13 19:45	01
DUP	WG452034-05	TI.110813.2022CO	11/08/13 20:22	01
MPL 29-1113-1	L13110465-01	TI.110813.2136CO	11/08/13 21:36	01
MPL 7-1113-1	L13110465-02	TI.110813.2138CO	11/08/13 21:38	01
MPL 5-1113-1	L13110465-03	TI.110813.2140CO	11/08/13 21:40	01
LCS2	WG452034-03	TI.110813.2203CO	11/08/13 22:03	01

Report Name: BLANK_SUMMARY
PDF File ID: 3203827
Report generated 11/14/2013 14:28

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number:L13110465 Prep Date:11/08/13 19:43 Sample ID:WG452034-01
Instrument ID:TIAMO1 Run Date:11/08/13 19:43 Prep Method:120.1
File ID:TI.110813.1943CO Analyst:DIH Method:120.1
Workgroup (AAB#):WG452034 Matrix:Water Units:umhos/cm
Contract #: Cal ID:TIAMO1-

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Conductivity	10.0	50.0	23.8	1	J

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3203828
14-NOV-2013 14:28

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Analyst:** DIH **Prep Method:** 120.1
Instrument ID: TIAMO1 **Matrix:** Water **Method:** 120.1
Workgroup (AAB#): WG452034 **Units:** umhos/cm
QC Key: DOD4 **Lot #:** STD60276

Sample ID: WG452034-02 LCS **File ID:** TI.110813.1945CO **Run Date:** 11/08/2013 19:45
Sample ID: WG452034-03 LCS2 **File ID:** TI.110813.2203CO **Run Date:** 11/08/2013 22:03

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Conductivity	1410	1520	108	1410	1420	101	6.64	90 - 110	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3203829
Report generated: 11/14/2013 14:28

2.2.5.3 Raw Data

Metrohm Tiamo (tiamo1)

Instrument: Tiamo

pH:

EPA 150.1 / SM 4500-H(+)-B / SW846 9040C

LCS 6: 59686 Calibration: 11/8/13

LCS 9: 59687

WG: 452026
452029
452030
452037
452106

NOTE: • An LCS is analyzed every 20 samples
• Alternate levels

Cond:

EPA 120.1 / SM 2510B

LCS: 60276 Daily Dil: 20/200 (0.1M) = 1412 umhos/cm

Cell Constant: 0.777

WG: 452025 ✓
452028 ✓
452034 ✓
452105
452108

NOTE: • LCS/LCSDUP required each work group
• End run with LCS

ALK:

EPA 310.1 / SM 2320B

LCS: 60183 Daily Dil: 10/250 (2500) = 100 mg/L

Titrant T: 1286-13-01 N: 0.1 N H_2SO_4

WG: 452023 ✓
452027 ✓
452104
452107

NOTE: • LCS/LCSDUP required each work group

Analyst: Deanne Hessen Date: 11/7/13 File: 1082013PAC

DCN#98733

Metrohm Tiamo (tiamo1)

	Sample ID	Dilution	pH	Cond	ALK	Acid		Sample ID	Dilution	pH	Cond	ALK	Acid
1	pH 9		✓				50	11-418-03		✓	✓		
2	BLK			✓			51	05		✓	✓		
3	LCS 1412			✓			52	11-420-01		✓	✓		
4	BLK				✓		53	11-421-02		✓	✓		
5	LCS 100				✓		54	04		✓	✓		
6	LCSDUP				✓		55	06		✓	✓		
7	11-382-02		✓		✓		56	11-422-04		✓	✓		
8	03		✓		✓		57	pH 9		✓			
9	11-384-01		✓	✓	✓		58	11-434-02		✓	✓		
10	02		✓	✓	✓		59	04		✓	✓		
11	03		✓	✓	✓		60	07		✓	✓		
12	04		✓	✓	✓		61	DUP ↓		✓	✓		
13	05		✓	✓	✓		62	LCS DUP			✓		
14	06		✓	✓	✓		63	11-417-01		✓			
15	07		✓	✓	✓		64	04		✓			
16	08		✓	✓	✓		65	11-376-01		✓			
17	09		✓	✓	✓		66	13		✓			
18	10		✓	✓	✓		67	15		✓			
19	11		✓	✓	✓		68	17		✓			
20	11-434-01		✓	✓	✓		69	19		✓			
21	06		✓	✓	✓		70	21		✓			
22	11-435-05		✓	✓	✓		71	23		✓			
23	06		✓	✓	✓		72	11-377-08		✓			
24	07		✓	✓	✓		73	~~11-383-02~~		✓			
25	08		✓	✓	✓		74	11-417-06		✓			
26	11-436-01		✓	✓	✓		75	08		✓			
27	DUP ↓		✓		✓		76	~~11-394-01~~		✓			
28	~~11-413-02~~	pH6	✓	ΔH0			77	~~11-397-01~~		✓			
29	11-413-04		✓	✓			78	11-419-01		✓			
30	07		✓	✓			79	02		✓			
31	DUP ↓			✓			80	pH 6		✓			
32	~~LCSDUP~~ 11-413-02		✓	✓			81	BLK			✓		
33	LCSDUP			✓			82	LCS 1412			✓		
34	BLK			✓			83	11-434-09		✓	✓		
35	LCS 1412			✓			84	11-435-01		✓	✓		
36	BLK				✓		85	03		✓	✓		
37	LCS 100				✓		86	09		✓	✓		
38	LCSDUP				✓		87	11-438-01		✓	✓	✓	
39	11-436-03		✓	✓	✓		88	02		✓	✓	✓	
40	05		✓	✓	✓		89	DUP ↓		✓	✓		
41	11-437-01		✓	✓	✓		90	11-441-03		✓	✓	✓	
42	02		✓	✓	✓		91	11-445-07		✓	✓	✓	
43	03		✓	✓	✓		92	09		✓	✓	✓	
44	04		✓	✓	✓		93	10		✓	✓	✓	
45	DUP 04		✓		✓		94	11-464-07		✓	✓	✓	
46	11-413-09		✓	✓			95	08		✓	✓	✓	
47	11-415-01		✓	✓			96	09		✓	✓	✓	
48	07		✓	✓			97	10		✓	✓	✓	
49	11-418-01		✓	✓			98	11		✓	✓	✓	

#73 441-01 pH

11/8/13 JLM 472-01

Analyst: JLM Date: 11/8

DCN#98733

Metrohm Tiamo (tiamo1)

	Sample ID	Dilution	pH	Cond	ALK	Acid		Sample ID	Dilution	pH	Cond	ALK	Acid
1	11-465-01			✓			50	MeHAND					
2	02			✓			51						
3	03			✓			52						
4	11-483-01		✓	✓	✓		53						
5	02		✓	✓	✓		54						
6	05		✓	✓	✓		55						
7	LCSDUP			✓			56						
8	pH 9		✓	NO			57						
9	BLK			✓			58						
10	LCS 1412			✓			59						
11	BLK				✓		60						
12	LCS 100				✓		61						
13	LCSDUP				✓		62						
14	11-483-06		✓	✓	✓		63						
15	07		✓	✓	✓		64						
16	08		✓	✓	✓		65						
17	09		✓	✓	✓		66						
18	10		✓	✓	✓		67						
19	11		✓	✓	✓		68						
20	12		✓	✓	✓		69						
21	13		✓	✓	✓		70						
22	14		✓	✓	✓		71						
23	16		✓	✓	✓		72						
24	17		✓	✓	✓		73						
25	18		✓	✓	✓		74						
26	19		✓	✓	✓		75						
27	20		✓	✓	✓		76						
28	21		✓	✓	✓		77						
29	22		✓	✓	✓		78						
30	23		✓	✓	✓		79						
31	24		✓	✓	✓		80						
32	30		✓	✓	✓		81						
33	11-494-39		✓	✓	✓		82						
34	DUP 39		✓		✓		83						
35	DUP 39			✓			84						
36	~~pH 6~~ LCSDUP		NO	✓			85						
37	~~BLK~~ pH 6		✓				86						
38	~~LCS~~ BLK			✓			87						
39	LCS 1417			✓			88						
40	BLK				✓		89						
41	LCS				✓		90						
42	LCSDUP				✓		91						
43	11-494-41		✓	✓	✓		92						
44	43		✓	✓	✓		93						
45	45		✓	✓	✓		94						
46	DUP 45		✓		✓		95						
47	DUP 45			✓			96						
48	LCSDUP			✓			97						
49	pH 9		✓				98						

#4

Analyst: _____ Date: 11/18

DCN#98733

Sample ID: PH 9 — 2013-11-08 12:32:49 UTC-5

sample pH	8.978	pH
Res25	21.89	°C

Sample ID: WG452025-01 — 2013-11-08 12:38:23 UTC-5

sample Conduntivity	31.500	µS/cm

Sample ID: WG452025-02 — 2013-11-08 12:40:16 UTC-5

sample Conduntivity	1547.400	µS/cm

Sample ID: WG452023-01 — 2013-11-08 12:42:15 UTC-5

Alkal mg/L CaCO3	14.60	mg/L

Sample ID: WG452023-02 — 2013-11-08 12:46:44 UTC-5

Alkal mg/L CaCO3	97.56	mg/L

Sample ID: WG452023-03 — 2013-11-08 12:52:03 UTC-5

Alkal mg/L CaCO3	96.60	mg/L

Sample ID: L13110382-02 — 2013-11-08 12:57:22 UTC-5

Alkal mg/L CaCO3	126.00	mg/L
sample Conduntivity	447.000	µS/cm
sample pH	7.686	pH

Sample ID: L13110382-03 — 2013-11-08 13:04:23 UTC-5

Alkal mg/L CaCO3	102.19	mg/L
sample Conduntivity	8073.400	µS/cm
sample pH	8.148	pH

Sample ID: L13110384-01 — 2013-11-08 13:11:23 UTC-5

Alkal mg/L CaCO3	178.32	mg/L
sample Conduntivity	527.400	µS/cm
sample pH	7.203	pH

Sample ID: L13110384-02 — 2013-11-08 13:18:41 UTC-5

Alkal mg/L CaCO3	238.20	mg/L
sample Conduntivity	739.400	µS/cm
sample pH	7.472	pH

Sample ID: L13110384-03 — 2013-11-08 13:26:14 UTC-5

Alkal mg/L CaCO3	194.40	mg/L
sample Conduntivity	642.500	µS/cm
sample pH	7.497	pH

Sample ID: L13110384-04 — 2013-11-08 13:33:37 UTC-5

Alkal mg/L CaCO3	273.60	mg/L
sample Conduntivity	9794.400	µS/cm
sample pH	6.818	pH

Sample ID: L13110384-05 — 2013-11-08 13:41:28 UTC-5

Alkal mg/L CaCO3	636.00	mg/L
sample Conduntivity	4096.100	µS/cm
sample pH	7.085	pH

Sample ID: L13110384-06 2013-11-08 13:51:07 UTC-5

Alkal mg/L CaCO3	260.20	mg/L
sample Conduntivity	3425.500	µS/cm
sample pH	7.136	pH

Sample ID: L13110384-07 2013-11-08 13:58:57 UTC-5

Alkal mg/L CaCO3	280.20	mg/L
sample Conduntivity	3551.400	µS/cm
sample pH	7.177	pH

Sample ID: L13110384-08 2013-11-08 14:06:52 UTC-5

Alkal mg/L CaCO3	378.20	mg/L
sample Conduntivity	904.000	µS/cm
sample pH	8.687	pH

Sample ID: L13110384-09 2013-11-08 14:15:00 UTC-5

Alkal mg/L CaCO3	1282.40	mg/L
sample Conduntivity	2665.600	µS/cm
sample pH	8.080	pH

Sample ID: L13110384-10 2013-11-08 14:27:30 UTC-5

Alkal mg/L CaCO3	243.71	mg/L
sample Conduntivity	1845.600	µS/cm
sample pH	7.409	pH

Sample ID: L13110384-11 2013-11-08 14:35:12 UTC-5

Alkal mg/L CaCO3	265.60	mg/L
sample Conduntivity	593.000	µS/cm
sample pH	7.485	pH

Sample ID: L13110434-01 2013-11-08 14:42:53 UTC-5

Alkal mg/L CaCO3	60.60	mg/L
sample Conduntivity	792.300	µS/cm
sample pH	7.450	pH

Sample ID: L13110434-06 2013-11-08 14:49:29 UTC-5

Alkal mg/L CaCO3	100.20	mg/L
sample Conduntivity	1239.500	µS/cm
sample pH	7.810	pH

Sample ID: L13110435-05 2013-11-08 14:56:22 UTC-5

Alkal mg/L CaCO3	104.20	mg/L
sample Conduntivity	1249.400	µS/cm
sample pH	7.808	pH

Sample ID:	L13110435-06	2013-11-08 15:03:16 UTC-5
Alkal mg/L CaCO3	48.60	mg/L
sample Conduntivity	152.600	µS/cm
sample pH	6.523	pH
Sample ID:	L13110435-07	2013-11-08 15:09:45 UTC-5
Alkal mg/L CaCO3	56.40	mg/L
sample Conduntivity	726.800	µS/cm
sample pH	7.540	pH
Sample ID:	L13110435-08	2013-11-08 15:16:14 UTC-5
Alkal mg/L CaCO3	54.96	mg/L
sample Conduntivity	736.800	µS/cm
sample pH	7.493	pH
Sample ID:	L13110436-01	2013-11-08 15:22:42 UTC-5
Alkal mg/L CaCO3	56.37	mg/L
sample Conduntivity	723.300	µS/cm
sample pH	7.551	pH
Sample ID:	WG452023-05	2013-11-08 15:29:08 UTC-5
sample pH	7.604	pH
Alkal mg/L CaCO3	56.78	mg/L
Sample ID:	PH 6	2013-11-08 15:34:22 UTC-5
sample pH	6.017	pH
Res25	21.93	°C
Sample ID:	L13110413-04	2013-11-08 15:38:37 UTC-5
sample Conduntivity	911.300	µS/cm
sample pH	7.443	pH
Sample ID:	L13110413-07	2013-11-08 15:43:53 UTC-5
sample Conduntivity	921.700	µS/cm
sample pH	7.878	pH
Sample ID:	WG452025-05	2013-11-08 15:49:13 UTC-5
sample Conduntivity	919.400	µS/cm
Sample ID:	L13110413-02	2013-11-08 15:51:09 UTC-5
sample Conduntivity	688.400	µS/cm
sample pH	8.114	pH
Sample ID:	WG452025-03	2013-11-08 15:56:28 UTC-5
sample Conduntivity	1465.300	µS/cm
Sample ID:	WG452028-01	2013-11-08 15:58:23 UTC-5
sample Conduntivity	4.500	µS/cm

Sample ID: WG452028-02 2013-11-08 16:00:19 UTC-5

sample Conduntivity	1520.800	µS/cm

Sample ID: WG452027-01 2013-11-08 16:02:15 UTC-5

Alkal mg/L CaCO3	8.60	mg/L

Sample ID: WG452027-02 2013-11-08 16:06:54 UTC-5

Alkal mg/L CaCO3	95.31	mg/L

Sample ID: WG452027-03 2013-11-08 16:12:04 UTC-5

Alkal mg/L CaCO3	99.20	mg/L

Sample ID: L13110436-03 2013-11-08 16:17:18 UTC-5

Alkal mg/L CaCO3	55.71	mg/L
sample Conduntivity	760.000	µS/cm
sample pH	7.563	pH

Sample ID: L13110436-05 2013-11-08 16:23:44 UTC-5

Alkal mg/L CaCO3	48.57	mg/L
sample Conduntivity	146.300	µS/cm
sample pH	6.521	pH

Sample ID: L13110437-01 2013-11-08 16:30:09 UTC-5

Alkal mg/L CaCO3	102.80	mg/L
sample Conduntivity	1176.200	µS/cm
sample pH	7.746	pH

Sample ID: L13110437-02 2013-11-08 16:37:00 UTC-5

Alkal mg/L CaCO3	56.40	mg/L
sample Conduntivity	703.200	µS/cm
sample pH	7.594	pH

Sample ID: L13110437-03 2013-11-08 16:43:28 UTC-5

Alkal mg/L CaCO3	54.98	mg/L
sample Conduntivity	704.300	µS/cm
sample pH	7.483	pH

Sample ID: L13110437-04 2013-11-08 16:50:00 UTC-5

Alkal mg/L CaCO3	106.20	mg/L
sample Conduntivity	1178.300	µS/cm
sample pH	7.856	pH

Sample ID: WG452027-05 2013-11-08 16:56:54 UTC-5

sample pH	7.867	pH
Alkal mg/L CaCO3	107.20	mg/L

Sample ID: L13110413-09 2013-11-08 17:02:42 UTC-5

sample Conduntivity	1031.600	µS/cm
sample pH	9.217	pH

Sample ID: L13110415-01 2013-11-08 17:08:08 UTC-5

sample Conduntivity	940.500	µS/cm
sample pH	8.607	pH

Sample ID: L13110415-07 2013-11-08 17:13:41 UTC-5

sample Conduntivity	763.400	µS/cm
sample pH	7.686	pH

Sample ID: L13110418-01 2013-11-08 17:19:14 UTC-5

sample Conduntivity	663.500	µS/cm
sample pH	7.536	pH

Sample ID: L13110418-03 2013-11-08 17:24:47 UTC-5

sample Conduntivity	699.700	µS/cm
sample pH	7.951	pH

Sample ID: L13110418-05 2013-11-08 17:30:19 UTC-5

sample Conduntivity	712.900	µS/cm
sample pH	8.069	pH

Sample ID: L13110420-01 2013-11-08 17:35:49 UTC-5

sample Conduntivity	275.700	µS/cm
sample pH	7.144	pH

Sample ID: L13110421-02 2013-11-08 17:41:19 UTC-5

sample Conduntivity	960.300	µS/cm
sample pH	7.746	pH

Sample ID: L13110421-04 2013-11-08 17:46:47 UTC-5

sample Conduntivity	696.600	µS/cm
sample pH	7.970	pH

Sample ID: L13110421-06 2013-11-08 17:52:14 UTC-5

sample Conduntivity	709.300	µS/cm
sample pH	8.068	pH

Sample ID: L13110422-04 2013-11-08 17:57:39 UTC-5

sample Conduntivity	257.800	µS/cm
sample pH	8.058	pH

Sample ID: PH 9 2013-11-08 18:03:02 UTC-5

sample pH	8.996	pH
Res25	20.87	°C

Sample ID: L13110434-02 2013-11-08 18:07:23 UTC-5

sample Conduntivity	749.200	µS/cm
sample pH	8.445	pH

Sample ID: L13110434-04 2013-11-08 18:12:41 UTC-5

sample Conduntivity . . . . . 1176.400 µS/cm
sample pH . . . . . 7.960 pH

Sample ID: L13110434-07 2013-11-08 18:18:02 UTC-5
sample Conduntivity . . . . . 707.000 µS/cm
sample pH . . . . . 7.724 pH

Sample ID: WG452028-05 2013-11-08 18:23:22 UTC-5
sample Conduntivity . . . . . 695.000 µS/cm
sample pH . . . . . 7.692 pH

Sample ID: WG452028-03 2013-11-08 18:28:41 UTC-5
sample Conduntivity . . . . . 1446.300 µS/cm

Sample ID: L13110417-01 2013-11-08 18:30:33 UTC-5
sample pH . . . . . 7.968 pH
Res25 . . . . . 20.76 °C

Sample ID: L13110417-04 2013-11-08 18:34:46 UTC-5
sample pH . . . . . 7.610 pH
Res25 . . . . . 20.67 °C

Sample ID: L13110376-01 2013-11-08 18:38:54 UTC-5
sample pH . . . . . 8.001 pH
Res25 . . . . . 21.00 °C

Sample ID: L13110376-13 2013-11-08 18:43:02 UTC-5
sample pH . . . . . 7.781 pH
Res25 . . . . . 21.12 °C

Sample ID: L13110376-15 2013-11-08 18:47:12 UTC-5
sample pH . . . . . 8.111 pH
Res25 . . . . . 21.10 °C

Sample ID: L13110376-17 2013-11-08 18:51:22 UTC-5
sample pH . . . . . 8.138 pH
Res25 . . . . . 21.04 °C

Sample ID: L13110376-19 2013-11-08 18:55:35 UTC-5
sample pH . . . . . 7.958 pH
Res25 . . . . . 21.02 °C

Sample ID: L13110376-21 2013-11-08 18:59:49 UTC-5
sample pH . . . . . 8.000 pH
Res25 . . . . . 21.03 °C

Sample ID: L13110376-23 2013-11-08 19:04:05 UTC-5
sample pH . . . . . 8.120 pH
Res25 . . . . . 20.86 °C

377-03

Sample ID: L13110~~373-03~~ 2013-11-08 19:08:22 UTC-5
sample pH . . . . . 8.087 pH
Res25 . . . . . 20.75 °C

Sample ID: L13110441-01 2013-11-08 19:12:41 UTC-5
sample pH . . . . . 8.363 pH
Res25 . . . . . 20.70 °C

Sample ID: L13110417-06 2013-11-08 19:17:02 UTC-5
sample pH . . . . . 7.945 pH
Res25 . . . . . 20.83 °C

Sample ID: L13110417-08 2013-11-08 19:21:24 UTC-5
sample pH . . . . . 7.811 pH
Res25 . . . . . 21.02 °C

Sample ID: L13110472-01 2013-11-08 19:25:48 UTC-5
sample pH . . . . . 8.211 pH
Res25 . . . . . 21.02 °C

Sample ID: L13110419-01 2013-11-08 19:30:10 UTC-5
sample pH . . . . . 8.030 pH
Res25 . . . . . 21.13 °C

Sample ID: L13110419-02 2013-11-08 19:34:29 UTC-5
sample pH . . . . . 8.031 pH
Res25 . . . . . 21.10 °C

Sample ID: PH 6 2013-11-08 19:38:46 UTC-5
sample pH . . . . . 6.043 pH
Res25 . . . . . 21.09 °C

Sample ID: WG452034-01 2013-11-08 19:43:04 UTC-5
sample Conduntivity . . . . . 23.800 µS/cm

Sample ID: WG452034-02 2013-11-08 19:45:00 UTC-5
sample Conduntivity . . . . . 1520.300 µS/cm

Sample ID: L13110434-09 2013-11-08 19:46:58 UTC-5
sample Conduntivity . . . . . 1148.600 µS/cm
sample pH . . . . . 7.290 pH

Sample ID: L13110435-01 2013-11-08 19:52:18 UTC-5
sample Conduntivity . . . . . 688.600 µS/cm
sample pH . . . . . 7.557 pH

Sample ID: L13110435-03 2013-11-08 19:57:36 UTC-5
sample Conduntivity . . . . . 1152.200 µS/cm
sample pH . . . . . 7.900 pH

Sample ID: L13110435-09 2013-11-08 20:02:54 UTC-5

sample Conduntivity	693.200	µS/cm
sample pH	7.704	pH

Sample ID: L13110438-01 2013-11-08 20:08:13 UTC-5

Alkal mg/L CaCO3	148.35	mg/L
sample Conduntivity	460.200	µS/cm
sample pH	8.188	pH

Sample ID: L13110438-02 2013-11-08 20:15:16 UTC-5

Alkal mg/L CaCO3	147.40	mg/L
sample Conduntivity	462.000	µS/cm
sample pH	8.219	pH

Sample ID: WG452034-05 2013-11-08 20:22:10 UTC-5

sample Conduntivity	462.500	µS/cm
sample pH	8.235	pH

Sample ID: L13110441-03 2013-11-08 20:27:27 UTC-5

Alkal mg/L CaCO3	541.99	mg/L
sample Conduntivity	1894.500	µS/cm
sample pH	8.398	pH

Sample ID: L13110445-07 2013-11-08 20:36:14 UTC-5

Alkal mg/L CaCO3	89.40	mg/L
sample Conduntivity	455.900	µS/cm
sample pH	6.690	pH

Sample ID: L13110445-09 2013-11-08 20:43:00 UTC-5

Alkal mg/L CaCO3	139.37	mg/L
sample Conduntivity	460.900	µS/cm
sample pH	8.190	pH

Sample ID: L13110445-10 2013-11-08 20:50:02 UTC-5

Alkal mg/L CaCO3	149.40	mg/L
sample Conduntivity	552.600	µS/cm
sample pH	8.256	pH

Sample ID: L13110464-07 2013-11-08 20:57:10 UTC-5

Alkal mg/L CaCO3	256.00	mg/L
sample Conduntivity	818.400	µS/cm
sample pH	7.418	pH

Sample ID: L13110464-08 2013-11-08 21:04:46 UTC-5

Alkal mg/L CaCO3	195.15	mg/L
sample Conduntivity	566.500	µS/cm
sample pH	6.777	pH

Sample ID: L13110464-09 2013-11-08 21:12:07 UTC-5

Alkal mg/L CaCO3 . . . . . 584.70 mg/L
sample Conduntivity . . . . . 1296.200 µS/cm
sample pH . . . . . 8.901 pH

Sample ID: L13110464-10 2013-11-08 21:20:58 UTC-5
Alkal mg/L CaCO3 . . . . . 298.38 mg/L
sample Conduntivity . . . . . 660.500 µS/cm
sample pH . . . . . 7.055 pH

Sample ID: L13110464-11 2013-11-08 21:28:35 UTC-5
Alkal mg/L CaCO3 . . . . . 334.89 mg/L
sample Conduntivity . . . . . 941.300 µS/cm
sample pH . . . . . 8.719 pH

Sample ID: L13110465-01 2013-11-08 21:36:19 UTC-5
sample Conduntivity . . . . . 653.600 µS/cm

Sample ID: L13110465-02 2013-11-08 21:38:10 UTC-5
sample Conduntivity . . . . . 739.000 µS/cm

Sample ID: L13110465-03 2013-11-08 21:40:09 UTC-5
sample Conduntivity . . . . . 440.000 µS/cm

Sample ID: L13110483-01 2013-11-08 21:42:11 UTC-5
Alkal mg/L CaCO3 . . . . . 164.80 mg/L
sample Conduntivity . . . . . 437.100 µS/cm
sample pH . . . . . 7.859 pH

Sample ID: L13110483-02 2013-11-08 21:49:25 UTC-5
Alkal mg/L CaCO3 . . . . . 147.60 mg/L
sample Conduntivity . . . . . 408.300 µS/cm
sample pH . . . . . 7.804 pH

Sample ID: L13110483-05 2013-11-08 21:56:28 UTC-5
Alkal mg/L CaCO3 . . . . . 85.00 mg/L
sample Conduntivity . . . . . 245.900 µS/cm
sample pH . . . . . 7.812 pH

