

April 1, 2011

Analytical Report for Service Request No: K1102593

Melissa Kleven Exponent 15375 Southeast 30th Place, Suite 250 Bellevue, WA 98007

RE: Heglar Kronquist/0907194.000.0901

Dear Melissa:

Enclosed are the results of the rush samples submitted to our laboratory on January 25, 2011. For your reference, these analyses have been assigned our service request number K1102593.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3281. You may also contact me via Email at MShelton@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Mike Shelton **Project Chemist**

MS/ln

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Acronyms

ASTM American Society for Testing and Materials

A2LA American Association for Laboratory Accreditation

CARB California Air Resources Board

CAS Number Chemical Abstract Service registry Number

CFC Chlorofluorocarbon
CFU Colony-Forming Unit

DEC Department of Environmental Conservation

DEQ Department of Environmental Quality

DHS Department of Health Services

DOE Department of Ecology
DOH Department of Health

EPA U. S. Environmental Protection Agency

ELAP Environmental Laboratory Accreditation Program

GC Gas Chromatography

GC/MS Gas Chromatography/Mass Spectrometry

LUFT Leaking Underground Fuel Tank

M Modified

MCL Maximum Contaminant Level is the highest permissible concentration of a

substance allowed in drinking water as established by the USEPA.

MDL Method Detection Limit
MPN Most Probable Number
MRL Method Reporting Limit

NA Not Applicable
NC Not Calculated

NCASI National Council of the Paper Industry for Air and Stream Improvement

ND Not Detected

NIOSH National Institute for Occupational Safety and Health

PQL Practical Quantitation Limit

RCRA Resource Conservation and Recovery Act

SIM Selected Ion Monitoring

TPH Total Petroleum Hydrocarbons

tr Trace level is the concentration of an analyte that is less than the PQL but greater

than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value that was detected outside the quantitation range.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. DOD-QSM 4.1 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H In accordance with the 2007 EPA Methods Update Rule published in the Federal Register, the holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value that was detected outside the quantitation range.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. DOD-QSM 4.1 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value that was detected outside the quantitation range.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
 - DOD-QSM 4.1 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc. Kelso, WA State Certifications, Accreditations, and Licenses

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DEQ	WA100010
South Carolina DHEC	61002
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-







Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:ExponentService Request No.:K1102593Project:Heglar KronquistDate Received:1/25/11

Sample Matrix: Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at Columbia Analytical Services on 1/25/11, original work order K1100661. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory. After initial analysis the samples were stored at room temperature.

Dissolved Metals

Unpreserved sample was filtered and analyzed for dissolved metals. The original samples (field filtered) submitted under work order K1100661 were analyzed for dissolved metals but it was thought that some particulate may have been included with the original samples there we filtered unpreserved sample at the lab and tested again for dissolved metals.

Matrix Spike Recovery Exceptions:

The control criteria for matrix spike recovery of Calcium for sample MW-2 were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Approved by Mike SMA Date 4/11/11

Metals

- Cover Page -INORGANIC ANALYSIS DATA PACKAGE

Client:

Comments:

Project Name: Project No.:

Exponent Heglar Kronquist 0907194.000.0901

Service Request: K1102593

Sample Name:	<u>Lab Code:</u>
MW-2D	K1102593-001DDISS
MW-2	K1102593-001DISS
MW-2S	K1102593-001SDISS
MW-4D	K1102593-002DDISS
MW-4	K1102593-002DISS
MW-4S	K1102593-002SDISS
Method Blank	K1102593-MB

Approved By:	THE CO	Date:	4///

-1-INORGANIC ANALYSIS DATA PACKAGE

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

1/24/2011 Date Collected:

Project Name: Heglar Kronquist

Date Received:

1/25/2011

Matrix:

WATER

ug/L Units:

Basis: NA

Sample Name:

MW-2

Lab Code:

K1102593-001DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	200.7	50.0	2.0	1.0	03/30/11	03/31/11	6.7	J	
Arsenic	200.8	0.50	0.07	1.0	03/30/11	03/30/11	0.79		
Calcium	200.7	50.0	6.0	1.0	03/30/11	03/31/11	88500		
Iron	200.7	20.0	3.0	1.0	03/30/11	03/31/11	5.3	J	
Magnesium	200.7	20.0	2.0	1.0	03/30/11	03/31/11	28700		
Manganese	200.7	5.00	0.20	1.0	03/30/11	03/31/11	0.80	J	
Potassium	200.7	400	50	1.0	03/30/11	03/31/11	5710		
Sodium	200.7	200	20	1.0	03/30/11	03/31/11	25500		

% Solids:

0.0

- 1 -INORGANIC ANALYSIS DATA PACKAGE

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

1/24/2011 Date Collected:

Project Name: Heglar Kronquist

Date Received:

1/25/2011

Matrix:

WATER

Units: ug/L

Basis: NA

Sample Name:

MW-4

Lab Code:

K1102593-002DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	200.7	50.0	2.0	1.0	03/30/11	03/31/11	3.5	J	
Arsenic	200.8	0.50	0.07	1.0	03/30/11	03/30/11	0.60		
Calcium	200.7	50.0	6.0	1.0	03/30/11	03/31/11	168000		
Iron	200.7	20.0	3.0	1.0	03/30/11	03/31/11	3.0	บ	
Magnesium	200.7	20.0	2.0	1.0	03/30/11	03/31/11	55100		
Manganese	200.7	5.00	0.20	1.0	03/30/11	03/31/11	123		
Potassium	200.7	400	50	1.0	03/30/11	03/31/11	29300		
Sodium	200.7	200	20	1.0	03/30/11	03/31/11	158000		·

% Solids:

0.0

-1-INORGANIC ANALYSIS DATA PACKAGE

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Date Collected:

Project Name: Heglar Kronquist

Date Received:

Matrix:

WATER

Units: ug/L

Basis: NA

Sample Name:

Method Blank

Lab Code:

K1102593-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	200.7	50.0	2.0	1.0	03/30/11	03/31/11	2.0	J	
Arsenic	200.8	0.50	0.07	1.0	03/30/11	03/30/11	0.07	ט	
Calcium	200.7	50.0	6.0	1.0	03/30/11	03/31/11	12.3	J	
Iron	200.7	20.0	3.0	1.0	03/30/11	03/31/11	3.0	ט	
Magnesium	200.7	20.0	2.0	1.0	03/30/11	03/31/11	2.0	ט	
Manganese	200.7	5.00	0.20	1.0	03/30/11	03/31/11	0.20	ט	
Potassium	200.7	400	50	1.0	03/30/11	03/31/11	50	ט	
Sodium	200.7	200	20	1.0	03/30/11	03/31/11	20	ט	

% Solids:

0.0

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

ICV Source: Inorganic Ventures

CCV Source:

CAS MIXED

	Initial	Calibrati	on						
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	Method
Aluminum	5000	5148	103	10000	10260	103	10380	104	200.7
Arsenic	25.0	24.7	99	25.0	25.3	101	25.7	103	200.8
Calcium	12500	12530	100	10000	10030	100	10110	101	200.7
Iron	2500	2506	100	10000	10140	101	10090	101	200.7
Magnesium	12500	12430	99	10000	10020	100	10110	101	200.7
Magnesium	12500	12560	100	10000	10130	101	10030	100	200.7
Manganese	1250.0	1271.0	102	250.0	249.8	100	250.0	100	200.7
Potassium	12500	12450	100	10000	9986	100	9924	99	200.7
Sodium	12500	12510	100	10000	9957	100	9806	98	200.7

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

ICV Source: Inorganic Ventures

CCV Source:

CAS MIXED

	Initia	l Calibrat	ion		Continu	ing Calil			
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	Method
Aluminum				10000	10470	105	9971	100	200.7
Arsenic				25.0	25.5	102			200.8
Calcium				10000	9808	98	9845	98	200.7
Iron				10000	9962	100	9734	97	200.7
Magnesium				10000	9777	98	9617	96	200.7
Magnesium				10000	10060	101	9966	100	200.7
Manganese				250.0	245.4	98	238.4	95	200.7
Potassium				10000	9853	99	9745	97	200.7
Sodium				10000	9662	97	9645	96	200.7

METALS - 2b -

CRDL STANDARD FOR AA AND ICP

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

	CRDL St	andard for AA		Init	CRDL Standaı tial	rd for I	CP Final	
Analyte	True	True Found		True	Found	%R	Found	%R
Aluminum				50	56	112		
Arsenic				0.50	0.52	104		
Iron	l		l	20	21	105		1
Magnesium		·		20	16	80	*****	
Manganese				5.0	5.2	104		ĺ
Potassium				400	382	96		

METALS

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BLANKS

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

	Initial Calib. Blank			Con	tinuing Cal Blank	.ibra	ation		
Analyte		С	1	С	2	С	3	С	Method
Aluminum	2.0	U	2.0	U	2.0	U	2.0	U	200.7
Arsenic	0.07	ט	0.07	Ŭ	0.07	υ	0.07	υ	200.8
Calcium	10.7	J	20.4	J	33.9	J	16.5	J	200.7
Iron	3.0	ט	3.0	U	5.5	J	3.0	υ	200.7
Magnesium	-6.3	J	-5.8	J	-2.1	J	-4.2	J	200.7
Manganese	0.3	J	0.2	U	0.2	J	0.2	U	200.7
Potassium	-79	J	50	U	-94	J	50	υ	200.7
Sodium	56.1	J	37.0	J	-46.2	J	-84.1	J	200.7

METALS

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BLANKS

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

	Initial Calib. Blank			Con	tinuing Cal Blank	libra	tion		
Analyte		С	1	С	2	С	3	С	Method
Aluminum			2.0	U					200.7
Calcium			8.4	J					200.7
Iron			9.9	J					200.7
Magnesium			-5.1	J					200.7
Manganese			0.2	U					200.7
Potassium			50	U					200.7
Sodium			-35.8	J					200.7

ICP INTERFERENCE CHECK SAMPLE

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

ICS Source:

Inorganic Ventures

ICP ID Number: K-ICP-AES-03

	True		Initi	al Found	Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	500000	500000	372800	367200	73			
Calcium	500000	500000	465600	455500	91			
Iron	200000	200000	182200	178200	89		-	
Magnesium	500000	500000	484100	471500	94			
Manganese		500	0	487	97			
Potassium			-102	-18				
Sodium			-78	-135		***************************************		

METALS

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ICP INTERFERENCE CHECK SAMPLE

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number:

K-ICP-MS-02

ICS Source: Inorganic Ventures

Concentration Units: ug/L

	True		Initi	ial Found	Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic		25	0.09	25.0	100	······································		

80-120% control criteria is not applicable to interfering elements (Al,Ca,Fe,Mg).

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SPIKE SAMPLE RECOVERY

Client:

Exponent

Service Request:

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Basis: NA

Matrix:

WATER

% Solids:

0.0

K1102593

Sample Name:

MW-2S

Lab Code: K1102593-001SDISS

Analyte	Control Limit %R	Spike Result	С	Sample Result C	Spike Added	%R	Q	Method
Aluminum	70 - 130	1940	Ì	6.7 ј	2000.00	96.7		200.7
Calcium		97700	Ī	88500	10000.00	92.0		200.7
Iron	70 - 130	976	ĺ	5.3 J	1000.00	97.1		200.7
Magnesium	70 - 130	38000	Ī	28700	10000.00	93.0		200.7
Manganese	70 - 130	483	Ī	0.80 J	500.00	96.4		200.7
Potassium	70 - 130	15700	ĺ	5710	10000.00	99.9		200.7
Sodium	70 - 130	35300	Ī	25500	10000.00	98.0		200.7

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SPIKE SAMPLE RECOVERY

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Basis:

Matrix:

WATER

% Solids:

0.0

Sample Name:

MW-4S

Lab Code: K1102593-002SDISS

Analyte	Control Limit %R	Spike Result C	Sample Result C	Spike Added	%R	Q	Method
Arsenic	70 - 130	21.5	0.60	20.00	104.5		200.8

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DUPLICATES

Client:

Exponent

Service Request:

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Basis: NA

Matrix:

WATER

% Solids:

0.0

K1102593

Sample Name:

MW-2D

Lab Code:

K1102593-001DDISS

Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	Method
Aluminum		6.7	J	3.8	J	55.2		200.7
Calcium	20	88500		88400		0.1		200.7
Iron		5.3	J	3.0	ΰ	200.0		200.7
Magnesium	20	28700		28500		0.7		200.7
Manganese		0.80	J	0.80	J	0.0		200.7
Potassium	20	5710		5690		0.4		200.7
Sodium	20	25500		25300		0.8		200.7

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DUPLICATES

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Basis: NA

Matrix:

WATER

% Solids:

0.0

Sample Name:

MW-4D

Lab Code:

K1102593-002DDISS

Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С	RPD	Q	Method
Arsenic		0.60		0.52		14.3		200.8

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LABORATORY CONTROL SAMPLE

Client:

Exponent

Service Request: K1102593

Project No.:

0907194.000.0901

Project Name: Heglar Kronquist

Aqueous LCS Source:

CAS MIXED

Solid LCS Source:

	Aqueous	s: ug/L	Solid: mg/kg					
Analyte	True	Found	%R	True	Found	С	Limits	%R
Aluminum	5000	5140	102.8					
Arsenic	20	19.7	98.5					
Calcium	12500	12200	97.6					
Iron	2500	2410	96.4					
Magnesium	12500	12600	100.8					
Manganese	1250	1220	97.6	· · · · · ·				
Potassium	12500	12400	99.2					
Sodium	12500	12400	99.2					

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ICP SERIAL DILUTIONS

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Units: UG/L

Project Name: Heglar Kronquist

Sample Name:

MW-2L

Lab Code: K1102593-001LDISS

Analyte	Initial Sample Result (I)	С	Serial Dilution Result (S)	С	% · Differ- ence	Q	М
Aluminum	6.7	J		20.0 Ј	198.5		P
Calcium	88480			2000	4.0	Ì	P
Iron	5.3	J		20.5 J	286.8	Ī	P
Magnesium	28680.0		294	195.0	2.8	Ì	P
Manganese	0.8	J		1.0 J	25.0	Ì	P
Potassium	5712			5430	4.9		P
Sodium	25480		1	25180	1.2	Ī	P

METALS

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DETECTION LIMITS

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP/ICP-MS ID #: K-ICP-MS-02

GFAA ID #:

AA ID #:

Analyte	Isotope	Back- ground	MRL ug/L	MDL ug/L	м
Arsenic	75		0.5	0.07	MS

Commer	its:
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METALS

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DETECTION LIMITS

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP/ICP-MS ID #:

GFAA ID #:

AA ID #:

Analyte	Wave- length (nm)	Back- ground	MRL ug/L	MDL ug/L	М
Aluminum	394.4		50	2.0	P
Calcium	315.8		50	6.0	P
Iron	259.9		20	3.0	P
Magnesium	285.2		20	2.0	P
Manganese	257.6		5.0	0.2	P
Potassium	766.5		400	50	P
Sodium	589.5		200	20.0	P

Comments:	

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ICP INTERELEMENT CORRECTION FACTORS

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901 Project Name: Heglar Kronquist

ICP ID Number:

K-ICP-AES-03

	Wave- length		Interelement	Correction Fact	ors for:	
Analyte	(nm)	Al	Ca	Fe	Mg	Со
Aluminum	394.401	0.0000000	0.0000880	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000290	0.0000000	-0.0001420	0.0000000	0.0000000
Arsenic	189.042	0.0000220	0.0000000	-0.0000580	0.0000000	0.000000
Barium	455.403	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Beryllium	234.861	0.0000000	0.0000000	0.0000100	0.0000000	0.000000
Boron	249.678	0.0000000	0.0000000	-0.0002330	0.0000000	0.0016240
Cadmium	214.438	-0.0000001	0.0000000	0.0000330	0.0000000	0.000000
Calcium	393.366	0.0000000	0.0000000	0.0000230	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Cobalt	228.616	0.0000000	0.0000000	0.0000080	0.0000000	0.000000
Copper	327.396	0.0000000	0.0000220	-0.0000250	0.0000000	0.0004080
Iron	259.94	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000940	0.0000000	0.0000000	0.0000000	0.000000
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	285.213	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Manganese	257.61	0.0000000	0.0000000	0.0000130	0.0000000	0.000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	221.647	0.0000000	0.0000000	0.0000000	0.0000000	-0.0011700
Phosphorus	214.914	-0.0005540	0.0000000	0.0006550	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Selenium	196.0	0.0000000	0.0000000	-0.0001120	0.0000000	0.0000000
Silicon	251.611	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Strontium	407.771	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0014540
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.000000
Titanium	336.121	0.0000000	0.0000210	0.0000000	0.0000000	0.0000320
Vanadium	292.402	0.0000000	0.0000000	-0.0000020	0.0000000	0.000000
Zinc	206.2	0.0000000	0.0000000	-0.0000160	0.0000000	0.0000000

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent Service Request: K1102593

Project No.: 0907194.000.0901 Project Name: Heglar Kronquist

ICP ID Number:

K-ICP-AES-03

	Wave- length		Interelement	Correction Fac	tors for:						
Analyte	(nm)	Cr	Mn	Мо	Ni	P					
Aluminum	394.401	0.0000000	0.0000000	0.0004350	0.0003100	0.000000					
Antimony	206.833	0.0173600	-0.0001330	0.0011910	0.0000000	0.0000000					
Arsenic	189.042	0.0003470	-0.0001550	0.0005480	0.0000000	0.0000000					
Barium	455.403	0.0000000	0.0000000	0.0000000	0.0000000	0.000000					
Beryllium	234.861	0.0000000	-0.0000300	-0.0001890	-0.0000190	0.000000					
Boron	249.678	0.0004530	0.0000000	-0.0008670	0.0000000	0.0000000					
Cadmium	214.438	0.0000070	0.0000000	0.0000000	0.0000000	-0.0000010					
Calcium	393.366	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000					
Chromium	267.716	0.0000000	0.0001390	0.0000680	0.0000000	0.0000280					
Cobalt	228.616	0.0000530	0.0000000	-0.0006430	0.0001340	0.0000000					
Copper	327.396	0.0000000	0.0000600	0.0000770	0.0000330	0.000000					
Iron	259.94	0.0000000	0.0000000	-0.0002400	0.0000000	0.0000000					
Lead	220.353	0.0000000	0.0001340	-0.0010800	0.0001780	0.0000000					
Lithium	670.784	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000					
Magnesium	285.213	-0.0014420	0.0000000	0.0000000	0.0000000	0.000000					
Manganese	257.61	-0.0000110	0.0000000	0.0000000	0.0000000	0.000000					
Molybdenum	202.03	0.0000000	-0.0000270	0.0000000	-0.0000310	0.000000					
Nickel	221.647	-0.0005650	0.0000000	0.0000000	0.0000000	0.000000					
Phosphorus	214.914	0.0000000	-0.0004110	0.0085820	0.0000000	0.000000					
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000	0.000000					
Selenium	196.0	0.0000000	0.0006630	0.0000000	0.0000000	0.000000					
Silicon	251.611	0.0000000	0.0000000	0.0192220	0.0000000	0.000000					
Silver	328.068	0.0000000	0.0000390	0.0000000	0.0000000	0.000000					
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.000000					
Strontium	407.771	0.0000080	0.0000000	0.0000000	0.0000000	0.000000					
Thallium	190.856	0.0002570	0.0008680	0.0000000	0.0000000	0.000000					
Tin	189.989	0.0000000	0.0000000	0.0000000	0.0000000	0.000000					
Titanium	336.121	0.0000000	0.0000000	0.0000410	0.0001300	0.0000000					
Vanadium	292.402	0.0000000	-0.0027450	-0.0002030	0.0000000	0.000000					
Zinc	206.2	-0.0001020	0.0000000	0.0001650	0.0000000	0.0000000					

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client: Exponent Service Request: K1102593

Project No.: 0907194.000.0901
Project Name: Heglar Kronquist

ICP ID Number: K-ICP-AES-03

	Wave- length		Interelement	Correction Factors f	or:
Analyte	(nm)	Si	Ti	v	
Aluminum	394.401	0.0000000	0.0000000	0.0005300	
Antimony	206.833	-0.0000210	0.0004780	0.0000000	
Arsenic	189.042	0.0000000	0.0000000	0.0000000	
Barium	455.403	0.0000000	0.0000000	0.0000280	
Beryllium	234.861	0.0000000	0.0000000	0.0000000	
Boron	249.678	0.0000000	0.0000000	-0.0001270	
Cadmium	214.438	0.0000000	0.0000000	0.0000000	
Calcium	393.366	0.0000000	0.0000000	0.0000000	
Chromium	267.716	0.0000000	0.0000590	-0.0000760	
Cobalt	228.616	0.0000000	0.0018150	0.0000000	
Copper	327.396	0.0000000	-0.0016790	-0.0000480	
Iron	259.94	0.0000000	0.0000000	0.0000000	
Lead	220.353	0.0002440	0.0000000	0.0000000	
Lithium	670.784	0.0000000	0.0000000	0.0000000	
Magnesium	285.213	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	
Nickel	221.647	0.0002570	0.0000000	0.0000000	
Phosphorus	214.914	0.0000000	0.0000000	0.0000000	
Potassium	766.491	0.0000000	0.0000000	0.0000000	
Selenium	196.0	0.000000	0.0000000	0.0000000	
Silicon	251.611	0.0000000	0.0000000	0.0000000	
Silver	328.068	0.0000000	-0.0000780	0.0000910	
Sodium	589.592	0.0000000	0.0000000	0.0000000	
Strontium	407.771	0.0000000	0.0000000	0.0000000	
Thallium	190.856	0.0000000	-0.0008960	-0.0007350	The state of the s
Tin	189.989	0.0000000	-0.0007490	0.0000000	
Titanium	336.121	0.0000000	0.0000000	0.0000000	
Vanadium	292.402	0.0000000	0.0009490	0.0000000	
Zinc	206.2	0.0000000	0.0000000	0.0000000	

- 11B -

ICP INTERELEMENT CORRECTION FACTORS

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number: K-ICP-AES-03

Analyte	Wave- length (nm)	Interelement Correction Factors for:
Aluminum	394.401	
Antimony	206.833	
Arsenic	189.042	
Barium	455.403	
Beryllium	234.861	i I I
Boron	249.678	
Cadmium	214.438	
Calcium	393.366	
Chromium	267.716	
Cobalt	230.786	
Copper	327.396	
Iron	259.94	
Lead	220.353	
Lithium	670.784	i I
Magnesium	285.213	İ
Manganese	257.61	
Molybdenum	202.03	
Nickel	221.647	
Phosphorus	214.914	
Potassium	766.491	
Selenium	196.0	
Silicon	251.611	i I I
Silver	328.068	
Sodium	589.592	i i i i
Strontium	407.771	
Thallium	190.856	i I I
Tin	189.989	i I I
Titanium	336.121	i I I
Vanadium	292.402	i I I
Zinc	213.856	

METALS -12-ICP LINEAR RANGES (QUARTERLY)

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number:

K-ICP-AES-03

Analyte	Integ. Time (Sec.)	Time Concentration						
Aluminum	15.000	900000	200.7					
Calcium	15.000	900000	200.7					
Iron	15.000	360000	200.7					
Magnesium	15.000	540000	200.7					
Manganese	15.000	9000	200.7					
Potassium	15.000	900000	200.7					
Sodium	15.000	900000	200.7					

METALS -12-ICP LINEAR RANGES (QUARTERLY)

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

ICP ID Number:

K-ICP-MS-02

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic	15.000	900	200.8

METALS PREPARATION LOG

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Method: MS

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
K1102593-001DISS	3/30/2011	25.0	25.0
K1102593-002DDISS	3/30/2011	25.0	25.0
K1102593-002DISS	3/30/2011	25.0	25.0
K1102593-002SDISS	3/30/2011	25.0	25.0
K1102593-MB	3/30/2011	50.0	50.0
LCSW 3/30/2011		50.0	50.0

METALS

PREPARATION LOG

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Project Name: Heglar Kronquist

Method: P

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
K1102593-001DDISS	3/30/2011	25.0	25.0
K1102593-001DISS	3/30/2011	25.0	25.0
K1102593-001SDISS	3/30/2011	25.0	25.0
K1102593-002DISS	3/30/2011	25.0	25.0
K1102593-MB	3/30/2011	50.0	50.0
LCSW	3/30/2011	50.0	50.0

METALS - 14 -ANALYSIS RUN LOG

Client: Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Run Number: 033011CMS02

Project Name: Heglar Kronquist

Instrument ID Number: K-ICP-MS-02

Method: MS

Start Date: 3/30/2011

End Date: 3/30/2011

Sample No.	D/F			Analytes R A S A B B C C C C F P M M H N K S A N T																							
	D/ F	Time	% R	A L		A S	B A	B E	C D	C A	C R		C U		P B		M N	H G	N	ĸ	S E	A G	N A	T L	V	Z N	С
Cal. Blk	1.00	20:16				х																					
Cal. Stn	1.00	20:18				х																					
ICV1	1.00	20:21				x														-							Γ
CCV1	1.00	20:23				х																					
ICB1	1.00	20:25				х																					
CCB1	1.00	20:28				х																					
CRA	1.00	20:30				х																					
ICS-A1	1.00	20:32				х																					
ICS-AB1	1.00	20:35				х																					
K1102593-MB	1.00	20:37				х																				İ	
LCSW	1.00	20:39				х																					
ZZZZZZ	1.00	20:42								Ī															T		
ZZZZZZ	1.00	20:44																									
ZZZZZZ	1.00	20:46										j															
ZZZZZZ	1.00	20:49				T			j	T	j	ij			İ				j	j				j			
ZZZZZZ	1.00	20:51							j	j		j		İ	j			T	j	j				ij	ij		
ZZZZZZ	1.00	20:53			i	1			j	T		j	j		İ					Ì							
ZZZZZZ	1.00	20:56							T	T		j	T	T	Ī	j	ij	İ		j				j	T		
ZZZZZZ	1.00	20:58			T			T		T		Ť	j	j					j					i	T		
CCV2	1.00	21:00			T	х	T		Ì	T		i	Ì	j	ij		ij	i	Ť					Ì	Ť		
CCB2	1.00	21:03			i	х	j		j	T		j	j	j	j			ij	T						Ť		
ZZZZZZ	1.00	21:05			T	i			T	T		T	İ	İ	Ť	j	ij	Ť	ij	i	j		j	İ	T		
ZZZZZZ	1.00	21:07		一	T	T			ij	İ		Ť	ij		İ	j	j	j	İ	j	j		İ		İ		
ZZZZZZ	1.00	21:10			T	1	\exists	T	Ť	Ť		T	j	T	T	j	T	Ť	j	İ	i		T	ij	i		
K1102593-001DISS	1.00	21:12	***************************************	寸	T	x	7	T	Ť	Ì	\forall	T				T	T	i	İ	i	i		T	T	T		
K1102593-002DISS	1.00	21:14			7	x		j	Ť	Ť	T	j	Ť	Ť	T	i	Ť	T	T	i	j		i	i	Ť		
K1102593-002DDISS	1.00	21:17		\neg	- i	x	┪	_	寸	T	+	1	İ	T	1	- 	寸	寸	寸	1	Ť		寸	7	\dashv		
K1102593-002SDISS	1.00	21:19		\dashv		х	1	i	T	寸	\dashv	Ť	寸	T	┪	┪	Ť	┪	1	寸	T	寸	T	+	Ť	j	-
ZZZZZZ	1.00	21:22		ij		$\neg \dagger$	+	1	寸	T	\dashv	╗	Ť	\exists	\exists	1	7	T	\exists	1	T		1	\dashv	寸		
ZZZZZZ	1.00	21:24		\dashv	\dashv	\dashv	\dashv	T	Ť		寸	Ť	Ť	T	寸	寸	Ť	7	T	┪	十	ij	Ť	寸	1	<u>_</u>	-
ZZZZZZ		21:26		\dashv		7	\dashv	T	1	\dashv	\dashv	Ť	寸	\dashv	┪	寸	1	┪	T	7	寸		\dashv	\dashv	寸	- 	_
CCV3		21:29		\dashv	_	x	7	ij	寸	\dagger	\dashv	寸	\dashv		\exists	寸	寸	寸	寸	\dashv	十	j	\dashv	\dashv	┪	┪	_

^{* -} Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS - 14 -

ANALYSIS RUN LOG

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Run Number: 033011CMS02

Project Name: Heglar Kronquist

Instrument ID Number: K-ICP-MS-02

Method:

MS

Start Date: 3/30/2011

End Date:

3/30/2011

Sample No.	D/F	Time	% R					 ***************************************		7	Ana	цу	tes	5				 	 	
				A L	S B		B E	C A	 - 1		F E			M N		S E	A G		 	C N
ссв3	1.00	21:31				х														

Columbia Analytical Services

METALS - 14 -**ANALYSIS RUN LOG**

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Run Number: 033111BICP03

Project Name: Heglar Kronquist

Instrument ID Number: K-ICP-AES-03

Method:

Start Date: 3/31/2011

End Date: 3/31/2011

												I	\na	lyt	es											
Sample No.	D/F	Time	% R		S B	A S	B E	C D			С 0	C U	F E	P B			H G		K	S E		N A	T L		Z N	C N
BLK	1.00	13:55		х					х				х	T	x	x			x			х	Ì	İ	Ħ	=
STD A	1.00	13:58											Ť	Ť	Ť	x	Ť						T	T	Ť	
STD B	1.00	14:02		х					х			T	x	Ť	x	Ť	T	j	х			х	T	Ť	Ť	
ICV1	1.00	14:05		х					х				x	Ī	x	x		Ì	х			x		Ì	Ť	_
ZZZZZZ	1.00	14:08										T	Ť	Ì	Ť	Ť	T	Ì					Ì	Ť	Ť	-
ICB1	1.00	14:12		х					х		Ī		x	Ì	x	x	Ī		х			х		T	Ť	
CRA	1.00	14:15		х								Ī	x	Ì	x	x	Ì		х					T	T	
ZZZZZZ	1.00	14:19											Ī	Ì	Ī	T	Ī								T	_
ZZZZZZ	1.00	14:21											T	Ì											T	-
ZZZZZZ	1.00	14:25													Ť										T	
ZZZZZZ	1.00	14:28																							T	
ZZZZZZ	1.00	14:32														T	T								Т	_
CCV1	1.00	14:37										Ì	Ì	Ť	Ì	x	Ì	٦						Ī	T	
CCV1	1.00	14:41		х					х			Ì	x		x	T			х			x			T	-
CCB1	1.00	14:46		х					х				х		x	x			х			х			Т	
ZZZZZZ	1.00	14:51										T	T	Ī	T	Ť								T	T	
ICSA	1.00	14:55		х					х			Ì	x		x i	x	Ì	Ì	х			х	Ī		T	
ICSAB	1.00	15:00		х					х		Ì	Ť	x	Ť	x i	x	Ť		х			х		Ī	T	
ZZZZZZ	1.00	15:05										Ť	T	T	Ť	T	T						T	Ť	T	
ZZZZZZ	1.00	15:08												T	T										Т	
ZZZZZZ	1.00	15:12											T		T	T								T	T	
ZZZZZZ	1.00	15:16																							T	
ZZZZZZ	1.00	15:19											T	T	T	T	T								Т	
ZZZZZZ	1.00	15:22																						Т	Т	
ZZZZZZ	1.00	15:26								Ì		T	T		Ť	Ť	Ť	T								
CCV2	1.00	15:29				İ								T		x	Ť	T							Ť	
CCV2	1.00	15:32		х					х		Ì		x	T:	x	Ť	Ť	Ť	x			x	Ì	Ť	Ť	-
CCB2	1.00	15:36		х					x		Ť		x		x :	x	Ť		x			x	Ť	Ť	T	-
ZZZZZZ	1.00	15:41					Ì	Ì			Ť	Ť	Ť	j	Ť	Ť	Ť	j	j			j	ĺ	Ī	Ť	
ZZZZZZ	1.00	15:45					j	j	İ	T	Ť	Ť	Ť	Ť	Ť	Ť	Ť	Ť	j		j	Ť	Ť	Ť	Ť	
ZZZZZZ	1.00	15:49			Ì	T	j	j	Ť		Ť	Ť	j	Ť	Ť	Ť	Ť	Ť	Ť			j	Ť	İ	Ť	
ZZZZZZ	1.00	15:52					İ	i	j		j	Ť	Ť	İ	Ť	Ť	Ť	Ť	j		İ	寸	Ť	Ť	Ť	_

^{* -} Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Columbia Analytical Services

METALS - 14 -**ANALYSIS RUN LOG**

Client:

Exponent

Service Request: K1102593

Project No.: 0907194.000.0901

Run Number: 033111BICP03

Project Name: Heglar Kronquist

Instrument ID Number: K-ICP-AES-03

Method:

Start Date: 3/31/2011

End Date:

3/31/2011

														4na	ly	tes	3										
Sample No.	D/F	D/F Time % F	% R	A L	S B	A S	B A	B E	C D	C A	C R	С О	C U		P B	M G		H G	N I	к	S E	A G	N A	T L	V	1	N C
ZZZZZZ	1.00	15:55																									
ZZZZZZ	1.00	15:59																							П	\Box	
ZZZZZZ	1.00	16:02																							П	П	
ZZZZZZ	1.00	16:05																								П	
ZZZZZZ	1.00	16:08																							П	П	
ZZZZZZ	1.00	16:12																								П	
CCV3	1.00	16:15															х								П	\Box	
CCA3	1.00	16:18		х						х				х		x				x			x				
CCB3	1.00	16:22		x						x				х		х	х			x			x		П	П	
K1102593-MB	1.00	16:25		х						x				х		х	х			x			х			П	
LCSW	1.00	16:27		х						х				x		х	x			х			х		\Box	П	
K1102593-001DISS	1.00	16:31		х						х				x		х	х			x			х			П	
K1102593-001DDISS	1.00	16:34		х						x				х		х	х			х			x			П	
K1102593-001LDISS	5.00	16:38		х						х				x		х	х			х			х		П	П	
K1102593-001SDISS	1.00	16:42		х						x				x	П	x	х			х			х				
K1102593-002DISS	1.00	16:46		х						x				х		х	х			х			х		\Box	П	
ZZZZZZ	1.00	16:49																							\Box		
ZZZZZZ	1.00	16:53																							П	П	
ZZZZZZ	1.00	16:56																							П	T	
CCV4	1.00	16:59															х									П	
CCV4	1.00	17:02		х						x				x		x				х			х		T	T	
CCB4	1.00	17:06		х						x				х		x	х			х			х			T	

^{* -} Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Columbia Analytical Services **Preparation Information Benchsheet**

25 mL

Prep Run: 131131

Prep Workflow: MetDigAqICP

Status:

Prepped

Prep Date: ${03/30/2011 \atop 10:00}$

Team:

Metals

Prep Method:

ILM04.0

EPA CLP-METALS Current Step: Digestion

0.25 mL

0.25 mL

0.25 mL

0.25 mL

Due Date: 03/19/2011

1%HN03,5%HCL

Metals D

25104

25344 25536

Analyst:

LJording

Rush/NPDES:

RUSH

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1102746-01	Method Blank		50 mL	50 mL			Metals D	1%HN03,5%HCL
KQ1102746-02	Lab Control Sample		50 mL	50 mL	0.25 mL 0.25 mL 0.5 mL 0.25 mL	20255 20797 25536 26786	Metals D	1%HNO3,5%HCL
K1102593-001	MW-2	.03	25 mL	25 mL			Metals D	1%HNO3,5%HCL
K1102593-001: KQ1102746-03	Duplicate	.03	25 mL	25 mL			Metals D	1%HNO3,5%HCL
<1102593-001:	Matrix Spike	.03	25 mL	25 mL	0.25 mL	24706	Metals D	1%HNQ3,5%HCL

25 mL

Spiking Solutions

KQ1102746-04

K1102593-002

Name	Туре	ID	Expires	Name	Туре	ID	Expires
K-MET QCP-CICV-1	Spike	26786	12/1/2011	K-MET SS3	Spike	25104	5/31/2011
K-MET QCP-CICV-2	Spike	20797	8/1/2011	K-MET SS4	Spike	25536	7/5/2011
K-MET QCP-CICV-3	Spike	20255	8/1/2011	K-MET SS5	Spike	25344	5/5/2011
K-MET SS1	Spike	24706	11/1/2011				

Preparation Materials

Step	Name	ID	Step	Name	ID
Digestion	K-MET 50ml Centrifuge Tube	22573	Digestion	K-MET HNO3	26990
Digestion	K-MET HCL	26498			J

Preparation Hardware / Equipment

MW-4

Step	Name	Property	Value	
Digestion	K- BlockDigester- 06	Temperature	95	deg C

Preparation Steps

Step

Started 30-MAR-11 <u>Finished</u> 30-MAR-11

<u>Ву</u>

Assisted By

Training?

Comments

Digestion

10:00

12:00

LJording

Comments

D	ev	, i	01	

__ Date: _

⁶ Total Samples consisting of 2 Client Samples, 2 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Columbia Analytical Services, Inc.

Comments:

Service Request N	Jumber(s): K 11025	93	
Analysis for:	Vacuum Filtration	(Dissolved Metals)	

Lab Code	Filtered Volu	me (ml)	Preservative	PH <2
Filter Blank	250		HNO3	Í
K1102593-001	1			
- 00 7_	4		4	+
			L	
***		1/3/28/11		
		13/20/11		
				- ', ,

Analyst:	1,11-	Times	Date: 3/28/11
Reviewed:			Date: 3/28/11

SolumbiaAnalytical Services Preparation Information Benchsheet

Prep Date: ${03/30/2011 \atop 10:00}$ Prep Workflow: MetDigAqMS Status: Prepped

Prep Run: 131130 EPA CLP-Current Step: Digestion

Team: Metals Prep Method: METALS **Due Date**: 03/19/2011

ILM04.0 Analyst: Lording

Rush/NPDES: RUSH

Lab Code	Client ID	Bottle #	Initial Amt	Final Volume	Spike Amt	Spike ID	TestNo List	Comments
KQ1102745-04	Method Blank		50 mL	50 mL			Metals D	1%Ultrex HNO3
KQ1102745-03	Lab Control Sample		50 mL	50 mL	1 mL 1 mL	26520 27461	Metals D	1%Ultrex HNO3
K1102578-001	GW-1075	.04	50 mL	50 mL			Metals T	1%Ultrex HNO3
K1102578-002	GW-1074	.04	50 mL	50 mL			Metals T	1%Ultrex HNO3
K1102578-003	GW-1076	.04	50 mL	50 mL			Metals T	1%Ultrex HNO3
K1102578-004	GW-1094	.04	50 mL	50 mL			Metals T	1%Ultrex HNO3
K1102578-005	GW-1092	.04	50 mL	50 mL			Metals T	1%Ultrex HNO3
K1102578-006	GW-1093	.04	50 mL	50 mL		<u> </u>	Metals T	1%Ultrex HNO3
K1102578-006: KQ1102745-11	Duplicate	.04	50 mL	50 mL			Metals T	1%Ultrex HNO3
K1102578-006: KQ1102745-09	Matrix Spike	.04	50 mL	50 mL	1 mL 1 mL	26520 27461	Metals T	1%Ultrex HNO3
K1102578-007	GW-1091	.04	50 mL	50 mL			Metals T	1%Ultrex HNO3
K1102593-001	MW-2	.04	25 mL	25 mL			Metals D	1%Ultrex HNO3
K1102593-002	MW-4	.03	25 mL	25 mL			Metals D	1%Ultrex HNO3
K1102593-002: KQ1102745-07	Duplicate	.03	25 mL	25 mL			Metals D	1%Ultrex HNO3
K1102593-002: KQ1102745-08	Matrix Spike	.03	25 mL	25 mL	0.5 mL 0.5 mL	26520 27461	Metals D	1%Ultrex HNO3

¹⁵ Total Samples consisting of 9 Client Samples, 4 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Туре	ID	Expires	Name	Туре	ID	Expires
K-MET 200.8 1000ug/L Stock	Spike	27461	7/31/2011	K-MET Ag 1000 ppb Stock	Spike	26520	7/18/2011

Preparation Materials

Step Name	ID	Step	Name	ID
Digestion K-MET HNO3 ULTR	EX 21674	Digestion	K-MET 50ml Centrifuge Tube	22573

Preparation Hardware / Equipment

Step	Name	Property	Value	
	K-			
1	•	1	J.	1 1

Digestion	BlockDigester- 05	Temperature	96 deg C				
Preparation							
Step	Started	***************************************	-	Assisted By	<u>Training?</u>	<u>Comments</u>	
Digestion	30-MAF 10:00	R-11 30-MAR 12:00	-11 LJording		N		
Comments							
Review							
Reviewed by:		Dat	re:				

Service Request # KIN7593
Instrument ID# K-ICP-AES-03

ICP-OES Data Review Form

		Yes	No
11. 12.	Standardization completed ICV within 10 % of true value ICB below MRL CRI/LLICV standard analyzed. ICS standards within 20% of true value All preceding CCVs within 10 % of true value Following CCV within 10 % of true value Bracketing CCBs below MRL Method Blank below MRL MS-MSD or Dup-MS and LCS within CAS control limits All analytes within instrument linear range Adequate rinse out time allowed between samples to eliminate memory effect Run terminated early		
Star 601 200 601 Rep	nments: LIMS Run # 240829 Saved under 033111B 0C Calibration. NR Cu2247, Li, Bi, S7: NR Zn2062, Ti. 0C: LL Na=2X. TLL Ba, B, Fe, Mg=2X. NR TL bort Cd2265, Cu3273, Zn2138. Report Al3944, Ca3658, Mg ² 852.		4 nune 3/81/11
Prin	nary Review by June Date 3/31/11		
Sec	ondary Review by <u>WS</u> Date <u>4</u>	- magnitude and an analysis of the second	

Sample Name: BLK Acquired: 3/31/2011 13:55:27 Type: Cal

Method: 2011A(v5) Mode: IR Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0006	- 65.74	6.041	3.651	. 0501	-2.8197	239.8
Stddev	.0001	7.05	.882	1.807	.0039	.9502	15.1
%RSD	9.679	10.73	14.61	49.50	7.825	33.698	6.289
#1	.0007	-70.73	5.417	2.373	.0473	-2.1479	229.1
#2	.0006	-60.75	6.664	4.928	.0529	-3.4916	250.4
Elem	Cd2144	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	. 0012	.0003	.0007	. 1375	.0000	.0008	. 0007
Stddev	.0004	.0003	.0015	.0052	.0001	.0005	.0001
%RSD	38.75	92.51	216.8	3.761	234.1	60.00	15.13
#1	.0015	.0006	0004	.1412	.0000	.0012	.0007
#2	.0008	.0001	.0018	.1338	.0001	.0005	.0008
Elem	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	- 53.61	0003	. 0016	0013	. 0137	5.525	. 0002
Stddev	.69	.0000	.0008	.0012	.0004	.035	.0000
%RSD	1.284	.0416	51.82	90.23	2.725	.6399	3.208
#1	-54.10	0003	.0021	0005	.0140	5.500	.0002
#2	-53.12	0003	.0010	0021	.0135	5.550	.0002
Elem	Mn2605	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0000	0002	. 0003	47.35	2.078	5.392	239.9
Stddev	.000	.0001	.0000	8.69	1.211	3.041	4.8
%RSD	84.26	50.04	2.955	18.35	58.25	56.39	2.010
#1							

Sample Name: BLK Acquired: 3/31/2011 13:55:27 Type: Cal

Method: 2011A(v5) Mode: IR Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

Elem Units Avg Stddev %RSD	Sn1899 Cts/S 0001 .0002 138.2	V_2924 Cts/S .0005 .0001 16.35	Zn2062 Cts/S . 0005 .0000 .4626	Zn2138 Cts/S 6.108 2.184 35.75	P_2149 Cts/S 4.288 .695 16.21	Si2516 Cts/S 4.650 2.640 56.77	Ti3361 Cts/S . 0021 .0002 11.11
#1 #2	0003 .0000	.0006 .0004	.0005 .0005	4.564 7.652	4.779 3.796	6.517 2.783	.0023 .0020
Elem Units Avg Stddev %RSD	TI1908 Cts/S 0029 .0005 18.29	Li6707 Cts/S 83.04 1.31 1.579	Sr4077 Cts/S 00425 .00747 175.67	Bi2230 Cts/S . 0022 .0003 15.79	S_1820 Cts/S - 6.924 .305 4.411		
#1 #2	0033 0025	83.97 82.11	.00103 00953	.0019 .0024	-6.708 -7.140		
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4842.3 19.8 .40786	Y_3600 Cts/S 104760. 34. .03278	Y_3600-2 Cts/S 1581.9 .7 .04157	In2306 Cts/S 1284.2 3.1 .24528			
#1 #2	4828.4 4856.3	104740. 104790.	1582.4 1581.4	1281.9 1286.4	may 3/11		

Sample Name: STD A Acquired: 3/31/2011 13:58:51 Type: Cal

Method: 2011A(v5) Mode: IR Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-70-D

Elem	Al1670	Sb2068	Be2348	B_2496	Cd2144	Cd2265	Ca3933	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	. 3609	468.1	52373 .	4462 .	11.99	2.723	11.57	.1167
Stddev	.0009	.4	217.	18.	.05	.003	.00	.0003
%RSD	.2608	.0806	.41506	.3999	.3863	.1147	.0075	.2729
#1	.3602	468.4	52219.	4449.	11.96	2.721	11.57	.1165
#2	.3616	467.8	52527.	4474.	12.02	2.725	11.57	.1169
Elem	Co2307	Cu2247	Cu3273	Pb2203	Mg2795	Mn2576	Mo2020	Ni2216
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	. 7909	1.724	8475 .	. 7809	5.424	. 5766	. 6564	. 7669
Stddev	.0012	.007	36.	.0013	.046	.0017	.0016	.0019
%RSD	.1519	.4268	.4198	.1658	.8454	.3000	.2438	.2440
#1	.7900	1.718	8450.	.7800	5.391	.5754	.6553	.7655
#2	.7917	1.729	8500.	.7818	5.456	.5779	.6576	.7682
Elem	Se1960	Ag3280	Sn1899	V_2924	Zn2062	Zn2138	Ti3361	TI1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	351.2	15170.	. 5183	. 1228	3.263	10500.	. 4534	. 4543
Stddev	1.6	3.	.0039	.0002	.009	17.	.0001	.0006
%RSD	.4662	.0172	.7572	.1241	.2883	.1631	.0250	.1356
#1	350.0	15170.	.5155	.1229	3.256	10490.	.4534	.4539
#2	352.3	15170.	.5210	.1227	3.270	10510.	.4535	.4547
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4925.1 6.5 .13298	Y_3600 Cts/S 106280. 106. .09939	Y_3600-2 Cts/S 1627.5 8.4 .51715	In2306 Cts/S 1311.2 2.4 .18291				
#1 #2	4920.4 4929.7	106350. 106200.	1633.5 1621.6	1312.9 1309.5				