Sample ID: WG452034-03 2013-11-08 22:03:06 UTC-5
sample Conduntivity . . . . . 1422.600 µS/cm

Sample ID: PH 9 2013-11-08 22:05:02 UTC-5
sample pH . . . . . 8.983 pH
Res25 . . . . . 21.34 °C

Sample ID: WG452105-01 2013-11-08 22:09:29 UTC-5
sample Conduntivity . . . . . 49.900 µS/cm

Sample ID: WG452105-02 2013-11-08 22:11:28 UTC-5

sample Conduntivity . . . . . 1461.300 µS/cm

Sample ID: WG452104-01 2013-11-08 22:13:34 UTC-5

Alkal mg/L CaCO3 . . . . . 13.80 mg/L

Sample ID: WG452104-02 2013-11-08 22:18:10 UTC-5

Alkal mg/L CaCO3 . . . . . 98.60 mg/L

Sample ID: WG452104-03 2013-11-08 22:23:34 UTC-5

Alkal mg/L CaCO3 . . . . . 99.53 mg/L

Sample ID: L13110483-06 2013-11-08 22:29:00 UTC-5

Alkal mg/L CaCO3 . . . . . 84.60 mg/L
sample Conduntivity . . . . . 244.600 µS/cm
sample pH . . . . . 7.857 pH

Sample ID: L13110483-07 2013-11-08 22:35:47 UTC-5

Alkal mg/L CaCO3 . . . . . 149.74 mg/L
sample Conduntivity . . . . . 403.200 µS/cm
sample pH . . . . . 8.062 pH

Sample ID: L13110483-08 2013-11-08 22:43:01 UTC-5

Alkal mg/L CaCO3 . . . . . 150.60 mg/L
sample Conduntivity . . . . . 402.300 µS/cm
sample pH . . . . . 7.645 pH

Sample ID: L13110483-09 2013-11-08 22:50:14 UTC-5

Alkal mg/L CaCO3 . . . . . 104.20 mg/L
sample Conduntivity . . . . . 280.700 µS/cm
sample pH . . . . . 7.907 pH

Sample ID: L13110483-10 2013-11-08 22:57:09 UTC-5

Alkal mg/L CaCO3 . . . . . 98.40 mg/L
sample Conduntivity . . . . . 263.700 µS/cm
sample pH . . . . . 7.863 pH

Sample ID: L13110483-11 2013-11-08 23:04:01 UTC-5

Alkal mg/L CaCO3 . . . . . 112.20 mg/L
sample Conduntivity . . . . . 299.900 µS/cm
sample pH . . . . . 7.307 pH

Sample ID: L13110483-12 2013-11-08 23:10:58 UTC-5

Alkal mg/L CaCO3 . . . . . 182.74 mg/L
sample Conduntivity . . . . . 442.500 µS/cm
sample pH . . . . . 7.982 pH

Sample ID: L13110483-13 2013-11-08 23:18:20 UTC-5

Alkal mg/L CaCO3 . . . . . 170.68 mg/L
sample Conduntivity . . . . . 416.600 µS/cm

sample pH . . . . . 8.129 pH

Sample ID: L13110483-14 2013-11-08 23:25:36 UTC-5

Alkal mg/L CaCO3 . . . . . 185.60 mg/L
sample Conduntivity . . . . . 436.600 µS/cm
sample pH . . . . . 7.723 pH

Sample ID: L13110483-16 2013-11-08 23:32:55 UTC-5

Alkal mg/L CaCO3 . . . . . 180.00 mg/L
sample Conduntivity . . . . . 1578.200 µS/cm
sample pH . . . . . 7.996 pH

Sample ID: L13110483-17 2013-11-08 23:40:14 UTC-5

Alkal mg/L CaCO3 . . . . . 143.79 mg/L
sample Conduntivity . . . . . 428.200 µS/cm
sample pH . . . . . 7.694 pH

Sample ID: L13110483-18 2013-11-08 23:47:17 UTC-5

Alkal mg/L CaCO3 . . . . . 148.40 mg/L
sample Conduntivity . . . . . 383.800 µS/cm
sample pH . . . . . 7.919 pH

Sample ID: L13110483-19 2013-11-08 23:54:20 UTC-5

Alkal mg/L CaCO3 . . . . . 160.60 mg/L
sample Conduntivity . . . . . 403.300 µS/cm
sample pH . . . . . 8.064 pH

Sample ID: L13110483-20 2013-11-09 00:01:28 UTC-5

Alkal mg/L CaCO3 . . . . . 132.00 mg/L
sample Conduntivity . . . . . 367.300 µS/cm
sample pH . . . . . 7.988 pH

Sample ID: L13110483-21 2013-11-09 00:08:25 UTC-5

Alkal mg/L CaCO3 . . . . . 124.20 mg/L
sample Conduntivity . . . . . 355.500 µS/cm
sample pH . . . . . 7.812 pH

Sample ID: L13110483-22 2013-11-09 00:15:18 UTC-5

Alkal mg/L CaCO3 . . . . . 167.40 mg/L
sample Conduntivity . . . . . 434.800 µS/cm
sample pH . . . . . 8.053 pH

Sample ID: L13110483-23 2013-11-09 00:22:24 UTC-5

Alkal mg/L CaCO3 . . . . . 164.20 mg/L
sample Conduntivity . . . . . 425.100 µS/cm
sample pH . . . . . 8.034 pH

Sample ID: L13110483-24 2013-11-09 00:29:28 UTC-5

Alkal mg/L CaCO3 . . . . . 245.40 mg/L

sample Conduntivity . . . . . 527.200 µS/cm
sample pH . . . . . 7.887 pH

Sample ID: L13110483-30 2013-11-09 00:36:54 UTC-5
Alkal mg/L CaCO3 . . . . . 190.80 mg/L
sample Conduntivity . . . . . 2082.200 µS/cm
sample pH . . . . . 7.904 pH

Sample ID: L13110494-39 2013-11-09 00:44:08 UTC-5
Alkal mg/L CaCO3 . . . . . 218.17 mg/L
sample Conduntivity . . . . . 1807.500 µS/cm
sample pH . . . . . 8.186 pH

Sample ID: WG452104-05 2013-11-09 00:51:25 UTC-5
sample pH . . . . . 8.184 pH
Alkal mg/L CaCO3 . . . . . 219.59 mg/L

Sample ID: WG452105-05 2013-11-09 00:57:35 UTC-5
sample Conduntivity . . . . . 1830.100 µS/cm

Sample ID: WG452105-03 2013-11-09 00:59:26 UTC-5
sample Conduntivity . . . . . 1450.400 µS/cm

Sample ID: PH 6 2013-11-09 01:01:20 UTC-5
sample pH . . . . . 6.015 pH
Res25 . . . . . 21.40 °C

Sample ID: WG452108-01 2013-11-09 01:06:07 UTC-5
sample Conduntivity . . . . . 28.600 µS/cm

Sample ID: WG452108-02 2013-11-09 01:08:01 UTC-5
sample Conduntivity . . . . . 1510.300 µS/cm

Sample ID: WG452107-01 2013-11-09 01:10:00 UTC-5
Alkal mg/L CaCO3 . . . . . 8.80 mg/L

Sample ID: WG452107-02 2013-11-09 01:14:55 UTC-5
Alkal mg/L CaCO3 . . . . . 98.17 mg/L

Sample ID: WG452107-03 2013-11-09 01:20:40 UTC-5
Alkal mg/L CaCO3 . . . . . 99.80 mg/L

Sample ID: L13110494-41 2013-11-09 01:26:01 UTC-5
Alkal mg/L CaCO3 . . . . . 236.71 mg/L
sample Conduntivity . . . . . 1601.600 µS/cm
sample pH . . . . . 8.182 pH

Sample ID: L13110494-43 2013-11-09 01:33:33 UTC-5
Alkal mg/L CaCO3 . . . . . 187.55 mg/L
sample Conduntivity . . . . . 1475.900 µS/cm

sample pH . . . . . 8.085 pH

Sample ID: L13110494-45 2013-11-09 01:40:54 UTC-5

Alkal mg/L CaCO3 . . . . . 193.30 mg/L
sample Conduntivity . . . . . 1555.800 µS/cm
sample pH . . . . . 8.178 pH

Sample ID: WG452107-05 2013-11-09 01:48:17 UTC-5

sample pH . . . . . 8.184 pH
Alkal mg/L CaCO3 . . . . . 194.00 mg/L

Sample ID: WG452108-05 2013-11-09 01:54:34 UTC-5

sample Conduntivity . . . . . 1552.500 µS/cm

Sample ID: WG452108-03 2013-11-09 01:56:37 UTC-5

sample Conduntivity . . . . . 1416.900 µS/cm

Sample ID: PH 9 2013-11-09 01:58:45 UTC-5

sample pH . . . . . 8.992 pH
Res25 . . . . . 21.35 °C

Sample ID: METHANOL 2013-11-09 02:03:16 UTC-5

sample Conduntivity . . . . . 120.200 µS/cm

2.2.6 Ammonia Data

2.2.6.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis EPA 350.1/SM4500-NH3 B(NH3)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

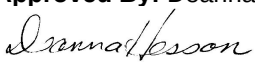
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74773
Approved By: Deanna Hesson



Microbac

Lab Report #: L13110465
Lab Project #: 3005.011
Project Name: White Sands MR
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 29-1113-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	11/19/2013 09:41
Workgroup #:	WG453359	**Analyst:**	BAF	**Run Date:**	11/19/2013 09:48
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	SC131119001.015
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7		U	0.100	0.0500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 7-1113-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	11/19/2013 09:41
Workgroup #:	WG453359	**Analyst:**	BAF	**Run Date:**	11/19/2013 09:50
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	SC131119001.016
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7		U	0.100	0.0500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	SMARTCHEM
Client ID:	MPL 5-1113-1	**Prep Method:**	350.1	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	350.1	**Cal Date:**	11/19/2013 09:41
Workgroup #:	WG453359	**Analyst:**	BAF	**Run Date:**	11/19/2013 09:50
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	SC131119001.017
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7		U	0.100	0.0500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.2.6.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 19-NOV-2013
Analyst: BAF
Analyst: NA
Method: NH3
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG453359 WG453360 WG453361

Calibration/Linearity	11-19-2013
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	BAF
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
19-NOV-2013

Secondary Reviewer:
19-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-19-2013 17:24:09

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 350.1 AAB#: WG453359

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/19/2013	12	28		11/19/13	12	28	
MPL 7-1113-1	02	11/07/13					11/19/2013	11.9	28		11/19/13	11.9	28	
MPL 5-1113-1	03	11/07/13					11/19/2013	11.8	28		11/19/13	11.8	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3213121
Report generated 11/19/2013 15:43

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG453359
Blank File ID:	SC131119001.011	Blank Sample ID:	WG453359-01
Prep Date:	11/19/13 09:45	Instrument ID:	SMARTCHEM
Analyzed Date:	11/19/13 09:45	Method:	350.1
Analyst:	BAF		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG453359-02	SC131119001.012	11/19/13 09:46	01
MPL 29-1113-1	L13110465-01	SC131119001.015	11/19/13 09:48	01
MPL 7-1113-1	L13110465-02	SC131119001.016	11/19/13 09:50	01
MPL 5-1113-1	L13110465-03	SC131119001.017	11/19/13 09:50	01
DUP	WG453359-05	SC131119001.039	11/19/13 10:10	01

Report Name: BLANK_SUMMARY
PDF File ID: 3213122
Report generated 11/19/2013 15:43

Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/19/13 09:45 Sample ID: WG453359-01
Instrument ID: SMARTCHEM Run Date: 11/19/13 09:45 Prep Method: 350.1
File ID: SC131119001.011 Analyst: BAF Method: 350.1
Workgroup (AAB#): WG453359 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC-19-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Nitrogen, Ammonia	0.0500	0.100	-0.121	1	*

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3213123
19-NOV-2013 15:43

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Run Date:** 11/19/2013 **Sample ID:** WG453359-02
Instrument ID: SMARTCHEM **Run Time:** 09:46 **Prep Method:** 350.1
File ID: SC131119001.012 **Analyst:** BAF **Method:** 350.1
Workgroup (AAB#): WG453359 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD59167 **Cal ID:** SMARTC-19-NOV-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Nitrogen, Ammonia	2.00	1.80	90.2	90 - 110	

LCS - Modified 03/06/2008
PDF File ID: 3213124
Report generated: 11/19/2013 15:43

2.2.6.3 Raw Data

SMARTCHEM RUN LOG

(smartchem2, smartchem3)

WORKGROUP: WG453359

453360
453361

Daily Check

- [x] Lamp On
- [x] Probe Rinse Full
- [x] DI Water > ½ Full
- [x] Wash Solution > ½ Full
- [ ] NO3 Reagent bottle connected / purged
- [ ] NO3 pH adj to pH 5-9

Syringe filter lot # _____

- [x] WBL Run
- [x] Reagents Full
- [x] Dilution H_2O Full
- [x] Waste Container Check

1) **Workgroup** _____
Plan # 20131119001
2) **Workgroup** _____
Plan # _____
3) **Workgroup** _____
Plan # _____

Instrument: SC1 [x] SC2 [ ]

	Analyte	1	2	3
	NH3	Dilution		
SC Prepared Curve				
Position				
1-1	ICV 1.5			
1-2	Blk			
1-3	LCS 2			
1-4	11-409-12			
1-5	13			
1-6	11-465-01			
1-7	02			
1-8	03			
1-9	11-682-07			
1-10	11			
1-11	11-773-01	5/50x1/20		
1-12	02	5/50 x 1/20		
1-13	03	5/50x 1/20		
1-14	06	5/50x1/4		
1-15	11-410-01			
1-16	11-765-03			
1-17	11-584-01			
1-18	MS 02			
1-19	MSD 03			
1-20	11-679-01			
1-21	02			
1-22	03			
2-1	04			
2-2	05			
2-3	06			

Position	Analyte	1	2	3
2-4	Dup 679-01			
2-5	MS ↓			
2-6	Blk			
2-7	LCS			
2-8	11-679-07			
2-9	08			
2-10	09			
2-11	10			
2-12	11			
2-13	MS 12			
2-14	MSD 13			
2-15	14			
2-16	11-748-04	Auto	1/3 x 1/2	
2-17	05	"	1/3 x 1/2	
2-18	MS 06	"	1/3 x 1/2	
2-19	MSD 07	"	1/3 x 1/2	
2-20	08			
2-21	11-789-01			
2-22	02			
2-23	03			
2-24	05			
2-25	DUP 05			
2-26	06			
3-1	07			
3-2	10			

NOTES:
* Run NO2 std on NO3 runs
* LCSD must be run if no MS or Duplicate
*MS(10% sample): NO3, TKN, NH3, PHOS

DCN#98953

SMARTCHEM RUN LOG

(smartchem2, smartchem3)

WORKGROUP: WG453359

Position	Analyte	1	2	3
3-3	11-735-01			
3-4	Blk			
3-5	LCS			
3-6	LCSDUP			
3-7	11-797-04			
3-8	DUP04			
3-9	07			
3-10	10			
3-11	13			
3-12	16	enb 11/19/13		
3-13	~~19~~ 17			
3-14	MS 20			
3-15	MSD 23			

Position	Analyte	1	2	3	
3-16	11-803-01				30.5 mL
3-17	02				15
3-18	03				19
3-19	04				11
3-20	05				34.5
3-21	06				23
3-22	11-797-01				
3-23	11-773-06	5/50			
3-24	Blk				
3-25	LCS set 2				
3-26	LCSdup				
3-27					
3-28					

	Chloride	EPA 325.2/SM 4500-Cl E-2000
	Nitrate-Nitrite	EPA 353.2/SM 4500-NO3 F-2000
	Alkalinity	EPA 310.2
	Sulfate	EPA 375.4/SM 426C (15th)/ SM4500-504 E-1997

✓	Ammonia	EPA 350.1/SM 4500-NH3 B-1997
	TKN	EPA 351.2
	Phos	EPA 365.4

Analyte	NH3	NH3AA2 µG	Reagents
SOP & Revision	K3501 Rev.19 →		RGT28589
Curve Stock (SC made)	Std 61226 →		RGT28431
NO2 STD			RGT28451
ICV	Std 60981 →		
CCV	Std 61225 →		
LCS	dist.	Std 61423	
MS	see log Dilution	Std 59167 0.1 (100) /10 = 1	

Comments: _____

Analyst: Brie Fenton Date: 11/19/13

DCN#98953

Sat

AMMONIA DISTILLATION LOG

SOP K3501 Revision # 18

LCS: Std 59167 10(100)/100 = 10 SPIKE: Std 59167 10(100)/100 = 10 WATER (mg/L)

DAILY DIL. 10(10)/50 = 2.0 DAILY DIL. 5(10)/50 = 1.0 SOIL (mg/Kg)

☑ easy-dist method ☐ macro method RGT 28276 RGT 28629

SAMPLE	VOLUME DISTILLED (mL)	CHLORINE PRESENT? No ✓	pH ADJUSTED 9.5 ± 0.2 Yes ✓	COMMENTS
BLANK	50	✓	✓	
LCS(2.0)		✓	✓	
11-409-12		✓	✓	
" 13		✓	✓	
11-465-01		✓	✓	
" 02		✓	✓	
" 03		✓	✓	
11-682-07		✓	✓	
11		✓	✓	
11-773-01	5mL	✓	✓	
" 02	5mL	✓	✓	
" 03	5mL	✓	✓	
" 06	5mL	✓	✓	
11-410-01	50	✓	✓	
11-765-03		✓	✓	
11-~~585~~ 584 01 Ref		✓	✓	
(1.0) 02 MS		✓	✓	
(1.0) " 03 MSD		✓	✓	
11-679-01		✓	✓	
" 02		✓	✓	
" 03		✓	✓	
" 04		✓	✓	
~~DUP~~ " 05		✓	✓	
~~MS~~ " 06		✓	✓	
Dup 11-679-01		✓	✓	

Analyst: Tammy Morris Date/Time: 11/18/13 @ 730

*MS required on 10% of samples (EPA 350.1)
*MS/MS required on each set of 20 samples (SM4500)

MS 11-679-01	50	✓	✓	

Set 2

AMMONIA DISTILLATION LOG

SOP K3501 Revision # 18

LCS: Std 59167 10(100)/100=10 DAILY DIL. 10(10)/50=20

SPIKE: Std 59167 10(100)/100=10 DAILY DIL. 5(10)/50=1.0

WATER (mg/L)

SOIL (mg/Kg)

☑ easy-dist method ☐ macro method

11/18/13 ~~Yes~~ NO ✓ Yes ✓

RGT 28276
RGT 28629

SAMPLE	VOLUME DISTILLED (mL)	CHLORINE PRESENT?	pH ADJUSTED 9.5 ± 0.2	COMMENTS
BLANK	50	✓	✓	
LCS(2.0)		✓	✓	
11-679-07		✓	✓	
" 08		✓	✓	
" 09		✓	✓	
" 10		✓	✓	
" 11 Rg		✓	✓	
" 12 MS		✓	✓	
" 13 MSD		✓	✓	
" 14		✓	✓	
11-748-04		✓	✓	
" 05 Rg		✓	✓	
" 06 MS		✓	✓	
" 07 MSD		✓	✓	
" 08		✓	✓	
11-789-01		✓	✓	
" 02		✓	✓	
" 03		✓	✓	
" 05		✓	✓	
" 06		✓	✓	
" 07		✓	✓	
" 10		✓	✓	
~~DUP~~ 11-735-01		Yes	✓	
~~MS~~ Dup 11-789-5		✓	✓	

Analyst: Tammy Morris Date/Time: 11/18/13 @ 1145

*MS required on 10% of samples (EPA 350.1)
*MS/MS required on each set of 20 samples (SM4500)

MICROBAC (OVD)
SMARTCHEM200 INST1 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNH3 -Unit [mg/L] - EPA 350.1/SM4500-NH3 AMMONIA

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.000	0.0960	0.00		9:33:56 AM
DIL-1	RBL	0.000	0.0977	0.00		9:34:14 AM
DIL-1	RBL	0.000	0.0935	0.00		9:35:44 AM
DIL-1	Std-1	0.000	-0.0031	0.00	INV	9:36:03 AM
SR5-1	Std-2	0.030	0.0054	0.00		9:37:32 AM
SR5-2	Std-3	0.094	0.0237	0.00		9:37:50 AM
SR5-3	Std-4	0.600	0.1661	0.00		9:39:21 AM
SR5-4	Std-5	1.050	0.2956	0.00		9:39:38 AM
SR5-5	Std-6	2.100	0.5890	0.00		9:41:09 AM
ST-1	Std-7	3.000	0.8642	0.00		9:41:26 AM
ST-3	1CCV (1.5 mg/L)	1.394	0.3957	92.93		9:42:57 AM
ST-2	2CCB (0 mg/L)	-0.139	-0.0447	0.00	INV,><,LL	9:43:15 AM
1	ICV	1.371	0.3892	0.00		9:44:45 AM
2	WG453359-01 BLK	-0.121	-0.0397	0.00	INV,><,LL	9:45:03 AM
3	WG453359-02 LCS	1.803	0.5133	0.00		9:46:33 AM
4	L13110409-12	X4.010	1.1473	0.00	><,LH	9:46:51 AM
5	L13110409-13	-0.033	-0.0143	0.00	INV,><,LL	9:48:21 AM
6	L13110465-01	-0.021	-0.0109	0.00	INV,><,LL	9:48:39 AM
7	L13110465-02	-0.079	-0.0275	0.00	INV,><,LL	9:50:09 AM
8	L13110465-03	-0.124	-0.0405	0.00	INV,><,LL	9:50:27 AM
9	L13110682-07	-0.003	-0.0057	0.00	INV,><,LL	9:51:57 AM
10	L13110682-11	0.353	0.0965	0.00		9:52:15 AM
ST-3	1CCV (1.5 mg/L)	1.399	0.3970	93.23		9:53:45 AM
ST-2	2CCB (0 mg/L)	-0.133	-0.0432	0.00	INV,><,LL	9:54:03 AM
11	L13110773-01 (200)	2.136	0.6088	0.00		9:55:33 AM
12	L13110773-02 (200)	1.856	0.5285	0.00		9:55:51 AM
13	L13110773-03 (200)	1.998	0.5692	0.00		9:57:21 AM
14	L13110773-06 (40)	X0.005	-0.0036	0.00	INV,><	9:57:39 AM
15	L13110410-01	0.014	-0.0010	0.00	INV	9:59:09 AM
16	L13110765-03	-0.014	-0.0089	0.00	INV,><,LL	9:59:27 AM
17	L13110584-01	-0.135	-0.0436	0.00	INV,><,LL	10:00:57 AM
18	L13110584-02 MS	0.819	0.2305	0.00		10:01:15 AM
19	L13110584-03 MSD	0.957	0.2702	0.00		10:02:45 AM
20	L13110679-01	0.436	0.1205	0.00		10:03:03 AM
ST-3	1CCV (1.5 mg/L)	1.398	0.3968	93.19		10:04:33 AM
ST-2	2CCB (0 mg/L)	-0.131	-0.0426	0.00	INV,><,LL	10:04:51 AM

Report Date :11/19/2013 **Run Date :11/19/2013** **Operator : WESTCO** **Plan # :20131119001**

Plan Description : NH3-A1-BAF/11/19/2013

MICROBAC (OVD)
SMARTCHEM200 INST1 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNH3 -Unit [mg/L] - EPA 350.1/SM4500-NH3 AMMONIA

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
21	L13110679-02	0.119	0.0294	0.00		10:06:21 AM
22	L13110679-03	0.602	0.1681	0.00		10:06:39 AM
23	L13110679-04	X3.868	1.1066	0.00	><,LH	10:08:10 AM
24	L13110679-05	0.077	0.0172	0.00		10:08:27 AM
25	L13110679-06	-0.088	-0.0303	0.00	INV,><,LL	10:09:58 AM
26	WG453359-05 DUP	0.486	0.1348	0.00		10:10:15 AM
27	WG453359-06 MS	1.579	0.4488	0.00		10:11:46 AM
28	WG453360-01 BLK	X0.201	0.0529	0.00		10:12:04 AM
29	WG453360-02 LCS	X1.751	0.4982	0.00		10:13:34 AM
30	L13110679-07	-0.032	-0.0141	0.00	INV,><,LL	10:13:52 AM
ST-3	1CCV (1.5 mg/L)	1.395	0.3960	93.00		10:15:22 AM
ST-2	2CCB (0 mg/L)	-0.090	-0.0307	0.00	INV,><,LL	10:15:40 AM
31	L13110679-08	0.143	0.0364	0.00		10:17:10 AM
32	L13110679-09	0.297	0.0805	0.00		10:17:28 AM
33	L13110679-10	0.456	0.1263	0.00		10:18:58 AM
34	L13110679-11	-0.080	-0.0278	0.00	INV,><,LL	10:19:16 AM
35	L13110679-12 MS	0.874	0.2464	0.00		10:20:46 AM
36	L13110679-13 MSD	0.919	0.2591	0.00		10:21:04 AM
37	L13110679-14	-0.023	-0.0114	0.00	INV,><,LL	10:22:34 AM
38	L13110748-04	X12.704	3.6451	0.00	EPL,><,LH	10:22:52 AM
39	L13110748-05	X12.572	3.6072	0.00	EPL,><,LH	10:24:22 AM
40	L13110748-06 MS	X14.217	4.0797	0.00	EPL,><,LH	10:24:40 AM
ST-3	1CCV (1.5 mg/L)	1.443	0.4099	96.23		10:26:10 AM
ST-2	2CCB (0 mg/L)	-0.126	-0.0411	0.00	INV,><,LL	10:26:28 AM
41	L13110748-07 MSD	X12.313	3.5329	0.00	><,LH	10:27:58 AM
42	L13110748-08	0.976	0.2757	0.00		10:28:16 AM
43	L13110789-01	0.258	0.0693	0.00		10:29:46 AM
44	L13110789-02	-0.009	-0.0076	0.00	INV,><,LL	10:30:04 AM
45	L13110789-03	-0.012	-0.0084	0.00	INV,><,LL	10:31:34 AM
46	L13110789-05	0.130	0.0323	0.00		10:31:52 AM
47	WG453360-06 DUP	0.156	0.0400	0.00		10:33:23 AM
48	L13110789-06	1.240	0.3515	0.00		10:33:41 AM
49	L13110789-07	-0.045	-0.0177	0.00	INV,><,LL	10:35:11 AM
50	L13110789-10	0.000	-0.0049	0.00	INV,><,LL	10:35:29 AM
ST-3	1CCV (1.5 mg/L)	1.440	0.4088	95.97		10:37:00 AM
ST-2	2CCB (0 mg/L)	-0.123	-0.0401	0.00	INV,><,LL	10:37:17 AM

Report Date :11/19/2013 **Run Date :11/19/2013** **Operator : WESTCO** **Plan # :20131119001**

Plan Description : NH3-A1-BAF/11/19/2013

MICROBAC (OVD)
SMARTCHEM200 INST1 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNH3 -Unit [mg/L] - EPA 350.1/SM4500-NH3 AMMONIA

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
51	L13110735-01	-0.039	-0.0161	0.00	INV,><,LL	10:38:48 AM
52	WG453361-01 BLK	-0.114	-0.0376	0.00	INV,><,LL	10:39:05 AM
53	WG453361-02 LCS	2.116	0.6031	0.00		10:40:36 AM
54	WG453361-03 LCSDUP	X3.219	0.9200	0.00	><,LH	10:40:53 AM
55	L13110797-04	0.249	0.0666	0.00		10:42:24 AM
56	WG453361-05 DUP	-0.020	-0.0106	0.00	INV,><,LL	10:42:41 AM
57	L13110797-07	-0.083	-0.0287	0.00	INV,><,LL	10:44:12 AM
58	L13110797-10	-0.098	-0.0331	0.00	INV,><,LL	10:44:29 AM
59	L13110797-13	-0.086	-0.0295	0.00	INV,><,LL	10:46:00 AM
60	L13110797-16	-0.130	-0.0421	0.00	INV,><,LL	10:46:18 AM
ST-3	1CCV (1.5 mg/L)	1.442	0.4094	96.11		10:47:48 AM
ST-2	2CCB (0 mg/L)	-0.123	-0.0401	0.00	INV,><,LL	10:48:06 AM
61	L13110797-17	-0.125	-0.0409	0.00	INV,><,LL	10:49:36 AM
62	L13110797-20 MS	0.880	0.2480	0.00		10:49:54 AM
63	L13110797-23 MSD	0.892	0.2515	0.00		10:51:24 AM
64	L13110803-01	-0.044	-0.0174	0.00	INV,><,LL	10:51:42 AM
65	L13110803-02	0.224	0.0595	0.00		10:53:12 AM
66	L13110803-03	0.433	0.1196	0.00		10:53:30 AM
67	L13110803-04	0.202	0.0531	0.00		10:55:00 AM
68	L13110803-05	0.171	0.0441	0.00		10:55:18 AM
69	L13110803-06	0.424	0.1169	0.00		10:56:48 AM
70	ID 70 ~~BLK~~ 11-797-01	0.035	0.0052	0.00		10:57:06 AM
ST-3	1CCV (1.5 mg/L)	1.434	0.4071	95.58		10:58:36 AM
ST-2	2CCB (0 mg/L)	-0.115	-0.0378	0.00	INV,><,LL	10:58:54 AM
71	ID 71 11-773-06 (10)	0.111	0.0269	0.00		11:00:24 AM
72	ID 72 BK	-0.114	-0.0375	0.00	INV,><,LL	11:00:42 AM
73	ID 73 LCS	2.117	0.6034	0.00		11:02:11 AM
74	ID 74 LCSDUP	2.015	0.5739	0.00		11:02:29 AM
75	ID 75	2.160	0.6158	0.00		11:03:59 AM
ST-3	1CCV (1.5 mg/L)	1.443	0.4097	96.18		11:04:17 AM
ST-2	2CCB (0 mg/L)	-0.112	-0.0370	0.00	INV,><,LL	11:05:47 AM
4-[1/2]	L13110409-12	/3.615	0.5145	0.00	LH	11:17:57 AM
23-[1/2]	L13110679-04	3.659	0.5208	0.00	LH	11:19:45 AM
38-[1/2]	L13110748-04 (3)	X22.685	3.2540	0.00	EPL,><,LH	11:21:34 AM
39-[1/2]	L13110748-05 (3)	X24.249	3.4787	0.00	EPL,><,LH	11:23:22 AM
40-[1/2]	L13110748-06 MS (3)	X24.445	3.5068	0.00	EPL,><,LH	11:25:10 AM

Report Date :11/19/2013 **Run Date :11/19/2013** **Operator : WESTCO** **Plan # :20131119001**

Plan Description : NH3-A1-BAF/11/19/2013

MICROBAC (OVD)
SMARTCHEM200 INST1 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNH3 -Unit [mg/L] - EPA 350.1/SM4500-NH3 AMMONIA

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
ST-3	1CCV (1.5 mg/L)	1.470	0.4175	97.99		11:25:10 AM
ST-2	2CCB (0 mg/L)	-0.098	-0.0330	0.00	INV,><,LL	11:26:40 AM
41-[1/2]	L13110748-07 MSD(3)	X24.906	3.5730	0.00	EPL,><,LH	11:28:46 AM
54-[1/2]	WG453361-03 LCSDUP	X2.402	0.3403	0.00		11:30:34 AM
ST-3	1CCV (1.5 mg/L)	1.459	0.4143	97.25		11:30:34 AM
ST-2	2CCB (0 mg/L)	-0.105	-0.0350	0.00	INV,><,LL	11:32:04 AM
38-[1/5]	L13110748-04(3)(2)	11.625	0.6632	0.00	LH	11:44:14 AM
39-[1/5]	L13110748-05(3)(2)	X18.698	1.0696	0.00	><,LH	11:46:02 AM
40-[1/5]	L13110748-06 MS(3)(2)	X44.372	2.5449	0.00	EPL,><,LH	11:47:50 AM
41-[1/5]	L13110748-07 MSD	X47.712	2.7368	0.00	EPL,><,LH	11:49:38 AM
ST-3	1CCV (1.5 mg/L)	1.489	0.4230	99.27		11:49:38 AM
ST-2	2CCB (0 mg/L)	-0.031	-0.0137	0.00	INV,><,LL	11:51:08 AM
39-[1/10]	L13110748-05(3)(2)	19.408	0.5528	0.00	LH	12:03:18 PM
40-[1/10]	L13110748-06 MS(3)(2)	41.767	1.1952	0.00	><,LH	12:05:07 PM
41-[1/10]	L13110748-07 MSD(3)(2)	49.696	1.4230	0.00	><,LH	12:06:55 PM
ST-3	1CCV (1.5 mg/L)	1.490	0.4233	99.34		12:06:55 PM
ST-2	2CCB (0 mg/L)	-0.099	-0.0332	0.00	INV,><,LL	12:08:25 PM
40-[1/25]	L13110748-06 MS	X41.863	0.4763	0.00	LH	12:20:35 PM
41-[1/25]	L13110748-07 MSD	X46.683	0.5316	0.00	LH	12:22:23 PM
ST-3	1CCV (1.5 mg/L)	1.490	0.4234	99.36		12:22:23 PM
ST-2	2CCB (0 mg/L)	-0.102	-0.0343	0.00	INV,><,LL	12:23:53 PM

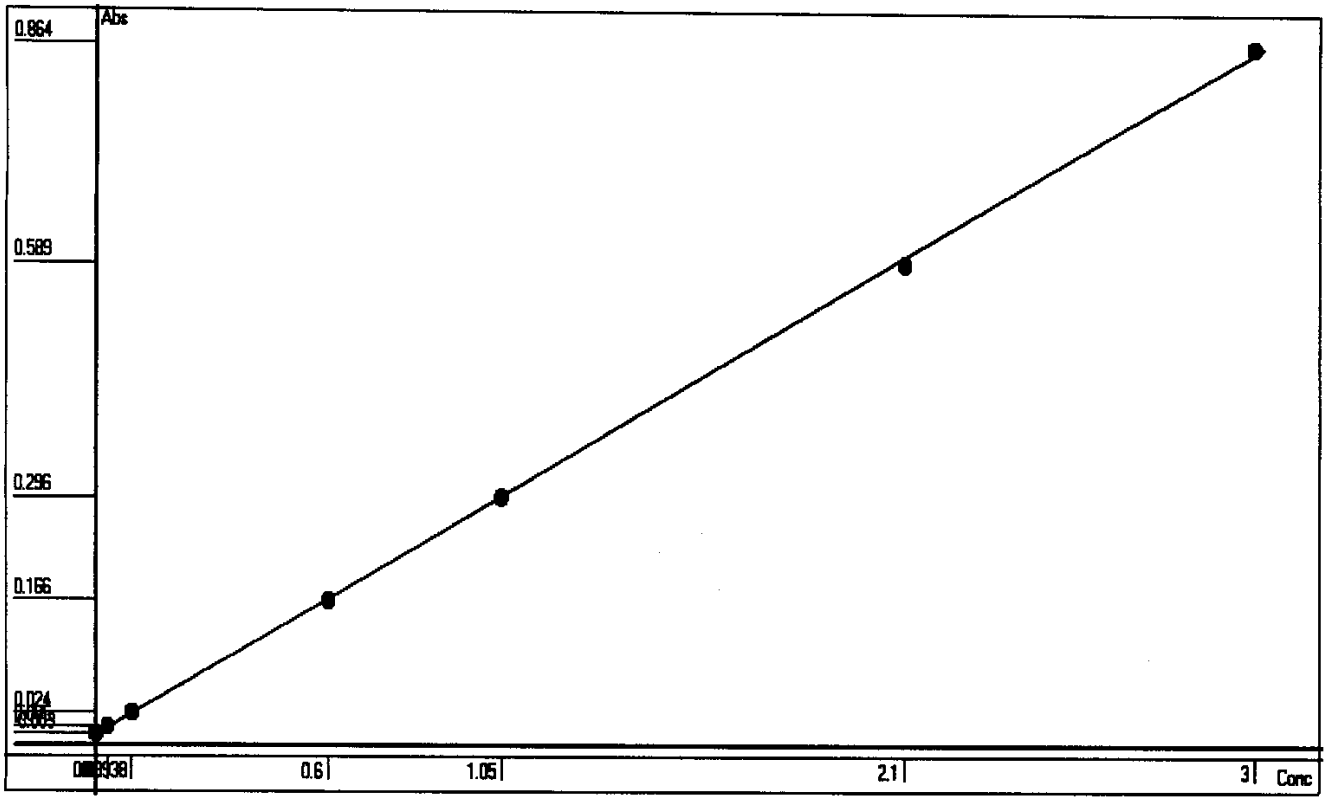
Report Date :11/19/2013 **Run Date :11/19/2013** **Operator : WESTCO** **Plan # :20131119001**

Plan Description : NH3-A1-BAF/11/19/2013

Calibrant Report - WNH3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:Westco Scientific

Plan # : 20131119001 Description : [NH3-A1-BAF/11/19/2013] Unit [mg/L]



Point	OD	Conc	Recalc Conc	% Error
1	-0.0031	0	0.0061	0.61
2	0.0054	0.03	0.0357	19.00
3	0.0237	0.0938	0.0994	5.97
4	0.1661	0.6	0.5950	-0.83
5	0.2955	1.05	1.0454	-0.44
6	0.5889	2.1	2.0666	-1.59
7	0.8642	3	3.0248	0.83

Conc= +3.4806*Abso +0.0169 R^2**=0.9998**

RBL
0.0969
0

Report Date 11/19/2013 Run Date 11/19/2013

2.2.7 Nitrate Data

2.2.7.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: Brice Fenton

METHOD

Analysis EPA 353.2/SM4500-NO3 F (Nitrate)

HOLDING TIMES

Sample Analysis: The instrument used for the analysis of nitrate only analyzes for nitrate-nitrite (NO3NO2) which is the amount of total nitrate (NO3) and nitrite (NO2) combined. The NO3 concentration is determined by analyzing for NO3NO2 and NO2 and calculating NO3 by the difference. An unpreserved bottle only has a 48 hour hold time for NO3 and NO2 separately. However if the bottle is preserved with sulfuric acid, the hold time for NO3NO2 is 28 days. The NO2 was analyzed within 48 hours. The NO3NO2 was analyzed from a preserved container within 28 days..

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74774
Approved By: Deanna Hesson

Certificate of Analysis

Sample #: L13110465-01 **PrePrep Method:** N/A **Instrument:** SMARTCHEM
Client ID: MPL 29-1113-1 **Prep Method:** 353.2 **Prep Date:** N/A
Matrix: Water **Analytical Method:** 353.2 **Cal Date:** 11/13/2013 13:48
Workgroup #: WG452422 **Analyst:** BAF **Run Date:** 11/13/2013 16:00
Collect Date: 11/07/2013 11:00 **Dilution:** 4 **File ID:** SC13111808414401
Sample Tag: **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		7.86		0.200	0.100

Sample #: L13110465-02 **PrePrep Method:** N/A **Instrument:** SMARTCHEM
Client ID: MPL 7-1113-1 **Prep Method:** 353.2 **Prep Date:** N/A
Matrix: Water **Analytical Method:** 353.2 **Cal Date:** 11/13/2013 13:48
Workgroup #: WG452422 **Analyst:** BAF **Run Date:** 11/13/2013 16:00
Collect Date: 11/07/2013 13:05 **Dilution:** 10 **File ID:** SC13111808415001
Sample Tag: **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		13.7		0.500	0.250

Sample #: L13110465-03 **PrePrep Method:** N/A **Instrument:** SMARTCHEM
Client ID: MPL 5-1113-1 **Prep Method:** 353.2 **Prep Date:** N/A
Matrix: Water **Analytical Method:** 353.2 **Cal Date:** 11/13/2013 13:48
Workgroup #: WG452422 **Analyst:** BAF **Run Date:** 11/13/2013 16:00
Collect Date: 11/07/2013 15:00 **Dilution:** 4 **File ID:** SC13111808415901
Sample Tag: **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		5.28		0.200	0.100

2.2.7.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2013
Analyst: BAF
Analyst: NA
Method: NO3
Instrument: SC
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452422

Calibration/Linearity	11-13-2013
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	BAF
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
15-NOV-2013
Brice Fenton

Secondary Reviewer:
17-NOV-2013
Dianna Hesson

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-17-2013 14:06:49

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 353.2 **AAB#:** WG452422

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/13/2013	6.2	28		11/13/13	6.2	28	
MPL 7-1113-1	02	11/07/13					11/13/2013	6.1	28		11/13/13	6.1	28	
MPL 5-1113-1	03	11/07/13					11/13/2013	6	28		11/13/13	6	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3208696
Report generated 11/18/2013 09:07

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	**Work Group:**	WG452422
Blank File ID:	SC13111808404401	**Blank Sample ID:**	WG452422-01
Prep Date:	11/13/13 16:00	**Instrument ID:**	SMARTCHEM
Analyzed Date:	11/13/13 16:00	**Method:**	353.2
Analyst:	BAF		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
MPL 7-1113-1	L13110465-02	SC13111808415001	11/13/13 16:00	
DUP	WG452422-06	SC13111808410701	11/13/13 16:00	
MPL 5-1113-1	L13110465-03	SC13111808415901	11/13/13 16:00	
LCS2	WG452422-03	SC13111808405401	11/13/13 16:00	
LCS	WG452422-02	SC13111808405101	11/13/13 16:00	
MPL 29-1113-1	L13110465-01	SC13111808414401	11/13/13 16:00	

Report Name: BLANK_SUMMARY
PDF File ID: 3208697
Report generated 11/18/2013 09:07

Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/13/13 16:00 Sample ID: WG452422-01
Instrument ID: SMARTCHEM Run Date: 11/13/13 16:00 Prep Method: 353.2
File ID: SC13111808404401 Analyst: BAF Method: 353.2
Workgroup (AAB#): WG452422 Matrix: Water Units: mg/L
Contract #: Cal ID: SMARTC-13-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Nitrate-Nitrite (as N)	0.0250	0.0500	0.0250	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3208698
18-NOV-2013 09:07

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Analyst:** BAF **Prep Method:** 353.2
Instrument ID: SMARTCHEM **Matrix:** Water **Method:** 353.2
Workgroup (AAB#): WG452422 **Units:** mg/L
QC Key: DOD4 **Lot #:** STD61085

Sample ID: WG452422-02 LCS **File ID:** SC13111808405101 **Run Date:** 11/13/2013 16:00
Sample ID: WG452422-03 LCS2 **File ID:** SC13111808405401 **Run Date:** 11/13/2013 16:00

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Nitrate-Nitrite (as N)	1.00	0.917	91.7	1.00	0.931	93.1	1.52	90 - 110	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3208700
Report generated: 11/18/2013 09:07

2.2.7.3 Raw Data

SMARTCHEM RUN LOG

(smartchem2, smartchem3)

WORKGROUP: WG452422

Daily Check

- [x] Lamp On
- [x] Probe Rinse Full
- [x] DI Water > ½ Full
- [x] Wash Solution > ½ Full
- [x] NO3 Reagent bottle connected / purged
- [x] NO3 pH adj to pH 5-9

Syringe filter lot # 1690000

- [x] WBL Run
- [x] Reagents Full
- [x] Dilution H_2O Full
- [x] Waste Container Check

1) **Workgroup** _____ log 11/15/13
Plan # ~~20131112002~~

2) **Workgroup** _____
Plan # 20131113004

3) **Workgroup** _____
Plan # _____

Instrument: SC1 [x] SC2 [x] NO

	Analyte	1	2	3
		NO3		
		Dilution		
SC Prepared Curve				
Position				
1-1	ICV			
1-2	Blk			
1-3	LCS			
1-4	LCS			
1-5	NO2			
1-6	11-643-01	1/4		
1-7	02			
1-8	03			
1-9	11-472-01			
1-10	11-465-01	1/4	log 11/12/13 1/8 1/10	
1-11	02	~~Auto ½~~		
1-12	03	1/4		
1-13	11-584-01			
1-14	MS 02			
1-15	MSD 03			
1-16	DUP 11-584-01		log 11/13/13	
1-17	11-479-02	~~Auto ½~~	1/8 1/10	
1-18	11-682-08			
1-19	14			
1-20	11-740-01			
1-21	MS			
1-22	log 11/13/13			
2-1				
2-2				
2-3				

dcm 11/12/13

Position	Analyte	1	2	3
2-4	11-778-01			
2-5	02			
2-6	03			
2-7	04			
2-8	05			
2-9				
2-10				
2-11				
2-12				
2-13				
2-14				
2-15				
2-16				
2-17				
2-18				
2-19				
2-20				
2-21				
2-22				
2-23				
2-24				
2-25				
2-26				
3-1				
3-2				

NOTES:
* Run NO2 std on NO3 runs
* LCSD must be run if no MS or Duplicate
*MS(10% sample): NO3, TKN, NH3, PHOS

DCN#98794

SMARTCHEM RUN LOG

(smartchem2, smartchem3)

WORKGROUP: WG452422

Position	Analyte	1	2	3
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9				
3-10				
3-11				
3-12				
3-13				
3-14				
3-15				

Position	Analyte	1	2	3
3-16				
3-17				
3-18				
3-19				
3-20				
3-21				
3-22				
3-23				
3-24				
3-25				
3-26				
3-27				
3-28				

	Chloride	EPA 325.2/SM 4500-Cl E-2000
✓	Nitrate-Nitrite	EPA 353.2/SM 4500-NO3 F-2000
	Alkalinity	EPA 310.2
	Sulfate	EPA 375.4/SM 426C (15th)/ SM4500-504 E-1997

	Ammonia	EPA 350.1/SM 4500-NH3 B-1997
	TKN	EPA 351.2
	Phos	EPA 365.4

Analyte	NO3		Reagents
SOP & Revision	IS3532 R		RGT 28452
Curve Stock (SC made)	Std 61254		RGT 28286
NO2 STD	Std 61035		
ICV	Std 61036		
CCV	Std 60957		
LCS	Std 61085		
MS	Std 58660		
	Dilution 0.1/5(25)=	0.5	

Comments: _____

Analyst: David Merkle / Brio Fenton

Date: ~~11/12/13~~ dob 11/13/13 / 11/13/13

DCN#98794

MICROBAC (OVD)
SMARTCHEM200 INST1 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 -Unit [mg/L] - EPA 353.2 Nitrate-Nitrite

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.000	0.0307	0.00		3:57:58 PM
DIL-1	RBL	0.000	0.0388	0.00		3:59:10 PM
DIL-1	RBL	0.000	0.0304	0.00		4:00:22 PM
DIL-1	RBL	0.000	0.0341	0.00		4:01:34 PM
DIL-1	Std-1	0.000	0.0090	0.00		4:02:46 PM
SR5-1	Std-2	0.040	0.0113	0.00		4:03:58 PM
SR5-2	Std-3	0.100	0.0308	0.00		4:05:10 PM
SR5-3	Std-4	0.500	0.1558	0.00		4:06:22 PM
SR5-4	Std-5	1.000	0.3086	0.00		4:07:34 PM
ST-1	Std-6	2.000	0.6187	0.00		4:08:46 PM
ST-3	1CCV (1 mg/L)	1.023	0.3170	102.25		4:09:58 PM
ST-2	2CCB (0 mg/L)	-0.014	-0.0020	0.00	INV,><,LL	4:11:10 PM
1	ICV	1.399	0.4327	0.00		4:12:22 PM
2	WG452422-01 BLK	-0.008	-0.0001	0.00	INV,><,LL	4:13:34 PM
3	WG452422-02 LCS	0.917	0.2845	0.00		4:14:46 PM
4	WG452422-03 LCSDUP	0.931	0.2889	0.00		4:15:59 PM
5	NO2	0.894	0.2773	0.00 NO2		4:17:10 PM
6	L13110643-01 (4)	1.873	0.5787	0.00 O		4:18:23 PM
7	L13110643-02	0.505	0.1576	0.00 O		4:19:35 PM
8	L13110643-03	0.246	0.0781	0.00 O		4:20:47 PM
9	L13110472-01	0.212	0.0677	0.00		4:21:59 PM
10	L13110465-01 (4)	1.964	0.6067	0.00		4:23:11 PM
ST-3	1CCV (1 mg/L)	1.043	0.3234	104.33		4:24:23 PM
ST-2	2CCB (0 mg/L)	-0.015	-0.0024	0.00	INV,><,LL	4:25:35 PM
11	L13110465-02 (10)	1.372	0.4245	0.00		4:26:47 PM
12	L13110465-03 (4)	1.320	0.4086	0.00		4:27:59 PM
13	L13110584-01	1.534	0.4743	0.00		4:29:11 PM
14	L13110584-02 MS	1.929	0.5959	0.00		4:30:23 PM
15	L13110584-03 MSD	ok X 2.096	0.6473	0.00	><,LH	4:31:35 PM
16	WG452422-06 DUP	1.683	0.5202	0.00		4:32:47 PM
17	L13110479-02 (10)	1.197	0.3707	0.00		4:33:59 PM
18	L13110682-08	0.908	0.2816	0.00 O		4:35:11 PM

Report Date :11/13/2013 **Run Date :11/13/2013** **Operator : WESTCO** **Plan # :20131113004**

Plan Description : NO3-A1-BAF/11/13/2013

MICROBAC (OVD)
SMARTCHEM200 INST1 (VER3.1.14)
NH3, TKN, NO3NO2 (MG/L N)
ALK (MG/L CaCO3) CL, SO4 (MG/L)

Method : WNO3 -Unit [mg/L] - EPA 353.2 Nitrate-Nitrite

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
19	L13110682-14	0.026	0.0103	0.00		4:36:23 PM
20	L13110740-01	0.251	0.0795	0.00		4:37:35 PM
ST-3	1CCV (1 mg/L)	0.988	0.3065	98.84		4:38:47 PM
ST-2	2CCB (0 mg/L)	-0.022	-0.0043	0.00	INV,><,LL	4:39:59 PM
21	WG452422-09 MS	0.616	0.1918	0.00		4:41:11 PM
22	ID 22	-0.019	-0.0035	0.00	INV,><,LL	4:42:23 PM
23	ID 23	0.899	0.2790	0.00		4:43:35 PM
24	ID 24	0.923	0.2864	0.00		4:44:47 PM
25	ID 25	0.890	0.2762	0.00		4:45:59 PM
ST-3	1CCV (1 mg/L)	1.008	0.3124	100.76		4:47:11 PM
ST-2	2CCB (0 mg/L)	-0.018	-0.0031	0.00	INV,><,LL	4:48:23 PM
26	ID 26 l1-778-01	0.364	0.1143	0.00		4:49:35 PM
27	ID 27 02	0.223	0.0711	0.00		4:50:47 PM
28	ID 28 03	0.244	0.0774	0.00		4:51:59 PM
29	ID 29 04	1.016	0.3149	0.00		4:53:11 PM
30	ID 30 05	X4.048	1.2481	0.00	><,LH	4:54:23 PM
ST-3	1CCV (1 mg/L)	1.028	0.3187	102.81		4:55:35 PM
ST-2	2CCB (0 mg/L)	-0.013	-0.0015	0.00	INV,><,LL	4:56:47 PM
15-[1/4]	L13110584-03 MSD	X2.064	0.1611	0.00	LH	5:05:57 PM
30-[1/4]	ID 30 l1-778-05	3.930	0.3047	0.00	LH	5:08:03 PM
ST-3	1CCV (1 mg/L)	1.006	0.3119	100.60		5:08:57 PM
ST-2	2CCB (0 mg/L)	-0.014	-0.0018	0.00	INV,><,LL	5:10:09 PM