Sample Name: STD B Acquired: 3/31/2011 14:02:00 Type: Cal

Method: 2011A(v5) Mode: IR Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-69-A

Elem	Al3944	As1890	Ba4554	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	R 182100 .	1310 .	157.1	3.534	5.029	. 8487
Stddev	836.	4.	.3	.006	.028	.0009
%RSD	.4589	.3135	.1717	.1838	.5631	.1089
#1	181500.	1307.	157.0	3.530	5.009	.8494
#2	182700.	1313.	157.3	3.539	5.049	.8481
Elem	Mg2852	Mn2605	K_7664	Na5895	P_2149	Si2516
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	R 17740 .	. 0202	4569 .	12440 .	11080 .	2445.
Stddev	6.	.0001	1.	3.	4.	15.
%RSD	.0336	.4602	.0283	.0252	.0350	.6293
#1	17750.	.0202	4568.	12440.	11080.	2456.
#2	17740.	.0201	4570.	12440.	11070.	2434.
Elem Units Avg Stddev %RSD	Li6707 Cts/S 11300. 33. .2957	Sr4077 Cts/S 27.521 .002 .00785	Bi2230 Cts/S . 4337 .0000 .0083	S_1820 Cts/S 658.2 .4 .0562		
#1 #2	11270. 11320.	27.519 27.522	.4337 .4336	657.9 658.5		
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4853.6 2.1 .04395	Y_3600 Cts/S 102880. 223. .21666	Y_3600-2 Cts/S 1587.3 1.2 .07365	In2306 Cts/S 1209.9 1.3 .10642		
#1 #2	4855.1 4852.1	102720. 103040.	1586.5 1588.1	1210.9 1209.0		

Sample Name: ICV1 Acquired: 3/31/2011 14:05:29 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-78-C

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.273	5.148	2.503	2.553	4.947	. 12678	. 0080	1.305
Stddev	.008	.034	.011	.007	.036	.00071	.0008	.001
%RSD	.1792	.6606	.4454	.2945	.7258	.56004	9.992	.0641
#1	4.267	5.172	2.495	2.548	4.922	.12729	.0075	1.304
#2	4.278	5.124	2.510	2.558	4.973	.12628	.0086	1.306
Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.260	12.53	12.47	. 5185	1.254	F . 6608	. 6270	2.506
Stddev	.002	.12	.16	.0002	.002	.0012	.0065	.016
%RSD	.1225	.9525	1.306	.0330	.1809	.1831	1.030	.6418
#1	1.259	12.44	12.35	.5186	1.252	.6599	.6316	2.495
#2	1.261	12.61	12.58	.5184	1.255	.6616	.6224	2.517
Check ? Value Range	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail .6250 5.000%	Chk Pass	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.611	12.43	12.39	12.56	1.271	1.236	2.062	1.257
Stddev	.003	.22	.09	.04	.004	.000	.004	.001
%RSD	.1271	1.778	.7563	.3449	.3075	.0159	.2164	.0667
#1	2.609	12.27	12.33	12.60	1.273	1.236	2.058	1.256
#2	2.613	12.58	12.46	12.53	1.268	1.236	2.065	1.257
Check ? Value Range	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-78-C

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.45	2.498	. 6112	12.51	.0016	1.293	F 1.314	1.239
Stddev	.12	.005	.0046	.11	.0009	.002	.000	.003
%RSD	.9443	.2086	.7468	.9068	55.75	.1633	.0329	.2178
#1	12.53	2.494	.6144	12.59	.0022	1.294	1.314	1.237
#2	12.37	2.502	.6080	12.43	.0009	1.291	1.314	1.241
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail 1.250 5.000%	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0142	0183	F 2.133	2.612	0004	. 00081	. 0071	. 0003
Stddev	.0000	.0091	.002	.008	.0021	.00019	.0021	.0024
%RSD	.0506	49.69	.0902	.3010	526.4	23.219	29.00	860.7
#1	.0142	0119	2.134	2.606	.0011	.00068	.0086	0014
#2	.0142	0247	2.131	2.617	0019	.00095	.0057	.0020
Check ? Value Range	None	None	Chk Fail 2.000 5.000%	Chk Pass	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4880.9 2.1 .04320	Y_3600 Cts/S 104160. 124. .11918	Y_3600-2 Cts/S 1594.8 14.6 .91660	In2306 Cts/S 1248.1 .6 .04759				
#1 #2	4882.4 4879.4	104250. 104070.	1605.1 1584.4	1247.7 1248.6				

Sample Name: ICVB1 Acquired: 3/31/2011 14:08:39 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment:

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 9947	1.053	. 0056	.0042	. 0005	00023	2.025	0004
Stddev	.0032	.009	.0017	.0016	.0006	.00009	.005	.0001
%RSD	.3197	.8416	30.18	37.09	122.1	38.246	.2691	16.89
#1	.9924	1.046	.0068	.0053	.0008	00029	2.021	0003
#2	.9969	1.059	.0044	.0031	.0001	00016	2.028	0004
Check ? Value Range	Chk Pass	None	None	None	None	None	Chk Pass	None
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	5.108	5.143	0013	0001	. 0067	0009	10.05
Stddev	.0000	.028	.036	.0002	.0002	.0002	.0001	.03
%RSD	39.33	.5467	.7074	14.42	137.9	3.148	15.61	.2982
#1	.0001	5.128	5.169	0011	0003	.0066	0010	10.07
#2	.0001	5.088	5.117	0014	.0000	.0068	0008	10.03
Check ? Value Range	None	None	Chk Pass	None	None	None	None	None
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0010	5.160	5.142	5.146	9.761	9.934	. 0030	0030
Stddev	.0010	.054	.032	.003	.115	.004	.0004	.0002
%RSD	101.0	1.047	.6238	.0565	1.177	.0413	12.60	7.623
#1	.0003	5.198	5.164	5.148	9.842	9.937	.0033	0028
#2	.0018	5.122	5.119	5.144	9.680	9.931	.0027	0032
Check ? Value Range	None	None	Chk Pass	None	None	Chk Pass	None	None

Sample Name: ICVB1 Acquired: 3/31/2011 14:08:39 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment:

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0081	.0030	0010	8.380	5.159	. 0221	.0005	. 0002
Stddev	.0156	.0007	.0001	.023	.014	.0003	.0001	.0001
%RSD	193.6	22.29	13.72	.2764	.2684	1.188	29.43	75.79
#1	0191	.0034	0011	8.364	5.149	.0223	.0006	.0001
#2	.0030	.0025	0009	8.396	5.168	.0220	.0004	.0003
Check ? Value Range	None	None	None	None	Chk Pass	None	None	None
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.077	5.145	. 0002	0076	F 1.296	1.9973	. 0015	.0137
Stddev	.008	.029	.0001	.0003	.003	.0131	.0008	.0020
%RSD	.1515	.5555	46.69	3.801	.1906	.65692	52.58	14.75
#1	5.071	5.124	.0003	0078	1.295	2.0066	.0021	.0152
#2	5.082	5.165	.0002	0073	1.298	1.9881	.0010	.0123
Check ? Value Range	Chk Pass	Chk Pass	None	None	Chk Fail 2.000 -5.000%	Chk Pass	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4909.4 7.7 .15654	Y_3600 Cts/S 104510. 560. .53540	Y_3600-2 Cts/S 1590.3 15.2 .95497	In2306 Cts/S 1264.3 1.9 .14737				
#1 #2	4914.8 4903.9	104110. 104900.	1579.6 1601.1	1265.7 1263.0				

Sample Name: ICB Acquired: 3/31/2011 14:12:52 Type: QC Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B								
Elem Units Avg Stddev %RSD	Al1670 ppm 0005 .0001 30.90	ppm	Sb2068 ppm . 0001 .0007 488.8	ppm . 0011	ppm 0002 .0001			
#1	0004	.0025	.0006	.0002	0001	.00001	.0075	.0000
#2	0005	0015	0003	.0019	0003	.00002	.0086	.0000
Check? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0001	. 0107	0005	0002	0003	0004	0001	. 0001
Stddev	.0001	.0079	.0001	.0000	.0003	.0002	.0008	.0050
%RSD	70.92	74.00	24.84	.7040	88.38	69.81	566.4	3589.
#1	.0001	.0051	0006	0002	0001	0002	0007	.0036
#2	.0002	.0162	0004	0002	0005	0005	.0004	0034
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0008	0034	0006	0063	. 0003	. 0012	.0010	0001
Stddev	.0011	.0400	.0000	.0031	.0000	.0014	.0002	.0001
%RSD	135.2	1193.	1.725	48.61	2.164	113.2	18.00	196.8
#1	.0000	0317	0006	0041	.0003	.0022	.0012	.0000
#2	.0017	.0250	0006	0085		.0002	.0009	0002
Check ? High Limit Low Limit	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: ICB Acquired: 3/31/2011 14:12:52 Type: QC Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0792	0007	0003	. 0561	. 0015	. 0002	0002	.0000
Stddev	.0227	.0001	.0007	.0088	.0000	.0000	.0002	.0000
%RSD	28.69	7.726	250.5	15.65	2.405	9.793	95.35	486.8
#1	0631	0007	0008	.0499	.0015	.0002	0001	.0000
#2	0953	0008	.0002	.0623	.0016	.0001	0003	

Check? Chk Pass Chk P

Low Limit

Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0055	0244	. 0000	. 0017	. 0003	. 00018	. 0014	. 0019
Stddev	.0053	.0119	.0000	.0004	.0006	.00025	.0004	.0013
%RSD	96.30	48.69	97.18	24.03	222.5	137.01	27.76	68.88
#1	.0092	0160	.0000	.0014	0002	.00035	.0012	.0010
#2	.0017	0329	.0001	.0019	.0007	.00001	.0017	.0028

Check? Chk Pass Chk P

High Limit Low Limit

Int. Std.	Y_2243	Y_3600 Y	/_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4914.0	105380.	1588.3	1306.5
Stddev	3.6	78.	5.3	1.0
%RSD	.07299	.07359	.33368	.07947
#1	4916.5	105330.	1584.6	1307.2
#2	4911.5	105440.	1592.0	1305.7

Sample Name: LLICV Acquired: 3/31/2011 14:15:29 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-79-A 0.5/50

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0520	. 0559	. 0541	.1056	. 0045	. 00518	. 0626	. 0051
Stddev	.0001	.0009	.0007	.0007	.0017	.00003	.0003	.0000
%RSD	.1077	1.590	1.269	.6472	38.10	.56002	.4058	.1205
#1	.0520	.0553	.0545	.1060	.0057	.00516	.0628	.0051
#2	.0519	.0565	.0536	.1051	.0033	.00521	.0625	.0051
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass		Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	/ Ca3933 ppm .0517 .0002 .4294	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm		ppm	ppm	ppm	ppm	ppm
Avg	. 0051	F . 0760		. 0045	. 0100	. 0099	. 0097	.0211
Stddev	.0001	.0008		.0003	.0001	.0005	.0004	.0077
%RSD	.9899	1.014		6.673	1.362	4.792	3.710	36.45
#1	.0051	.0766	.0516	.0047	.0099	.0095	.0100	.0157
#2	.0052	.0755	.0519	.0043	.0101	.0102	.0095	.0266
Check ? Value Range	Chk Pass	Chk Fail .0500 30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0530	. 0621	. 0203	. 0163	. 0052	. 0048	.0108	. 0204
Stddev	.0012	.0296	.0002	.0014	.0001	.0012	.0002	.0002
%RSD	2.219	47.69	.8967	8.823	.9735	25.13	2.210	.8246
#1	.0521	.0411	.0202	.0153	.0052	.0039	.0106	.0203
#2	.0538	.0830	.0204	.0173	.0052	.0057	.0110	.0206
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass

Type: QC Sample Name: LLICV Acquired: 3/31/2011 14:15:29

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin Comment: 033111B ICP8-79-A 0.5/50

4960.0 107120.

1601.9

#2

User: admin : : : : : : : : : : : : : : : : : : :						Lever way	Polly		
	Elem Units Avg Stddev %RSD	K_7664 ppm . 3817 .0682 17.86	Se1960 ppm . 1053 .0014 1.347	Ag3280 ppm . 0103 .0008 7.321	Na5895 ppm F . 2619 .0231 8.802	Sn1899	V_2924 ppm .0102 .0000 .0066	Zn2062 ppm . 0104 .0001 1.107	Zn2138 ppm .0106 .0001 .6119
	#1 #2	.4299 .3335	.1063 .1043	.0108 .0098	.2782 .2456	.0527 .0534	.0102 .0102	.0103 .0104	.0105 .0106
	Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Fail .2000 30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass
	Elem Units Avg Stddev %RSD	P_2149 ppm . 2114 .0014 .6636	Si2516 ppm . 3811 .0047 1.230	Ti3361 ppm . 0104 .0001 .5225	TI1908 ppm . 1059 .0008 .7657	Li6707 ppm F . 0056 .0046 81.72	Sr4077 ppm . 01050 .00012 1.1219	Bi2230 ppm 0006 .0019 315.9	S_1820 ppm .0005 .0027 528.3
	#1 #2	.2123 .2104	.3844 .3778	.0104 .0104	.1053 .1064	.0024 .0089	.01041 .01058	.0007 0019	.0024 0014
	Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0100 -30.00%	Chk Pass	None	None
	Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4975.9 22.5 .45131	Y_3600 Cts/S 107510. 544. .50601	Y_3600-2 Cts/S 1613.9 17.0 1.0504	In2306 Cts/S 1318.9 9.1 .68751				
	#1	4991.8	107890.	1625.9	1325.3				

1312.5

Sample Name: LLICV Acquired: 3/31/2011 14:19:03 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0522	. 0571	. 0542	. 1065	. 0048	.00523	. 0612	. 0051
Stddev	.0004	.0007	.0009	.0018	.0010	.00001	.0011	.0000
%RSD	.7668	1.142	1.591	1.721	21.31	.18609	1.838	.0871
#1	.0525	.0575	.0535	.1052	.0056	.00524	.0620	.0051
#2	.0519	.0566	.0548	.1078	.0041	.00522	.0604	.0051
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0052	F . 0727	. 0527	. 0055	.0106	. 0103	. 0108	F .0288
Stddev	.0000	.0005	.0003	.0001	.0002	.0002	.0003	.0036
%RSD	.6700	.6879	.6475	1.202	1.843	1.837	2.339	12.53
#1	.0052	.0731	.0529	.0055	.0107	.0104	.0106	.0313
#2	.0052	.0724	.0525	.0055	.0104	.0101	.0110	.0262
Check ? Value Range	Chk Pass	Chk Fail .0500 30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0200 30.00%
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0519	. 0503	. 0207	F . 0127	. 0053	. 0068	. 0106	. 0206
Stddev	.0000	.0159	.0001	.0077	.0000	.0001	.0001	.0000
%RSD	.0413	31.64	.5045	60.20	.6878	1.914	1.244	.0360
#1	.0519	.0391	.0208	.0073	.0053	.0069	.0107	.0206
#2	.0519	.0616	.0207	.0181	.0053	.0067	.0105	.0206
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Fail .0200 -30.00%	Chk Pass	None	Chk Pass	Chk Pass

Sample Name: LLICV Acquired: 3/31/2011 14:19:03 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin :

Comment: 033111B RERUN

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2824	. 1049	. 0102	. 2221	. 0524	. 0098	. 0104	.0107
Stddev	.0173	.0013	.0000	.0634	.0010	.0001	.0001	.0000
%RSD	6.134	1.286	.1057	28.57	1.869	1.138	1.232	.3347
#1	.2946	.1059	.0102	.1772	.0531	.0098	.0103	.0106
#2	.2701	.1040	.0102	.2669		.0097	.0105	.0107
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2101	. 3836	. 0105	. 1066	F . 0070	. 01027	. 0015	. 0003
Stddev	.0007	.0084	.0002	.0006	.0016	.00018	.0010	.0034
%RSD	.3292	2.190	1.916	.5657	23.02	1.7210	65.64	978.2
#1	.2106	.3896	.0103	.1062	.0058	.01015	.0022	0020
#2	.2097	.3777	.0106	.1070	.0081	.01040	.0008	.0027
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0100 -30.00%	Chk Pass	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4956.4 10.9 .21967	Y_3600 Cts/S 106280. 78. .07307	Y_3600-2 Cts/S 1600.2 10.4 .65178	In2306 Cts/S 1317.7 4.9 .37217				
#1 #2	4948.7 4964.1	106330. 106220.	1592.8 1607.6	1314.2 1321.2				

Sample Name: TLLICV Acquired: 3/31/2011 14:21:58 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348/	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0015	. 0034	. 0111	. 0112	F . 0027	.00019	F . 0155
Stddev	.0001	.0010	.0011	.0022	.0000	.00009	.0007
%RSD	4.763	30.23	9.541	19.68	.8122	48.555	4.301
#1	.0014	.0041	.0103	.0096	.0027	.00013	.0150
#2	.0016	.0026	.0118	.0127	.0027	.00026	.0160
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail .0020 30.00%	Chk Pass	Chk Fail .0100 30.00%
Elem	Cd2144	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0005	. 0005	. 0334	.0037	. 0018	. 0007	. 0018
Stddev	.0000	.0000	.0123	.0001	.0000	.0000	.0001
%RSD	- 5.568	2.885	36.89	1.943	.3475	2.236	4.765
#1	.0005	.0005	.0247	.0036	.0018	.0007	.0019
#2	.0004	.0005	.0421	.0037	.0018	.0008	.0018
Check ? Value Range	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0022	F . 0156	. 0107	0019	F . 0012	0010	F . 0008
Stddev	.0008	.0054	.0011	.0190	.0001	.0010	.0000
%RSD	37.88	34.89	10.61	987.2	4.737	97.01	5.690
#1	.0016	.0117	.0099	.0115	.0012	0017	.0009
#2	.0028	.0194	.0115	0154	.0012	0003	.0008
Check ? Value Range	Chk Pass	Chk Fail .0100 30.00%	Chk Pass	None	Chk Fail .0020 -30.00%	None	Chk Fail .0006 30.00%

Sample Name: TLLICV Acquired: 3/31/2011 14:21:58 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-69-A 0.5/50

Elem Units Avg Stddev %RSD	Mn2605 ppm 0007 .0012 160.3	Mo2020 ppm . 0024 .0001 2.625	Ni2216 ppm . 0022 .0003 11.67	K_7664 ppm F . 0603 .0751 124.4	Se1960 ppm . 0200 .0014 6.921	Ag3280 ppm . 0016 .0001 7.093	Na5895 ppm F .1111 .0050 4.529
#1 #2	0016 .0001	.0024 .0025	.0020 .0024	.0072 .1134	.0190 .0210	.0015 .0017	.1075 .1146
Check ? Value Range	None	Chk Pass	Chk Pass	Chk Fail .1000 -30.00%	Chk Pass	Chk Pass	Chk Fail .2000 -30.00%
Elem Units Avg Stddev %RSD	Sn1899 ppm . 0101 .0009 9.432	V_2924 ppm F . 0013 .0003 23.63	Zn2062 ppm . 0019 .0001 4.291	Zn2138 ppm . 0021 .0000 .3583	P_2149 ppm . 0219 .0009 3.935	Si2516 ppm F . 0259 .0064 24.61	Ti3361 ppm . 0011 .0000 3.689
#1 #2	.0094 .0107	.0016 .0011	.0018 .0019	.0021 .0021	.0225 .0213	.0304 .0214	.0010 .0011
Check ? Value Range	Chk Pass	Chk Fail .0020 -30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0500 -30.00%	Chk Pass
Elem Units Avg Stddev %RSD	TI1908 ppm . 0117 .0005 3.983	Li6707 ppm F . 0036 .0004 10.15	Sr4077 ppm F .00057 .00002 3.1253	Bi2230 ppm . 0555 .0012 2.158	S_1820 ppm . 0552 .0029 5.328		
#1 #2	.0113 .0120	.0038 .0033	.00058 .00056	.0563 .0546	.0531 .0573		
Check ? Value Range	Chk Pass	Chk Fail .0100 -30.00%	Chk Fail .00020 30.000%	Chk Pass	Chk Pass		

Sample Name: TLLICV Acquired: 3/31/2011 14:21:58 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-69-A 0.5/50

Int. Std.	Y_2243	Y_3600	Y_3600-2 /	In2306
Units	Cts/S	Cts/S	Cts/Ş/	Cts/S
Avg	4955.3	106590.	1597/.7	1322.1
Stddev	7.6	37.	/ 3.0	6.3
%RSD	.15367	.03449	.1⁄8721	.47760
#1	4960.7	106560.	/ 1595.6	1326.6
#2	4949.9	106620.	/ 1599.8	1317.6

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Sample Name: TLLICV Acquired: 3/31/2011 14:25:42 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

					*		
Elem	Al1670	Al3944	Sb2068	As1890	Ba4554/	Be2348	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0015	. 0024	. 0123	. 0121	F . 0027	. 00020	. 0129
Stddev	.0001	.0005	.0011	.0009	.0001	.00001	.0012
%RSD	7.982	20.51	9.120	7.127	3.069	6.5952	9.346
#1	.0014	.0021	.0131	.0115	.0026	.00021	.0137
#2	.0016	.0028	.0115	.0127		.00019	.0120
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail .0020 30.00%	Chk Pass	Chk Pass
Elem	Cd2144	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0005	. 0005	. 0195	. 0039	. 0018	. 0007	. 0023
Stddev	.0000	.0000	.0093	.0001	.0002	.0001	.0000
%RSD	3.013	1.585	47.54	1.885	10.17	8.015	2.011
#1	.0005	.0005	.0260	.0040	.0020	.0007	.0023
#2	.0005	.0005	.0129	.0039	.0017	.0008	.0023
Check ? Value Range	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0023	F . 0144	. 0104	0278	F . 0014	0006	. 0007
Stddev	.0008	.0051	.0004	.0120	.0002	.0054	.0000
%RSD	37.14	35.24	3.849	43.30	/13.44	836.6	1.909
#1 #2	.0017 .0029	.0180	.0106 .0101	0193 0363	.0015	0045 .0032	.0007 .0008
Check ? Value Range	Chk Pass	Chk Fail .0100 30.00%	Chk Pass	None	Chk Fail .0020 -30.00%	None	Chk Pass