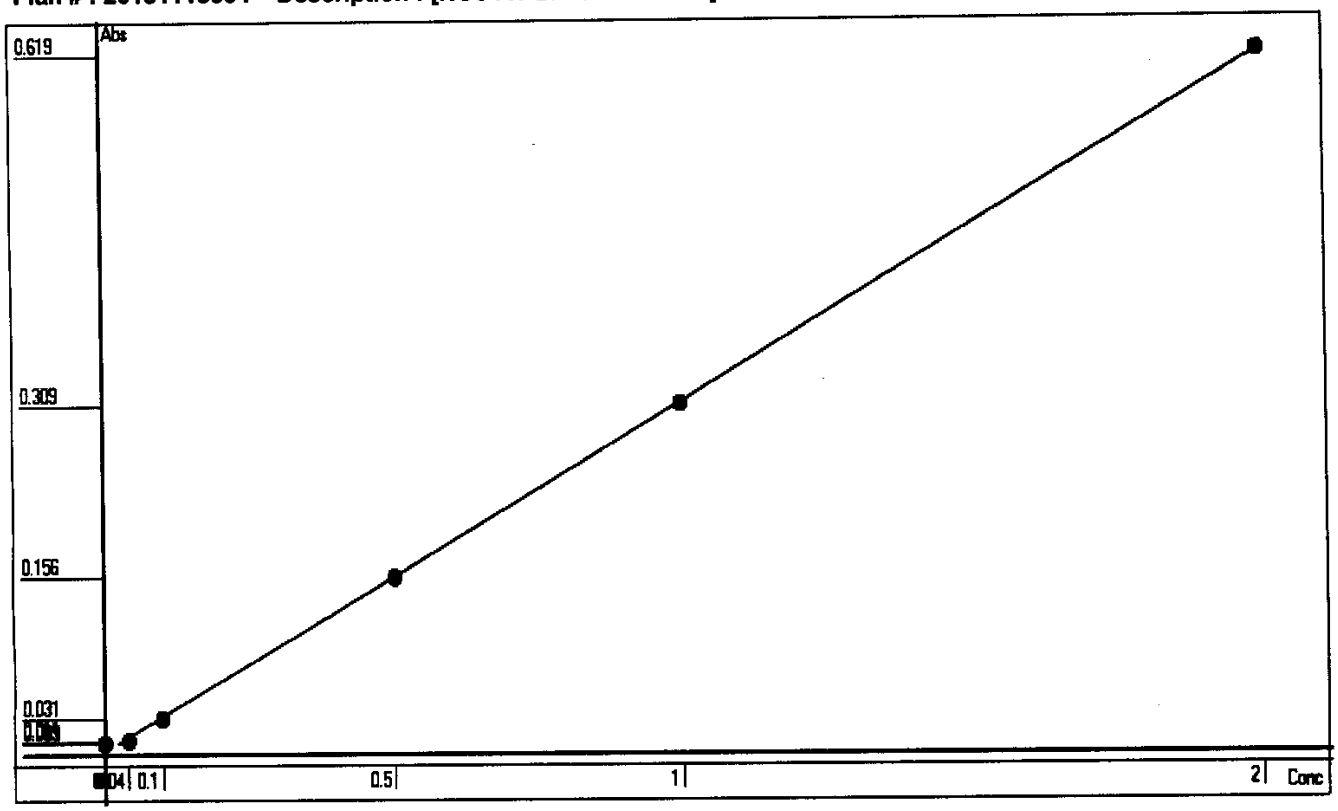
Report Date :11/13/2013 **Run Date :11/13/2013** **Operator : WESTCO** **Plan # :20131113004**

Plan Description : NO3-A1-BAF/11/13/2013

Calibrant Report - WNO3 -

Calib Lot #:010104 Exp Date:6/17/2020 User:MICROBAC

Plan # : 20131113004 Description : [NO3-A1-BAF/11/13/2013] Unit



Point	OD	Conc	Recalc Conc	% Error
1	0.0090	0	0.0216	2.16
2	0.0113	0.04	0.0291	-27.25
3	0.0308	0.1	0.0925	-7.50
4	0.1558	0.5	0.4987	-0.26
5	0.3086	1	0.9953	-0.47
6	0.6187	2	2.0031	0.16

Conc= +3.2498*Abso -0.0076 R^2=0.9998

RBL
0.0324
0

Report Date 11/13/2013 Run Date 11/13/2013

2.2.8 Orthophosphate Data

2.2.8.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: Tammy Morris

METHOD

Analysis EPA 365.2/SM4500-P E (Orthophosphate)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

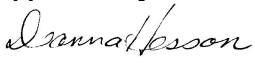
Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74775
Approved By: Deanna Hesson



Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 29-1113-1	**Prep Method:**	SM4500-P-E-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-1999	**Cal Date:**	10/30/2013 09:00
Workgroup #:	WG452008	**Analyst:**	TMM	**Run Date:**	11/08/2013 09:16
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	1V.1311080916-13
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.0791		0.0500	0.0250

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 7-1113-1	**Prep Method:**	SM4500-P-E-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-1999	**Cal Date:**	10/30/2013 09:00
Workgroup #:	WG452008	**Analyst:**	TMM	**Run Date:**	11/08/2013 09:16
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	1V.1311080916-14
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2		U	0.0500	0.0250

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	UV-120-1V
Client ID:	MPL 5-1113-1	**Prep Method:**	SM4500-P-E-1999	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM4500-P-E-1999	**Cal Date:**	10/30/2013 09:00
Workgroup #:	WG452008	**Analyst:**	TMM	**Run Date:**	11/08/2013 09:16
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	1V.1311080916-15
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2		U	0.0500	0.0250

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.2.8.2 QC Summary Data

Example Calculations for Visible Spectrophotometric Methods

Linear Calibration Model

Step 1 - Retrieve Curve Data from ICAL

m = slope of the linear equation
b = intercept from the linear equation
y = instrument response as absorbance or OD
x = concentration of analyte (mg/L)
y = mx + b

Step 2: Calculate the instrument concentration, x

Where:

x = (y - b)/m

Step 3: Solve for analyte concentration in sample, Cx

Cx = (x) (D)

Example Calculation (LCS):

Value of m from plot:	7.809	
Value of b from plot:	0.0004135	
Absorbance of unknown from quantitation report (y):	0.31	
Calculated concentration (x):	0.03964483	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	0.0396	mg/L

SmartChem Autoanalyzer - Quadratic Calibration for Chloride and Sulfate

Step 1 - Retrieve Curve Data from Smartchem ICAL

A, B, C = constants from the ICAL quadratic regression

x = instrument response as absorbance or OD

y = concentration of analyte (mg/L)

Step 2: Calculate the instrument concentration, y

Where:

y = Ax^2 + Bx + C

Step 3: Solve for analyte concentration in sample, Cy

Cy = (y) (D)

Example Calculation (LCS):

Value of A from plot:	101.2796	
Value of B from plot:	318.9056	
Value of C from plot:	-2.2712	
Absorbance of unknown from quantitation report (x):	0.1583	
Calculated concentration (y):	50.7495108	
Dilution factor (D):	1.00	
Concentration of analyte in sample, Cy:	50.75	mg/L

Microbac Laboratories Inc.

Data Checklist

Date: 08-NOV-2013
Analyst: TMM
Analyst: NA
Method: PO4
Instrument: UV-120-1V
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452008

Calibration/Linearity	10/30/13
Second Source Check	
ICV/CCV (std)	X
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	TMM
Secondary Reviewer	SAV
Comments	

Primary Reviewer:
12-NOV-2013
Tammy Morris

Secondary Reviewer:
12-NOV-2013
Sarah Vandenberg

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-12-2013 14:55:33

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM4500-P-E-1999 AAB#: WG452008

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/08/2013	.9	2		11/08/13	.9	2	
MPL 7-1113-1	02	11/07/13					11/08/2013	.8	2		11/08/13	.8	2	
MPL 5-1113-1	03	11/07/13					11/08/2013	.8	2		11/08/13	.8	2	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3198257
Report generated 11/12/2013 14:54

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L13110465
Blank File ID: 1V.1311080916-02
Prep Date: 11/08/13 09:16
Analyzed Date: 11/08/13 09:16
Analyst: TMM

Work Group: WG452008
Blank Sample ID: WG452008-01
Instrument ID: UV-120-1V
Method: SM4500-P-E-1999

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452008-02	1V.1311080916-03	11/08/13 09:16	
LCS2	WG452008-03	1V.1311080916-04	11/08/13 09:16	
MPL 29-1113-1	L13110465-01	1V.1311080916-13	11/08/13 09:16	
MPL 7-1113-1	L13110465-02	1V.1311080916-14	11/08/13 09:16	
MPL 5-1113-1	L13110465-03	1V.1311080916-15	11/08/13 09:16	
DUP	WG452008-05	1V.1311080916-18	11/08/13 09:16	

Report Name: BLANK_SUMMARY
PDF File ID: 3198258
Report generated 11/12/2013 14:54

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/08/13 09:16 Sample ID: WG452008-01
Instrument ID: UV-120-1V Run Date: 11/08/13 09:16 Prep Method: SM4500-P-E-1999
File ID: 1V.1311080916-02 Analyst: TMM Method: SM4500-P-E-1999
Workgroup (AAB#): WG452008 Matrix: Water Units: mg/L
Contract #: Cal ID: UV-120-08-NOV-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Orthophosphate	0.0250	0.0500	0.0250	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3198259
12-NOV-2013 14:54

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Analyst:** TMM **Prep Method:** SM4500-P-E-1999
Instrument ID: UV-120-1V **Matrix:** Water **Method:** SM4500-P-E-1999
Workgroup (AAB#): WG452008 **Units:** mg/L
QC Key: DOD4 **Lot #:** STD61078

Sample ID: WG452008-02 LCS **File ID:** 1V.1311080916-03 **Run Date:** 11/08/2013 09:16
Sample ID: WG452008-03 LCS2 **File ID:** 1V.1311080916-04 **Run Date:** 11/08/2013 09:16

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Orthophosphate	1.00	1.02	102	1.00	1.02	102	0.00	90 - 110	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3198260
Report generated: 11/12/2013 14:54

2.2.8.3 Raw Data

WG450769 DLP 10-30-13
450776

Curves

Parameter: PO4

Spectrophotometer: UV-120-1V

Calibration (Curve) standard stock: Std 60962 60315 PSW 10-30-13

Concentration: 1000 mg/L

Recipe for preparation of curve standards found in:

SOP: 3653 Revision: 14 Page: 9

Second Source Stock: ~~Std 60961~~ 60078 PSW 10-30-13 (concentration: 10mg/L)

Daily Preparation: 5(10)/50=

concentration = 1.0mg/L

Calibration Standards (mg/L)	Volume (mL)	Cell Size (cm)	Wavelength (nm)	Absorbance
1.0	50	1cm	880	0.612
0.7	↓	↓	↓	0.430
0.5	↓	↓	↓	0.308
0.2	↓	↓	↓	0.124
0.1	↓	↓	↓	0.062
0.05	↓	↓	↓	0.030
0.00	↓	↓	↓	0.000
2nd source (1.0)	↓	↓	↓	0.640

Analyst: Peggy S. Webb

Date/Time: 10-30-13 @ 0900

DCN#98528

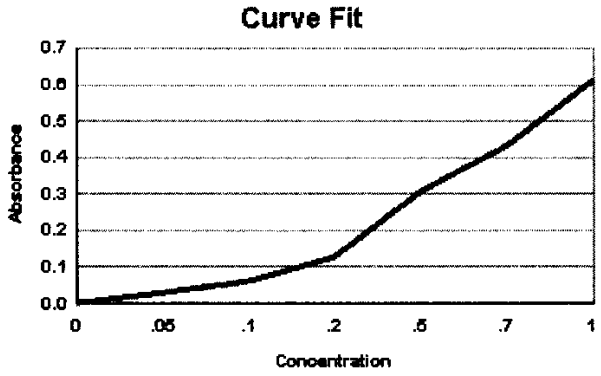
Microbac Laboratories Inc.
INITIAL CALIBRATION

Workgroup:WG450776
Analytical Method:300
Instrument ID:UV-120-1V

Analyst:DLP
Initial Calibration Date:10/30/2013

Analyte: ORTHOPHOSPHATE
Number of Points: 7
Slope: 0.612605
Y-Intercept: 0.000550868
Coef. Of Correlation (R^2): 0.999983
Coef. Of Correlation (R): 0.999991

Concentration X	Absorbance Y	X^2	X * Y	Y-Fitted (mX^2+B)
0.00	0.00	0.00	0.00	0.000550868
0.0500	0.0300	0.00250	0.00150	0.0311811
0.100	0.0620	0.0100	0.00620	0.0618114
0.200	0.124	0.0400	0.0248	0.123072
0.500	0.308	0.250	0.154	0.306854
0.700	0.430	0.490	0.301	0.429375
1.00	0.612	1.00	0.612	0.613156



WG_ICAL_CAL_WET - Modified 03/06/2008
Report generated 10/30/2013 11:00

[redacted]

Microbac Laboratories Inc.
ALTERNATE SOURCE REPORT

Workgroup #: WG450776
File ID: 1V.1310300900-08
CCV ID: WG450776-08
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 10/30/2013
Run Time: 09:00
Analyst: DLP
Cal ID: UV-120 - 30-OCT-13 09:00:07

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	1	1.04	0.640	4.0	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_SSCV - Modified 03/06/2008
Report generated 10/30/2013 11:01

[redacted]

ORTHOPHOSPHATE

EPA 365.2/SM4500-P E
SOP K3653 Rev 14

Color Reagent Chemicals
CGA16278
RGT22899
RGT27551
RGT28017

CCV: Std 61077
Daily Dilution: 5C.1/50
Daily Dilution: =0.5
Spectrophotometer: UV-120-1V

LCS: Std 61078
Daily Dilution: 5C.1/50
Daily Dilution: =1.0
Curve ID: 10/30/13

Spike: Std 61078
Daily Dilution: 2C.0/50
Daily Dilution: =0.40

SAMPLE	VOLUME	pH 7 ± 0.2	DILUTION	ABSORBANCE @ 880 nm
CCV: 0.5 mg/L	50	✓		0.311
BLANK	50	✓		0.008
LCS: 1.0 ppm	50	✓		0.623
LCSDUP: 1.0 ppm	50	✓		0.623
11-409-04	50	✓		0.002
05	50	✓		0.005
06	50	✓		0.006
07	50	✓		0.008
09	50	✓		0.002
12	50	✓		0.001
13	50	✓		0003
CCV	50	✓		0.315
11-465-01	50	✓		0.049
02	50	✓		0.008
03	50	✓		0.006
11-510-03	50		1/10	0.203
04	50		1/10	0.235
	50			
	50			
	50			
	50			
DUP: 11-409-13	50	✓		0.004
MS: (0.4) 11-409-10	50	✓		0.244
MSD: (0.4) 11-409-11	50	✓		0253
CCV: (0.5) ____	50	✓		0.312

@1340

ANALYST: Jammy Mena

DATE / TIME: 11/8/13 @ 915

DCN#98732

Microbac Laboratories Inc.
SAMPLE REPORT

Workgroup: WG452008
Analyte: ORTHOPHOSPHATE

Analyst: TMM
Date: 11/08/2013

Sample ID	I Vol	F Vol	Response	Slope	Y Intercept	Anal. Conc.	Rep. Conc.	Dil	Units
WG452008-01	50	50	0.00800	0.6126	0.0005509	0.012160	0.012160	1	mg/L
WG452008-02	50	50	0.623	0.6126	0.0005509	1.0161	1.0161	1	mg/L
WG452008-03	50	50	0.623	0.6126	0.0005509	1.0161	1.0161	1	mg/L
L13110409-04	50	50	0.00200	0.6126	0.0005509	0.0023655	ND	1	mg/L
L13110409-05	50	50	0.00500	0.6126	0.0005509	0.0072626	ND	1	mg/L
L13110409-06	50	50	0.00600	0.6126	0.0005509	0.0088950	ND	1	mg/L
L13110409-07	50	50	0.00800	0.6126	0.0005509	0.012160	ND	1	mg/L
L13110409-09	50	50	0.00200	0.6126	0.0005509	0.0023655	ND	1	mg/L
WG452008-06	50	50	0.00200	0.6126	0.0005509	0.0023655	0.0023655	1	mg/L
L13110409-12	50	50	0.00100	0.6126	0.0005509	0.00073315	ND	1	mg/L
L13110409-13	50	50	0.00300	0.6126	0.0005509	0.0039979	ND	1	mg/L
WG452008-04	50	50	0.00300	0.6126	0.0005509	0.0039979	0.0039979	1	mg/L
L13110465-01	50	50	0.0490	0.6126	0.0005509	0.079087	0.079087	1	mg/L
L13110465-02	50	50	0.00800	0.6126	0.0005509	0.012160	ND	1	mg/L
L13110465-03	50	50	0.00600	0.6126	0.0005509	0.0088950	ND	1	mg/L
L13110510-03	50	50	0.203	0.6126	0.0005509	0.33047	3.3047	10	mg/L
L13110510-04	50	50	0.235	0.6126	0.0005509	0.38271	3.8271	10	mg/L
WG452008-05	50	50	0.00400	0.6126	0.0005509	0.0056303	0.0056303	1	mg/L
L13110409-10	50	50	0.244	0.6126	0.0005509	0.39740	0.39740	1	mg/L
WG452008-07	50	50	0.244	0.6126	0.0005509	0.39740	0.39740	1	mg/L
L13110409-11	50	50	0.253	0.6126	0.0005509	0.41209	0.41209	1	mg/L
WG452008-08	50	50	0.253	0.6126	0.0005509	0.41209	0.41209	1	mg/L

[redacted]

UV_SAMPLE_REPORT - Modified 03/06/2008

Report generated 11/12/2013 12:41

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452428
File ID: 1V.1311080916-01
CCV ID: WG452428-01
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 11/08/2013
Run Time: 09:16
Analyst: TMM
Cal ID: UV-120 - 08-NOV-13

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.507	0.622	1.4	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/12/2013 12:42

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452428
File ID: 1V.1311080916-12
CCV ID: WG452428-02
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 11/08/2013
Run Time: 09:16
Analyst: TMM
Cal ID: UV-120 - 08-NOV-13

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.513	0.630	2.6	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/12/2013 12:42

[redacted]

Microbac Laboratories Inc.
CONTINUING CALIBRATION REPORT

Workgroup #: WG452428
File ID: 1V.1311080916-21
CCV ID: WG452428-03
Units: mg/L
Analyte: ORTHOPHOSPHATE

Instrument ID: UV-120-1V
Run Date: 11/08/2013
Run Time: 09:16
Analyst: TMM
Cal ID: UV-120 - 08-NOV-13

Analyte	Expected	Found	RF	%D	Q
Orthophosphate	.5	0.508	0.624	1.6	

* Exceeds %D Limit

CCC Calibrtion Check Compounds
SPCC System Performance Check Compounds

WET_WG_CCV - Modified 03/06/2008

Report generated 11/12/2013 12:42

[redacted]

2.2.9 Total Dissolved Solids Data

2.2.9.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: April Greene

METHOD

Analysis EPA 160.1/SM2540 C(Total Dissolved Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: Analytes were detected above the applicable reporting limit for the following analytes: Total Dissolved Solids. Please see the applicable QC report for a detailed presentation of the failures.

Sample #	Analyte	Date	Result	Lower	Upper	Type
WG452254-01	Total Dissolved Solids	2013-11-11 13:25:01	8.00		5.0	RL

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74778
Approved By: Deanna Hesson

Certificate of Analysis

Sample #: L13110465-01 **PrePrep Method:** N/A **Instrument:** OVEN
Client ID: MPL 29-1113-1 **Prep Method:** 160.1/SM2540C **Prep Date:** N/A
Matrix: Water **Analytical Method:** SM2540-C-1997 **Cal Date:**
Workgroup #: WG452254 **Analyst:** ADG **Run Date:** 11/11/2013 13:25
Collect Date: 11/07/2013 11:00 **Dilution:** 1 **File ID:** EN.1311111325-22
Sample Tag: **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		462		20.0	10.0

Sample #: L13110465-02 **PrePrep Method:** N/A **Instrument:** OVEN
Client ID: MPL 7-1113-1 **Prep Method:** 160.1/SM2540C **Prep Date:** N/A
Matrix: Water **Analytical Method:** SM2540-C-1997 **Cal Date:**
Workgroup #: WG452254 **Analyst:** ADG **Run Date:** 11/11/2013 13:25
Collect Date: 11/07/2013 13:05 **Dilution:** 1 **File ID:** EN.1311111325-23
Sample Tag: **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		642		20.0	10.0

Sample #: L13110465-03 **PrePrep Method:** N/A **Instrument:** OVEN
Client ID: MPL 5-1113-1 **Prep Method:** 160.1/SM2540C **Prep Date:** N/A
Matrix: Water **Analytical Method:** SM2540-C-1997 **Cal Date:**
Workgroup #: WG452622 **Analyst:** ADG **Run Date:** 11/13/2013 12:52
Collect Date: 11/07/2013 15:00 **Dilution:** 1 **File ID:** EN.1311131252-22
Sample Tag: 2 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		282		20.0	10.0

2.2.9.2 QC Summary Data

Example Total Dissolved Solids Calculations

[(WT2 - WT1) * 1000000]/volume = mg/L

where:

WT1 = weight (grams) of empty container.
WT2 = weight (grams) of dried sample and container.
1000000 = factor to get to mg/L.
volume = mL of sample used.

Microbac Laboratories Inc.

Data Checklist

Date: 11-NOV-2013
Analyst: PSW
Analyst: ADG
Method: TDS
Instrument: OVEN
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452254

Calibration/Linearity	11/14/13
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	ADG
Secondary Reviewer	SAV
Comments	

Primary Reviewer:
14-NOV-2013
April Greene

Secondary Reviewer:
14-NOV-2013
Sarah Vandenberg

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-14-2013 14:27:55

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2013
Analyst: ADG
Analyst: NA
Method: TDS
Instrument: OVEN
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452622

Calibration/Linearity	11/13/13
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	ADG
Secondary Reviewer	DIH
Comments	

Primary Reviewer:
14-NOV-2013

Secondary Reviewer:
15-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-15-2013 15:22:23

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM2540-C-1997 AAB#: WG452254

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/11/2013	4.1	7		11/11/13	4.1	7	
MPL 7-1113-1	02	11/07/13					11/11/2013	4	7		11/11/13	4	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3202997
Report generated 11/14/2013 13:36

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM2540-C-1997 AAB#: WG452622

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 5-1113-1	03	11/07/13					11/13/2013	5.9	7		11/13/13	5.9	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3202997
Report generated 11/14/2013 13:36

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L13110465
Work Group: WG452254
Blank File ID: EN.1311111325-01
Blank Sample ID: WG452254-01
Prep Date: 11/11/13 13:25
Instrument ID: OVEN
Analyzed Date: 11/11/13 13:25
Method: SM2540-C-1997
Analyst: ADG

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452254-02	EN.1311111325-02	11/11/13 13:25	
LCS2	WG452254-03	EN.1311111325-03	11/11/13 13:25	
MPL 29-1113-1	L13110465-01	EN.1311111325-22	11/11/13 13:25	
MPL 7-1113-1	L13110465-02	EN.1311111325-23	11/11/13 13:25	
DUP	WG452254-05	EN.1311111325-24	11/11/13 13:25	
DUP	WG452254-07	EN.1311111325-25	11/11/13 13:25	

Report Name: BLANK_SUMMARY
PDF File ID: 3202998
Report generated 11/14/2013 13:36

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L13110465
Blank File ID: EN.1311131252-01
Prep Date: 11/13/13 12:52
Analyzed Date: 11/13/13 12:52
Analyst: ADG

Work Group: WG452622
Blank Sample ID: WG452622-01
Instrument ID: OVEN
Method: SM2540-C-1997

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452622-02	EN.1311131252-02	11/13/13 12:52	
LCS2	WG452622-03	EN.1311131252-03	11/13/13 12:52	
DUP	WG452622-05	EN.1311131252-19	11/13/13 12:52	
DUP	WG452622-07	EN.1311131252-20	11/13/13 12:52	
MPL 5-1113-1	L13110465-03	EN.1311131252-22	11/13/13 12:52	2

Report Name: BLANK_SUMMARY
PDF File ID: 3202998
Report generated 11/14/2013 13:36

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/11/13 13:25 Sample ID: WG452254-01
Instrument ID: OVEN Run Date: 11/11/13 13:25 Prep Method: 160.1/SM2540C
File ID: EN.1311111325-01 Analyst: ADG Method: SM2540-C-1997
Workgroup (AAB#): WG452254 Matrix: Water Units: mg/L
Contract #: Cal ID: OVEN-

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Total Dissolved Solids	5.00	10.0	8.00	1	*

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3202999
14-NOV-2013 13:36

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/13/13 12:52 Sample ID: WG452622-01
Instrument ID: OVEN Run Date: 11/13/13 12:52 Prep Method: 160.1/SM2540C
File ID: EN.1311131252-01 Analyst: ADG Method: SM2540-C-1997
Workgroup (AAB#): WG452622 Matrix: Water Units: mg/L
Contract #: Cal ID: OVEN-

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Total Dissolved Solids	5.00	10.0	-7.00	1	*

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3202999
14-NOV-2013 13:36

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 Analyst: ADG Prep Method: 160.1/SM2540C
Instrument ID: OVEN Matrix: Water Method: SM2540-C-1997
Workgroup (AAB#): WG452622 Units: mg/L
QC Key: DOD4 Lot #: STD60796

Sample ID: WG452622-02 LCS File ID: EN.1311131252-02 Run Date: 11/13/2013 12:52
Sample ID: WG452622-03 LCS2 File ID: EN.1311131252-03 Run Date: 11/13/2013 12:52

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Dissolved Solids	500	490	98.0	500	528	106	7.47	80 - 120	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3203000
Report generated: 11/14/2013 13:36

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 Analyst: ADG Prep Method: 160.1/SM2540C
Instrument ID: OVEN Matrix: Water Method: SM2540-C-1997
Workgroup (AAB#): WG452254 Units: mg/L
QC Key: DOD4 Lot #: STD60796

Sample ID: WG452254-02 LCS File ID: EN.1311111325-02 Run Date: 11/11/2013 13:25
Sample ID: WG452254-03 LCS2 File ID: EN.1311111325-03 Run Date: 11/11/2013 13:25

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Dissolved Solids	500	470	94.0	500	460	92.0	2.15	80 - 120	10	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3203000
Report generated: 11/14/2013 13:36

2.2.9.3 Raw Data

Tray 4

WORKGROUP: WG452254

TOTAL DISSOLVED SOLIDS

(tds1)

Oven: TDS MICS1
☐ EPA 160.1 / SM2540C
LCS: Std 60796
Daily Dilution: 5(5000)/50=500

Balance: AND GR-202 / Other
Matrix Spike: _____
Daily Dilution: _____
Filter Lot #: 73083

			On Temp/Time:	104 /1500	180 /0620	180 /1305	/
SAMPLE	#	VOLUME (mL)	INITIAL WEIGHT WT1 (g)	DRY WEIGHT WT2A (g)	DRY WEIGHT WT2B (g)	DRY WEIGHT WT2C (g)	
BLANK	BLK	100					
LCS: mg/L	LCS1	50					
LCSDUP: mg/L	LCS2	50					
110434-01	1	50					
-06	2	50					
110435-05	3	50					
-06	4	50					
-07	5	50					
-08	6	50					
110436-01	7	50					
-03	8	50					
-05	9	50					
110437-01	10	50					
-02	11	50					
-03	12	50					
-04	13	50					
110464-07	14	50					
-08	15	50					
-09	16	50					
110464-10	17	50					
-11	18	50					
110465-01	19	50					
-02	20	50					
DUP: 110437-01	Dup1	50					
DUP: 110464-09	Dup2	50					
			Off Temp/Time:	104 / 0620	180 /1230	180 /1515	/