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Sample Name: TLLICV Acquired: 3/31/2011 14:25:42 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

Elem Units Avg Stddev %RSD	Mn2605 ppm . 0004 .0002 47.38	Mo2020 ppm . 0025 .0001 3.570	Ni2216 ppm . 0021 .0001 6.687	K_7664 ppm . 0893 .1105 123.8	Se1960 ppm . 0191 .0012 6.318	Ag3280 ppm . 0021 .0002 7.669	Na5895 ppm . 1516 .0293 19.35
#1 #2	.0003 .0005	.0025 .0024	.0020 .0022	.1674 .0111	.0183 .0200	.0022 .0020	.1309 .1724
Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	Sn1899 ppm . 0109 .0008 7.298	V_2924 ppm . 0015 .0002 9.977	Zn2062 ppm . 0020 .0000 2.363	Zn2138 ppm . 0021 .0000 .8438	P_2149 ppm . 0214 .0041 19.33	Si2516 ppm F . 0099 .0186 187.4	Ti3361 ppm . 0010 .0001 10.68
#1 #2	.0115 .0104	.0016 .0014	.0019 .0020	.0021 .0021	.0243 .0185	.0231 0032	.0010
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0500 -30.00%	Chk Pass
Elem Units Avg Stddev %RSD	TI1908 ppm . 0108 .0003 2.391	Li6707 ppm F . 0042 .0057 136.2	Sr4077 ppm F .00031 .00022 70.545	Bi2230 ppm . 0562 .0024 4.223	S_1820 ppm . 0546 .0013 2.472		
#1 #2	.0107 .0110	.0002 .0082	.00016 .00047	.0579 .0546	.0537 .0556		
Check ? Value Range	Chk Pass	Chk Fail .0100 -30.00%	Chk Fail .00020 30.000%	Chk Pass	Chk Pass		

Sample Name: TLLICV Acquired: 3/31/2011 14:25:42 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4913.1	105850.	1578.9	1304.6
Stddev	11.6	295.	9.2	2.8
%RSD	.23708	.27901	.57998	.21801
#1	4904.9	106060.	1572.4	1302.6
#2	4921.4	105640.	1585.3	1306.6

Sample Name: TLLICV 2X Acquired: 3/31/2011 14:28:54 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : : : : Comment: 033111B ICP8-67-A 1/50

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0035	. 0034	. 0219	. 0212	.0034	.00044	. 0224
Stddev	.0001	.0013	.0035	.0030	.0008	.00006	.0007
%RSD	3.058	36.85	16.00	14.26	21.79	13.018	3.093
#1	.0034	.0043	.0243	.0190	.0040	.00048	.0229
#2	.0035	.0025	.0194	.0233	.0029		.0219
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2144	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0010	. 0010	. 0234	. 0078	. 0039	. 0017	. 0039
Stddev	.0000	.0001	.0237	.0002	.0001	.0001	.0000
%RSD	1.147	10.64	101.3	2.628	2.000	6.318	.8523
#1	.0010	.0009	.0402	.0079	.0040	.0016	.0039
#2	.0009	.0011	.0066	.0076	.0038	.0018	.0038
Check ? Value Range	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0037	. 0140	. 0189	. 0256	. 0033	. 0009	. 0014
Stddev	.0003	.0005	.0004	.0244	.0000	.0095	.0000
%RSD	7.364	3.914	1.868	95.38	.9631	1085.	2.992
#1	.0039	.0144	.0187	.0428	.0034	.0076	.0014
#2	.0035	.0137	.0192	.0083	.0033	0058	.0014
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass

Sample Name: TLLICV 2X Acquired: 3/31/2011 14:28:54 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : : : : Comment: 033111B ICP8-67-A 1/50

Elem Units Avg Stddev %RSD	Mn2605 ppm . 0031 .0002 6.224	Mo2020 ppm . 0039 .0001 2.140	Ni2216 ppm . 0041 .0000 .2796	K_7664 ppm . 1568 .0043 2.767	Se1960 ppm . 0389 .0018 4.558	Ag3280 ppm . 0044 .0005 11.18	Na5895 ppm . 2970 .0057 1.928
#1 #2	.0030 .0032	.0039 .0040	.0041 .0042	.1538 .1599	.0376 .0401	.0041 .0047	.3010 .2929
Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	Sn1899 ppm . 0202 .0001 .3105	V_2924 ppm . 0043 .0002 4.703	Zn2062 ppm . 0040 .0001 1.436	Zn2138 ppm . 0041 .0000 .6098	P_2149 ppm . 0424 .0010 2.429	Si2516 ppm F . 0522 .0176 33.76	Ti3361 ppm . 0017 .0001 5.666
#1 #2	.0202 .0201	.0042 .0045	.0040 .0040	.0041 .0041	.0431 .0417	.0647 .0398	.0018 .0017
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .1000 -30.00%	Chk Pass
Elem Units Avg Stddev %RSD	TI1908 ppm . 0212 .0021 10.14	Li6707 ppm F . 0086 .0025 29.00	Sr4077 ppm F .00062 .00002 3.2594	Bi2230 ppm . 1095 .0001 .0581	S_1820 ppm . 1064 .0012 1.089		
#1 #2	.0227 .0196	.0068 .0104	.00060 .00063	.1094 .1095	.1072 .1055		
Check ? Value Range	Chk Pass	Chk Fail .0200 -30.00%	Chk Fail .00040 30.000%	Chk Pass	Chk Pass		

Sample Name: TLLICV 2X Acquired: 3/31/2011 14:28:54 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : : Comment: 033111B ICP8-67-A 1/50

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4951.7	106320.	1608.8	1324.0
Stddev	17.0	328.	14.1	5.5
%RSD	.34250	.30852	.87402	.41837
#1	4939.7	106550.	1598.8	1320.1
#2	4963.7	106090.	1618.7	1327.9

Sample Name: CCVA1 Acquired: 3/31/2011 14:32:18 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

							/	
Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	/ B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2480	.2658	.2510	.2508	.2518	.24873	.2500	.2468
Stddev	.0009	.0019	.0008	.0006	.0173	.0Ó077	.0020	.0010
%RSD	.3753	.7019	.3171	.2238		.30790	.7830	.4228
701 (OD	.0700	.7013	.5171	.2200	0.000		.7000	.7220
#1	.2490	.2674	.2500	.2514	.2450	.24909	.2510	.2475
					/		.2490	.2456
#2	.2473	.2634	.2516	.2508	.2777	.24801		
#3	.2471	.2671	.2516	.2500	.2433	.24963	.2523	.2461
#4	.2486	.2655	.2505	.2509	.2412	.24818	.2479	.2478
Check?	Chk Pass	None	Chk Pass	None	/ None	Chk Pass	Chk Pass	Chk Pass
Value								
Range				/	/			
_				/				
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	/ppm	ppm	ppm	ppm	ppm
Avg	.2458	.2766	.2580	.2479	.2471	.2464	.2503	.2668
Stddev	.0006	.0354	.0186	.0007	.0006	.0005	.0014	.0136
%RSD	.2330	12.81	7.220	.2652	.2521	.2055	.5748	5.098
70K3D	.2330	12.01	7.220	.2052	.2321	.2055	.5746	3.096
44	2450	2646	2506	2494	2474	2466	.2510	.2657
#1 "0	.2459	.2646	.2508	.2484	.2474	.2466		
#2	.2461	.3293	.2857	.2484	.2469	.2457	.2484	.2861
#3	.2450	.2580	.2499	.2471	.2463	.2465	.2517	.2605
#4	.2463	.2544	/.2456	.2476	.2477	.2468	.2502	.2549
Check?	Chk Pass	None	Çhk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value			/					
Range		/						

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Sample Name: CCVA1 Acquired: 3/31/2011 14:32:18 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

Elem	Pb2203	Mg2790	_	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm		ppm	ppm	ppm	ppm	ppm
Avg	. 2476	. 2399		. 2512	. 2470	. 2441	. 2456	. 2479
Stddev	.0012	.0438		.0060	.0010	.0046	.0009	.0005
%RSD	.4974	18.27		2.403	.4248	1,888	.3556	.2174
#1	.2485	.2956	.2526	.2476	.2485	.2419	.2458	.2482
#2	.2457	.2533	.2866	.2595	.2461	.2510	.2453	.2477
#3	.2480	.1986	.2509	.2515	.2465	.2419	.2445	.2472
#4	.2480	.2121	.2477	.2461	.2471	.2416	.2466	.2484
Check ? Value Range	Chk Pass	None	Chk Pass	None	Chk/Pass	None	Chk Pass	Chk Pass
Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.375	. 2494	. 2500	. 1926	. 2492	. 2484	. 2481	. 2493
Stddev	.133	.0010	.0013	.0411	.0013	.0013	.0013	.0008
%RSD	5.591	.3916	.5359	21.35	.5348	.5033	.5418	.3106
#1	2.278	.2489	.2508	.1634	.2485	.2493	.2479	.2491
#2	2.505	.2503	.2484	.2499	.2487	.2470	.2467	.2502
#3	2.244	.2483	.2513	.1952	.2484	.2477	.2479	.2483
#4	2.472	.2502	.2493	.1620	.2512	.2496	.2500	.2495
Check ? Value Range	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass

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Sample Name: CCVA1 Acquired: 3/31/2011 14:32:18 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

Elem Units Avg Stddev %RSD	P_2149 ppm . 0001 .0016 2034.	Si2516 ppm . 1061 .0145 13.65	Ti3361 ppm . 2475 .0003 .1330	TI1908 ppm . 2493 .0018 .7240	Li6707 ppm 0033 .0020 62.12	\$r4077 ppm . 00028 .00009 31.046	Bi2230 ppm . 0016 .0022 133.8	S_1820 ppm . 0042 .0009 20.81
#1 #2 #3 #4	.0019 .0010 0017 0009	.1255 .0915 .0999 .1075	.2479 .2476 .2471 .2473	.2470 .2487 .2505 .2509	0061 0034 0021 0015	.00022 .00029 .00040 .00021	0004 .0024 .0043 .0002	.0049 .0036 .0051 .0034
Check ? Value Range	None	None	Chk Pass	Chk Pass	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4985.2 10.6 .21297	Y_3600 Cts/S 107210. 235. .21880	Y_3600-2 Cts/\$/ 1571/1 78.6 5.0055	In2306 Cts/S 1321.6 5.2 .39292				
#1 #2 #3 #4	4976.1 4997.1 4991.2 4976.4	107150. 107210. 107520. 106960.	1596.1 1454.7 1605.9 1627.5	1318.8 1328.9 1321.7 1317.1				

Hard 35

Sample Name: CCVA1 Acquired: 3/31/2011 14:37:06 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2503	. 2696	. 2514	. 2487	. 2439	. 25099	. 2528	. 2499
Stddev	.0012	.0017	.0002	.0017	.0020	.00087	.0013	.0009
%RSD	.4797	.6345	.0598	.6680	.8393	.34767	.5247	.3716
#1	.2503	.2700	.2515	.2476	.2415	.25182	.2531	.2503
#2	.2488	.2696	.2514	.2475	.2430	.24995	.2519	.2491
#3	.2517	.2674	.2516	.2511	.2447	.25160	.2546	.2492
#4	.2506	.2715	.2512	.2486	.2463	.25060	.2517	.2510
Check ? Value Range	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2492	. 2710	. 2506	. 2511	. 2511	. 2495	. 2517	. 2491
Stddev	.0011	.0072	.0025	.0005	.0012	.0008	.0014	.0041
%RSD	.4505	2.652	.9810	.2147	.4903	.3219	.5476	1.665
#1	.2491	.2607	.2471	.2504	.2507	.2505	.2535	.2454
#2	.2477	.2715	.2510	.2515	.2496	.2489	.2501	.2516
#3	.2501	.2755	.2521	.2510	.2525	.2488	.2515	.2536
#4	.2500	.2763	.2524	.2516	.2516	.2497	.2518	.2457
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None

Sample Name: CCVA1 Acquired: 3/31/2011 14:37:06 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2514	. 2366	. 2503	. 2445	. 2498	. 2412	. 2490	. 2520
Stddev	.0027	.0170	.0022	.0023	.0010	.0017	.0008	.0007
%RSD	1.073	7.198	.8804	.9216	.3915	.7163	.3377	.2754
#1	.2513	.2554	.2474	.2440	.2506	.2422	.2486	.2511
#2	.2481	.2464	.2499	.2456	.2500	.2409	.2480	.2518
#3	.2514	.2244	.2526	.2468	.2484	.2429	.2500	.2521
#4	.2547	.2201	.2512	.2416	.2501	.2390	.2491	.2528
Check ? Value Range	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass
Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.357	. 2498	. 2518	.1889	. 2542	. 2511	. 2517	. 2493
Stddev	.061	.0012	.0015	.0238	.0018	.0010	.0011	.0003
%RSD	2.585	.4642	.5831	12.60	.7247	.4176	.4486	.1056
#1	2.317	.2515	.2529	.1642	.2536	.2517	.2514	.2492
#2	2.359	.2488	.2500	.1732	.2523	.2506	.2508	.2495
#3	2.442	.2493	.2514	.2050	.2542	.2499	.2513	.2495
#4	2.310	.2495	.2531	.2130	.2567	.2523	.2534	.2490
Check ? Value Range	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVA1 Acquired: 3/31/2011 14:37:06 Type: QC

4921.9 106490. 1603.7 1298.5

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

#4

Elem Units Avg Stddev %RSD	P_2149 ppm . 0027 .0006 20.94	Si2516 ppm .0907 .0101 11.12	Ti3361 ppm . 2510 .0007 .2595	TI1908 ppm . 2544 .0027 1.049	Li6707 ppm 0023 .0036 154.7	Sr4077 ppm 00005 .00014 272.45	Bi2230 ppm . 0031 .0013 40.79	S_1820 ppm .0035 .0011 30.01
#1 #2 #3 #4	.0028 .0035 .0023 .0022	.0758 .0935 .0957 .0978	.2511 .2516 .2501 .2512	.2539 .2518 .2535 .2581	.0007 0009 0076 0015	.00008 00019 00015 .00006	.0020 .0022 .0036 .0047	.0049 .0023 .0033 .0037
Check ? Value Range	None	None	Chk Pass	Chk Pass	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4934.0 20.7 .41869	Y_3600 Cts/S 106520. 302. .28327	Y_3600-2 Cts/S 1604.4 6.4 .39638	In2306 Cts/S 1305.8 5.9 .44931				
#1 #2 #3	4928.0 4964.7 4921.5	106420. 106230. 106940.	1613.0 1597.6 1603.3	1303.8 1311.9 1308.9				

Sample Name: CCVB1 Acquired: 3/31/2011 14:41:00 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	Al1670 ppm 7.215 .145 2.017	Al3944 ppm 10.26 .08 .7571	Sb2068 ppm .0000 .0023 23950.	As1890 ppm 1.007 .008 .7699	Ba4554 ppm 10.10 .05 .4980	Be2348 ppm 00004 .00004 112.28	B_2496 ppm .0053 .0005 10.02	Cd2144 ppm 0004 .0000 12.21
#1 #2 #3 #4	7.230 7.416 7.113 7.102	10.37 10.24 10.21 10.21	.0030 .0004 0023 0011	1.005 1.018 1.001 1.003	10.13 10.16 10.07 10.05	.00000 00002 00009 00004	.0060 .0049 .0054 .0048	0004 0005 0004 0004
Check ? Value Range	None	Chk Pass	None	Chk Pass	Chk Pass	None	None	None
Elem Units Avg Stddev %RSD #1 #2 #3	Cd2265 ppm .0000 .0001 137.5 .0001 .0001 .0000	Ca3158 ppm 10.03 .03 .3370 10.05 10.06 10.03 9.982	Ca3933 ppm 9.991 .081 .8058 9.871 10.03 10.03	Cr2677 ppm .0004 .0003 70.66 .0000 .0004 .0006 .0008	Co2307 ppm .0002 .0004 209.6 .0004 .0006 .0000 0003	Cu2247 ppm .0070 .0002 3.322 .0072 .0071 .0067	Cu3273 ppm .0001 .0005 521.5 0003 0004 .0005 .0006	Fe2599 ppm 10.14 .05 .4957 10.13 10.21 10.09 10.14
Check ? Value Range	None	Chk Pass	None	None	None	None	None	Chk Pass

Sample Name: CCVB1 Acquired: 3/31/2011 14:41:00 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0002	10.02	10.03	10.13	1.033	1.009	. 0004	0061
Stddev	.0005	.04	.04	.08	.006	.006	.0001	.0001
%RSD	301.9	.4416	.4482	.8312	.5652	.6086	12.35	.8369
#1	.0007	9.999	10.05	10.17	1.038	1.017	.0005	0061
#2	.0004	10.09	10.08	10.16	1.025	1.011	.0004	0062
#3	0004	9.997	10.00	10.19	1.036	1.005	.0005	0061
#4	0001	9.999	9.985	10.01	1.032	1.004	.0004	0062
Check ? Value Range	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None
Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.986	0011	0006	9.957	. 0006	. 0025	. 0000	0003
Stddev	.103	.0014	.0002	.050	.0007	.0002	.0001	.0001
%RSD	1.035	121.2	39.10	.5044	112.2	6.047	20510.	32.69
#1	10.13	.0009	0008	10.03	.0001	.0024	.0000	0004
#2	9.997	0014	0006	9.950	.0017	.0025	.0001	0003
#3	9.909	0020	0005	9.912	.0003	.0027	0002	0003
#4	9.910	0019	0003	9.936	.0005	.0026	.0001	0001
Check ? Value Range	Chk Pass	None	None	Chk Pass	None	None	None	None

Sample Name: CCVB1 Acquired: 3/31/2011 14:41:00 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	P_2149 ppm 10.09 .05 .5321	Si2516 ppm 10.10 .07 .7103	Ti3361 ppm . 0002 .0002 89.83	TI1908 ppm . 0005 .0004 74.45	Li6707 ppm 1.001 .006 .6336	Sr4077 ppm 1.0085 .0061 .60487	Bi2230 ppm 1.031 .023 2.239	S_1820 ppm 1.007 .005 .4536
#1 #2 #3 #4	10.11 10.14 10.07 10.02	10.20 10.07 10.10 10.03	.0000 .0001 .0004 .0003	.0009 .0007 .0000 .0005	1.008 1.005 .9976 .9948	1.0141 1.0122 1.0073 1.0004	1.033 1.062 1.019 1.009	1.012 1.009 1.006 1.001
Check ? Value Range	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4874.1 75.5 1.5496	Y_3600 Cts/S 103460. 318. .30773	Y_3600-2 Cts/S 1595.6 6.3 .39757	In2306 Cts/S 1244.6 17.4 1.3953				
#1 #2 #3 #4	4864.4 4771.0 4925.5 4935.4	103280. 103940. 103360. 103270.	1602.4 1591.0 1599.5 1589.4	1241.1 1221.5 1257.8 1258.2				

Sample Name: CCB1 Acquired: 3/31/2011 14:46:44 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment:	Comment: 033111B									
Elem Units Avg Stddev %RSD	Al1670 ppm 0005 .0000 8.932	ppm 0003	ppm . 0001		ppm 0011 .0003	Be2348 ppm .00001 .00002 203.10	ppm . 0028 .0019	Cd2144 ppm . 0000 .0000 205.4		
#1 #2	0005 0006	.0000 0007	.0002 .0001	.0023 .0006		.00003 .00000		.0001 .0000		
Check? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Elem Units Avg Stddev %RSD	Cd2265 ppm . 0000 .000 1908.	Ca3158 ppm . 0204 .0154 75.63	Ca3933 ppm 0004 .0003 74.98	Cr2677 ppm 0001 .0000 28.41	Co2307 ppm . 0000 .000 1055.	Cu2247 ppm 0003 .0003 74.87	ppm 0004 .0000	Fe2599 ppm . 0015 .0028 188.2		
#1 #2	.0000	.0095 .0313	0007 0002	0001 0001	.0002 0002	0005 0002	0003 0004	0005 .0035		
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Elem Units Avg Stddev %RSD	Pb2203 ppm 0002 .0005 223.9	Mg2790 ppm . 0209 .0004 2.024	Mg2795 ppm 0006 .0001 17.00	Mg2852 ppm 0058 .0029 50.61	Mn2576 ppm . 0001 .0000 4.096	Mn2605 ppm . 0009 .0000 .1423	Mo2020 ppm . 0003 .0000 8.643	Ni2216 ppm .0002 .0002 76.12		
#1 #2	.0001 0006	.0206 .0212	0007 0005			.0009	.0003 .0004	.0001 .0003		
Check ? High Limit Low Limit	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		

Sample Name: CCB1 Acquired: 3/31/2011 14:46:44 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

#2

4943.9

106730.