ANALYST: Peggy S. Webb

* Duplicate required on 10% of samples

DATE/TIME: (on) 11-11-13 @1500
DATE/TIME: (off) 11-12-13 @1230
DATE/TIME: (off) 11-12-13 @1515
DATE/TIME: (off) _____

DCN#98767

2

WORKGROUP: WG452622

TOTAL DISSOLVED SOLIDS

(tds1)

Oven: TDS MICS1
☐ EPA 160.1 / SM2540C
LCS: Std L607916
Daily Dilution: 5(9000)/50=500

Balance: AND GR-202 / Other
Matrix Spike:
Daily Dilution:
Filter Lot #: 1526856

			On Temp/Time:	105 / 1520	181 / 0525	180 / 0936	/
SAMPLE	#	VOLUME (mL)	INITIAL WEIGHT WT1 (g)	DRY WEIGHT WT2A (g)	DRY WEIGHT WT2B (g)	DRY WEIGHT WT2C (g)	
BLANK	BLK * M	100					
LCS: mg/L	LCS1	50					
LCSDUP: mg/L	LCS2	50					
1044-07	1	50					
683-01	2	50					
02	3	50					
03	4	50					
712-02	5	50					
713-01	6	50					
09	7	50					
0714-01	8	50					
03	9	50					
715-01	10	50					
02	11	50					
716-01	12	50					
720-02	13	50					
06	14	50					
08	15	50					
M SMUS 0766-01	16	50	62.19165	62.2487	62.2483		
~~0466-02~~	17	~~50~~	~~60.5087~~	~~60.5365~~	~~60.5364~~	Did not need to Run both numbers	
03	18	50	56.8742	56.8886	56.8883		
1005-01	19	50	65.8016	65.8135	65.8132		
1044-05	20	50	60.6014	60.7250	60.7251		
DUP: 715-01	Dup1	50					
DUP: 720-06	Dup2	50					
			Off Temp/Time:	103 / 0525	181 / 0525	180 / 1040	/

ANALYST: Emil Greene

* Duplicate required on 10% of samples

DATE/TIME: (on) 11-13-13 @ 1252
DATE/TIME: (off) 11-14-13
DATE/TIME: (off)
DATE/TIME: (off)

DCN#98833

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Workgroup (AAB#): WG452254
Method: 160.1/SM2540C
Analyst: ADG
SOP: Revison
Analyte: TOTAL DISSOLVED SOLIDS
Spike Solution: STD60796
Balance: BAL018
Daily Dilution:
Instrument#: OVEN

SAMPLE NUMBER		INITIAL VOL	INITIAL WT	DRY WT A	DRY WT B	DRY WT C	Anal. Conc	Rep. Conc.	Units
WG452254-01	BLK	100	72.6476	72.648	72.6484		8.000	8.000	mg/L
WG452254-02	LCS	50	60.0614	60.0853	60.0849		470.0	470.0	mg/L
WG452254-03	LCS2	50	63.5423	63.5657	63.5653		460.0	460.0	mg/L
L13110434-01	1	50	53.1316	53.1647	53.165		668.0	668.0	mg/L
L13110434-06	2	50	59.7186	59.791	59.7915		1458	1458	mg/L
L13110435-05	3	50	56.2194	56.2969	56.2969		1550	1550	mg/L
L13110435-06	4	50	63.9475	63.9487	63.9485		20.00	20.00	mg/L
L13110435-07	5	50	67.4138	67.442	67.442		564.0	564.0	mg/L
L13110435-08	6	50	70.7452	70.7742	70.774		576.0	576.0	mg/L
L13110436-01	7	50	68.0048	68.0335	68.0335		574.0	574.0	mg/L
L13110436-03	8	50	59.4608	59.49	59.4902		588.0	588.0	mg/L
L13110436-05	9	50	60.4083	60.4112	60.4109		52.00	52.00	mg/L
L13110437-01	10	50	57.5248	57.6036	57.604		1584	1584	mg/L
WG452254-04	10	50	57.5248	57.6036	57.604		1584	1584	mg/L
L13110437-02	11	50	57.1042	57.132	57.1317		550.0	550.0	mg/L
L13110437-03	12	50	63.3359	63.3673	63.3671		624.0	624.0	mg/L
L13110437-04	13	50	56.9677	57.0469	57.0467		1580	1580	mg/L
L13110464-07	14	50	57.0899	57.1181	57.1178		558.0	558.0	mg/L
L13110464-08	15	50	60.7786	60.7953	60.7951		330.0	330.0	mg/L
L13110464-09	16	50	60.5342	60.5703	60.5706		728.0	728.0	mg/L
WG452254-06	16	50	60.5342	60.5703	60.5706		728.0	728.0	mg/L
L13110464-10	17	50	68.6988	68.7183	68.7185		394.0	394.0	mg/L
L13110464-11	18	50	61.3385	61.3628	61.3626		482.0	482.0	mg/L
L13110465-01	19	50	60.6693	60.6928	60.6924		462.0	462.0	mg/L
L13110465-02	20	50	59.0203	59.0526	59.0524		642.0	642.0	mg/L
WG452254-05	DUP	50	69.1159	69.1947	69.1946		1574	1574	mg/L
WG452254-07	DUP2	50	52.8638	52.902	52.9016		756.0	756.0	mg/L

Analyst: April Greene

*Duplicate required on 10% of samples

Date/Time (on) : 11/11/2013 13:25
Date/Time (off): 11/12/2013 12:53
Date/Time (off): 11/12/2013 15:30
Date/Time (off):

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 3195384
Report generated: 11/13/2013 10:36

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Workgroup (AAB#): WG452622 Method: 160.1/SM2540C
Analyst: ADG SOP: Revison
Analyte: TOTAL DISSOLVED SOLIDS Spike Solution: STD60796
Balance: BAL018 Daily Dilution:
Instrument#: OVEN

SAMPLE NUMBER		INITIAL VOL	INITIAL WT	DRY WT A	DRY WT B	DRY WT C	Anal. Conc	Rep. Conc.	Units
WG452622-01	BLK	100	112.5953	112.595	112.5946		-7.000	-7.000	mg/L
WG452622-02	LCS	50	52.1718	52.1968	52.1963		490.0	490.0	mg/L
WG452622-03	LCS2	50	68.1098	68.1365	68.1362		528.0	528.0	mg/L
L13110644-07	1	50	62.142	62.2039	62.2034		1228	1228	mg/L
L13110683-01	2	50	64.0675	64.0832	64.0833		316.0	316.0	mg/L
L13110683-02	3	50	51.0864	51.0913	51.091		92.00	92.00	mg/L
L13110683-03	4	50	66.0917	66.1046	66.1041		248.0	248.0	mg/L
L13110712-02	5	50	56.3991	56.4164	56.4165		348.0	348.0	mg/L
L13110713-01	6	50	57.6243	57.6925	57.692		1354	1354	mg/L
L13110713-09	7	50	62.1028	62.1164	62.1164		272.0	272.0	mg/L
L13110714-01	8	50	63.2062	63.2344	63.2343		562.0	562.0	mg/L
L13110714-03	9	50	55.8424	55.8723	55.8718		588.0	588.0	mg/L
L13110715-01	10	50	66.5756	66.5838	66.5839		166.0	166.0	mg/L
WG452622-04	10	50	66.5756	66.5838	66.5839		166.0	166.0	mg/L
L13110715-02	11	50	56.775	56.7917	56.7912		324.0	324.0	mg/L
L13110716-01	12	50	68.5057	68.5344	68.5339		564.0	564.0	mg/L
L13110720-02	13	50	63.222	63.2824	63.2822		1204	1204	mg/L
L13110720-06	14	50	61.4552	61.5042	61.5047		990.0	990.0	mg/L
WG452622-06	14	50	61.4552	61.5042	61.5047		990.0	990.0	mg/L
L13110720-08	15	50	64.2703	64.2875	64.287		334.0	334.0	mg/L
WG452622-05	DUP	50	60.1358	60.1531	60.153		344.0	344.0	mg/L
WG452622-07	DUP2	50	61.2224	61.2902	61.2906		1364	1364	mg/L
L13110766-01	16	50	62.1965	62.2487	62.2483		1036	1036	mg/L
L13110465-03	18	50	56.8742	56.8886	56.8883		282.0	282.0	mg/L
L13110605-01	19	50	65.8016	65.8135	65.8132		232.0	232.0	mg/L
L13110644-05	20	50	60.6614	60.725	60.7251		1274	1274	mg/L

Analyst: April Greene

*Duplicate required on 10% of samples

Date/Time (on) : 11/13/2013 12:52
Date/Time (off): 11/14/2013 09:24
Date/Time (off): 11/14/2013 11:15
Date/Time (off):

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 3202881
Report generated: 11/14/2013 11:39

2.2.10 Total Organic Carbon Data

2.2.10.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

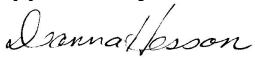
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74776
Approved By: Deanna Hesson



Certificate of Analysis

Sample #: L13110465-01 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: MPL 29-1113-1 **Prep Method:** 415.1 **Prep Date:** N/A
Matrix: Water **Analytical Method:** 415.1 **Cal Date:** 07/09/2013 14:51
Workgroup #: WG452462 **Analyst:** DIH **Run Date:** 11/12/2013 23:05
Collect Date: 11/07/2013 11:00 **Dilution:** 1 **File ID:** TC11122013.021
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon	TOC	1.72		1.00	0.500

Sample #: L13110465-02 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: MPL 7-1113-1 **Prep Method:** 415.1 **Prep Date:** N/A
Matrix: Water **Analytical Method:** 415.1 **Cal Date:** 07/09/2013 14:51
Workgroup #: WG452462 **Analyst:** DIH **Run Date:** 11/12/2013 23:27
Collect Date: 11/07/2013 13:05 **Dilution:** 1 **File ID:** TC11122013.022
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon	TOC	1.70		1.00	0.500

Sample #: L13110465-03 **PrePrep Method:** N/A **Instrument:** TOC-VWP
Client ID: MPL 5-1113-1 **Prep Method:** 415.1 **Prep Date:** N/A
Matrix: Water **Analytical Method:** 415.1 **Cal Date:** 07/09/2013 14:51
Workgroup #: WG452462 **Analyst:** DIH **Run Date:** 11/12/2013 23:48
Collect Date: 11/07/2013 15:00 **Dilution:** 1 **File ID:** TC11122013.023
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon	TOC	1.20		1.00	0.500

2.2.10.2 QC Summary Data

Total Organic Carbon Example Calculations
(Direct Readout Parameter)

(Readout)/(dilution) = mg/L

where:

Readout = direct readout from the instrument
dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

Data Checklist

Date: 12-NOV-2013
Analyst: DCM
Analyst: NA
Method: TOC
Instrument: TOC-VWP
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452462

Calibration/Linearity	7-9-2013
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DCM
Secondary Reviewer	SAV
Comments	

Primary Reviewer:
14-NOV-2013

Secondary Reviewer:
15-NOV-2013

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-15-2013 15:17:05

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 415.1 **AAB#:** WG452462

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/12/2013	5.5	28		11/12/13	5.5	28	
MPL 7-1113-1	02	11/07/13					11/12/2013	5.4	28		11/12/13	5.4	28	
MPL 5-1113-1	03	11/07/13					11/12/2013	5.4	28		11/12/13	5.4	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3206758
Report generated 11/15/2013 15:07

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number:	L13110465	Work Group:	WG452462
Blank File ID:	TC11122013.003	Blank Sample ID:	WG452462-01
Prep Date:	11/12/13 16:16	Instrument ID:	TOC-VWP
Analyzed Date:	11/12/13 16:16	Method:	415.1
Analyst:	DIH		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452462-02	TC11122013.004	11/12/13 16:35	01
LCS2	WG452462-03	TC11122013.005	11/12/13 16:58	01
MPL 29-1113-1	L13110465-01	TC11122013.021	11/12/13 23:05	01
MPL 7-1113-1	L13110465-02	TC11122013.022	11/12/13 23:27	01
MPL 5-1113-1	L13110465-03	TC11122013.023	11/12/13 23:48	01
DUP	WG452462-05	TC11122013.032	11/13/13 02:52	01

Report Name: BLANK_SUMMARY
PDF File ID: 3206759
Report generated 11/15/2013 15:07

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/12/13 16:16 Sample ID: WG452462-01
Instrument ID: TOC-VWP Run Date: 11/12/13 16:16 Prep Method: 415.1
File ID: TC11122013.003 Analyst: DIH Method: 415.1
Workgroup (AAB#): WG452462 Matrix: Water Units: mg/L
Contract #: Cal ID: TOC-VW-09-JUL-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3206760
15-NOV-2013 15:07

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Analyst:** DIH **Prep Method:** 415.1
Instrument ID: TOC-VWP **Matrix:** Water **Method:** 415.1
Workgroup (AAB#): WG452462 **Units:** mg/L
QC Key: DOD4 **Lot #:** STD60155

Sample ID: WG452462-02 LCS **File ID:** TC11122013.004 **Run Date:** 11/12/2013 16:35
Sample ID: WG452462-03 LCS2 **File ID:** TC11122013.005 **Run Date:** 11/12/2013 16:58

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	25.2	101	25.0	25.1	100	0.636	85 - 115	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3206761
Report generated: 11/15/2013 15:07

2.2.10.3 Raw Data

WG437280

Total Organic Carbon

MAKE DAILY

CCV (TOC): _____ (5/200)(1000) = 25mg/L

LCS (TOC): _____ (5/200)(1000) = 25mg/L

CCV (TIC): _____ (5/200)(1000) = 25mg/L

see below

MS (TOC): _____

Calibration Curve Date: _____

Reagent: _____

☑ SM5310-C : Matrix 2 WG_____

☐ EPA 415.1/9060A(mod): Matrix 1 WG_____ SOP: K 4151 Rev. 15

WG_____ Instrument: Shimadza TOC-VWP/ASI

DAILY CHECK

☑ drain reservoir filled
☑ ASI water bottle full
☑ dilution water bottle full

☑ 3rd bottle full
☑ sufficient gas
☑ sufficient persulfate

☑ sufficient acid
☑ waste container

Position	Sample ID	Dilution
1	TC Curve	
2	TIC Curve	
3	TC ICV	
4	TIC ICV	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15	all points	
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Position	Sample ID	Dilution
26	TC Curve	
27	Std58866	
28		
29	TIC Curve	
30	Std58877	
31		
32		
33	TC ICV	
34	Std57523	
35		
36	TIC ICV	
37	Std58878	
38		
39		
40	analyzed with	
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

Position	Sample ID	Dilution
51		
52		
53	see SOP	
54	for curve	
55	points	
56		
57		
58	7/9/13	
59	Use 5/200 (1000)	
60	= 25mg/L	
61		
62		
63		
64		
65	duplicate	
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		

Analyst: Bucio Fenton Date/Time: 7/9/13/1400

DCN#96473

C:\TOC3201\Data\07-09-2013-BAF-TOC.t32

	Analy	Sample Name	Result	Status	Date / Time	Vial
1	TOC		TOC:2.208mg/L TC:26.74mg/L IC:24.53mg/L	Complete	7/9/2013 5:17:57 PM	1
2	TOC		TOC:23.65mg/L TC:23.65mg/L IC:0.00022mg/L	Complete	7/9/2013 5:29:56 PM	2
3	TOC		TOC:22.05mg/L TC:22.22mg/L IC:0.1735mg/L	Complete	7/9/2013 5:42:12 PM	3
4	TOC		!!Error!! TOC:24.67mg/L TC:24.54mg/L IC:-0.1326mg	Complete	7/9/2013 5:54:31 PM	4

Instr.Information

System	TOCVW ASI
Detector	Wet Chemical

Cal. Curve

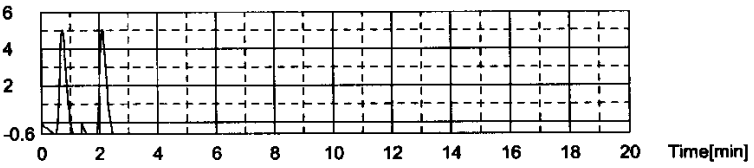
Sample Name:	TCCURVE
Sample ID:	Untitled
Cal. Curve:	TCCURVE-07-09-2013.2013_07_09_13_54_59.cal
Status	Completed

Type	Anal.
Standard	TC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.370	500uL	1	*******		7/9/2013 2:00:04 PM
2	10.94	500uL	1	*******		7/9/2013 2:03:54 PM

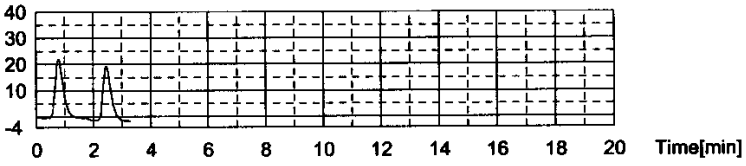
Acid Add. 0.000%
Mean Area 10.16



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	43.95	500uL	1	*******		7/9/2013 2:09:31 PM
2	40.43	500uL	1	*******		7/9/2013 2:13:23 PM

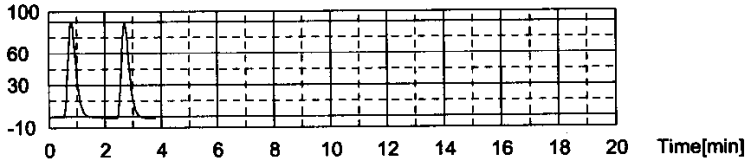
Acid Add. 0.000%
Mean Area 42.19



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	180.9	500uL	1	*******		7/9/2013 2:19:14 PM
2	179.0	500uL	1	*******		7/9/2013 2:23:23 PM

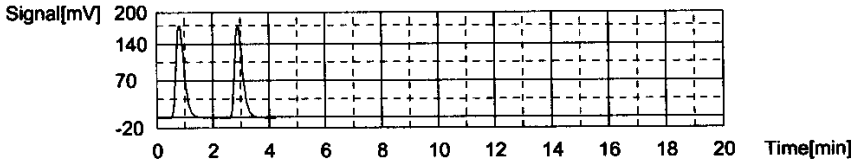
Acid Add. 0.000%
Mean Area 179.9



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	357.3	500uL	1	*******		7/9/2013 2:29:25 PM
2	358.1	500uL	1	*******		7/9/2013 2:33:50 PM

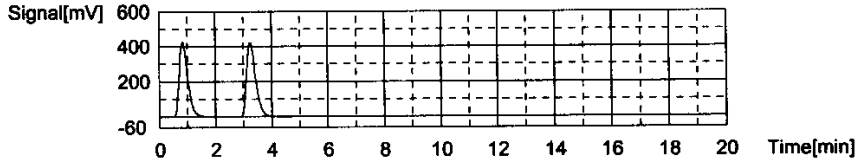
Acid Add. 0.000%
Mean Area 357.7



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	900.5	500uL	1	*******		7/9/2013 2:40:10 PM
2	968.7	500uL	1	*******		7/9/2013 2:44:47 PM

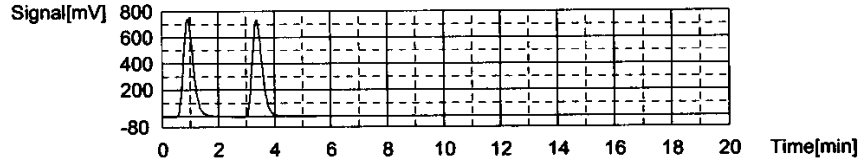
Acid Add. 0.000%
Mean Area 934.6



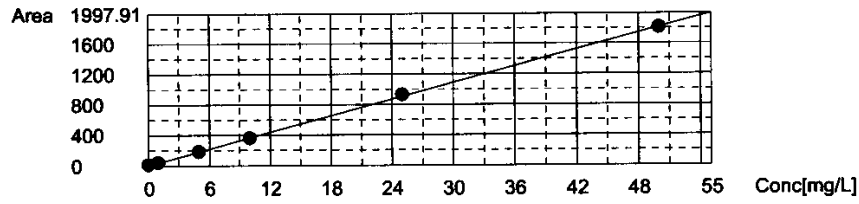
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1813	500uL	1	*******		7/9/2013 2:51:11 PM
2	1802	500uL	1	*******		7/9/2013 2:57:12 PM

Acid Add. 0.000%
Mean Area 1808



Slope: 36.20
Intercept 6.332
r^2 0.999673
Zero Shift No



Cal. Curve

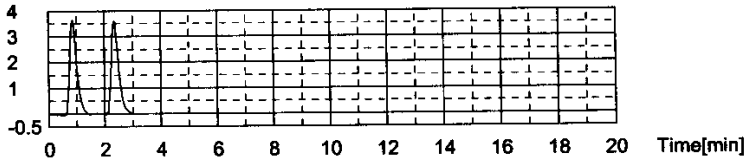
Sample Name: TICCURVE
Sample ID: Untitled
Cal. Curve: TICCURVE-07-09-2013.2013_07_09_14_57_12.cal
Status Completed

Type	Anal.
Standard	IC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.571	500uL	1	*******		7/9/2013 3:02:59 PM
2	6.428	500uL	1	*******		7/9/2013 3:07:04 PM

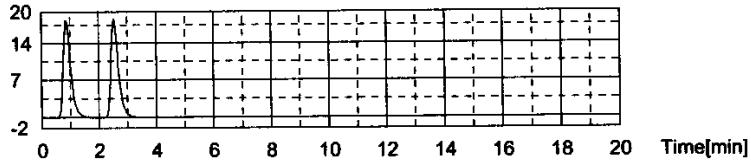
Acid Add. 10.00%
Mean Area 6.500



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	33.29	500uL	1	*******		7/9/2013 3:14:33 PM
2	33.59	500uL	1	*******		7/9/2013 3:18:50 PM

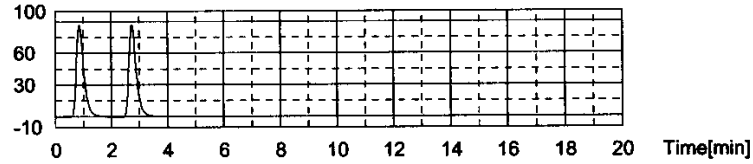
Acid Add. 10.00%
Mean Area 33.44



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	158.6	500uL	1	*******		7/9/2013 3:26:34 PM
2	158.4	500uL	1	*******		7/9/2013 3:31:09 PM

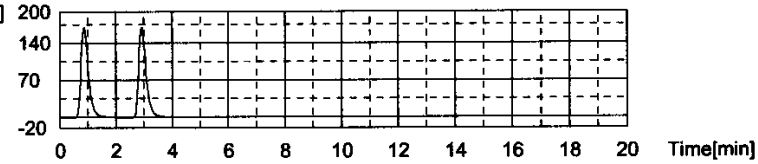
Acid Add. 10.00%
Mean Area 158.5



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	312.7	500uL	1	*******		7/9/2013 3:39:08 PM
2	313.0	500uL	1	*******		7/9/2013 3:44:01 PM

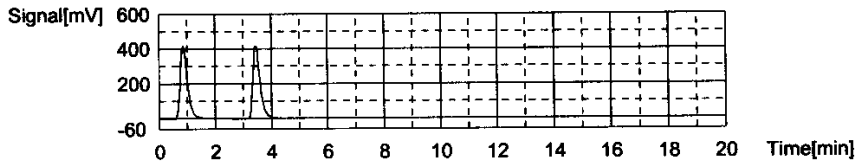
Acid Add. 10.00%
Mean Area 312.9



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	755.5	500uL	1	*******		7/9/2013 3:52:43 PM
2	755.7	500uL	1	*******		7/9/2013 3:58:05 PM

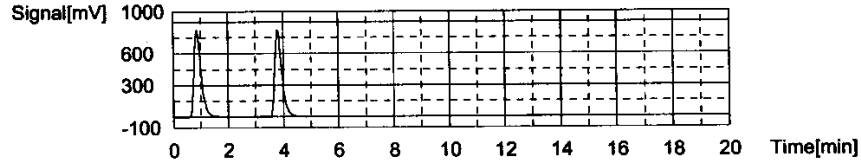
Acid Add. 10.00%
Mean Area 755.6



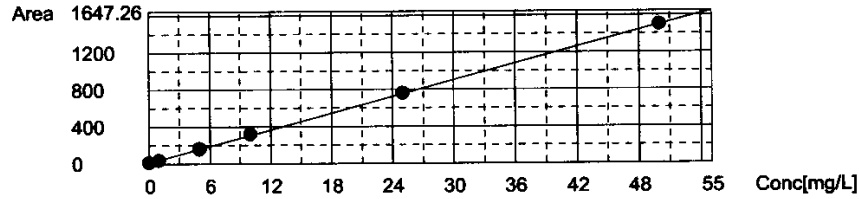
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1495	500uL	1	*******		7/9/2013 4:07:15 PM
2	1495	500uL	1	*******		7/9/2013 4:13:10 PM

Acid Add. 10.00%
Mean Area 1495



Slope: 29.78
Intercept 8.713
r^2 0.999949
Zero Shift No



Sample

Sample Name: TC ICV
Sample ID: Untitled
Origin: TCCURVE-07-09-2013.cal
Status Completed
Chk. Result

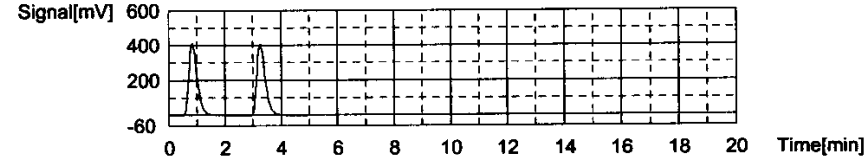
Type	Anal.	Dil.	Result
Unknown	TC	1.000	TC:23.67mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	868.0	23.80mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	7/9/2013 4:21:01 PM
2	858.5	23.54mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	7/9/2013 4:25:50 PM

Mean Area 863.3
Mean Conc. 23.67mg/L



Sample

Sample Name:	TIC ICV
Sample ID:	Untitled
Origin:	TICCURVE-07-09-2013.cal
Status	Completed
Chk. Result	

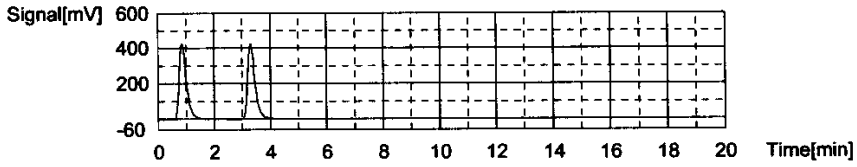
Type	Anal.	Dil.	Result
Unknown	IC	1.000	IC:25.62mg/L

1. Det

Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	769.8	25.56mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	7/9/2013 4:32:54 PM
2	773.1	25.67mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	7/9/2013 4:38:08 PM

Mean Area	771.5
Mean Conc.	25.62mg/L



WORKGROUP: WG452462

Total Organic Carbon

MAKE DAILY

CCV (TOC): Std 58866 (5/200)(1000) = 25mg/L

LCS (TOC): Std 60155 (5/200)(1000) = 25mg/L

CCV (TIC): Std 58878 (5/200)(1000) = 25mg/L

MS (TOC): Std 60155 0.4/40 (1000) = 10

Calibration Curve Date: 7/9/13

Reagent: RGT 28396, RGT 27691

☑ SM5310-C : Matrix 2 WG 452462

☐ EPA 415.1/9060A(mod): Matrix 1 WG _____ SOP: K _____ Rev. 15

WG _____ Instrument: Shimadza TOC-VWP/ASI

DAILY CHECK

☐ drain reservoir filled ☐ ASI water bottle full ☐ dilution water bottle full

☐ 3rd bottle full ☐ sufficient gas ☐ sufficient persulfate

☐ sufficient acid ☐ waste container

Position	Sample ID	Dilution
1	TIC	
2	CCV	
3	Blk	
4	LCS	
5	LCSDUP	1/500
6	~~11-442-08~~	~~1/250~~
7	11-474-01	
8	11-475-01	
9	02	
10	11-555-01	
11	11-302-04	1/2
12	06	1/3
13	11-409-06	1/2
14	CCV	
15	CCB	
16	11-409-07	1/3
17	09	1/5
18	MS 10	1/5
19	MSD 11	1/5
20	12	1/5
21	11-465-01	
22	02	
23	03	
24	11-486-04	1/50
25	02	

Position	Sample ID	Dilution
26	CCV	
27	CCB	
28	11-486-03	1/250
29	05	1/100
30	06	1/100
31	11-487-01	1/250
32	DUP 11-465-01	
33	CCV	
34	CCB	
35		
36		
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Position	Sample ID	Dilution
51		
52		
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11-487-02 dcm 11/12/13

Analyst: Daniel Merchlo Date/Time: 11/12/13 1515

DCN#98803

C:\TOC3201\Data\11-12-2013-DCM-TOC.t32

	Analys	Sample Name	Result	Status	Date / Time	Vial
1	TOC	TIC 25	TOC:1.586mg/L TC:25.32mg/L IC:23.74mg/L	Completed	11/12/2013 3:59:0	1
2	TOC	CCV 25	!!Error!! TOC:25.60mg/L TC:25.53mg/L IC:-0.06950	Completed	11/12/2013 4:11:3	2
3	TOC	WG452462-01 BLK	!!Error!! TOC:0.1090mg/L TC:0.05326mg/L IC:-0.059	Completed	11/12/2013 4:28:0	0
4	TOC	WG452462-02 LCS	!!Error!! TOC:25.23mg/L TC:25.10mg/L IC:-0.1253m	Completed	11/12/2013 4:50:1	4
5	TOC	WG452462-03 LCSDUP	!!Error!! TOC:25.07mg/L TC:24.95mg/L IC:-0.1246m	Completed	11/12/2013 5:11:2	5
6	TOC	L13110487-02 (500)	TOC:30.58mg/L TC:31.11mg/L IC:0.5260mg/L	Completed	11/12/2013 5:51:1	6
7	TOC	<Untitled>	TOC:19.61mg/L TC:63.35mg/L IC:43.74mg/L	Completed	11/12/2013 6:19:2	7
8	TOC	L13110475-01	TOC:5.336mg/L TC:15.98mg/L IC:10.65mg/L	Completed	11/12/2013 6:43:2	8
9	TOC	L13110475-02	TOC:3.973mg/L TC:14.66mg/L IC:10.68mg/L	Completed	11/12/2013 7:05:3	9
10	TOC	L13110555-01	TOC:8.043mg/L TC:22.65mg/L IC:14.61mg/L	Completed	11/12/2013 7:28:4	10
11	TOC	L13110302-04 (2)	TOC:14.94mg/L TC:26.60mg/L IC:11.66mg/L	Completed	11/12/2013 7:52:4	11
12	TOC	L13110302-06 (3)	TOC:11.51mg/L TC:17.99mg/L IC:6.478mg/L	Completed	11/12/2013 8:15:4	12
13	TOC	L13110409-06 (2)	TOC:11.29mg/L TC:24.97mg/L IC:13.69mg/L	Completed	11/12/2013 8:39:2	13
14	TOC	CCV	TOC:25.91mg/L TC:25.92mg/L IC:0.01066mg/L	Completed	11/12/2013 8:51:4	14
15	TOC	CCB	!!Error!! TOC:0.09675mg/L TC:0.06329mg/L IC:-0.03	Completed	11/12/2013 9:00:4	0
16	TOC	L13110409-07 (3)	TOC:13.90mg/L TC:33.49mg/L IC:19.58mg/L	Completed	11/12/2013 9:24:5	16
17	TOC	L13110409-09 (5)	TOC:5.564mg/L TC:15.92mg/L IC:10.36mg/L	Completed	11/12/2013 9:47:2	17
18	TOC	L13110409-10 (5) MS	TOC:8.175mg/L TC:22.59mg/L IC:14.42mg/L	Completed	11/12/2013 10:10:	18
19	TOC	L13110409-11 (5) MSD	TOC:8.224mg/L TC:23.81mg/L IC:15.58mg/L	Completed	11/12/2013 10:33:	19
20	TOC	L13110409-12 (5)	TOC:6.520mg/L TC:22.03mg/L IC:15.51mg/L	Completed	11/12/2013 10:57:	20
21	TOC	L13110465-01	TOC:1.722mg/L TC:8.781mg/L IC:7.059mg/L	Completed	11/12/2013 11:19:	21
22	TOC	L13110465-02	TOC:1.698mg/L TC:6.901mg/L IC:5.203mg/L	Completed	11/12/2013 11:41:	22
23	TOC	L13110465-03	TOC:1.198mg/L TC:4.628mg/L IC:3.430mg/L	Completed	11/13/2013 12:02:	23
24	TOC	<Untitled>	TOC:268.4mg/L TC:269.7mg/L IC:1.238mg/L	Completed	11/13/2013 12:30:	24
25	TOC	L13110486-02	TOC:2.030mg/L TC:10.55mg/L IC:8.525mg/L	Completed	11/13/2013 12:52:	25
26	TOC	CCV	TOC:27.03mg/L TC:27.03mg/L IC:0.00626mg/L	Completed	11/13/2013 1:05:2	26
27	TOC	CCB	!!Error!! TOC:0.1397mg/L TC:0.09503mg/L IC:-0.044	Completed	11/13/2013 1:14:2	0
28	TOC	L13110486-03 (250)	TOC:10.87mg/L TC:10.98mg/L IC:0.1144mg/L	Completed	11/13/2013 1:35:0	28
29	TOC	<Untitled>	TOC:71.76mg/L TC:72.22mg/L IC:0.4526mg/L	Completed	11/13/2013 1:58:3	29
30	TOC	L13110486-06 (100)	TOC:41.02mg/L TC:41.47mg/L IC:0.4529mg/L	Completed	11/13/2013 2:21:0	30
31	TOC	<Untitled>	TOC:58.90mg/L TC:58.98mg/L IC:0.08216mg/L	Completed	11/13/2013 2:45:2	31
32	TOC	WG453462-05 DUP	TOC:1.788mg/L TC:5.128mg/L IC:3.339mg/L	Completed	11/13/2013 3:06:1	32
33	TOC	CCV	!!Error!! TOC:26.26mg/L TC:26.25mg/L IC:-0.00710	Completed	11/13/2013 3:18:3	33
34	TOC	CCB	!!Error!! TOC:0.1254mg/L TC:0.08409mg/L IC:-0.041	Completed	11/13/2013 3:27:3	0

Instr.Information

System TOCVW ASI
Detector Wet Chemical

Sample

Sample Name: TIC 25
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

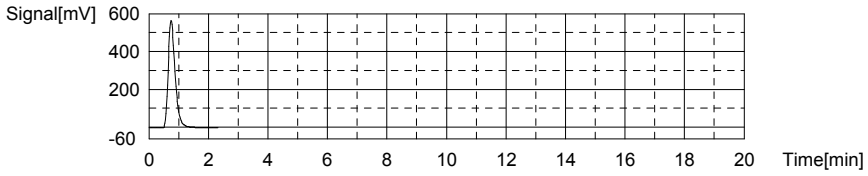
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.586mg/L TC:25.32mg/L IC:23.74mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	923.0	25.32mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 3:53:19 PM

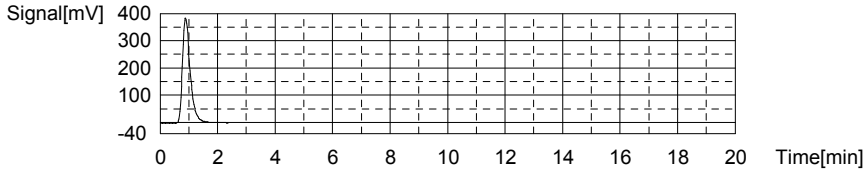
Mean Area 923.0
Mean Conc. 25.32mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	715.5	23.74mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 3:59:00 PM

Mean Area 715.5
Mean Conc. 23.74mg/L



Sample

Sample Name: CCV 25
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

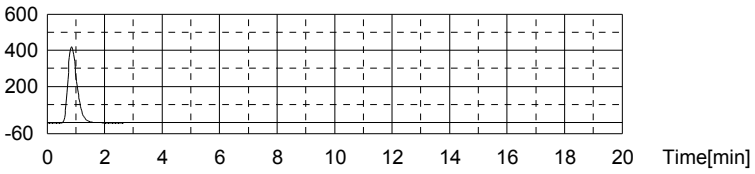
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.60mg/L TC:25.53mg/L IC:-0.06950mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	930.5	25.53mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 4:07:05 PM

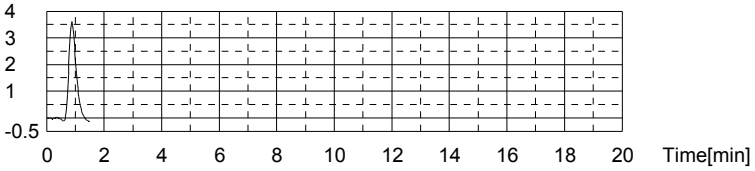
Mean Area 930.5
Mean Conc. 25.53mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.644	-0.06950mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 4:11:31 PM

Mean Area 6.644
Mean Conc. -0.06950mg/L



Sample

Sample Name: WG452462-01 BLK
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

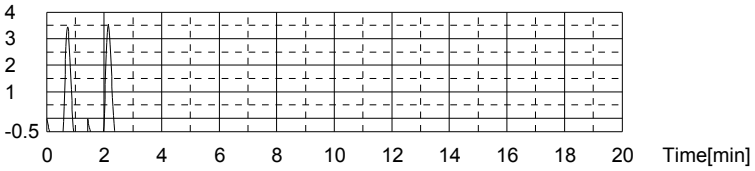
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1090mg/L TC:0.05326mg/L IC:-0.05578mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.294	0.05420mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 4:16:34 PM
2	8.226	0.05232mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 4:20:06 PM

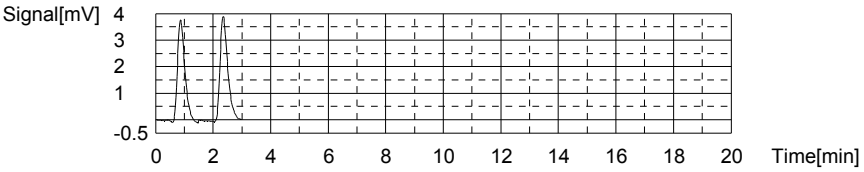
Mean Area 8.260
Mean Conc. 0.05326mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.849	-0.06262mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 4:24:06 PM
2	7.256	-0.04895mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 4:28:03 PM

Mean Area 7.053
Mean Conc. -0.05578mg/L



Sample

Sample Name: WG452462-02 LCS
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

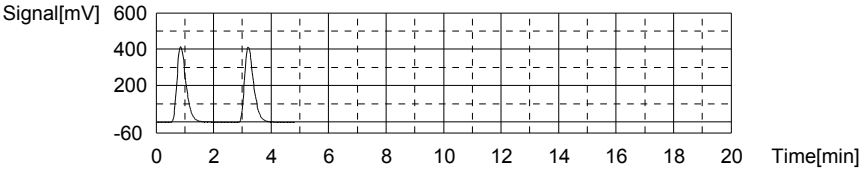
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.23mg/L TC:25.10mg/L IC:-0.1253mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	914.5	25.09mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 4:35:51 PM
2	915.4	25.11mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 4:41:43 PM

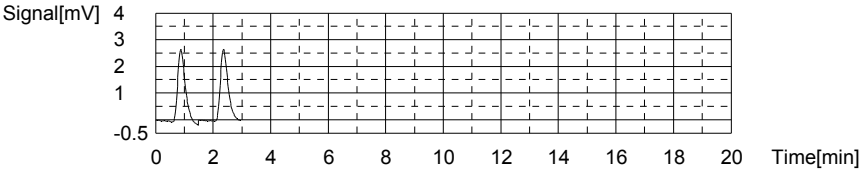
Mean Area 915.0
Mean Conc. 25.10mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.105	-0.1212mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 4:46:09 PM
2	4.859	-0.1294mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 4:50:18 PM

Mean Area 4.982
Mean Conc. -0.1253mg/L



Sample

Sample Name: WG452462-03 LCSDUP
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

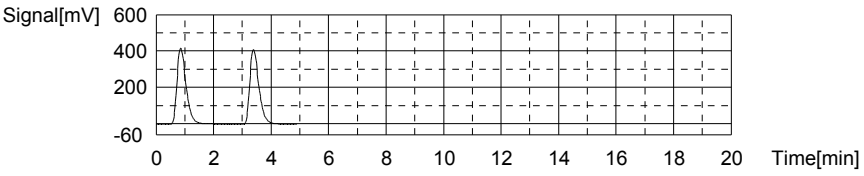
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.07mg/L TC:24.95mg/L IC:-0.1246mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	916.4	25.14mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 4:58:17 PM
2	902.3	24.75mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 5:02:54 PM

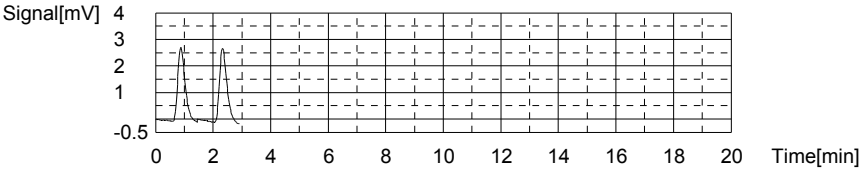
Mean Area 909.4
Mean Conc. 24.95mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.010	-0.1244mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 5:07:14 PM
2	4.997	-0.1248mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 5:11:23 PM

Mean Area 5.004
Mean Conc. -0.1246mg/L



Sample

Sample Name: L13110487-02 (500)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

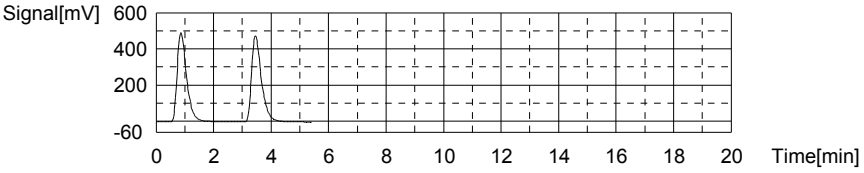
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:30.58mg/L TC:31.11mg/L IC:0.5260mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1126	30.93mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 5:36:15 PM
2	1139	31.29mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 5:42:20 PM

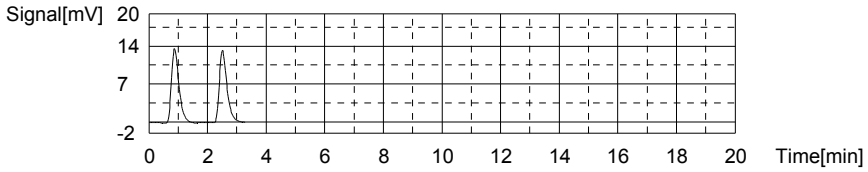
Mean Area 1133
Mean Conc. 31.11mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.67	0.5359mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 5:46:52 PM
2	24.08	0.5161mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 5:51:10 PM

Mean Area 24.38
Mean Conc. 0.5260mg/L



Sample

Sample Name: <Untitled>
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

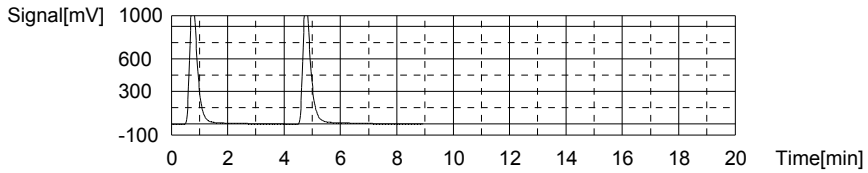
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:19.61mg/L TC:63.35mg/L IC:43.74mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2267	62.45mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 6:00:37 PM
2	2332	64.25mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 6:07:47 PM

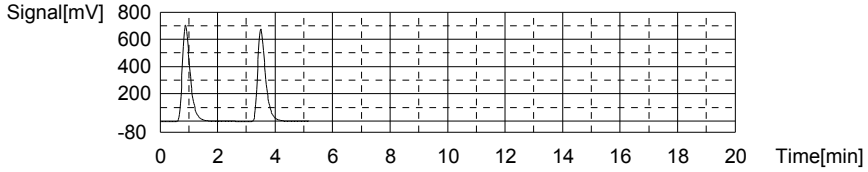
Mean Area 2300
Mean Conc. 63.35mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1332	44.44mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 6:13:45 PM
2	1290	43.03mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 6:19:28 PM

Mean Area 1311
Mean Conc. 43.74mg/L



Sample

Sample Name: L13110475-01
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

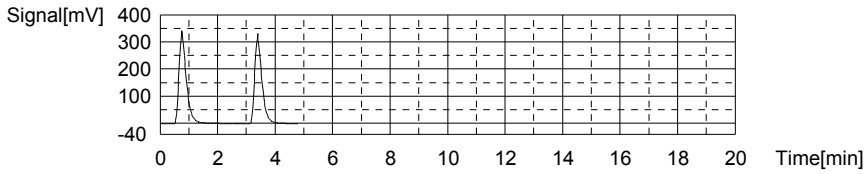
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.336mg/L TC:15.98mg/L IC:10.65mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	603.3	16.49mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 6:27:32 PM
2	566.4	15.47mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 6:33:08 PM

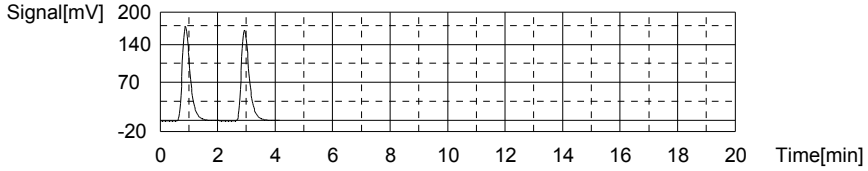
Mean Area 584.9
Mean Conc. 15.98mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	330.3	10.80mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 6:38:22 PM
2	321.1	10.49mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 6:43:22 PM

Mean Area 325.7
Mean Conc. 10.65mg/L



Sample

Sample Name: L13110475-02
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

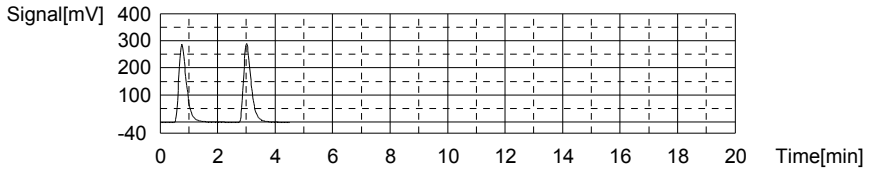
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.973mg/L TC:14.66mg/L IC:10.68mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	533.0	14.55mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 6:51:03 PM
2	540.8	14.76mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 6:55:33 PM

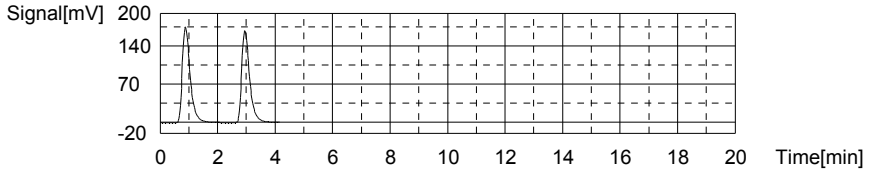
Mean Area 536.9
Mean Conc. 14.66mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	331.5	10.84mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 7:00:43 PM
2	322.2	10.53mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 7:05:39 PM

Mean Area 326.9
Mean Conc. 10.68mg/L



Sample

Sample Name: L13110555-01
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

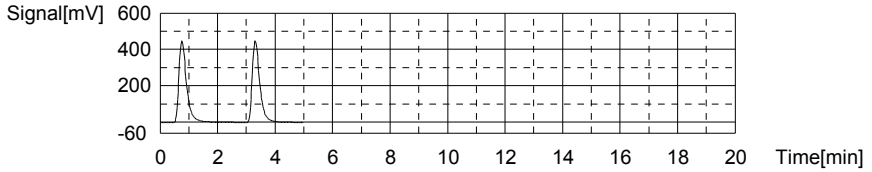
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.043mg/L TC:22.65mg/L IC:14.61mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	830.3	22.76mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 7:13:39 PM
2	822.2	22.54mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 7:18:20 PM

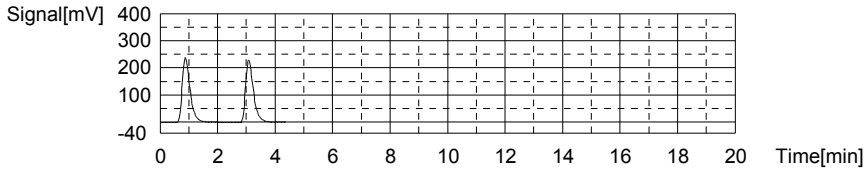
Mean Area 826.3
Mean Conc. 22.65mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	451.7	14.88mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 7:23:40 PM
2	435.6	14.34mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 7:28:43 PM

Mean Area 443.7
Mean Conc. 14.61mg/L



Sample

Sample Name: L13110302-04 (2)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

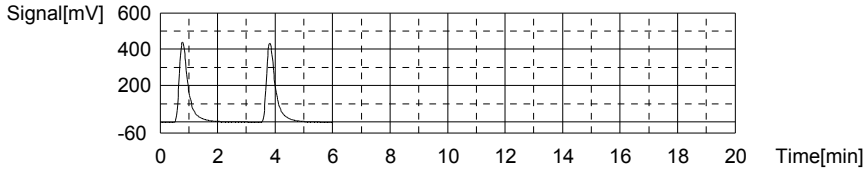
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:14.94mg/L TC:26.60mg/L IC:11.66mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	967.9	26.56mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 7:37:11 PM
2	970.3	26.63mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 7:42:23 PM

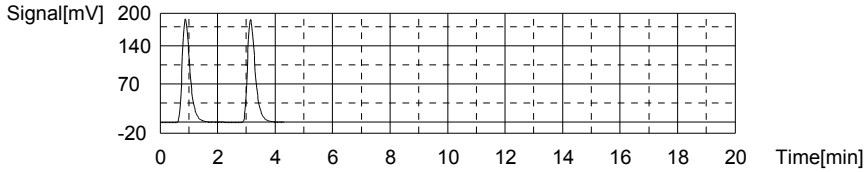
Mean Area 969.1
Mean Conc. 26.60mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	356.5	11.68mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 7:47:46 PM
2	355.2	11.64mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 7:52:40 PM

Mean Area 355.9
Mean Conc. 11.66mg/L



Sample

Sample Name: L13110302-06 (3)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

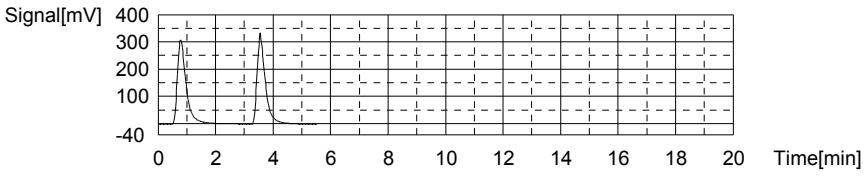
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.51mg/L TC:17.99mg/L IC:6.478mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	655.6	17.94mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 8:00:52 PM
2	659.3	18.04mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 8:05:53 PM

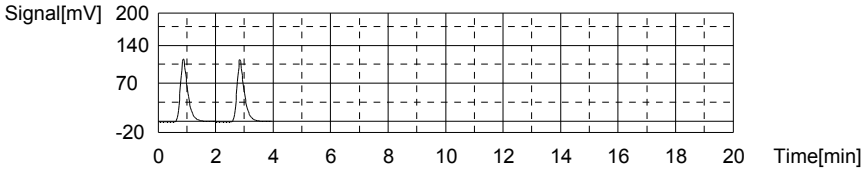
Mean Area 657.5
Mean Conc. 17.99mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	203.5	6.542mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 8:10:54 PM
2	199.7	6.414mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 8:15:42 PM

Mean Area 201.6
Mean Conc. 6.478mg/L



Sample

Sample Name: L13110409-06 (2)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

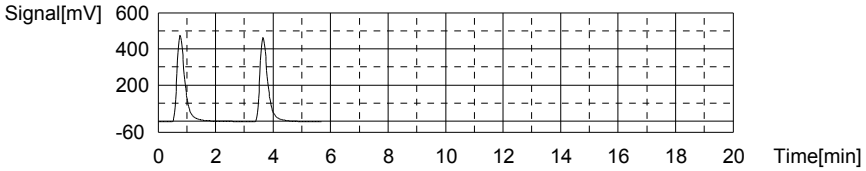
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.29mg/L TC:24.97mg/L IC:13.69mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	921.7	25.29mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 8:24:02 PM
2	898.9	24.66mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 8:29:05 PM

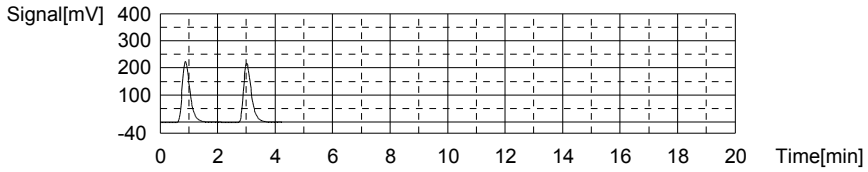
Mean Area 910.3
Mean Conc. 24.97mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	422.3	13.89mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 8:34:21 PM
2	410.2	13.48mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 8:39:21 PM