Comment:	033111B							
Elem Units Avg Stddev %RSD	K_7664 ppm . 0301 .0768 255.6	Se1960 ppm 0009 .0010 116.7	ppm 0001 .0002	Na5895 ppm . 0370 .0086 23.34	Sn1899 ppm . 0007 .0008 117.4	V_2924 ppm 0002 .0001 68.51	Zn2062 ppm . 0000 .0000 858.7	Zn2138 ppm . 0001 .0000 34.13
#1 #2	0243 .0844	0001 0016	.0000 0003	.0431 .0309	.0001 .0012	0001 0003	.0000	.0002 .0001
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	P_2149 ppm . 0004 .0002 58.66	Si2516 ppm 0356 .0009 2.655	Ti3361 ppm . 0000 .000 431.6	TI1908 ppm . 0005 .0009 193.5	Li6707 ppm 0027 .0002 8.461	Sr4077 ppm . 00014 .00005 37.783	Bi2230 ppm . 0033 .0006 19.23	S_1820 ppm .0009 .0004 37.60
#1 #2	.0006 .0002	0349 0362	.0000 0001	.0011 0002	0025 0028	.00018 .00010	.0028 .0037	.0007 .0012
Check? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4945.1 1.8 .03563	Y_3600 Cts/S 106760. 48. .04537	Y_3600-2 Cts/S 1600.4 13.2 .82754	In2306 Cts/S 1319.6 2.8 .21467				
#1	4946.4	106800.	1591.0	1317.6				

1321.6

1609.8

Sample Name: ICSA Acquired: 3/31/2011 14:51:44 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-58-A

Elem Units Avg Stddev %RSD	Al1670 ppm ***** 	Al3944 ppm 8.863 4.449 50.20	Sb2068 ppm .0027 .0009 34.33	As1890 ppm .0017 .0007 43.01	Ba4554 ppm 0029 .0001 2.173	Be2348 ppm .00002 .00006 362.91	B_2496 ppm .0043 .0003 6.263	Cd2144 ppm .0000 .000 82.98
#1	7.222	12.01	.0033	.0012	0029	00002	.0045	0001
#2		5.717	.0020	.0022	0028	.00006	.0042	.0000
Check ? Value Range	None	None	None	None	None	None	None	None
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0012	F 20.31	29.15	. 0002	0007	.0196	0010	F 7.977
Stddev	.0008	16.93	6.63	.0000	.0004	.0136	.0013	6.650
%RSD	63.41	83.34	22.76	18.78	61.88	69.49	134.8	83.37
#1	.0018	32.28	24.46	.0002	0010	.0293	.0000	12.68
#2	.0007	8.341	33.84		0004	.0100	0020	3.275
Check ? Value Range	None	Chk Fail 500.0 -20.00%	None	None	None	None	None	Chk Fail 200.0 -20.00%
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0064	F 21.23	1 9.29	41.28	. 0000	. 0018	. 0001	0001
Stddev	.0045	17,71	1.19	34.15	.000	.0006	.0000	.0001
%RSD	69.86	83.44	6.153	82.73	7.616	34.41	48.17	160.9
#1	0096	33.75	20.13	65.43	.0000	.0023	.0001	0001
#2	0032	8.702	18.45	17.13	.0000	.0014	.0001	.0000
Check ? Value Range	None	Chk Fail 500.0 -20.00%	None	None	None	None	None	None

Sample Name: ICSA Acquired: 3/31/2011 14:51:44 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-58-A

							/	
Elem Units Avg Stddev %RSD	K_7664 ppm . 0604 .0085 14.10	Se1960 ppm 0095 .0047 49.51	Ag3280 ppm . 0004 .0006 128.6	Na5895 ppm 1119 .0083 7.413	Sn1899 ppm .0005 .0002 37.01	V_2924 ppm 001,1 .0002 17.13	Zn2062 ppm .0003 .0003 81.34	Zn2138 ppm .0035 .0017 49.17
#1 #2	.0664 .0543	0129 0062	.0008 .0000	1061 1178	.0007 .0004	0012 0010	.0005 .0001	.0047 .0023
Check ? Value Range	None	None	None	None	None	None	None	None
Elem Units Avg Stddev %RSD	P_2149 ppm 0279 .0202 72.46	Si2516 ppm 0326 .0067 20.40	Ti3361 ppm 0005 .0002 33.75	TI1908 ppm . 0018 .0007 37.99	Li6707 ppm 0034 .0037 110.5	Sr4077 ppm . 00133 .00083 62.466	Bi2230 ppm . 0010 .0048 499.9	S_1820 ppm 0111 .0084 75.80
#1 #2	0421 0136	0373 0279	0006 0004	.0013 .0023	0007 0060	.00192 .00074	.0044 0024	0170 0051
Check ? Value Range	None	None	None	None	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 10467. 1868. 17.848	Y_3600 Cts/S 253050. 5115. 2.0215	Y_3600-2 Cts/S 3273.0 25.4 .77493	In2306 Cts/S 2547.9 498.4 19.563				
#1 #2	9146.3 11788.	249430. 256670.	3255.1 3291.0	2195.5 2900.4		\ <u>\ </u>		

Sample Name: ICSA Acquired: 3/31/2011 14:55:59 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.25	372.8	. 0278	0115	. 0022	00040	0065	0056
Stddev	.07	1.0	.0025	.0011	.0004	.00002	.0005	.0001
%RSD	.4240	.2777	9.162	9.908	18.14	6.0243	7.303	2.237
#1	17.20	372.1	.0296	0107	.0019	00038	0061	0057
#2	17.31	373.6	.0260	0123	.0024	00041	0068	0055
Check ? Value Range	None	None	None	None	None	None	None	None
Elem Units Avg Stddev %RSD	Cd2265 ppm . 0010 .0002 21.18	Ca3158 ppm 465.6 .3 .0602	Ca3933 ppm ***** 	Cr2677 ppm . 0063 .0005 7.242	Co2307 ppm 0032 .0001 3.317	Cu2247 ppm . 1337 .0002 .1286	Cu3273 ppm . 0024 .0007 31.01	Fe2599 ppm 182.2 .5 .2763
#1	.0008	465.4		.0059	0033	.1336	.0019	182.5
#2	.0011	465.8		.0066	0031	.1338	.0029	181.8
Check ? Value Range	None	Chk Pass	None	None	None	None	None	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0159	484.1	212.8	402.8	. 0001	. 0012	0013	0039
Stddev	.0002	1.1	.0	3.4	.0001	.0001	.0003	.0000
%RSD	1.454	.2346	.0124	.8457	100.5	5.880	23.53	1.184
#1	0161	484.9	212.7	405.2	.0000	.0012	0010	0039
#2	0157	483.3	212.8	400.4		.0011	0015	0039
Check ? Value Range	None	Chk Pass	None	None	None	None	None	None

Sample Name: ICSA Acquired: 3/31/2011 14:55:59 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B RERUN

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1015	0088	. 0004	0780	.0002	. 0041	. 0032	0081
Stddev	.0350	.0008	.0005	.0095	.0006	.0000	.0000	.0001
%RSD	34.47	9.502	132.9	12.13	326.9	.6739	.3421	1.326
#1	0768	0094	.0000	0847	.0006	.0041	.0032	0082
#2	1263	0082	8000.	0713	0002	.0041	.0032	0080
Check ? Value Range	None	None	None	None	None	None	None	None
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0027	0397	. 0032	0006	0015	. 02705	. 0251	0038
Stddev	.0004	.0111	.0000	.0021	.0039	.00044	.0004	.0039
%RSD	13.92	27.84	1.388	326.0	250.5	1.6323	1.486	104.4
#1	.0024	0319	.0033	.0008	.0012	.02736	.0248	0010
#2	.0030	0475	.0032	0021	0043	.02674	.0254	0065
Check ? Value Range	None	None	None	None	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4354.4 11.0 .25315	Y_3600 Cts/S 91389. 318. .34808	Y_3600-2 Cts/S 1554.9 7.8 .50367	In2306 Cts/S 1031.6 3.2 .31330				
#1 #2	4362.2 4346.6	91164. 91614.	1549.4 1560.4	1029.3 1033.8				

Sample Name: ICSAB Acquired: 3/31/2011 15:00:12 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-81-C

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554		B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm		ppm	ppm
Avg	17.37	367.2	. 8338	0146	. 4959		0072	1.011
Stddev	.02	2.6	.0010	.0004	.0036		.0018	.001
%RSD	.1376	.6967	.1231	2.638	.7191		25.21	.1325
#1	17.38	365.4	.8345	0143	.4984	.46269	0085	1.011
#2	17.35	369.0	.8331	0148	.4934	.46107	0059	1.010
Check ? Value Range	None	None	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass
Elem Units Avg Stddev %RSD	Cd2265 ppm . 9124 .0019 .2129	Ca3158 ppm 455.5 2.7 .5848	Ca3933 ppm ***** 	Cr2677 ppm . 5085 .0003 .0623	Co2307 ppm . 4465 .0004 .0802	Cu2247 ppm F . 6268 .0012 .1888	Cu3273 ppm . 4513 .0038 .8337	Fe2599 ppm 178.2 1.1 .6214
#1	.9138	457.4		.5083	.4462	.6277	.4539	179.0
#2	.9110	453.6		.5087	.4467	.6260	.4486	177.4
Check ? Value Range	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail .5000 20.00%	Chk Pass	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 9600	471.5	209.9	389.1	. 4874	. 5127	0010	. 8837
Stddev	.0058	2.8	1.3	4.4	.0002	.0025	.0001	.0037
%RSD	.5993	.5981	.6024	1.136	.0486	.4789	11.40	.4160
#1	.9559	473.5	210.8	392.2	.4875	.5109	0009	.8811
#2	.9640	469.5	209.1	385.9	.4872	.5144	0011	.8863
Check ? Value Range	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	None	Chk Pass

Sample Name: ICSAB Acquired: 3/31/2011 15:00:12 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B ICP8-81-C

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0176	0056	. 8928	1351	. 0009	. 5216	1.033	. 8527
Stddev	.0802	.0002	.0049	.0304	.0017	.0002	.001	.0001
%RSD	455.7	3.985	.5515	22.52	198.9	.0404	.1246	.0094
#1	0743	0054	.8963	1136	.0021	.5217	1.032	.8528
#2	.0391	0058	.8894	1566	0003	.5214	1.034	.8527
Check ? Value Range	None	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0002	0355	. 0023	0020	0019	. 05218	. 0294	. 0012
Stddev	.0010	.0153	.0003	.0027	.0017	.00030	.0021	.0001
%RSD	440.4	43.04	13.72	133.2	89.14	.57196	7.253	6.775
#1	0009	0247	.0020	0039	0031	.05197	.0309	.0011
#2	.0005	0463	.0025	0001	0007	.05239	.0279	.0012
Check ? Value Range	None	None	None	None	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4355.2 6.8 .15714	Y_3600 Cts/S 91228. 235. .25717	Y_3600-2 Cts/S 1544.7 13.1 .84968	In2306 Cts/S 1042.9 .4 .04065				
#1 #2	4350.4 4360.1	91394. 91062.	1535.4 1554.0	1042.6 1043.2				

Sample Name: RB Acquired: 3/31/2011 15:05:22 Type: Unk Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0034	F . 0078	0004	. 0003	F . 0002	. 00000	F 0057	. 0000
#1	.0034	.0077	.0004	.0005	.0004	00003	0050	.0000
#2	.0033	.0079	0012	.0000	.0001	.00004	0064	
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	. 0350	. 0059	F . 0003	0005	0001	0003	F . 0042
#1	.0000	.0225	.0058	.0004	0009	.0000	0005	0011
#2	.0000	.0476	.0059	.0003	0002	0002	0001	.0095
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	. 0036	F 0002	0001	. 0002	. 0002	F 1490	0034
#1	0003	.0036	0002	0001	.0002	.0002	2006	0038
#2	.0003	.0037	0001	.0000	.0002	.0003	0975	0031
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0006	F 1413	. 0010	. 0002	F . 0000	F . 0001	. 0036	0409
#1	.0004	1282	.0008	.0003	.0000	.0001	0003	0524
#2	.0008	1545	.0011	.0000	0001	.0001	.0075	0295
Elem Units Avg	Ti3361 ppm 0003	TI1908 ppm . 0021	Li6707 ppm 0039	Sr4077 ppm . 00013	Bi2230 ppm . 0011	S_1820 ppm . 0035		
#1 #2	0003 0003	.0029 .0013	0031 0047	.00006 .00019	.0022 .0001	.0034 .0036		
Int. Std. Units Avg	Y_2243 Cts/S 4977.2	Y_3600 Cts/S 106270.	Y_3600-2 Cts/S 1592.3	In2306 Cts/S 1317.6				
#1 #2	4967.6 4986.9	106230. 106310.	1588.7 1596.0	1317.8 1317.4				

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0005	. 0006	F . 0114	. 0005	0003	00001	0042	. 0000
#1	.0006	.0003	.0142	.0009	0008	.00000	0043	.0000
#2	.0004	.0009	.0085	.0001	.0002	00003	0041	
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	. 0256	. 0018	0003	. 0000	. 0000	0002	. 0028
#1	0001	.0245	.0019	0005	.0002	.0002	.0003	0014
#2	.0000	.0267	.0018	.0000	0001	0001	0007	.0070
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0007	0002	0004	. 0000	. 0000	0001	0557	0006
#1	.0007	0001	0017	.0000	.0000	0001	0847	0012
#2	.0006	0003	.0010		.0001	0001	0267	.0000
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0001	1 864	. 0002	. 0004	. 0001	. 0002	F . 2620	0268
#1	.0001	1941	0003	.0005	.0002	.0002	.2625	0191
#2	0002	1787	.0008	.0002	.0001	.0002	.2615	0346
Elem Units Avg	Ti3361 ppm 0001	TI1908 ppm . 0008	Li6707 ppm 0061	Sr4077 ppm 00003	Bi2230 ppm . 0013	S_1820 ppm . 0036		
#1 #2	0001 0002	.0019 0002	0040 0082	.00003 00009	.0009 .0018	.0031 .0041		
Int. Std. Units Avg	Y_2243 Cts/S 5023.3	Y_3600 Cts/S 108750.	Y_3600-2 Cts/S 1625.4	In2306 Cts/S 1337.6				
#1 #2	5020.8 5025.9	108490. 109000.	1627.5 1623.3	1338.2 1336.9				

Sample Name: LCSW Acquired: 3/31/2011 15:16:15 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.108	2.474	2.457	4.821	. 12239	. 9635	1.260	1.221
#1	5.075	2.474	2.455	4.831	.12184	.9554	1.259	1.218
#2	5.141	2.475	2.459	4.811	.12294	.9716	1.261	1.224
Elem	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.13	12.02	. 5007	1.220	. 6377	. 6142	2.427	2.542
#1	12.12	12.15	.5010	1.218	.6368	.6097	2.428	2.541
#2	12.14	11.89	.5003	1.221	.6387	.6188	2.426	2.544
Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.07	1.229	. 9802	1.223	11.95	2.382	. 5967	11.94
#1	12.06	1.228	.9786	1.222	12.07	2.378	.5943	11.94
#2	12.09	1.230	.9818	1.225	11.83	2.386	.5991	11.95
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0010	1.251	1.262	1.186	. 2197	0301	0001	2.548
#1	.0011	1.250	1.262	1.185	.2196	0303	.0000	2.548
#2	.0010	1.252	1.262	1.187	.2199	0300	0001	2.548
Elem Units Avg	Li6707 ppm 0070	Sr4077 ppm . 00079	Bi2230 ppm . 0072	S_1820 ppm . 0016				
#1 #2	0063 0078	.00085 .00072	.0097 .0048	0032 .0065				
Int. Std. Units Avg	Y_2243 Cts/S 4837.6	Y_3600 `Cts/S 104150.	Y_3600-2 Cts/S 1583.8	In2306 Cts/S 1238.3				
#1 #2	4842.6 4832.7	103770. 104520.	1581.8 1585.8	1238.1 1238.5				

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2054	. 2233	. 0012	. 0025	. 0395	00001	. 1900	. 0000
#1	.2037	.2223	.0014	.0030	.0388	00003	.1902	0001
#2	.2070	.2243	.0011	.0020	.0402	.00001	.1897	.0000
Elem	Cd2265	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	F 21.71	F . 0007	0001	. 0020	. 0026	F . 0080	. 0008
#1	0001	21.74	.0007	0001	.0019	.0016	.0072	.0008
#2	.0000	21.69	.0007	.0000	.0022	.0036	.0087	9000.
Elem	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.653	2.618	. 0084	. 0038	0009	4.195	. 0031	0003
#1	2.657	2.602	.0085	.0040	0012	4.172	.0035	0004
#2	2.650	2.633	.0083	.0036	0006	4.219	.0027	0003
Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.60	. 0450	. 0022	F . 0011	F . 0013	. 2781	1.983	0002
#1	19.55	.0452	.0023	.0010	.0013	.2784	1.996	0002
#2	19.65	.0449	.0021	.0011	.0013	.2779	1.969	0002
Elem Units Avg	TI1908 ppm . 0020	Li6707 ppm 0074	Sr4077 ppm 1.4594	Bi2230 ppm . 0024	S_1820 ppm 11.41			
#1 #2	.0017 .0022	0081 0068	1.4638 1.4551	.0029 .0018	11.39 11.43			
Int. Std. Units Avg	Y_2243 Cts/S 4833.3	Y_3600 Cts/S 104980.	Y_3600-2 Cts/S 1586.0	In2306 Cts/S 1248.8				
#1 #2	4861.0 4805.7	104550. 105410.	1580.8 1591.1	1255.5 1242.2				

Sample Name: T1100322-002D Acquired: 3/31/2011 15:22:45 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2078	. 2257	. 0023	. 0019	. 0408	00004	. 1957	. 0000
#1	.2077	.2246	.0026	.0017	.0412	00004	.1945	.0000
#2	.2078	.2269	.0020	.0022	.0404	00005	.1968	
Elem	Cd2265	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	F 22.18	F . 0004	0001	. 0022	. 0024	F . 0066	. 0001
#1	.0000	22.11	.0005	0001	.0020	.0029	.0086	.0000
#2		22.25	.0002	0001	.0024	.0020	.0045	.0002
Elem	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.690	2.684	. 0084	. 0029	0009	4.264	. 0000	. 0000
#1	2.686	2.681	.0084	.0029	0006	4.308	0004	.0001
#2	2.693	2.687	.0084	.0028	0013	4.220	.0005	0001
Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.98	. 0449	. 0027	F . 0015	F . 0016	. 3145	2.013	0002
#1	19.94	.0447	.0025	.0013	.0016	.3143	1.989	0002
#2	20.03	.0450	.0029	.0016	.0015	.3146	2.036	0001
Elem Units Avg	TI1908 ppm . 0011	Li6707 ppm 0045	Sr4077 ppm 1.4888	Bi2230 ppm . 0018	S_1820 ppm 11.73			
#1 #2	.0008 .0014	0052 0038	1.4870 1.4907	0003 .0039	11.69 11.76			
Int. Std. Units Avg	Y_2243 Cts/S 4824.8	Y_3600 Cts/S 104720.	Y_3600-2 Cts/S 1592.3	In2306 Cts/S 1252.7				
#1 #2	4826.5 4823.0	105050. 104380.	1594.4 1590.2	1255.3 1250.1				

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.211	. 4786	. 9608	1.969	. 04762	1.147	. 0496	. 0476
#1	2.224	.4804	.9586	1.974	.04769	1.151	.0496	.0476
#2	2.199	.4769	.9631	1.964	.04755	1.143	.0497	.0476
Elem	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203	Mg2852
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.43	. 1948	. 4794	. 2482	.2386	. 9728	. 4933	12.32
#1	31.41	.1938	.4789	.2475	.2384	.9691	.4934	12.36
#2	31.46	.1959	.4798	.2489	.2389	.9766	.4932	12.29
Elem	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 4846	. 9924	. 4730	13.98	. 9166	. 0430	29.94	. 0455
#1	.4824	.9932	.4729	14.04	.9153	.0428	29.96	.0454
#2	.4869	.9917	.4732	13.92	.9179	.0433	29.92	.0457
Elem	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 4981	. 5088	. 4714	. 2553	2.087	. 0002	. 9674	0036
#1	.4959	.5078	.4717	.2532	2.084	.0003	.9675	0039
#2	.5004	.5097	.4711	.2574	2.090	.0002	.9672	0033
Elem Units Avg	Sr4077 ppm 1.4778	Bi2230 ppm . 0053	S_1820 ppm 11.49					
#1 #2	1.4785 1.4771	.0053 .0053	11.47 11.52					
Int. Std. Units Avg	Y_2243 Cts/S 4846.5	Y_3600 \ Cts/S 103790.	Y_3600-2 Cts/S 1599.1	In2306 Cts/S 1226.7				
#1 #2	4842.3 4850.7	104030. 103550.	1600.5 1597.7	1226.7 1226.7				

Sample Name: CCVA2 Acquired: 3/31/2011 15:29:12 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	Al1670 ppm . 2521 .0005 .1790	Al3944 ppm . 2736 .0025 .9149	Sb2068 ppm . 2541 .0001 .0429	As1890 ppm . 2506 .0002 .0714	ppm . 2443	Be2348 ppm . 25236 .00105 .41718	B_2496 ppm . 2525 .0017 .6691	Cd2144 ppm . 2522 .0006 .2215
#1	.2518	.2754	.2541	.2505	.2454	.25311	.2537	.2525
#2	.2524	.2718	.2540	.2507	.2433	.25162	.2513	.2518
Check ? Value Range	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2516	. 2545	. 2528	. 2516	. 2539	. 2517	. 2543	. 2539
Stddev	.0002	.0045	.0008	.0011	.0004	.0000	.0031	.0139
%RSD	.0984	1.751	.3054	.4458	.1407	.0007	1.234	5.482
#1	.2515	.2514	.2523	.2508	.2537	.2517	.2565	.2638
#2	.2518	.2577	.2534	.2524	.2542	.2517	.2521	.2441
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2541	. 2564	. 2508	. 2407	. 2500	. 2356	. 2519	. 2546
Stddev	.0021	.0067	.0002	.0003	.0001	.0008	.0002	.0006
%RSD	.8304	2.604	.0951	.1179	.0474	.3573	.0744	.2357
#1	.2556	.2611	.2506	.2409	.2499	.2362	.2520	.2550
#2	.2526	.2517	.2510	.2405	.2501	.2350	.2517	.2542
Check ? Value Range	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass

Sample Name: CCVA2 Acquired: 3/31/2011 15:29:12 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	K_7664	Se1960		Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm		ppm	ppm	ppm	ppm	ppm
Avg	2.317	. 2530		. 2285	. 2575	. 2510	. 2548	. 2508
Stddev	.047	.0006		.0366	.0003	.0022	.0007	.0002
%RSD	2.030	.2566		16.02	.0973	.8704	.2757	.0670
#1	2.284	.2535	.2548	.2544	.2573	.2495	.2553	.2507
#2	2.350	.2526	.2519	.2027	.2576	.2526	.2543	.2509
Check ? Value Range	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0011	. 1007	. 2524	. 2581	0024	. 00015	. 0030	. 0051
Stddev	.0015	.0185	.0006	.0012	.0013	.00007	.0010	.0017
%RSD	130.8	18.38	.2355	.4714	53.47	48.998	32.39	32.20
#1	.0022	.0876	.2519	.2590	0015	.00021	.0023	.0040
#2	.0001	.1137	.2528	.2572	0033	.00010	.0037	.0063
Check ? Value Range	None	None	Chk Pass	Chk Pass	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4911.2 7.9 .16125	Y_3600 Cts/S 106500. 594. .55783	Y_3600-2 Cts/S 1565.4 1.5 .09347	In2306 Cts/S 1297.2 1.2 .09079				
#1 #2	4916.8 4905.6	106920. 106080.	1566.5 1564.4	1296.4 1298.0				

Sample Name: CCVB2 Acquired: 3/31/2011 15:32:23 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.256	10.38	.0010	1.003	10.15	00003	. 0032	0004
Stddev	.026	.06	.0003	.004	.03	.00005	.0004	.0000
%RSD	.3636	.6017	27.56	.3588	.3262	200.57	11.74	8.839
#1	7.275	10.43	.0008	1.005	10.12	.00001	.0029	0004
#2	7.238	10.34	.0012	1.000	10.17	00006	.0034	0004
Check ? Value Range	None	Chk Pass	None	Chk Pass	Chk Pass	None	None	None
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	10.11	10.06	.0002	.0000	. 0074	0001	10.09
Stddev	.0000	.01	.11	.0001	.0005	.0001	.0006	.03
%RSD	24.77	.0832	1.107	37.88	3677.	1.023	486.3	.2797
#1	.0001	10.12	10.14	.0003	.0004	.0075	0006	10.07
#2	.0001	10.11	9.981	.0001	0003	.0074	.0003	10.11
Check ? Value Range	None	Chk Pass	None	None	None	None	None	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0003	10.11	10.07	10.03	1.025	. 9861	. 0010	0059
Stddev	.0001	.05	.03	.01	.006	.0150	.0001	.0002
%RSD	26.01	.4766	.3323	.1124	.5704	1.525	7.709	2.704
#1	0003	10.08	10.05	10.03	1.021	.9755	.0010	0057
#2	0002	10.15	10.09	10.02	1.029	.9968	.0011	0060
Check ? Value Range	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None

Sample Name: CCVB2 Acquired: 3/31/2011 15:32:23 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.924	0007	. 0002	9.806	. 0007	. 0026	. 0001	0002
Stddev	.102	.0012	.0003	.093	.0004	.0001	.0002	.0000
%RSD	1.023	156.3	197.8	.9479	53.87	2.363	130.6	7.039
#1	9.852	0016	0001	9.740	.0004	.0027	.0000	0003
#2	9.996	.0001	.0004	9.872	.0010	.0026	.0003	0002
Check ? Value Range	Chk Pass	None	None	Chk Pass	None	None	None	None
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.04	9.917	. 0001	. 0003	. 9863	1.0159	1.036	. 9983
Stddev	.01	.062	.0001	.0005	.0091	.0041	.005	.0041
%RSD	.0608	.6221	150.8	168.8	.9271	.40515	.4846	.4105
#1	10.04	9.873	.0000	.0007	.9799	1.0130	1.039	.9954
#2	10.03	9.960	.0002	0001	.9928	1.0188	1.032	1.001
Check ? Value Range	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4837.8 5.4 .11173	Y_3600 Cts/S 103660. 377. .36410	Y_3600-2 Cts/S 1566.8 1.3 .08442	In2306 Cts/S 1238.7 .2 .01766				
#1 #2	4834.0 4841.6	103920. 103390.	1565.9 1567.8	1238.5 1238.8				

Sample Name: CCB2 Acquired: 3/31/2011 15:36:41 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin :

Comment: 033111B									
Elem Units Avg Stddev %RSD	Al1670 ppm 0005 .0000 2.594	ppm . 0016	Sb2068 ppm . 0022 .0007 32.56		Ba4554 ppm 0004 .0001 12.90	Be2348 ppm . 00002 .00004 207.62	B_2496 ppm . 0005 .0004 84.65	Cd2144 ppm .0000 .0001 112.0	
#1	0005	.0020	.0027	0005	0004	.00005	.0002	.0000	
#2	0005	.0012	.0017	.0027	0004	00001	.0007	.0001	
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	. 0000	.0339	0003	0002	0002	0002	0005	.0055	
Stddev	.0000	.0011	.0003	.0004	.0002	.0001	.0002	.0113	
%RSD	266.2	3.100	95.53	194.7	141.1	27.72	38.01	206.3	
#1	.0000	.0346	0005	.0001	0004	0003	0003	.0135	
#2		.0332	0001	0005	.0000	0002	0006	0025	
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	0002	0248	0007	0021	. 0002	.0006	. 0005	. 0001	
Stddev	.0004	.0322	.0001	.0033	.0000	.0013	.0001	.0000	
%RSD	198.6	130.0	19.91	154.4	28.29	196.4	17.04	10.68	
#1	0004	0475	0006	0045	.0001	0003	.0006	.0001	
#2	.0001	0020	0008	.0002	.0002	.0015	.0005	.0001	
Check? High Limit Low Limit	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	

Sample Name: CCB2 Acquired: 3/31/2011 15:36:41 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

4933.6

#2

106580.

1583.0

Comment: 033111B

Comment:	033111B							
Elem Units Avg Stddev %RSD	K_7664 ppm 0937 .0085 9.026	Se1960 ppm 0002 .0009 530.7	Ag3280 ppm . 0000 .000 536.6	Na5895 ppm 0462 .0193 41.88	Sn1899 ppm 0002 .0002 73.36	V_2924 ppm 0001 .0003 304.7	ppm 0000 .	Zn2138 ppm . 0000 .000 1646.
#1 #2	0877 0997	.0004 0008	0001 .0001	0325 0598	0001 0003	0003 .0001	.0000	0001 .0000
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	P_2149 ppm 0023 .0034 147.4	Si2516 ppm 0273 .0010 3.705	Ti3361 ppm 0002 .0001 31.68	TI1908 ppm . 0006 .0001 15.74	Li6707 ppm 0050 .0033 65.04	Sr4077 ppm . 00019 .00012 62.153	Bi2230 ppm . 0014 .0007 48.97	S_1820 ppm . 0050 .0020 40.55
#1 #2	0047 .0001	0266 0280	0003 0002	.0007 .0005	0027 0073	.00028 .00011	.0019 .0009	.0036 .0064
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4937.0 4.9 .09834	Y_3600 Cts/S 106320. 376. .35351	Y_3600-2 Cts/S 1581.9 1.6 .10326	In2306 Cts/S 1315.7 3.6 .27295				
#1	4940.4	106050.	1580.7	1318.2				

1313.1

Sample Name: T1100322-003 Acquired: 3/31/2011 15:41:20 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0006	F . 0025	. 0008	. 0003	F 0009	00012	F 0035	. 0000
#1	.0006	.0035	.0019	.0004	0006	00011	0033	.0000
#2	.0007	.0014	0004	.0002	0012	00013	0038	
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	. 0621	. 0335	F 0003	0004	. 0001	. 0011	F . 0012
#1	.0000	.0721	.0340	0003	0004	.0005	.0005	.0062
#2		.0520	.0331	0004	0005	0003	.0018	0038
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0010	. 0009	F 0059	. 0001	. 0003	0001	F 0797	0018
#1	0014	.0009	0054	.0001	.0002	0002	0937	0026
#2	0005		0064	.0001	.0003	.0000	0657	0010
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0002	F 1083	. 0180	0004	F . 0009	F . 0012	. 2275	0322
#1	0005	0974	.0179	0003	.0008	.0011	.2288	0172
#2	.0001	1192	.0181	0006	.0010	.0012	.2263	0472
Elem Units Avg	Ti3361 ppm 0002	TI1908 ppm . 0010	Li6707 ppm 0052	Sr4077 ppm . 00004	Bi2230 ppm . 0013	S_1820 ppm . 0068		
#1 #2	0001 0004	.0005 .0016	0038 0067	00025 .00033	.0023 .0003	.0076 .0060		
Int. Std. Units Avg	Y_2243 Cts/S 4992.9	Y_3600 Cts/S 108610.	Y_3600-2 Cts/S 1602.6	In2306 Cts/S 1319.8				
#1 #2	4968.5 5017.3	108230. 108990.	1594.3 1611.0	1312.6 1327.1				

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0010	. 0022	. 0034	. 0018	. 0004	00020	0038	. 0000
#1	.0010	.0027	.0035	.0002	.0006	00018	0032	.0000
#2	.0011	.0017	.0034	.0034	.0001	00021	0043	
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	F . 0573	F . 0241	. 0001	0004	. 0012	. 0007	. 0025
#1	.0000	.0671	.0238	.0001	0003	.0013	.0009	.0054
#2		.0476	.0243	.0001	0004	.0010	.0005	0004
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0004	F . 0029	0014	. 0000	. 0000	0001	F - . 1053	0016
#1	0007	.0030	0059	.0001	.0002	0004	1691	0027
#2	0001	.0028	.0031	.0000	0002	.0002	0415	0006
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0002	F 2193	. 0000	0003	F . 0054	F . 0059	0045	0411
#1	0002	2113	.0002	0005	.0056	.0060	0046	0389
#2	.0006	2272	0003	0001	.0052	.0059	0043	0434
Elem Units Avg	Ti3361 ppm 0007	TI1908 ppm 0019	Li6707 ppm 0075	Sr4077 ppm . 00008	Bi2230 ppm . 0039	S_1820 ppm . 0041		
#1 #2	0007 0007	0016 0021	0080 0071	00056 .00071	.0047 .0030	.0038 .0044		
Int. Std. Units Avg	Y_2243 Cts/S 5009.3	Y_3600 Cts/S 110730.	Y_3600-2 Cts/S 1579.3	In2306 Cts/S 1314.4				
#1 #2	5022.0 4996.5	110790. 110680.	1579.2 1579.5	1316.6 1312.2				

Sample Name: LCSW Acquired: 3/31/2011 15:49:05 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.12	8.239	8.347	18.86	. 43521	1.441	4.540	4.336
#1	17.19	8.246	8.338	18.85	.43516	1.440	4.540	4.333
#2	17.06	8.232	8.356	18.87	.43527	1.441	4.541	4.339
Elem	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203	Mg2852
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.50	1.940	4.639	2.349	2.312	9.342	8.914	46.07
#1	47.43	1.925	4.638	2.350	2.312	9.331	8.925	45.97
#2	47.57	1.956	4.641	2.349	2.312	9.352	8.903	46.17
Elem	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.566	1.748	4.616	47.60	7.324	1.758	47.54	. 0004
#1	4.533	1.747	4.612	47.56	7.328	1.758	47.47	.0000
#2	4.600	1.749	4.620	47.65	7.320	1.759	47.60	.0007
Elem	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.933	4.863	4.143	0023	0099	0006	8.575	0046
#1	4.901	4.869	4.143	0061	0241	0007	8.600	0046
#2	4.964	4.858	4.144	.0014	.0042	0005	8.551	0045
Elem Units Avg	Sr4077 ppm . 00271	Bi2230 ppm . 0276	S_1820 ppm .0056		Gra			
#1 #2	.00282 .00259	.0290 .0263	.0054 .0059		-	will st	of la	
Int. Std. Units Avg	Y_2243 Cts/S 4711.6	Y_3600 \ Cts/S 103160.	Y_3600-2 Cts/S 1563.3	In2306 Cts/S 1183.9				
#1 #2	4715.3 4707.8	103660. 102650.	1563.2 1563.3	1182.7 1185.1				

Sample Name: K1102358-002 Acquired: 3/31/2011 15:52:24 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0510	. 0519	. 0153	. 0087	. 0681	00014	F . 0023	.0001
#1	.0509	.0511	.0158	.0097	.0688	00014	.0026	.0001
#2	.0510	.0527	.0148	.0076	.0675	00014	.0019	.0000
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0002	1.617	1.646	. 0092	. 0006	. 0124	. 0126	. 7543
#1	.0002	1.612	1.645	.0091	.0009	.0120	.0131	.7519
#2	.0002	1.621	1.646	.0093	.0004	.0127	.0120	.7567
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0248	. 0480	. 0452	. 0223	. 0025	. 0244	F . 0370	. 0165
#1	.0254	.0480	.0439	.0223	.0029	.0242	.0594	.0187
#2	.0243	.0480	.0466	.0223	.0022	.0246	.0147	.0142
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	F 0399	. 0080	. 0001	. 1238	. 1196	2.266	. 6984
#1	.0003	0235	.0077	0001	.1239	.1197	2.268	.7075
#2	0003	0564	.0082	.0003	.1237	.1195	2.264	.6893
Elem Units Avg	Ti3361 ppm 0001	TI1908 ppm 0006	Li6707 ppm . 0721	Sr4077 ppm . 00189	Bi2230 ppm . 0028	S_1820 ppm 20.02		
#1 #2	0001 0001	0008 0004	.0723 .0718	.00157 .00220	.0012 .0043	19.97 20.07		
Int. Std. Units Avg	Y_2243 Cts/S 4948.9	Y_3600 Cts/S 109860.	Y_3600-2 Cts/S 1625.3	In2306 Cts/S 1348.7				
#1 #2	4954.2 4943.6	109680. 110040.	1623.2 1627.4	1347.0 1350.4				

Sample Name: K1102358-002D Acquired: 3/31/2011 15:55:43 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0503	. 0543	. 0133	. 0056	. 0652	00012	F . 0043	. 0000
#1	.0505	.0536	.0129	.0072	.0654	00009	.0047	.0000
#2	.0501	.0550	.0136	.0040	.0650	00015	.0039	
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0001	1.785	1.806	. 0093	. 0007	. 0154	. 0159	. 7511
#1	.0002	1.774	1.802	.0095	.0008	.0155	.0157	.7479
#2	.0001	1.796	1.809	.0091	.0007	.0154	.0162	.7542
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0243	. 0820	. 0787	. 0220	. 0018	. 0235	F 0706	. 0109
#1	.0253	.0820	.0783	.0221	.0017	.0234	1407	.0105
#2	.0233	.0819	.0792	.0220	.0018	.0235	0005	.0113
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0002	F 0111	. 0070	0002	. 1193	. 1166	2.190	. 6732
#1	0001	.0230	.0073	0007	.1193	.1163	2.185	.6968
#2	.0005	0452	.0067	.0003	.1194	.1170	2.196	.6497
Elem Units Avg	Ti3361 ppm . 0001	TI1908 ppm 0015	Li6707 ppm . 0712	Sr4077 ppm . 00289	Bi2230 ppm . 0015	S_1820 ppm 19.38		
#1 #2	.0000 .0001	0007 0024	.0712 .0713	.00305 .00273	.0025 .0005	19.34 19.43		
Int. Std. Units Avg	Y_2243 Cts/S 4980.5	Y_3600 Cts/S 110350.	Y_3600-2 Cts/S 1626.0	In2306 Cts/S 1353.8				
#1 #2	4975.2 4985.9	110470. 110220.	1624.0 1628.0	1350.9 1356.8				

Sample Name: K1102358-002S Acquired: 3/31/2011 15:59:00 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al3944	Sb2068		Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm		ppm	ppm	ppm	ppm	ppm
Avg	3.344	. 8181		3.509	. 07922	1.351	. 0815	. 0838
#1	3.378	.8191	1.716	3.532	.07923	1.353	.0813	.0836
#2	3.311	.8172	1.710	3.486	.07921	1.349	.0817	.0840
Elem	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.379	1.403	. 3546	. 8769	. 4236	. 4588	2.354	. 8372
#1	1.383	1.412	.3548	.8733	.4229	.4596	2.368	.8353
#2	1.374	1.395	.3544	.8805	.4244	.4581	2.339	.8391
Elem	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0419	. 0372	. 8695	1. 591	. 8847	F 0568	1.638	. 0754
#1	.0422	.0392	.8672	1.584	.8821	0716	1.637	.0750
#2	.0417	.0353	.8718	1.599	.8873	0420	1.638	.0758
Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 0711	. 0068	. 8727	. 9324	. 8928	1.920	. 0559	0002
#1	1193	.0074	.8703	.9296	.8916	1.922	.0647	0002
#2	0228	.0063	.8752	.9352	.8939	1.917	.0471	0001
Elem Units Avg	TI1908 ppm 1.626	Li6707 ppm . 0646	Sr4077 ppm . 00182	Bi2230 ppm . 0059	S_1820 ppm 16.80			
#1 #2	1.621 1.631	.0661 .0630	.00182 .00182	.0054 .0063	16.80 16.81			
Int. Std. Units Avg	Y_2243 Cts/S 4952.8	Y_3600 Cts/S 110240.	Y_3600-2 Cts/S 1628.0	In2306 Cts/S 1339.9				
#1 #2	4962.1 4943.4	110380. 110100.	1620.7 1635.3	1341.7 1338.2				

Sample Name: K1102358-004 Acquired: 3/31/2011 16:02:05 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0195	. 0213	. 0176	.0035	. 0047	00003	F . 0045	. 0004
#1	.0194	.0214	.0188	.0043	.0045	00001	.0040	.0004
#2	.0196	.0212	.0164	.0028	.0048	00005	.0049	.0003
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0004	. 2092	. 2019	F . 0008	0004	. 0116	. 0125	.1013
#1	.0004	.2063	.2014	.0012	0004	.0119	.0122	.0975
#2	.0004	.2121	.2024	.0005	0003	.0113	.0129	.1051
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0015	. 0257	. 0234	. 0014	. 0013	. 0004	F 0564	. 0108
#1	.0016	.0256	.0213	.0015	.0014	.0003	0652	.0106
#2	.0013	.0258	.0254	.0014	.0011	.0004	0476	.0109
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0003	F 1099	. 0031	0005	. 0164	. 0164	. 0286	1.284
#1	0003	0814	.0024	0003	.0164	.0164	.0257	1.276
#2	0003	1384	.0038	0006	.0164	.0164	.0316	1.292
Elem Units Avg	Ti3361 ppm 0002	TI1908 ppm 0013	Li6707 ppm 0065	Sr4077 ppm . 00122	Bi2230 ppm . 0014	S_1820 ppm . 7724		
#1 #2	0001 0003	0014 0012	0058 0071	.00110 .00133	.0015 .0013	.7751 .7698		
Int. Std. Units Avg	Y_2243 Cts/S 4991.7	Y_3600 Cts/S 110860.	Y_3600-2 Cts/S 1640.5	In2306 Cts/S 1348.8				
#1 #2	5006.1 4977.2	111220. 110500.	1649.2 1631.8	1349.8 1347.7				

Sample Name: K1102358-006 Acquired: 3/31/2011 16:05:28 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 1049	. 1107	. 0047	. 0024	. 0152	00013	F . 0022	.0088
#1	.1047	.1119	.0038	.0017	.0156	00009	.0020	.0088
#2	.1052	.1096	.0056	.0030	.0147	00018	.0023	8800.
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0090	. 1582	. 1356	. 0071	0001	. 1781	.1989	1.128
#1	.0089	.1528	.1354	.0072	0001	.1781	.1994	1.133
#2	.0091	.1636	.1357	.0071	0002	.1781	.1985	1.124
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0163	. 0223	F . 0200	. 0102	. 0042	. 0032	F 0503	. 0038
#1	.0167	.0225	.0230	.0103	.0044	.0031	0346	.0066
#2	.0158	.0221	.0169	.0102	.0041	.0033	0660	.0010
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0003	F 1370	. 0018	. 0003	. 1218	. 1205	. 2091	. 2191
#1	.0007	1335	.0012	.0003	.1215	.1201	.2095	.2219
#2	0001	1405	.0024		.1222	.1208	.2087	.2163
Elem Units Avg	Ti3361 ppm 0003	TI1908 ppm 0011	Li6707 ppm 0018	Sr4077 ppm . 00059	Bi2230 ppm . 0025	S_1820 ppm 1.800		
#1 #2	0003 0002	0009 0013	0001 0035	.00077 .00041	.0049 .0001	1.791 1.810		
Int. Std. Units Avg	Y_2243 Cts/S 5001.4	Y_3600 Cts/S 111520.	Y_3600-2 Cts/S 1632.9	In2306 Cts/S 1349.1				
#1 #2	5003.6 4999.3	111330. 111700.	1635.0 1630.8	1345.8 1352.4				

Sample Name: K1102358-008 Acquired: 3/31/2011 16:08:46 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0152	. 0175	. 0024	. 0051	. 0037	00007	. 0034	. 0020
#1	.0150	.0188	.0033	.0053	.0038	00006	.0027	.0020
#2	.0153	.0162	.0015	.0048	.0037	00008	.0041	.0020
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021	. 5015	. 4873	. 0011	0005	. 0369	. 0404	. 1693
#1	.0021	.5005	.4875	.0010	0003	.0368	.0404	.1720
#2	.0021	.5025	.4870	.0012	0008	.0370	.0403	.1666
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0020	. 0698	. 0672	. 0026	. 0044	. 0003	0711	. 0093
#1	.0021	.0697	.0684	.0026	.0043	.0004	1006	.0099
#2	.0018	.0700	.0661	.0026	.0045	.0003	0416	.0087
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0003	1598	. 0031	0002	. 0662	. 0645	. 1545	. 4544
#1	0005	1746	.0027	0001	.0658	.0644	.1522	.4565
#2	0001	1450	.0036	0003	.0666	.0646	.1567	.4522
Elem Units Avg	Ti3361 ppm . 0000	TI1908 ppm 0019	Li6707 ppm 0053	Sr4077 ppm . 00215	Bi2230 ppm . 0024	S_1820 ppm 1.038		
#1 #2	.0000 .0001	0024 0015	0079 0027	.00238 .00192	.0030 .0017	1.039 1.037		
Int. Std. Units Avg	Y_2243 Cts/S 4936.3	Y_3600 Cts/S 109620.	Y_3600-2 Cts/S 1638.1	In2306 Cts/S 1340.8				
#1 #2	4945.6 4926.9	109410. 109840.	1637.1 1639.1	1343.0 1338.7				

Sample Name: LCSW 1/4 Acquired: 3/31/2011 16:12:08 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.446	2.395	2.346	5.232	.12521	. 4370	1.193	1.171
#1	5.431	2.418	2.369	5.256	.12538	.4381	1.203	1.180
#2	5.460	2.372	2.323	5.208	.12505	.4359	1.184	1.162
Elem	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.88	13.19	. 5271	1.250	. 6348	. 6612	2.600	2.415
#1	12.99	13.30	.5263	1.259	.6399	.6629	2.610	2.433
#2	12.76	13.07	.5278	1.241	.6298	.6596	2.591	2.397
Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.11	1.300	. 4600	1.243	13.31	2.148	. 5214	13.24
#1	13.19	1.299	.4639	1.249	13.24	2.170	.5229	13.26
#2	13.04	1.300	.4561	1.236	13.37	2.126	.5200	13.21
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0005	1.330	1.244	1.180	0001	. 0105	0004	2.415
#1	.0005	1.331	1.251	1.191	.0020	.0065	0004	2.431
#2	.0005	1.329	1.237	1.168	0022	.0145	0005	2.398
Elem Units Avg	Li6707 ppm 0050	Sr4077 ppm . 00098	Bi2230 ppm . 0095	S_1820 ppm . 0073				
#1 #2	0065 0035	.00094 .00102	.0094 .0096	.0071 .0075				
Int. Std. Units Avg	Y_2243 Cts/S 4803.3	Y_3600 `Cts/S 105460.	Y_3600-2 Cts/S 1612.9	In2306 Cts/S 1246.2				
#1 #2	4806.6 4800.0	105820. 105110.	1606.7 1619.2	1248.0 1244.5				

Sample Name: CCVA3 Acquired: 3/31/2011 16:15:15 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	Al1670 ppm . 2488 .0002 .0621	Al3944 ppm . 2768 .0027 .9861	ppm . 2504	As1890 ppm . 2483 .0006 .2367	ppm . 2431	Be2348 ppm . 24901 .00054 .21685	B_2496 ppm . 2471 .0016 .6339	Cd2144 ppm . 2431 .0011 .4726
#1	.2489	.2787	.2504	.2479	.2439	.24863	.2460	.2423
#2	.2487	.2748	.2503	.2488	.2423	.24939	.2482	.2439
Check ? Value Range	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2452	. 2712	. 2520	. 2462	. 2479	. 2455	. 2540	.2535
Stddev	.0000	.0039	.0014	.0003	.0001	.0001	.0004	.0092
%RSD	.0199	1.456	.5583	.1395	.0229	.0337	.1749	3.629
#1	.2451	.2740	.2530	.2459	.2479	.2455	.2536	.2600
#2	.2452	.2684	.2510	.2464	.2479	.2454	.2543	.2470
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2464	. 1816	. 2482	. 2418	. 2454	. 2331	. 2486	. 2475
Stddev	.0008	.0080	.0009	.0019	.0000	.0004	.0005	.0000
%RSD	.3332	4.422	.3576	.7752	.0109	.1867	.2003	.0182
#1	.2458	.1873	.2488	.2431	.2454	.2334	.2482	.2475
#2	.2470	.1759	.2475	.2404	.2454	.2328	.2489	.2475
Check ? Value Range	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass

Sample Name: CCVA3 Acquired: 3/31/2011 16:15:15 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : :

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.348	. 2495	. 2520	. 1764	. 2458	. 2480	. 2430	. 2470
Stddev	.040	.0021	.0005	.0072	.0008	.0001	.0002	.0004
%RSD	1.685	.8437	.1943	4.079	.3419	.0262	.0730	.1463
#1	2.376	.2510	.2517	.1814	.2464	.2480	.2428	.2472
#2	2.320	.2480	.2524	.1713	.2452	.2480	.2431	.2467
Check ? Value Range	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028	. 1198	. 2473	. 2518	0043	. 00036	. 0023	. 0085
Stddev	.0024	.0079	.0007	.0015	.0009	.00029	.0003	.0011
%RSD	84.72	6.568	.2710	.5821	21.91	80.884	11.96	13.08
#1	.0011	.1143	.2469	.2528	0036	.00057	.0021	.0077
#2	.0045	.1254	.2478	.2508	0050	.00015	.0024	.0093
Check ? Value Range	None	None	Chk Pass	Chk Pass	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4897.9 7.2 .14774	Y_3600 Cts/S 107150. 600. .55991	Y_3600-2 Cts/S 1603.5 3.6 .22728	In2306 Cts/S 1310.8 2.6 .19927				
#1 #2	4903.0 4892.8	106720. 107570.	1600.9 1606.0	1312.6 1308.9				

Sample Name: CCVB3 Acquired: 3/31/2011 16:18:25 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.149	10.47	. 0019	. 9867	10.05	00001	0010	0004
Stddev	.006	.08	.0002	.0005	.12	.00000	.0001	.0000
%RSD	.0837	.7473	8.476	.0479	1.164	45.802	7.119	2.363
#1	7.154	10.42	.0018	.9863	10.14	00001	0010	0004
#2	7.145	10.53	.0021	.9870	9.972	.00000	0009	0004
Check ? Value Range	None	Chk Pass	None	Chk Pass	Chk Pass	None	None	None
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	9.808	9.924	. 0000	.0001	. 0067	.0003	9.962
Stddev	.0000	.106	.040	.0003	.0003	.0008	.0009	.095
%RSD	4.970	1.079	.3993	1260.	530.3	11.87	373.0	.9521
#1	.0001	9.883	9.952	.0002	0002	.0061	0004	10.03
#2	.0001	9.733	9.896	0002	.0003	.0072	.0009	9.895
Check ? Value Range	None	Chk Pass	None	None	None	None	None	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0004	9.777	9.943	10.06	1.002	. 9771	. 0007	0057
Stddev	.0013	.100	.123	.06	.002	.0027	.0003	.0003
%RSD	350.7	1.023	1.233	.5749	.2137	.2788	38.16	6.085
#1	0005	9.848	10.03	10.10	1.001	.9790	.0008	0055
#2	.0013	9.706	9.856	10.02	1.004	.9752	.0005	0060
Check ? Value Range	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None

Sample Name: CCVB3 Acquired: 3/31/2011 16:18:25 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.853	0014	.0007	9.662	.0002	. 0032	0001	0002
Stddev	.011	.0008	.0002	.023	.0000	.0003	.0001	.0001
%RSD	.1065	59.52	22.52	.2360	16.16	8.276	132.5	30.07
#1	9.861	0008	.0006	9.646	.0002	.0033	.0000	0003
#2	9.846	0019	.0008	9.678	.0002		0002	0002
Check ? Value Range	Chk Pass	None	None	Chk Pass	None	None	None	None
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.870	9.806	. 0000	0001	. 9864	. 99696	1.029	. 9834
Stddev	.010	.079	.000	.0001	.0070	.00906	.005	.0040
%RSD	.1024	.8009	2728.	52.85	.7074	.90839	.4689	.4021
#1	9.863	9.861	.0000	0002	.9914	1.0034	1.026	.9806
#2	9.877	9.750		0001	.9815	.99056	1.033	.9862
Check ? Value Range	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4800.7 .1 .00271	Y_3600 Cts/S 103950. 721. .69336	Y_3600-2 Cts/S 1593.9 13.7 .86136	In2306 Cts/S 1233.7 1.7 .13844				
#1 #2	4800.8 4800.6	103440. 104460.	1584.2 1603.6	1234.9 1232.5				

Sample Name: CCB3 Acquired: 3/31/2011 16:22:42 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment:	033111B							
Elem Units Avg Stddev %RSD	AI1670 ppm 0005 .0000 4.698	ppm . 0011		ppm . 0030	Ba4554 ppm . 0000 .000 298.2	Be2348 ppm . 00005 .00004 66.161	B_2496 ppm 0042 .0006 13.77	Cd2144 ppm . 0000 .0000 191.8
#1 #2	0005 0005	.0008 .0015			.0000	.00008 .00003	0038 0046	.0000
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	Cd2265 ppm . 0000 .000 40.94	Ca3158 ppm .0165 .0056 33.91	Ca3933 ppm 0002 .0003 197.6	Cr2677 ppm 0002 .0003 120.8	Co2307 ppm 0004 .0000 5.679	Cu2247 ppm . 0005 .0000 4.536	Cu3273 ppm 0001 .0001 163.6	Fe2599 ppm . 0026 .0010 40.07
#1 #2	.0000	.0205 .0125	0004 .0001	0004 .0000	0004 0004	.0005 .0005	.0000 0001	.0033 .0019
Check? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	Pb2203 ppm 0002 .0001 73.24	Mg2790 ppm 0091 .0062 68.39	Mg2795 ppm 0006 .0000 3.697	Mg2852 ppm 0042 .0034 81.22	Mn2576 ppm . 0001 .0000 55.31	Mn2605 ppm 0017 .0010 60.24	Mo2020 ppm . 0005 .0002 48.96	Ni2216 ppm 0001 .0003 361.3
#1 #2	0001 0002	0047 0135	0006 0006	0066 0018	.0001 .0001	0010 0025	.0003 .0006	0003 .0001
Check ? High Limit Low Limit	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCB3 Acquired: 3/31/2011 16:22:42 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin :

Commer	nt: 033111B							
Elem Units Avg Stddev %RSD	K_7664 ppm 0202 .0812 402.2	ppm 0004 .0012	ppm . 0002 .0004	ppm 0841 .0110	ppm . 0006	V_2924 ppm 0001 .0000 18.04	Zn2062 ppm . 0000 .000 174.0	Zn2138 ppm . 0000 .0000 19.22
#1 #2	0776 .0372			0919 0763	.0009	0001 0001	.0000	.0000
Check? High Lim Low Limi	it	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	P_2149 ppm . 0023 .0021 89.90	Si2516 ppm 0189 .0190 100.2	0001	TI1908 ppm . 0016 .0003 19.70	Li6707 ppm 0027 .0002 6.254	Sr4077 ppm . 00009 .00044 459.10	Bi2230 ppm 0002 .0022 1209.	S_1820 ppm . 0076 .0024 32.09
#1 #2	.0038 .0009	0323 0055	0002 0001	.0014 .0018	0026 0028	00021 .00040	.0014 0017	.0058 .0093
Check? High Lim Low Limi	it	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4950.2 1.3 .02695	Y_3600 Cts/S 108650. 272. .25000	Y_3600-2 Cts/S 1620.6 2.9 .18086	In2306 Cts/S 1305.3 4.5 .34405				
#1	4951.2	108850.	1618.5	1302.2				

1622.7 1308.5

4949.3 108460.

#2

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0022	. 0020	0015	. 0021	. 0001	00005	0031	. 0000
#1	.0024	.0024	0006	.0011	.0005	00010	0033	.0000
#2	.0021	.0015	0024	.0031	0004	00001	0029	.0001
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0001	. 0123	. 0029	0003	0002	0001	0002	0033
#1	0001	.0298	.0030	0006	0002	0002	0009	.0008
#2	0001	0053	.0029	.0000	0002	.0000	.0004	0074
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0005	0005	0061	. 0001	. 0004	. 0002	. 0338	0017
#1	0003	0006	0078	.0000	.0004	.0002	.0608	0003
#2	0008	0004	0044	.0001	.0003	.0002	.0068	0031
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	1502	. 0001	0003	. 0000	. 0001	. 1589	0205
#1	.0003	1541	.0000	0007	.0002	.0002	.1584	0085
#2	0002	1462	.0001	.0002	0001	.0001	.1594	0324
Elem Units Avg	Ti3361 ppm 0002	TI1908 ppm . 0017	Li6707 ppm 0069	Sr4077 ppm . 00028	Bi2230 ppm . 0012	S_1820 ppm . 0038		
#1 #2	0002 0002	.0022 .0013	0065 0074	.00014 .00043	.0011 .0013	.0023 .0054		
Int. Std. Units Avg	Y_2243 Cts/S 4907.2	Y_3600 Cts/S 108490.	Y_3600-2 Cts/S 1619.8	In2306 Cts/S 1295.6				
#1 #2	4907.7 4906.8	108360. 108630.	1629.1 1610.5	1298.3 1292.8				

Sample Name: LCSW Acquired: 3/31/2011 16:27:58 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.139	2.462	2.457	4.896	.12340	. 9766	1.252	1.225
#1	5.112	2.460	2.455	4.920	.12302	.9731	1.252	1.222
#2	5.166	2.463	2.459	4.872	.12377	.9801	1.252	1.227
Elem	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.22	12.27	. 4993	1.246	. 6407	. 6258	2.414	2.545
#1	12.28	12.19	.4990	1.242	.6420	.6233	2.423	2.541
#2	12.16	12.36	.4996	1.250	.6395	.6284	2.405	2.550
Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.59	1.221	. 9998	1.241	12.40	2.346	. 6014	12.37
#1	12.66	1.222	.9986	1.236	12.43	2.342	.5988	12.37
#2	12.53	1.221	1.001	1.246	12.37	2.351	.6040	12.38
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0013	1.249	1.270	1.184	. 2024	0169	0001	2.590
#1	.0011	1.250	1.268	1.184	.2024	0310	0001	2.582
#2	.0015	1.247	1.272	1.184	.2024	0028	0002	2.599
Elem Units Avg	Li6707 ppm 0028	Sr4077 ppm . 00075	Bi2230 ppm . 0058	S_1820 ppm . 0028				
#1 #2	0009 0048	.00081 .00068	.0058 .0058	.0033 .0023				
Int. Std. Units Avg	Y_2243 Cts/S 4802.1	Y_3600 `Cts/S 104760.	Y_3600-2 Cts/S 1612.8	In2306 Cts/S 1232.0				
#1 #2	4806.6 4797.7	104740. 104780.	1611.9 1613.8	1231.9 1232.0				

Sample Name: K1102593-001 Acquired: 3/31/2011 16:31:06 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0024	F . 0067	. 0011	. 0040	. 0512	00003	F . 0070	0002
#1	.0022	.0082	.0001	.0054	.0518	00006	.0068	0001
#2	.0025	.0053	.0020	.0026	.0506	00001	.0072	0002
Elem	Cd2265	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	F 88.48	F . 0004	.0001	. 0010	. 0010	F . 0053	. 0009
#1	.0000	88.90	.0002	.0000	.0006	.0009	.0139	.0015
#2	.0001	88.06	.0007	.0002	.0014	.0012	0034	.0004
Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 28.68	. 0008	. 0030	0101	5.712	. 0035	. 0001	F 25.48
#1	28.65	.0008	.0033	0099	5.680	.0051	0001	25.29
#2	28.70	8000.	.0027	0103	5.745	.0018	.0002	25.67
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	. 0017	F . 0018	F . 0020	. 3641	19.54	. 0001	. 0001
#1	.0001	.0021	.0017	.0020	.3646	19.40	.0000	.0003
#2	0001	.0013	.0019	.0019	.3635	19.68	.0002	0001
Elem Units Avg	Li6707 ppm . 0023	Sr4077 ppm . 33759	Bi2230 ppm . 0022	S_1820 ppm 12.45				
#1 #2	0007 .0054	.33945 .33572	.0023 .0021	12.45 12.46				
Int. Std. Units Avg	Y_2243 Cts/S 4743.0	Y_3600 Cts/S 102570.	Y_3600-2 Cts/S 1613.3	In2306 Cts/S 1190.8				
#1 #2	4738.2 4747.7	102790. 102350.	1602.0 1624.6	1196.0 1185.5				

Sample Name: K1102593-001D Acquired: 3/31/2011 16:34:35 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0016	F . 0038	. 0013	. 0011	. 0505	00007	F . 0044	0002
#1	.0016	.0029	.0030	.0005	.0507	00006	.0050	0002
#2	.0016	.0047	0004	.0018	.0502	00007	.0038	0002
Elem	Cd2265	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0001	F 88.40	F . 0000	. 0002	. 0004	. 0014	F . 0019	. 0003
#1	.0001	88.43	.0004	.0001	.0004	.0025	0015	.0006
#2	.0001	88.37	0004	.0003	.0005	.0002	.0052	.0000
Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 28.48	. 0008	. 0025	0097	5.685	0007	0001	F 25.27
#1	28.47	.0008	.0025	0095	5.648	0022	.0002	25.36
#2	28.48	8000.	.0026	0098	5.722	.0008	0004	25.19
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0002	. 0014	F . 0014	F . 0016	. 2975	19.38	. 0001	. 0006
#1	0003	.0014	.0014	.0016	.3007	19.40	.0001	.0002
#2	.0007	.0014	.0015	.0016	.2944	19.35	.0001	.0010
Elem Units Avg	Li6707 ppm . 0036	Sr4077 ppm . 33811	Bi2230 ppm . 0028	S_1820 ppm 12.39				
#1 #2	.0027 .0045	.33831 .33792	.0029 .0027	12.37 12.41				
Int. Std. Units Avg	Y_2243 Cts/S 4722.6	Y_3600 Cts/S 102600.	Y_3600-2 Cts/S 1601.8	In2306 Cts/S 1182.1				
#1 #2	4713.5 4731.7	102430. 102760.	1602.9 1600.7	1179.3 1185.0				

Sample Name: K1102593-001L Acquired: 3/31/2011 16:38:48 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0005	. 0040	0008	. 0000	. 0096	00006	0033	0001
#1	.0005	.0043	0009	0038	.0093	00004	0037	0001
#2	.0006	.0038	0007	.0038	.0099	00007	0029	0001
Elem	Cd2265	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0001	18.40	. 0000	. 0000	0001	0005	. 0041	0003
#1	.0001	18.41	.0001	.0002	0004	0009	.0010	0005
#2	.0001	18.39	0001	0001	.0003	0002	.0071	0001
Elem	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.780	5.899	. 0002	.0008	0020	1.086	. 0005	0002
#1	5.794	5.909	.0002	.0008	0019	1.092	.0012	.0000
#2	5.766	5.889	.0002	.0009	0020	1.080	0002	
Elem	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.036	. 0004	. 0001	. 0004	. 0005	. 0741	3.935	0002
#1	5.061	.0008	.0001	.0004	.0004	.0737	3.928	0002
#2	5.012	0001		.0003	.0005	.0745	3.941	0001
Elem Units Avg	TI1908 ppm . 0006	Li6707 ppm 0015	Sr4077 ppm . 06910	Bi2230 ppm . 0008	S_1820 ppm 2.567			
#1 #2	.0002 .0010	0036 .0007	.06895 .06926	.0013 .0003	2.569 2.566			
Int. Std. Units Avg	Y_2243 Cts/S 4803.3	Y_3600 Cts/S 105190.	Y_3600-2 Cts/S 1595.1	In2306 Cts/S 1250.3				
#1 #2	4806.8 4799.7	105320. 105060.	1595.9 1594.3	1250.0 1250.6				

Sample Name: K1102593-001S Acquired: 3/31/2011 16:42:14 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.939	.4818	. 9775	2.027	. 04976	1.008	. 0516	. 0485
#1	1.929	.4819	.9779	2.025	.04985	1.011	.0517	.0486
#2	1.949	.4816	.9771	2.029	.04967	1.005	.0516	.0485
Elem	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203	Mg2852
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 97.65	. 1984	. 4868	. 2565	. 2415	. 9763	. 5124	F 37.99
#1	97.58	.1986	.4849	.2566	.2422	.9820	.5111	38.06
#2	97.72	.1982	.4886	.2563	.2409	.9705	.5138	37.93
Elem	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 4825	1. 011	. 4693	F 15.73	. 9516	. 0446	F 35.33	. 0006
#1	.4818	1.009	.4672	15.72	.9543	.0446	35.36	.0011
#2	.4831	1.012	.4714	15.74	.9489	.0445	35.30	
Elem	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 5081	. 5309	. 4761	. 5256	19.27	. 0003	1.008	. 0037
#1	.5059	.5292	.4761	.5239	19.29	.0006	1.005	.0029
#2	.5104	.5327	.4761	.5274	19.25	.0001	1.011	.0046
Elem Units Avg	Sr4077 ppm . 33542	Bi2230 ppm . 0067	S_1820 ppm 12.62					
#1 #2	.33512 .33571	.0103 .0031	12.61 12.63					
Int. Std. Units Avg	Y_2243 Cts/S 4691.7	Y_3600 `Cts/S 101570.	Y_3600-2 Cts/S 1590.5	In2306 Cts/S 1161.2				
#1 #2	4696.7 4686.7	101820. 101320.	1591.6 1589.4	1161.5 1160.8				

Sample Name: K1102593-002 Acquired: 3/31/2011 16:46:11 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0003	F . 0035	0024	. 0018	. 1899	00003	F . 0152	0002
#1	.0002	.0030	0015	.0026	.1901	00001	.0152	0002
#2	.0005	.0040	0033	.0010	.1898	00006	.0153	0002
Elem	Cd2265	Ca3158	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	F 168.4	F 0003	.0006	. 0009	. 0023	F0020	. 0007
#1	.0001	168.0	0004	.0004	.0008	.0030	0026	.0002
#2	.0000	168.8	0002	.0007	.0009	.0016	0014	.0011
Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 55.10	. 1231	. 0024	0117	F 29.33	. 0009	. 0002	F 158.1
#1	55.30	.1231	.0025	0119	29.49	0003	.0003	159.0
#2	54.90	.1230	.0023	0114	29.18	.0022	.0002	157.1
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0001	. 0036	. 0116	F . 0099	. 3425	22.07	. 0003	. 0020
#1	0004	.0044	.0117	.0099	.3457	22.24	.0003	.0031
#2	.0002	.0028	.0114	.0100	.3393	21.91	.0004	.0009
Elem Units Avg	Li6707 ppm . 0083	Sr4077 ppm . 95943	Bi2230 ppm . 0027	S_1820 ppm 15.13				
#1 #2	.0082 .0084	.95939 .95947	.0024 .0030	15.11 15.15				
Int. Std. Units Avg	Y_2243 Cts/S 4539.1	Y_3600 Cts/S 97614.	Y_3600-2 Cts/S 1562.5	In2306 Cts/S 1084.0				
#1 #2	4527.6 4550.6	97656. 97572.	1572.8 1552.2	1084.1 1083.8				

Sample Name: K1102241-MB 1/2 Acquired: 3/31/2011 16:49:43 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0014	. 0021	0002	0015	0005	00010	0064	. 0000
#1	.0013	.0024	0005	0009	0008	00015	0064	.0000
#2	.0015	.0019	.0002	0022	0002	00005	0064	
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	. 0237	. 0025	. 0002	0002	.0007	0001	002 1
#1	.0000	.0284	.0030	.0003	0003	.0002	.0001	.0058
#2	0001	.0189	.0021	.0001	0001	.0011	0003	0099
Elem	Pb2203	Mg2795	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0002	. 0001	. 0003	. 0000	. 0005	. 0001	. 0518	0012
#1 #2	0001 0003	.0002 .0000	.0007 0002	.0000	.0006	.0002 .0000	.0669 .0367	0028 .0004
Elem	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0004	. 1004	F . 0120	0002	. 0001	. 0006	. 0130	0310
#1	0006	.1333	.0114	0005	.0002	.0006	.0155	0407
#2	0002	.0676	.0126	.0001	.0001	.0005	.0104	0214
Elem Units Avg	Ti3361 ppm 0006	TI1908 ppm 0001	Li6707 ppm 0045	Sr4077 ppm . 00008	Bi2230 ppm . 0004	S_1820 ppm . 0024		
#1 #2	0007 0005	.0000	0046 0044	.00022 00006	.0012 0004	.0021 .0027		
Int. Std. Units Avg	Y_2243 Cts/S 4943.2	Y_3600 Cts/S 109720.	Y_3600-2 Cts/S 1615.1	In2306 Cts/S 1317.4		family bo	11 Sup 11	
#1 #2	4930.0 4956.4	109450. 110000.	1613.1 1617.2	1315.6 1319.2			J. 3.	