Mean Area 416.3
Mean Conc. 13.69mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

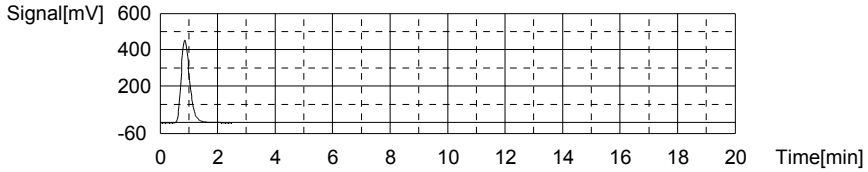
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:25.91mg/L TC:25.92mg/L IC:0.01066mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	944.7	25.92mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 8:47:17 PM

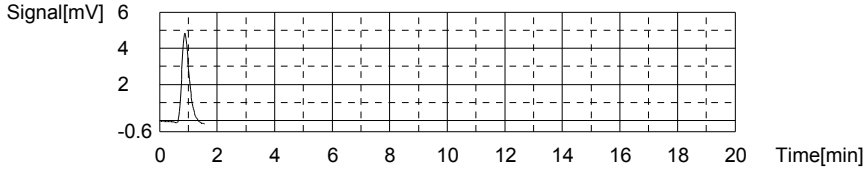
Mean Area 944.7
Mean Conc. 25.92mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.031	0.01066mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 8:51:47 PM

Mean Area 9.031
Mean Conc. 0.01066mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

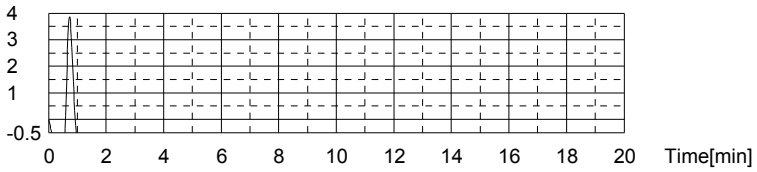
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.09675mg/L TC:0.06329mg/L IC:-0.03347mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.623	0.06329mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 8:56:48 PM

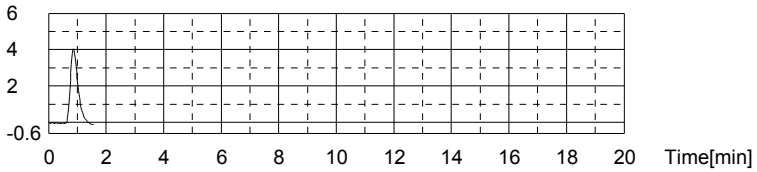
Mean Area 8.623
Mean Conc. 0.06329mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.717	-0.03347mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 9:00:49 PM

Mean Area 7.717
Mean Conc. -0.03347mg/L



Sample

Sample Name: L13110409-07 (3)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

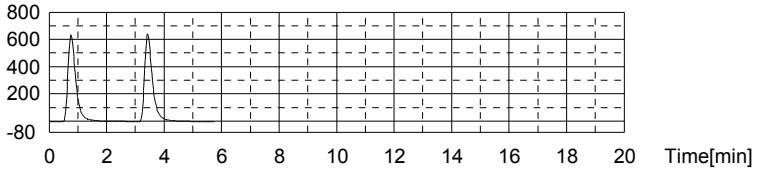
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:13.90mg/L TC:33.49mg/L IC:19.58mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1207	33.17mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 9:08:56 PM
2	1230	33.80mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 9:14:26 PM

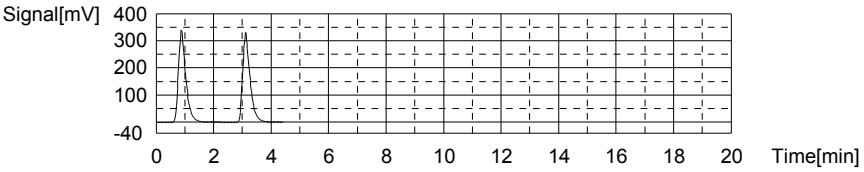
Mean Area 1219
Mean Conc. 33.49mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	602.7	19.95mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 9:19:51 PM
2	581.0	19.22mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 9:24:59 PM

Mean Area 591.9
Mean Conc. 19.58mg/L



Sample

Sample Name: L13110409-09 (5)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

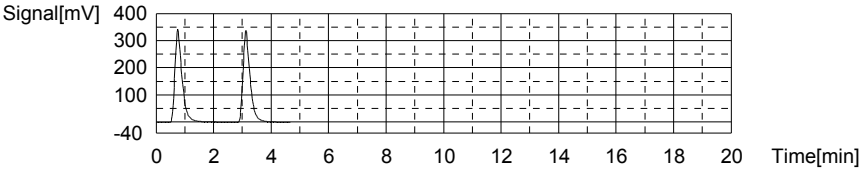
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.564mg/L TC:15.92mg/L IC:10.36mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	588.5	16.08mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 9:32:47 PM
2	576.7	15.76mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 9:37:21 PM

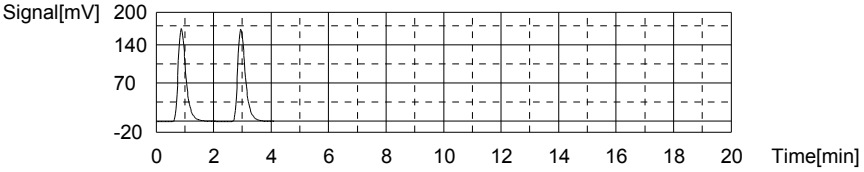
Mean Area 582.6
Mean Conc. 15.92mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	318.1	10.39mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 9:42:30 PM
2	316.0	10.32mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 9:47:22 PM

Mean Area 317.1
Mean Conc. 10.36mg/L



Sample

Sample Name: L13110409-10 (5) MS
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

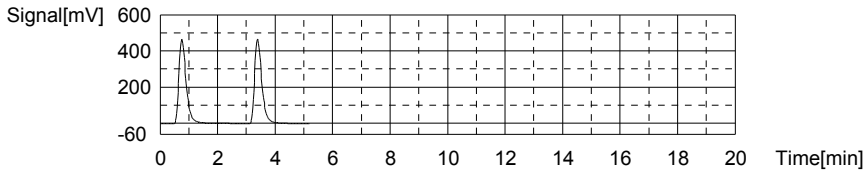
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.175mg/L TC:22.59mg/L IC:14.42mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	825.2	22.62mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 9:55:27 PM
2	823.0	22.56mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 10:00:25 PM

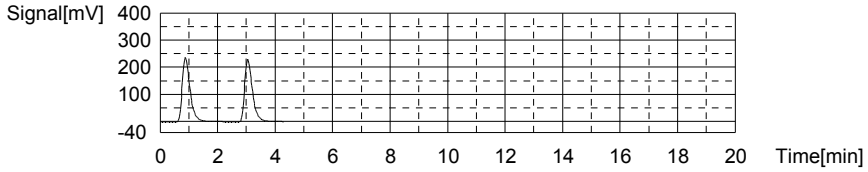
Mean Area 824.1
Mean Conc. 22.59mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	445.2	14.66mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 10:05:44 PM
2	430.7	14.17mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 10:10:48 PM

Mean Area 438.0
Mean Conc. 14.42mg/L



Sample

Sample Name: L13110409-11 (5) MSD
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

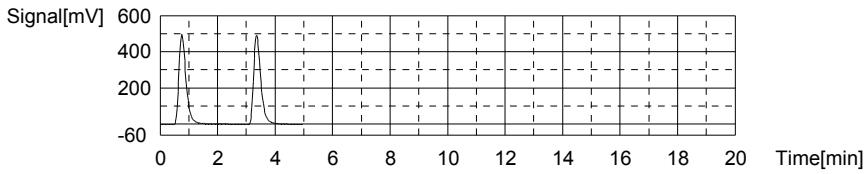
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.224mg/L TC:23.81mg/L IC:15.58mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	868.2	23.81mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 10:18:50 PM
2	867.9	23.80mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 10:23:27 PM

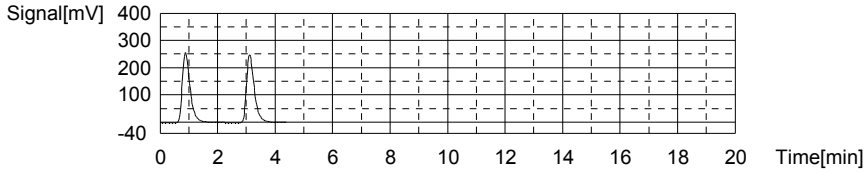
Mean Area 868.1
Mean Conc. 23.81mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	478.9	15.79mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 10:28:49 PM
2	466.4	15.37mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 10:33:53 PM

Mean Area 472.7
Mean Conc. 15.58mg/L



Sample

Sample Name: L13110409-12 (5)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

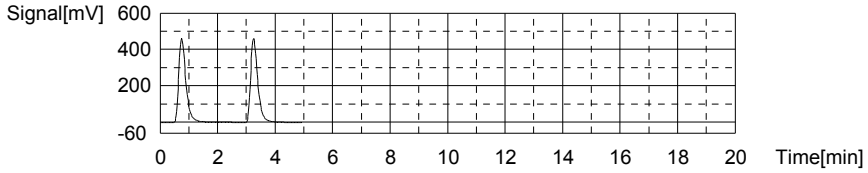
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.520mg/L TC:22.03mg/L IC:15.51mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	805.8	22.09mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 10:41:50 PM
2	801.7	21.97mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 10:47:23 PM

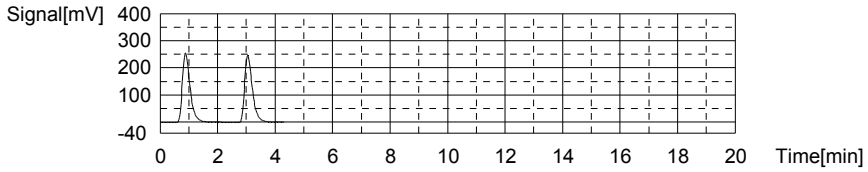
Mean Area 803.8
Mean Conc. 22.03mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	476.9	15.72mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 10:52:45 PM
2	464.1	15.29mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 10:57:46 PM

Mean Area 470.5
Mean Conc. 15.51mg/L



Sample

Sample Name: L13110465-01
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

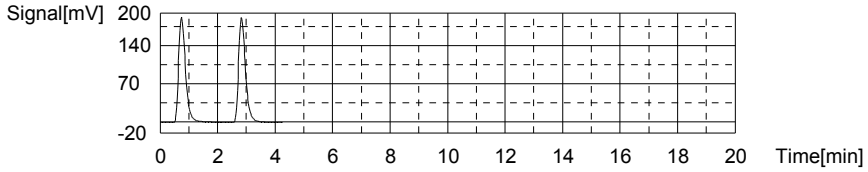
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.722mg/L TC:8.781mg/L IC:7.059mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.5	8.734mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 11:05:18 PM
2	325.9	8.828mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 11:09:53 PM

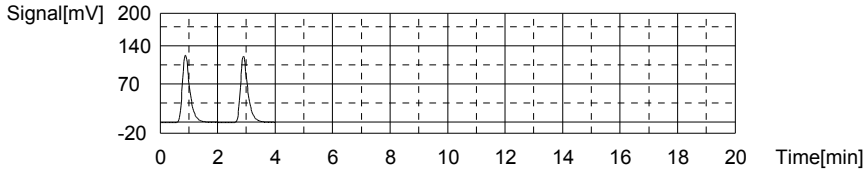
Mean Area 324.2
Mean Conc. 8.781mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	221.5	7.146mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 11:14:59 PM
2	216.3	6.972mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 11:19:45 PM

Mean Area 218.9
Mean Conc. 7.059mg/L



Sample

Sample Name: L13110465-02
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

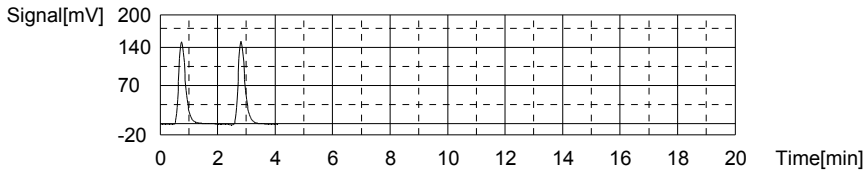
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.698mg/L TC:6.901mg/L IC:5.203mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	254.7	6.861mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 11:27:15 PM
2	257.6	6.941mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 11:31:33 PM

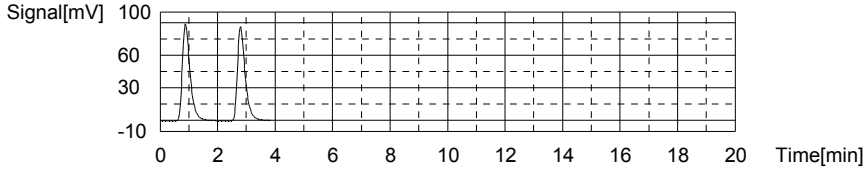
Mean Area 256.2
Mean Conc. 6.901mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	165.5	5.266mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 11:36:31 PM
2	161.8	5.141mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 11:41:15 PM

Mean Area 163.7
Mean Conc. 5.203mg/L



Sample

Sample Name: L13110465-03
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

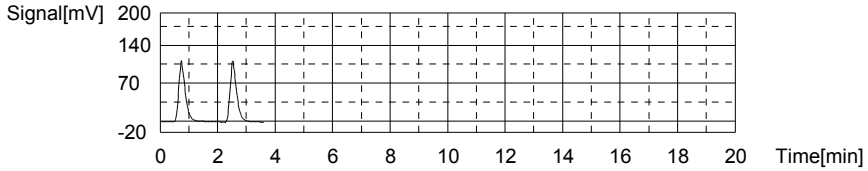
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.198mg/L TC:4.628mg/L IC:3.430mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	173.6	4.621mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 11:48:28 PM
2	174.1	4.635mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/12/2013 11:52:33 PM

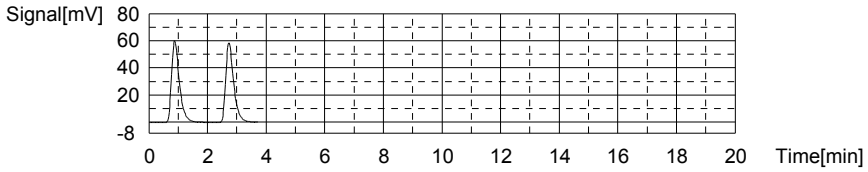
Mean Area 173.8
Mean Conc. 4.628mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	111.8	3.462mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/12/2013 11:57:26 PM
2	109.9	3.398mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 12:02:03 AM

Mean Area 110.9
Mean Conc. 3.430mg/L



Sample

Sample Name: <Untitled>
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

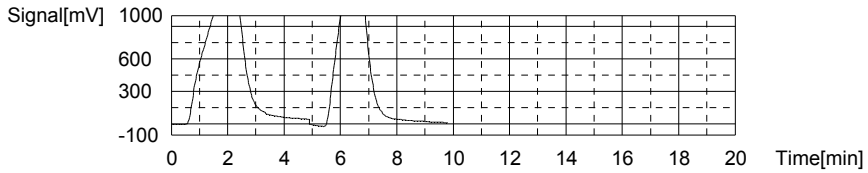
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:268.4mg/L TC:269.7mg/L IC:1.238mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9999	276.0mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 12:12:24 AM
2	9537	263.3mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 12:21:14 AM

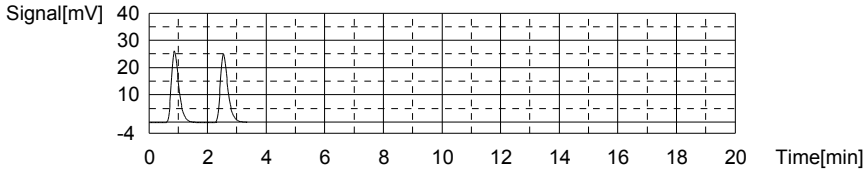
Mean Area 9768
Mean Conc. 269.7mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	46.23	1.260mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 12:25:47 AM
2	44.91	1.216mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 12:30:07 AM

Mean Area 45.57
Mean Conc. 1.238mg/L



Sample

Sample Name: L13110486-02
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

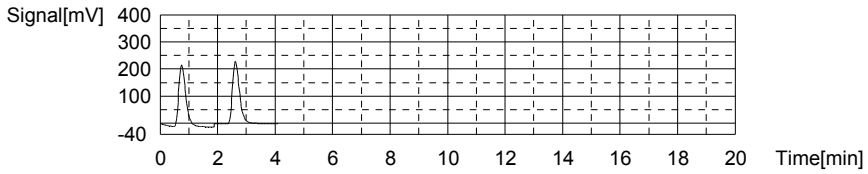
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.030mg/L TC:10.55mg/L IC:8.525mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	381.8	10.37mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 12:37:25 AM
2	395.0	10.74mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 12:43:01 AM

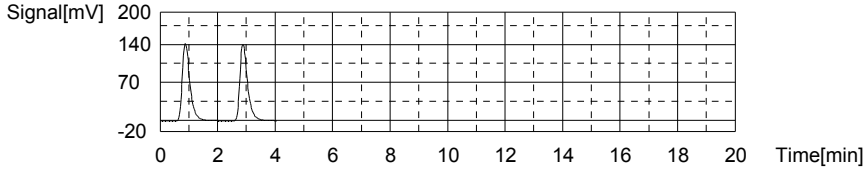
Mean Area 388.4
Mean Conc. 10.55mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	262.6	8.527mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 12:48:04 AM
2	262.5	8.523mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 12:52:59 AM

Mean Area 262.6
Mean Conc. 8.525mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

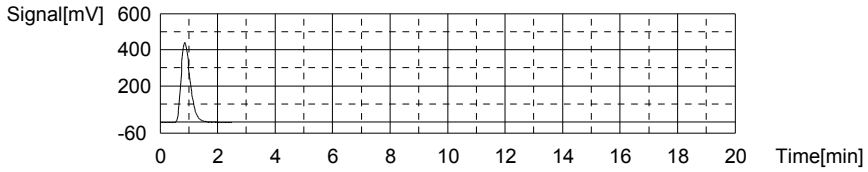
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:27.03mg/L TC:27.03mg/L IC:0.00626mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	984.9	27.03mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 1:00:54 AM

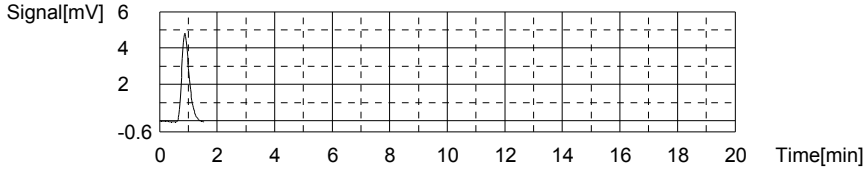
Mean Area 984.9
Mean Conc. 27.03mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.900	0.00626mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 1:05:21 AM

Mean Area 8.900
Mean Conc. 0.00626mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

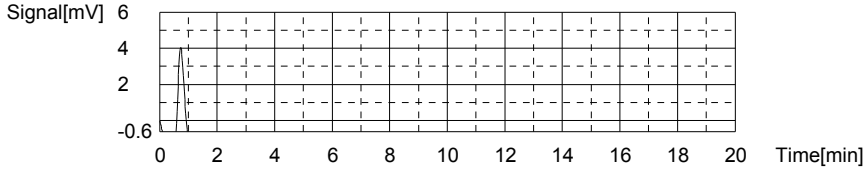
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1397mg/L TC:0.09503mg/L IC:-0.04465mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.772	0.09503mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 1:10:24 AM

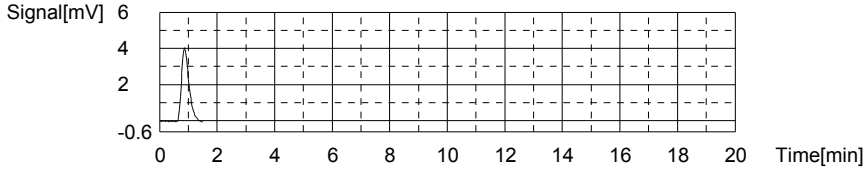
Mean Area 9.772
Mean Conc. 0.09503mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.384	-0.04465mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 1:14:23 AM

Mean Area 7.384
Mean Conc. -0.04465mg/L



Sample

Sample Name: L13110486-03 (250)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

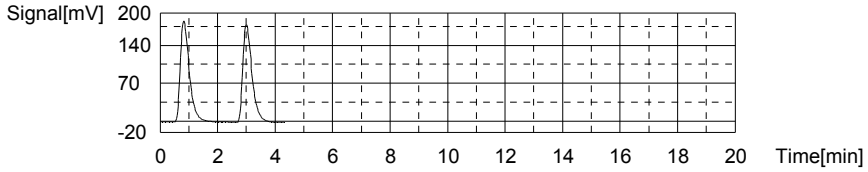
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:10.87mg/L TC:10.98mg/L IC:0.1144mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	405.8	11.04mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 1:22:00 AM
2	402.1	10.93mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 1:26:25 AM

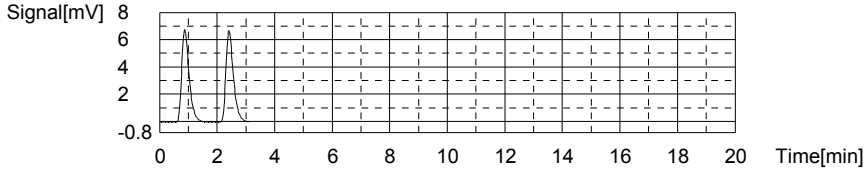
Mean Area 404.0
Mean Conc. 10.98mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.16	0.1157mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 1:30:50 AM
2	12.08	0.1131mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 1:35:06 AM

Mean Area 12.12
Mean Conc. 0.1144mg/L



Sample

Sample Name: <Untitled>
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

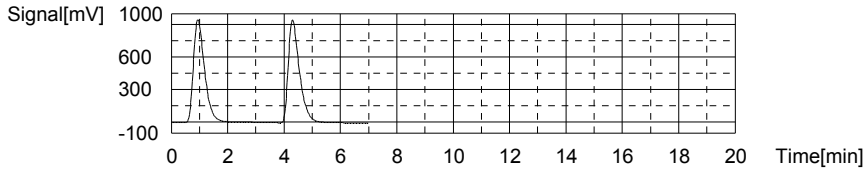
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:71.76mg/L TC:72.22mg/L IC:0.4526mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2615	72.06mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 1:43:56 AM
2	2626	72.37mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 1:49:49 AM

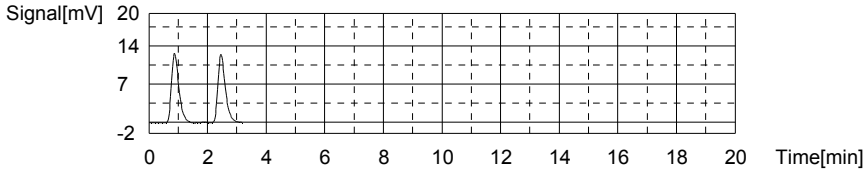
Mean Area 2621
Mean Conc. 72.22mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.25	0.4546mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 1:54:19 AM
2	22.13	0.4506mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 1:58:35 AM

Mean Area 22.19
Mean Conc. 0.4526mg/L



Sample

Sample Name: L13110486-06 (100)
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

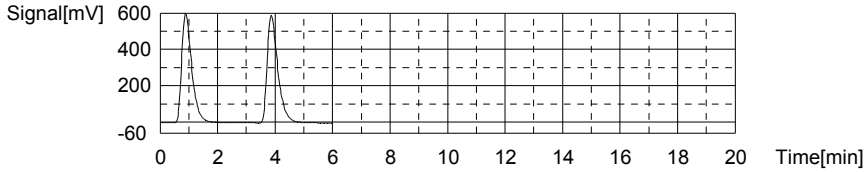
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:41.02mg/L TC:41.47mg/L IC:0.4529mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1473	40.52mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 2:07:00 AM
2	1542	42.42mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 2:12:14 AM

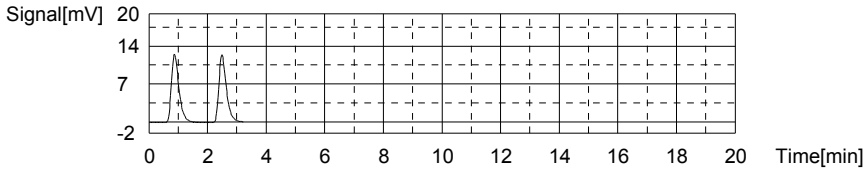
Mean Area 1508
Mean Conc. 41.47mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.39	0.4593mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 2:16:45 AM
2	22.01	0.4466mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 2:21:02 AM

Mean Area 22.20
Mean Conc. 0.4529mg/L



Sample

Sample Name: <Untitled>
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

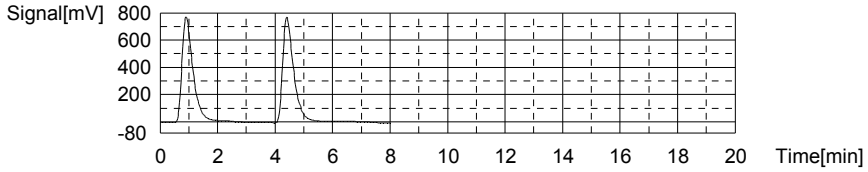
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:58.90mg/L TC:58.98mg/L IC:0.08216mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2112	58.17mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 2:30:00 AM
2	2171	59.80mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 2:36:46 AM

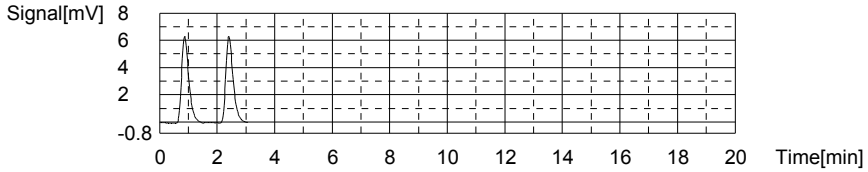
Mean Area 2142
Mean Conc. 58.98mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.20	0.08351mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 2:41:11 AM
2	11.12	0.08082mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 2:45:22 AM

Mean Area 11.16
Mean Conc. 0.08216mg/L



Sample

Sample Name: WG453462-05 DUP
Sample ID: <Untitled>
Origin: TOC-07-09-2013A.met
Status Completed
Chk. Result

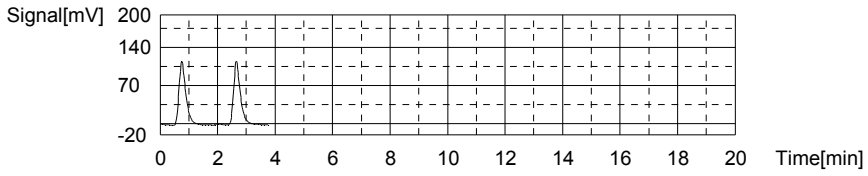
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.788mg/L TC:5.128mg/L IC:3.339mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.0	5.212mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 2:52:44 AM
2	188.9	5.043mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 2:56:51 AM

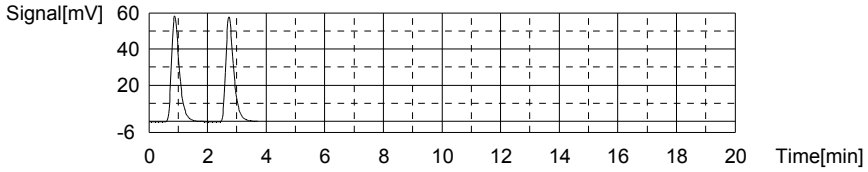
Mean Area 191.9
Mean Conc. 5.128mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	108.5	3.351mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 3:01:39 AM
2	107.8	3.328mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 3:06:16 AM

Mean Area 108.2
Mean Conc. 3.339mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

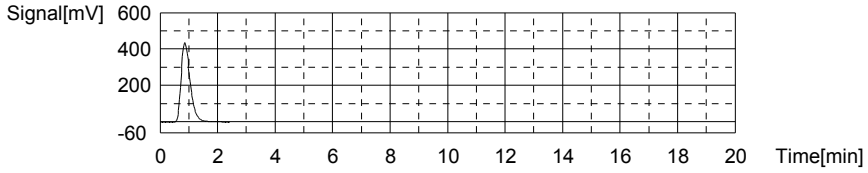
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.26mg/L TC:26.25mg/L IC:-0.00710mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	956.6	26.25mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 3:14:08 AM

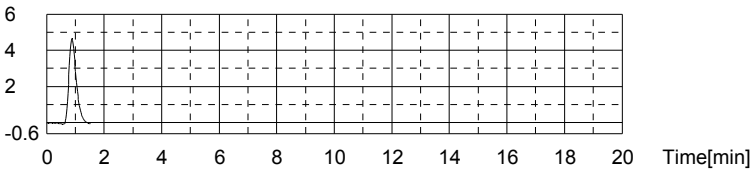
Mean Area 956.6
Mean Conc. 26.25mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.502	-0.00710mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 3:18:36 AM

Mean Area 8.502
Mean Conc. -0.00710mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-07-09-2013.met
Status Completed
Chk. Result

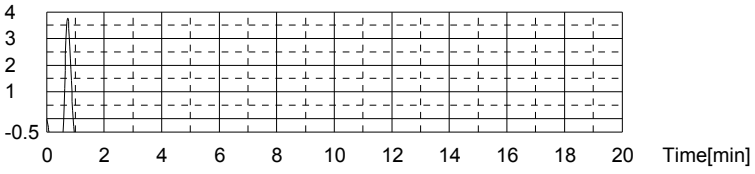
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1254mg/L TC:0.08409mg/L IC:-0.04136mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.376	0.08409mg/L	500uL	1		TCCURVE-07-09-2013.2013_07_09_13_54_5	11/13/2013 3:23:38 AM

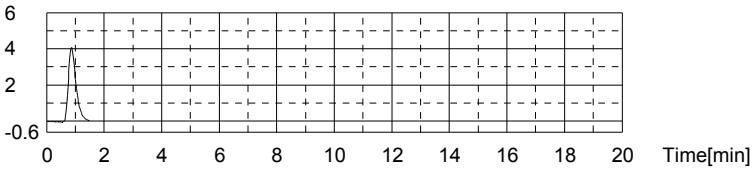
Mean Area 9.376
Mean Conc. 0.08409mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.482	-0.04136mg/L	500uL	1		TICCURVE-07-09-2013.2013_07_09_14_57_1	11/13/2013 3:27:36 AM

Mean Area 7.482
Mean Conc. -0.04136mg/L



2.2.11 Total Suspended Solids Data

2.2.11.1 Summary Data

Login Number: L13110465
Department: Conventionals
Analyst: April Greene

METHOD

Analysis EPA 160.2/SM2540 D (Total Suspended Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes: Total Suspended Solids. Please see the applicable QC report for a detailed presentation of the failures.

Sample #	Analyte	Date	Result	Lower	Upper	Type
WG452343-03	Total Suspended Solids	2013-11-13 11:15:03	11.5		10	RPD

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 74777
Approved By: Deanna Hesson

Certificate of Analysis

Sample #:	L13110465-01	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 29-1113-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-D-1997	**Cal Date:**	
Workgroup #:	WG452343	**Analyst:**	ADG	**Run Date:**	11/13/2013 11:15
Collect Date:	11/07/2013 11:00	**Dilution:**	1	**File ID:**	EN.1311131115-13
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		26.5		5.00	2.50

Sample #:	L13110465-02	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 7-1113-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-D-1997	**Cal Date:**	
Workgroup #:	WG452343	**Analyst:**	ADG	**Run Date:**	11/13/2013 11:15
Collect Date:	11/07/2013 13:05	**Dilution:**	1	**File ID:**	EN.1311131115-14
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids			U	5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L13110465-03	**PrePrep Method:**	N/A	**Instrument:**	OVEN
Client ID:	MPL 5-1113-1	**Prep Method:**	160.2/SM2540D	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	SM2540-D-1997	**Cal Date:**	
Workgroup #:	WG452343	**Analyst:**	ADG	**Run Date:**	11/13/2013 11:15
Collect Date:	11/07/2013 15:00	**Dilution:**	1	**File ID:**	EN.1311131115-15
Sample Tag:		**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids			U	5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.2.11.2 QC Summary Data

Example Total Suspended Solids Calculations

[(WT2 - WT1) * 1000000]/volume = mg/L

where:

WT1 = weight (grams) of empty container.
WT2 = weight (grams) of dried sample and container.
1000000 = factor to get to mg/L.
volume = mL of sample used.

Microbac Laboratories Inc.

Data Checklist

Date: 13-NOV-2013
Analyst: ADG
Analyst: HCB
Method: TSS
Instrument: OVEN
Curve Workgroup: NA
Runlog ID:
Analytical Workgroups: WG452343

Calibration/Linearity	11/13/13
Second Source Check	
ICV/CCV (std)	
ICB/CCB	
Blank	X
LCS/LCS Dup	X
MS/MSD	
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	ADG
Secondary Reviewer	SAV
Comments	

Primary Reviewer:
14-NOV-2013
April Greene

Secondary Reviewer:
15-NOV-2013
Sarah Vandenberg

CHECKLIST1 - Modified 03/05/2008
Generated: NOV-15-2013 15:16:26

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: SM2540-D-1997 AAB#: WG452343

Login Number: L13110465

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
MPL 29-1113-1	01	11/07/13					11/13/2013	6	7		11/13/13	6	7	
MPL 7-1113-1	02	11/07/13					11/13/2013	5.9	7		11/13/13	5.9	7	
MPL 5-1113-1	03	11/07/13					11/13/2013	5.8	7		11/13/13	5.8	7	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3206730
Report generated 11/15/2013 15:00

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L13110465
Work Group: WG452343
Blank File ID: EN.1311131115-01
Blank Sample ID: WG452343-01
Prep Date: 11/13/13 11:15
Instrument ID: OVEN
Analyzed Date: 11/13/13 11:15
Method: SM2540-D-1997
Analyst: ADG

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG452343-02	EN.1311131115-02	11/13/13 11:15	
LCS2	WG452343-03	EN.1311131115-03	11/13/13 11:15	
MPL 29-1113-1	L13110465-01	EN.1311131115-13	11/13/13 11:15	
MPL 7-1113-1	L13110465-02	EN.1311131115-14	11/13/13 11:15	
MPL 5-1113-1	L13110465-03	EN.1311131115-15	11/13/13 11:15	
DUP	WG452343-05	EN.1311131115-24	11/13/13 11:15	
DUP	WG452343-07	EN.1311131115-25	11/13/13 11:15	

Report Name: BLANK_SUMMARY
PDF File ID: 3206731
Report generated 11/15/2013 15:00

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L13110465 Prep Date: 11/13/13 11:15 Sample ID: WG452343-01
Instrument ID: OVEN Run Date: 11/13/13 11:15 Prep Method: 160.2/SM2540D
File ID: EN.1311131115-01 Analyst: ADG Method: SM2540-D-1997
Workgroup (AAB#): WG452343 Matrix: Water Units: mg/L
Contract #: Cal ID: OVEN-

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Total Suspended Solids	2.50	5.00	2.50	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3206732
15-NOV-2013 15:00

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L13110465 **Analyst:** ADG **Prep Method:** 160.2/SM2540D
Instrument ID: OVEN **Matrix:** Water **Method:** SM2540-D-1997
Workgroup (AAB#): WG452343 **Units:** mg/L
QC Key: DOD4 **Lot #:** STD61312

Sample ID: WG452343-02 LCS **File ID:** EN.1311131115-02 **Run Date:** 11/13/2013 11:15
Sample ID: WG452343-03 LCS2 **File ID:** EN.1311131115-03 **Run Date:** 11/13/2013 11:15

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Suspended Solids	50.0	46.0	92.0	50.0	41.0	82.0	11.5	75 - 125	10	#

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 3206733
Report generated: 11/15/2013 15:00

2.2.11.3 Raw Data

Tray 4

WORKGROUP: WG452343

TOTAL SUSPENDED SOLIDS

(tss1)

Oven: TSS1 Other
Method: EPA 160.2 / SM2540D
LCS: ~~STD61205~~ 61312
MS: _____mL LCS & _____mL sample

Balance: AND GR-202 / Other
SOP: K1602 Rev #: 14
Filter Lot #: 951711 2

		On Temp/Time:	10/4 1240	10/4 0830	/	/
SAMPLE	#	VOLUME (mL)	INITIAL WEIGHT WT1 (g)	DRY WEIGHT WT2A (g)	DRY WEIGHT WT2B (g)	DRY WEIGHT WT2C (g)
BLANK	BLK	200				
LCS: mg/L	LCS1	100				
LCSDUP: mg/L	LCS2	100				
L13110461-02	1	100				
-04	2	100				
11 0.462 04 ~~0462-05~~	3	HCB ~~100~~ 150				
-05 ~~0462-07~~	4	HCB ~~50~~ 25	~~0.0860~~ 0.0854			
110464 -01 ~~-09~~	5	200				
-08 ~~-04~~	6	200				
-09 ~~-10~~	7	200				
-10 ~~-11~~	8	200				
-11 ~~0465-01~~	9	200				
4 0465 -01 ~~-02~~	10	200				
-02 ~~-03~~	11	200				
-03 ~~0466-02~~	12	200				
110466 -02 ~~0482-01~~	13	200				
110482 -01 ~~0497-06~~	14	200				
110497 -06 ~~0521-01~~	15	200				
110521 -01 ~~0522-01~~	16	200				
110522 -01 ~~-04~~	17	200				
-04 ~~-06~~	18	200				
-06 ~~0523-02~~	19	200				
11 0523-02	20	200				
DUP: L13110461-04	Dup1	100				
DUP: L13110522-06	Dup2	200				
	Off Temp/Time:		10/4 07:30	10/4 1050	/	/

ANALYST: Heidi Brown

* Duplicate required on 10% of samples

DATE/TIME: (on) 11/13/13
DATE/TIME: (off) 11/14/13 @ 7:30
DATE/TIME: (off) 11/14/13 @ 09:50
DATE/TIME: (off)

DCN#98782

Microbac Laboratories Inc.
GRAVIMETRIC REPORT

Workgroup (AAB#): WG452343 | Method: 160.2/SM2540D
Analyst: ADG | SOP: K1602 Revison 14
Analyte: TOTAL SUSPENDED SOLIDS | Spike Solution: STD61312
Balance: BAL018 | Daily Dilution:
Instrument#: OVEN

SAMPLE NUMBER		INITIAL VOL	INITIAL WT	DRY WT A	DRY WT B	DRY WT C	Anal. Conc	Rep. Conc.	Units
WG452343-01	BLK	200	0.0857	0.0857	0.0856		-0.5000	-0.5000	mg/L
WG452343-02	LCS	100	0.0863	0.0911	0.0909		46.00	46.00	mg/L
WG452343-03	LCS2	100	0.0861	0.0905	0.0902		41.00	41.00	mg/L
L13110461-02	1	200	0.0859	0.0934	0.0933		37.00	37.00	mg/L
L13110461-04	2	200	0.0862	0.2058	0.206		599.0	599.0	mg/L
WG452343-04	2	200	0.0862	0.2058	0.206		599.0	599.0	mg/L
L13110462-04	3	150	0.0856	0.0967	0.0969		75.33	75.33	mg/L
L13110462-05	4	25	0.086	0.0981	0.0981		484.0	484.0	mg/L
L13110464-07	5	200	0.0854	0.0857	0.0857		1.500	ND	mg/L
L13110464-08	6	200	0.0863	0.0881	0.0882		9.500	9.500	mg/L
L13110464-09	7	200	0.0871	0.0909	0.0905		17.00	17.00	mg/L
L13110464-10	8	200	0.0859	0.0949	0.0947		44.00	44.00	mg/L
L13110464-11	9	200	0.0848	0.0854	0.0854		3.000	ND	mg/L
L13110465-01	10	200	0.0847	0.09	0.09		26.50	26.50	mg/L
L13110465-02	11	200	0.0855	0.0852	0.0853		-1.000	ND	mg/L
L13110465-03	12	200	0.0861	0.086	0.0862		0.5000	ND	mg/L
L13110466-02	13	200	0.0863	0.0861	0.0863		0	ND	mg/L
L13110482-01	14	200	0.0861	0.0872	0.0872		5.500	5.500	mg/L
L13110497-06	15	200	0.0863	0.0876	0.0876		6.500	6.500	mg/L
L13110521-01	16	200	0.0858	0.0872	0.0872		7.000	7.000	mg/L
L13110522-01	17	200	0.0863	0.0861	0.086		-1.500	ND	mg/L
L13110522-04	18	200	0.0874	0.0874	0.0873		-0.5000	ND	mg/L
L13110522-06	19	200	0.0857	0.0854	0.0855		-1.000	ND	mg/L
WG452343-06	19	200	0.0857	0.0854	0.0855		-1.000	-1.000	mg/L
L13110523-02	20	200	0.0866	0.0864	0.0867		0.5000	ND	mg/L
WG452343-05	DUP	100	0.086	0.2033	0.2033		1173	1173	mg/L
WG452343-07	DUP2	200	0.085	0.0855	0.0858		4.000	4.000	mg/L

Analyst: April Greene

*Duplicate required on 10% of samples

Date/Time (on) : 11/13/2013 11:15
Date/Time (off): 11/14/2013 08:22
Date/Time (off): 11/14/2013 09:50
Date/Time (off):

CONT_GRAV_REPORT - Modified 02/18/2011
PDF ID: 3197286
Report generated: 11/15/2013 14:53

3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
November 20, 2013

---

001 – BIO-CHEM TESTING WVDEP 220	002 – REIC Consultants, Inc. WVDEP 060
003 – Sturm Environmental	004 – MICROBAC PITTSBURGH
ADC – ANTHONY D. CANTER	ADG – APRIL D. GREENE
AJF – AMANDA J. FICKIESEN	AML – TONY M. LONG
AZH – AFTER HOURS	BAF – BRICE A. FENTON
BJO – BRIAN J. OGDEN	BLG – BRENDA L. GREENWALT
BRG – BRENDA R. GREGORY	CAA – CASSIE A. AUGENSTEIN
CAF – CHERYL A. FLOWERS	CEB – CHAD E. BARNES
CLC – CHRYS L. CRAWFORD	CLS – CARA L. STRICKLER
CLW – CHARISSA L. WINTERS	CPD – CHAD P. DAVIS
CRW – CHRISTINA R. WILSON	CSH – CHRIS S. HILL
CTB – CHRIS T. BUCINA	DAK – DEAN A. K
DCM – DAVID C. MERCKLE	DDE – DEBRA D. ELLIOTT
DEV – DAVID E. VANDENBERG	DIH – DEANNA I. HESSON
DLB – DAVID L. BUMGARNER	DLP – DOROTHY L. PAYNE
DLR – DIANNA L. RAUCH	DSM – DAVID S. MOSSOR
ECL – ERIC C. LAWSON	EDL – ERIN D. LONG
ENY – EMILY N. YOAK	EPT – ETHAN P. TIDD
ERP – ERIN R. PORTER	FJB – FRANCES J. BOLDEN
HCB – HEIDI C. BROWN	HJR – HOLLY J. REED
JBK – JEREMY B. KINNEY	JDH – JUSTIN D. HESSON
JKS – JANE K. SCHAAD	JLL – JOHN L. LENT
JWR – JOHN W. RICHARDS	JWS – JACK W. SHEAVES
JYH – JI Y. HU	KDW – KATHRYN D. WELCH
KEB – KATIE E. BARNES	KHR – KIM H. RHODES
KRA – KATHY R. ALBERTSON	KRB – KAELY R. BECKER
KSC – KELLY S. CUNNINGHAM	LKN – LINDA K. NEDEFF
LLS – LARRY L. STEPHENS	LSB – LESLIE S. BUCINA
MBK – MORGAN B. KNOWLTON	MDA – MIKE D. ALBERTSON
MDC – MIKE D. COCHRAN	MES – MARY E. SCHILLING
MLW – MATTHEW L. WARREN	MMB – MAREN M. BEERY
MRT – MICHELLE R. TAYLOR	MSW – MATT S. WILSON
PDM – PIERCE D. MORRIS	PIT – MICROBAC WARRENDALE
PSW – PEGGY S. WEBB	QX – QIN XU
RAH – ROY A. HALSTEAD	REK – BOB E. KYER
RLB – BOB BUCHANAN	RM – RAYMOND MALEKE
RNP – RICK N. PETTY	RS – ROSEMARY SCOTT
RWC – RODNEY W. CAMPBELL	SAV – SARAH A. VANDENBERG
SEP – SUZANNE J. PAUGH	SLM – STEPHANIE L. MOSSBURG
SLP – SHERI L. PFALZGRAF	TMB – TIFFANY M. BAILEY
TMM – TAMMY M. MORRIS	TPA – TYLER P. AMRINE
VC – VICKI COLLIER	WJB – WILL J. BEASLEY
WTD – WADE T. DELONG	XXX – UNAVAILABLE OR SUBCONTRACT

Microbac Laboratories Inc.
List of Valid Qualifiers
November 20, 2013

Qualkey: DOD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Greater than
A	See the report narrative
B	The reported result is associated with a contaminated method blank.
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
CT1	The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
F,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration; sample matrix interference.
J	Estimated value ; the analyte concentration was greater than the highest standard
J	Estimated value ; the analyte concentration was less than the LOQ.
J	The reported result is an estimated value.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
JB	The reported result is an estimated value. The reported result is also associated with a contaminated method blank.
JQ	The reported result is an estimated value and one or more quality control criteria failed. See narrative.
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Nontarget analyte; the analyte is a tentativlely identified compound (TIC) by GC/MS
NA	Not applicable
ND	Not detected at or above the reporting limit (RL/MDL).
ND, CT1	Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg
ND, H1	Not detected; Sample analysis performed past holding time.
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Analyte was not detected. The concentration is below the reported LOD.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

L13110465 / Revision: 0 / 2219 total pages

COC No. A 35202

158 Starlite Drive
Marietta, OH 45750

Microbac

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: C B & I

Project Contact: Mark Lyon | Contact Phone #: 505-262-8920

Turn Around Requirements: Normal | Location: WSMR STP

Project ID: WSMR STP

Sampler (print): Bradley T. Davis | Signature: Bradley T. Davis

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other _____

ADDITIONAL REQUIREMENTS

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	CN - Total	CN - Amenable	CN - Free	Metals = Sb, As, Ba, Be, Cd, Cr,	Co, Cu, Pb, Ni, Se, Ag, Tl,	Sn, V, Zn, Hg	Chloride, Fluoride, Sulfate	Ammonia - N	Nitrate + Nitrite - N	pH, Spec. Conductivity	TDS, TSS, TOC	Alkalinity	PO4	Na, K, Mg, Mn		TOTAL # (LAB USE)
MPL 29-1113-1		X	11-7-13	1100	W	8		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MPL 7-1113-1		X	11-7-13	1305	W	8		X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MPL 5-1113-1		X	11-7-13	1500	W	8		X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Microbac OVD
Received: 11/08/2013 10:36
By: BOB BUCHANAN 221000044961
RF Buchanan

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Bradley T. Davis	11-7-13	1630					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Page 1 of 1

Generated: 11/20/2013 17:09

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L13110465
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 19-NOV-2013

Samplenum	Container ID	Products
L13110465-01	274706	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	F1	08-NOV-2013 12:51	CLS		
2	ANALYZ	F1	SEM	19-NOV-2013 08:35	JBK	CLS	

Comments:Products cancelled.

Samplenum	Container ID	Products
L13110465-01	274707	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	08-NOV-2013 12:51	CLS		
2	STORE	WET	A1	18-NOV-2013 13:19	RS	BAF	

Comments:Products cancelled.

Samplenum	Container ID	Products
L13110465-01	274708	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	08-NOV-2013 12:51	CLS		
2	STORE	WET	A1	11-NOV-2013 08:15	CLS	DLP	

Comments:Products cancelled.Products cancelled.

Samplenum	Container ID	Products
L13110465-01	274709	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		
2	ANALYZ	W1	A1	18-NOV-2013 07:15	AZH	ADG	

Comments:Products cancelled.

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L13110465
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 19-NOV-2013

Samplenum **Container ID** **Products**

L13110465-01 274710

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		<2
2	ANALYZ	W1	WET	12-NOV-2013 12:38	DCM	CLS	

Comments:Products cancelled.

3	STORE	WET	A1	19-NOV-2013 16:28	CLS	TMM	

Comments:Products cancelled.

Samplenum **Container ID** **Products**

L13110465-01 274711

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		
2	PREP	W1	DIG	11-NOV-2013 09:00	REK	CLS	

Comments:Products cancelled.

3	STORE	DIG	A1	12-NOV-2013 15:13	CLS	ERP	

Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		

Samplenum **Container ID** **Products**

L13110465-01 274712

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	08-NOV-2013 12:51	CLS		
2	STORE	WET	A1	18-NOV-2013 08:53	RS	DCM	

Comments:Products cancelled.

Samplenum **Container ID** **Products**

L13110465-02 274713

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	F1	08-NOV-2013 12:51	CLS		
2	ANALYZ	F1	SEM	19-NOV-2013 08:35	JBK	CLS	

Comments:Products cancelled.

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L13110465
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 19-NOV-2013

Samplenum	Container ID	Products
L13110465-02	274714	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		
2	ANALYZ	W1	WET	12-NOV-2013 08:35	DCM	CLS	
Comments:Products cancelled.							
3	STORE	WET	A1	18-NOV-2013 13:18	RS	BAF	
Comments:Products cancelled.							

Samplenum	Container ID	Products
L13110465-02	274715	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	08-NOV-2013 12:51	CLS		
2	STORE	WET	A1	11-NOV-2013 08:15	CLS	DLP	
Comments:Products cancelled.							

Samplenum	Container ID	Products
L13110465-02	274716	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		
2	ANALYZ	W1	A1	18-NOV-2013 07:15	AZH	ADG	
Comments:Products cancelled.							

Samplenum	Container ID	Products
L13110465-02	274717	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		<2
2	ANALYZ	W1	WET	12-NOV-2013 12:38	DCM	CLS	
Comments:Products cancelled.							
3	STORE	WET	A1	19-NOV-2013 16:27	CLS	TMM	
Comments:Products cancelled.							

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L13110465
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 19-NOV-2013

Samplenum	Container ID	Products
L13110465-02	274718	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		
2	PREP	W1	DIG	11-NOV-2013 09:00	REK	CLS	

Comments:Products cancelled.

3	STORE	DIG	A1	12-NOV-2013 15:13	CLS	ERP	

Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		

Samplenum	Container ID	Products
L13110465-02	274719	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	08-NOV-2013 12:51	CLS		
2	STORE	WET	A1	18-NOV-2013 08:53	RS	DCM	

Comments:Products cancelled.

Samplenum	Container ID	Products
L13110465-03	274720	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	F1	08-NOV-2013 12:51	CLS		
2	ANALYZ	F1	SEM	19-NOV-2013 08:35	JBK	CLS	

Comments:Products cancelled.

Samplenum	Container ID	Products
L13110465-03	274721	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		
2	ANALYZ	W1	WET	12-NOV-2013 08:35	DCM	CLS	

Comments:Products cancelled.

3	STORE	WET	A1	18-NOV-2013 13:19	RS	BAF	

Comments:Products cancelled.

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L13110465
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 19-NOV-2013

Samplenum	Container ID	Products
L13110465-03	274722	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	08-NOV-2013 12:51	CLS		
2	STORE	WET	A1	11-NOV-2013 08:15	CLS	DLP	

Comments:Products cancelled.

Samplenum	Container ID	Products
L13110465-03	274723	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		

Samplenum	Container ID	Products
L13110465-03	274724	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		<2
2	ANALYZ	W1	WET	12-NOV-2013 12:38	DCM	CLS	

Comments:Products cancelled.

3	STORE	WET	A1	19-NOV-2013 16:27	CLS	TMM	

Comments:Products cancelled.

Samplenum	Container ID	Products
L13110465-03	274725	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		
2	PREP	W1	DIG	11-NOV-2013 09:00	REK	CLS	

Comments:Products cancelled.

3	STORE	DIG	A1	12-NOV-2013 15:13	CLS	ERP	

Comments:Products cancelled.

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	08-NOV-2013 12:51	CLS		

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L13110465
Account: 3005
Project: 3005.011
Samples: 3
Due Date: 19-NOV-2013

Samplenum	Container ID	Products
L13110465-03	274726	

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	WET	08-NOV-2013 12:51	CLS		
2	STORE	WET	A1	18-NOV-2013 08:53	RS	DCM	

Comments:Products cancelled.

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login