Sample Name: LCSW 1/2 Acquired: 3/31/2011 16:53:07 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

							1	
Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.300	2.525	2.497	5.152	.12511	. 4725	1.275	1.249
#1	5.303	2.528	2.500	5.139	.12476	.4708	1.279	1.249
#2	5.296	2.523	2.494	5.165	.12547	.4742	1.271	1.249
Elem	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.75	12.87	. 5243	1.283	. 6573	. 6677	2.554	2.599
#1	12.72	12.82	.5248	1.283	.6584	.6653	2.544	2.607
#2	12.78	12.93	.5238	1.284	.6562	.6702	2.565	2.590
Elem	Mg2852	Mn2576	Mo2020	Ni2216/	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.97	1. 287	. 5257	1. 273	13.30	2.244	. 6251	13.19
#1	13.03	1.285	.5251	1.272	13.34	2.246	.6217	13.26
#2	12.90	1.290	.5264	1.274	13.25	2.241	.6284	13.12
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0135	1.326	1,282	1.203	. 0173	0331	0005	2.586
#1	.0137	1.325	1.287	1.204	.0149	0114	0005	2.596
#2	.0132	1.327	1.277	1.203	.0198	0549	0005	2.576
Elem Units Avg	Li6707 ppm 0056	Sr4077 ppm . 00078	Bi2230 ppm . 0093	S_1820 ppm . 0030				
#1 #2	0049 0063	.00072	.0082 .0105	.0036 .0024		Just 1	13/11	
Int. Std. Units Avg	Y_2243 Cts/S 4851.2	Y_3600 \ Cts/S 106570.	Y_3600-2 Cts/S 1613.6	In2306 Cts/S 1250.6		m 3		
#1 #2	4857.4 4844.9	106330. 106820.	1622.8 1604.3	1248.3 1253.0				

Sample Name: LCSWD 1/2 Acquired: 3/31/2011 16:56:15 Type: Unk

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

								/
Elem	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496	Cd2144	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.425	2.544	2.523	5.262	.12511	. 4728	1.308	1.271
#1	5.405	2.548	2.529	5.278	.12501	.4720	1.309	1.271
#2	5.444	2.541	2.518	5.246	.12522	.4736	1.306	1.270
Elem	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.90	13.17	. 5362	1.306	. 6721	.6608	2.599	2.656
#1	12.97	13.08	.5358	1.308	.6729	.6609	2.589	2.664
#2	12.83	13.26	.5366	1.304	.6712	.6608	2.608	2.648
Elem	Mg2852	Mn2576	Mo2020	Ni2216	K_7664	Se1960	Ag3280	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.19	1.302	. 5389	1.298	13.44	2.280	. 6242	13.15
#1	13.27	1.302	.5390	1.300	13.58	2.285	.6247	13.18
#2	13.11	1.301	.5388	1.297	13.30	2.275	.6238	13.12
Elem	Sn1899	V_2924	Zn2062	Zn2138	P_2149	Si2516	Ti3361	TI1908
Units	ppm	ppm	ppm/	ppm	ppm	ppm	ppm	ppm
Avg	. 0133	1.351	1.312	1.218	. 0190	0337	0005	2.632
#1	.0134	1.353	1,317	1.219	.0190	0374	0004	2.642
#2	.0132	1.350	1.307	1.217	.0190	0300	0006	2.622
Elem Units Avg	Li6707 ppm 0050	Sr4077 ppm . 00093	Bi2230 ppm .0090	S_1820 ppm . 0001		ß		
#1 #2	0056 0044	.00112	.0090	0001 .0003		Jung 3/3/1		
Int. Std. Units Avg	Y_2243/ Cts/\$ 4816.5	Y_3600 Cts/S 105480.	Y_3600-2 Cts/S 1602.5	In2306 Cts/S 1238.8		-		
#1 #2	4822.5 4810.5	105600. 105350.	1605.1 1599.9	1237.5 1240.1				

Sample Name: CCVA4 Acquired: 3/31/2011 16:59:19 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	Al1670 ppm . 2422 .0007 .2889	Al3944 ppm . 2566 .0023 .9117	Sb2068 ppm . 2462 .0004 .1607	As1890 ppm . 2436 .0018 .7315	ppm . 2432		B_2496 ppm . 2343 .0033 1.407	Cd2144 ppm . 2431 .0001 .0451
#1	.2417	.2550	.2460	.2449	.2435	.24119	.2320	.2430
#2	.2427	.2583	.2465	.2423	.2429	.24123	.2367	.2432
Check ? Value Range	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2433	. 2523	. 2484	. 2427	. 2479	. 2435	. 2403	. 2347
Stddev	.0010	.0042	.0001	.0014	.0016	.0005	.0004	.0082
%RSD	.4199	1.659	.0238	.5724	.6431	.1883	.1555	3.507
#1	.2425	.2494	.2485	.2417	.2468	.2432	.2406	.2289
#2	.2440	.2553	.2484	.2437	.2491	.2438	.2401	.2405
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2463	. 2565	. 2430	. 2363	. 2384	. 2249	. 2460	. 2476
Stddev	.0006	.0191	.0009	.0022	.0011	.0000	.0006	.0012
%RSD	.2596	7.434	.3906	.9345	.4815	.0022	.2457	.4781
#1	.2467	.2700	.2437	.2379	.2376	.2249	.2456	.2467
#2	.2458	.2430	.2423	.2348	.2392	.2249	.2464	.2484
Check ? Value Range	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass

Sample Name: CCVA4 Acquired: 3/31/2011 16:59:19 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	K_7664	Se1960	Ag3280		Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm		ppm	ppm	ppm	ppm
Avg	2.422	. 2402	. 2404		. 2485	. 2417	. 2463	. 2409
Stddev	.097	.0011	.0015		.0018	.0016	.0002	.0003
%RSD	3.984	.4775	.6364		.7217	.6786	.0736	.1189
#1	2.491	.2394	.2393	.1250	.2472	.2405	.2462	.2407
#2	2.354	.2410	.2415	.1799	.2497	.2428	.2465	.2411
Check ? Value Range	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	. 0868	. 2451	. 2519	0050	. 00025	. 0022	. 0035
Stddev	.0003	.0068	.0005	.0001	.0031	.00005	.0014	.0006
%RSD	23.30	7.797	.1941	.0531	61.53	21.692	63.30	17.24
#1	.0017	.0916	.2447	.2518	0072	.00029	.0032	.0031
#2	.0012	.0820	.2454	.2520	0029	.00021	.0012	.0039
Check ? Value Range	None	None	Chk Pass	Chk Pass	None	None	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4874.0 11.8 .24310	Y_3600 Cts/S 106530. 58. .05467	Y_3600-2 Cts/S 1574.9 4.6 .29176	In2306 Cts/S 1289.0 .3 .02712				
#1 #2	4882.3 4865.6	106490. 106570.	1571.6 1578.1	1289.2 1288.7				

Sample Name: CCVB4 Acquired: 3/31/2011 17:02:30 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	Al1670 ppm 7.070 .013 .1810	Al3944 ppm 9.971 .132 1.325	Sb2068 ppm . 0013 .0019 145.0	ppm . 9720 .0027	Ba4554 ppm 10.03 .03 .3302	Be2348 ppm .00002 .00001 41.033	B_2496 ppm 0033 .0002 4.573	Cd2144 ppm 0004 .0000 1.860
#1	7.061	9.877	.0026		10.00	.00001	0034	0004
#2	7.079	10.06	.0000		10.05	.00002	0032	0004
Check ? Value Range	None	Chk Pass	None	Chk Pass	Chk Pass	None	None	None
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0002	9.845	9.944	. 0003	.0000	. 0068	0004	9.734
Stddev	.0001	.069	.027	.0001	.000	.0001	.0000	.100
%RSD	28.51	.6982	.2717	22.85	152.2	1.506	5.162	1.022
#1	.0003	9.796	9.925	.0003	.0000	.0068	0005	9.664
#2	.0002	9.893	9.964	.0002	0001	.0067	0004	9.804
Check ? Value Range	None	Chk Pass	None	None	None	None	None	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0006	9.617	9.775	9.966	. 9864	. 9526	. 0012	0058
Stddev	.0006	.014	.046	.023	.0010	.0012	.0001	.0002
%RSD	99.09	.1404	.4680	.2351	.1035	.1243	6.109	3.193
#1	.0002	9.607	9.743	9.982	.9871	.9534	.0011	0059
#2		9.626	9.808	9.949	.9856	.9518	.0012	0057
Check ? Value Range	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	None

Sample Name: CCVB4 Acquired: 3/31/2011 17:02:30 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : :

Elem Units Avg Stddev %RSD	K_7664 ppm 9.745 .115 1.183	Se1960 ppm 0007 .0015 204.2	Ag3280 ppm 0001 .0006 429.5	Na5895 ppm 9.645 .010 .1062	ppm 0008 .	ppm . 0025 .0004		Zn2138 ppm 0002 .0000 15.67
#1 #2	9.827 9.664	.0003 0018	0006 .0003	9.638 9.653	.0010 .0005		.0001 .0001	0002 0002
Check ? Value Range	Chk Pass	None	None	Chk Pass	None	None	None	None
Elem Units Avg Stddev %RSD	P_2149 ppm 9.764 .027 .2808	Si2516 ppm 9.628 .018 .1817	Ti3361 ppm . 0001 .0003 529.6	TI1908 ppm . 0008 .0000 5.497	Li6707 ppm . 9675 .0018 .1836	Sr4077 ppm 1.0065 .0036 .35263	Bi2230 ppm 1. 023 .001 .1041	S_1820 ppm .9699 .0082 .8418
#1 #2	9.745 9.784	9.616 9.640	.0002 0001	.0009 .0008	.9687 .9662	1.0040 1.0090	1.024 1.023	.9641 .9757
Check ? Value Range	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4788.6 9.3 .19453	Y_3600 Cts/S 104000. 444. .42672	Y_3600-2 Cts/S 1561.8 9.3 .59332	In2306 Cts/S 1218.5 3.1 .25302				
#1 #2	4782.0 4795.2	103690. 104310.	1568.4 1555.3	1216.3 1220.7				

Sample Name: CCB4 Acquired: 3/31/2011 17:06:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0004	. 0008	0011	. 0014	.0008	00002	0062
Stddev	.0003	.0017	.0001	.0001	.0007	.00004	.0005
%RSD	70.78	212.6	7.796	9.298	79.97	171.35	7.360
#1	0002	.0020	0011	.0015	.0004	.00000	0065
#2	0006	0004	0010	.0013	.0013	00005	0058
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2144	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0000	. 0000	. 0084	0001	. 0000	0003	. 0000
Stddev	.000	.0001	.0204	.0000	.0004	.0000	.000
%RSD	622.7	766.8	241.8	29.57	8498.	1.713	671.8
#1	.0000	.0001	0060	.0000	0003	0003	0002
#2		0001	.0229	0001	.0003	0003	.0001
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0007	. 0099	. 0013	. 0158	0006	0051	. 0001
Stddev	.0000	.0008	.0004	.0047	.0001	.0029	.0001
%RSD	3.329	8.170	27.69	29.78	19.21	56.25	57.91
#1	0007	.0105	.0011	.0191	0007	0031	.0001
#2	0007	.0094	.0016	.0125	0005	0071	.0002
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCB4 Acquired: 3/31/2011 17:06:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	Mn2605 ppm .0013 .0008 61.68	Mo2020 ppm . 0006 .0001 13.27	Ni2216 ppm .0001 .0005 374.7	K_7664 ppm .0082 .0843 1031.	Se1960 ppm 0013 .0004 29.70	Ag3280 ppm . 0000 .000 4410.	Na5895 ppm 0358 .0350 97.67
#1 #2	.0018 .0007	.0006 .0007	.0005 0002	.0678 0515	0016 0010	.0002 0002	0606 0111
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	Sn1899 ppm . 0005 .0001 14.55	V_2924 ppm 0002 .0003 168.0	Zn2062 ppm 0002 .0000 15.62	Zn2138 ppm .0000 .0000 10.43	P_2149 ppm 0017 .0014 83.13	Si2516 ppm 0412 .0237 57.60	Ti3361 ppm 0001 .0001 113.9
#1 #2	.0005 .0006	0004 .0000	0001 0002	.0000	0027 0007	0244 0579	.0000 0002
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	TI1908 ppm .0008 .0021 260.8	Li6707 ppm 0035 .0015 41.54	Sr4077 ppm F . 00044 .00024 55.440	Bi2230 ppm . 0006 .0024 397.9	S_1820 ppm . 0053 .0008 15.54		
#1 #2	.0022 0007	0025 0046	.00027 .00061	0011 .0023	.0047 .0059		
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Fail .00020 00020	Chk Pass	Chk Pass		

Sample Name: CCB4 Acquired: 3/31/2011 17:06:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4881.4	106590.	1577.8	1286.4
Stddev	4.9	372.	14.0	.0
%RSD	.10097	.34853	.88716	.00053
#1	4877.9	106330.	1587.7	1286.4
#2	4884.9	106850.	1567.9	1286.4

Sample Name: LLCCV1 Acquired: 3/31/2011 17:10:09 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin

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Elem Units	Al1670 ppm	Al3944 ppm	Sb2068 ppm	As1890 ppm	Ba4554 ppm	Be2348 ppm	B_2496 ppm	Cd2144 ppm
Avg	.0508	.0541	.0493	.1033	.0050	.00511	0479	.0050
Stddev %RSD	.0000 .0307	.0004 .8060	.0004 .8274	.0018 1.768	.0003 5.951	.00001 .21990	.0005 1.008	.0000 .0563
70N3D	.0307	.0000	.02/4	1.700	5.951	.21990	1.006	.0303
#1	.0508	.0544	.0496	.1046	.0052	.00511	.0483	.0050
#2	.0508	.0538	.0490	.1020	.0048	.00512	.0476	.0050
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
range		1	od for h	~ '5\`				
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units Avg	ppm . 0051	ppm F . 0737	ppm . 0540	ppm . 0048	ppm . 0106	ppm . 0106	ppm . 0110	ppm . 0211
Stddev	.0000	.0091	.0004	.0003	.0004	.0002	.0007	.0034
%RSD	.8844	12.29	.7602	7.228	3.620	2.030	6.653	16.02
#1	.0051	/.0801	.0543	.0045	.0108	.0104	.0105	.0187
#2	.0051	.0673	.0537	.0050	.0103	.0108	.0116	.0235
Check ? Value Range	Chk Pass	Chk Fail .0500 30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg Stddev	. 0524 .0006	. 0513 .0164	. 0199 .0000	. 0182 .0006	. 0051 .0001	. 0055 .0020	. 0107 .0003	. 0210 .0001
%RSD	1.191	31.98	.1196	3.060	2.072	36.55	2.702	.4305
ш.а	0500	0000	0400	0470	0050	0000	0100	0000
#1 #2	.0528 .0520	.0629 .0397	.0199 .0199	.0178 .0186	.0050 .0051	.0069 .0041	.0109 .0105	.0209 .0210
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass

Sample Name: LLCCV1 Acquired: 3/31/2011 17:10:09 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : :

					3 12 3	7		
Elem Units Avg Stddev %RSD	K_7664 ppm . 4475 .0077 1.715	Se1960 ppm . 0991 .0011 1.145	Ag3280 ppm . 0097 .0003 2.925	Na5895 ppm F . 1025 .0454 44.26	Sn1899 ppm . 0527 .0003 .6306	V_2924 ppm . 0097 .0002 2.333	Zn2062 ppm . 0104 .0000 .1357	Zn2138 ppm .0102 .0000 .0232
#1 #2	.4530 .4421	.0983 .0999	.0099 .0095	/1346 /.0704	.0525 .0530	.0095 .0098	.0104 .0104	.0102 .0102
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	¢hk Fail .2000 -30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	P_2149 ppm . 2009 .0017 .8389	Si2516 ppm . 3885 .0066 1.692	Ti3361 ppm . 0103 .0000 .0406	TI1908 ppm . 1093 .0004 .3946	Li6707 ppm F . 0059 .0032 54.78	Sr4077 ppm . 01067 .00039 3.6243	Bi2230 ppm . 0018 .0019 104.0	S_1820 ppm . 0036 .0004 11.34
#1 #2	.2021 .1997	.3838 .3931	.0103 .0103	.1090 .1096	.0081 .0036	.01040 .01095	.0032 .0005	.0033 .0039
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0100 -30.00%	Chk Pass	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4861.9 3.4 .07080	Y_3600 Cts/S 106010. 126. .11908	Y_3600-2 Cts/S 1568.4 15.5 .98803	In2306 Cts/S 1286.0 2.3 .18268				
#1 #2	4859.4 4864.3	106100. 105920.	1557.4 1579.4	1287.6 1284.3				

Sample Name: LLCCV1 Acquired: 3/31/2011 17:14:01 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

Elem	Al1670	Al3944	Sb2068	ppm	Ba4554	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm		ppm	ppm	ppm	ppm
Avg	. 0495	. 0522	. 0500		. 0048	.00516	. 0482	. 0049
Stddev	.0000	.0009	.0031		.0002	.00003	.0010	.0000
%RSD	.0849	1.642	6.137		4.924	.50838	2.089	.3526
#1	.0495	.0528	.0478	.1012	.0050	.00518	.0475	.0049
#2	.0494	.0516	.0522	.1019	.0046	.00515	.0489	.0049
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0050	F .0720	. 0530	. 0048	.0099	.0101	. 0108	. 0217
Stddev	.0000	.0026	.0004	.0002	.0001	.0004	.0005	.0047
%RSD	.5180	3.665	.7255	4.414	1.392	4.322	4.394	21.57
#1	.0050	.0738	.0528	.0049	.0098	.0104	.0104	.0184
#2	.0050	.0701	.0533	.0046	.0100	.0098	.0111	.0250
Check ? Value Range	Chk Pass	Chk Fail .0500 30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Pb2203	Mg2790/	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0503	. 0192	. 0198	. 0152	. 0050	. 0051	. 0105	.0203
Stddev	.0005	.0781	.0000	.0025	.0000	.0015	.0000	.0000
%RSD	1.012	406.5	.2014	16.27	.0818	30.08	.0879	.1184
#1	.0499	.0744	.0198	.0134	.0050	.0040	.0105	.0203
#2	.0507	0360	.0199	.0169	.0050	.0062	.0105	.0203
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass

may 3/11

Sample Name: LLCCV1 Acquired: 3/31/2011 17:14:01 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 3825	.0993	. 0099	F . 1039	. 0508	. 0102	.0100	. 0102
Stddev	.1157	.0010	.0003	.0264	.0006	.0005	.0002	.0000
%RSD	30.24	1.039	2.541	25.37	1.092	5.335	2.177	.1320
#1	.4643	.0986	.0101	.1226	.0504	.0105	.0101	.0102
#2	.3007	.1000	.0097	.0853	.0512		.0098	.0102
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Fail .2000 -30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 2043	. 3698	. 0103	. 1052	F . 0043	. 01028	0018	. 0045
Stddev	.0049	.0076	.0001	.0001	.0001	.00014	.0013	.0011
%RSD	2.387	2.050	.7343	.0835	1.729	1.3396	73.08	23.47
#1	.2078	.3751	.0103	.1052	.0042	.01018	0009	.0038
#2	.2009	.3644	.0102	.1053	.0043	.01038	0027	.0052
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0100 -30.00%	Chk Pass	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4984.9 14.4 .28941	Y_3600 Cts/S 107520. 641. .59652	Y_3600-2 Cts/S 1566.0 1.0 .06073	In2306 Cts/S 1324.7 4.3 .32665				
#1 #2	4974.7 4995.1	107070. 107970.	1566.7 1565.4	1321.6 1327.7				

Jun 3/2/11

Sample Name: LLCCV1 2X Acquired: 3/31/2011 17:16:07 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	ppm	Be2348	B_2496	Cd2144
Units	ppm	ppm	ppm	ppm		ppm	ppm	ppm
Avg	. 0981	. 1059	. 1013	. 2007		. 01011	. 1028	. 0097
Stddev	.0000	.0012	.0004	.0035		.00010	.0011	.0001
%RSD	.0059	1.098	.4207	1.745		.97440	1.073	.5658
#1	.0981	.1067	.1010	.1982	.0080	.01004	.1036	.0097
#2	.0981	.1051	.1016	.2032	.0100	.01018	.1020	.0097
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098	. 1236	. 1041	. 0100	. 0197	. 0201	. 0198	. 0488
Stddev	.0002	.0180	.0004	.0005	.0004	.0002	.0000	.0012
%RSD	2.104	14.57	.3522	4.955	2.168	1.045	.0389	2.556
#1	.0100	.1363	.1043	.0097	.0200	.0200	.0198	.0479
#2	.0097	.1108	.1038	.0104	.0194	.0203	.0198	.0497
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1 000	. 0794	. 0394	. 0360	. 0098	. 0102	. 0200	. 0392
Stddev	.0003	.0920	.0001	.0001	.0001	.0005	.0001	.0003
%RSD	.3461	115.8	.2449	.3327	1.107	4.669	.3393	.6942
#1	.1003	.0144	.0395	.0359	.0097	.0099	.0200	.0394
#2	.0998	.1445	.0393	.0361	.0099	.0105	.0201	.0390
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass

Sample Name: LLCCV1 2X Acquired: 3/31/2011 17:16:07 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin :

Elem	K_7664	Se1960	Ag3280	Na5895	Sn1899	V_2924	Zn2062	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 7959	. 2003	. 0198	. 2917	. 0996	. 0196	. 0201	. 0202
Stddev	.0279	.0006	.0003	.0022	.0001	.0006	.0001	.0000
%RSD	3.499	.3110	1.296	.7670	.0515	2.905	.3208	.1169
#1	.8155	.2008	.0200	.2933	.0997	.0192	.0201	.0202
#2	.7762	.1999	.0197	.2901	.0996	.0200	.0200	.0202
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	P_2149	Si2516	Ti3361	TI1908	Li6707	Sr4077	Bi2230	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 4024	. 7822	. 0201	. 2044	F . 0080	. 01975	. 0004	. 0044
Stddev	.0033	.0011	.0002	.0019	.0004	.00001	.0028	.0006
%RSD	.8099	.1392	1.034	.9136	5.234	.07154	750.8	13.52
#1	.4001	.7830	.0202	.2057	.0077	.01974	0016	.0048
#2	.4047	.7815	.0199	.2031	.0083	.01976	.0024	.0040
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0200 -30.00%	Chk Pass	None	None
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 5007.2 8.8 .17514	Y_3600 Cts/S 108650. 450. .41403	Y_3600-2 Cts/S 1604.8 2.3 .14210	In2306 Cts/S 1330.7 7.0 .52313				
#1 #2	5001.0 5013.4	108970. 108340.	1603.2 1606.4	1325.8 1335.7				

Sample Name: TLLCCV1 Acquired: 3/31/2011 17:18:54 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

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Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0017	. 0023	. 0098	. 0093	. 0020	.00017	F . 0049
Stddev	.0001	.0010	.0007	.0010	.0003	.00007	.0014
%RSD	4.533	42.36	7.183	11.05	16.20	38.035	27.94
#1	.0017	.0016	.0103	.0100	.0017	.00013	.0039
#2	.0016	.0030	.0093	.0086	.0022	.00022	
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0100 -30.00%
Elem	Cd2144	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0005	. 0005	. 0274	. 0043	. 0021	. 0008	. 0019
Stddev	.0000	.0000	.0061	.0000	.0000	.0001	.0004
%RSD	.0696	7.357	22.40	.0714	2.051	7.301	23.03
#1	.0005	.0005	.0231	.0043	.0021	.0007	.0016
#2	.0005	.0004	.0317		.0021	.0008	.0022
Check ? Value Range	Chk Pass	Chk Pass	None June None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0023	F . 0137	. 0099	. 0375	F . 0012	0015	. 0007
Stddev	.0004	.0042	.0002	.0021	.0001	.0051	.0000
%RSD	18.12	30.56	1.648	5.707	5.448	341.6	4.812
#1	.0020	.0107	.0100	.0390	.0011	0051	.0007
#2	.0026	.0166	.0098	.0360		.0021	.0008
Check ? Value Range	Chk Pass	Chk Fail .0100 30.00%	Chk Pass	None	Chk Fail .0020 -30.00%	None	Chk Pass
							1 1 1 1 1 1 1

Sample Name: TLLCCV1 Acquired: 3/31/2011 17:18:54 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : :

Elem Units Avg Stddev %RSD	Mn2605 ppm . 0012 .0018 151.4	Mo2020 ppm . 0022 .0003 12.62	Ni2216 ppm . 0021 .0002 7.800	K_7664 ppm . 1000 .0054 5.358	Se1960 ppm . 0182 .0003 1.659	Ag3280 ppm . 0021 .0005 25.34	Na5895 ppm F . 0375 .0000 .0618
#1 #2	0001 .0025	.0024 .0020	.0020 .0022	.1038 .0962	.0180 .0184	.0017 .0025	.0376 .0375
Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .2000 -30.00%
Elem Units Avg Stddev %RSD	Sn1899 ppm . 0109 .0001 1.331	V_2924 ppm . 0017 .0001 4.597	Zn2062 ppm . 0018 .0001 6.972	Zn2138 ppm . 0020 .0000 .9368	P_2149 ppm . 0231 .0009 3.754	Si2516 ppm F .0309 .0025 8.188	Ti3361 ppm . 0008 .0001 12.45
#1 #2	.0108 .0110	.0016 .0017	.0019 .0018	.0020 .0020	.0237 .0225	.0327	.0008 .0007
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0500 -30.00%	Chk Pass
Elem Units Avg Stddev %RSD	TI1908 ppm . 0109 .0007 6.223	Li6707 ppm F . 0030 .0004 12.61	Sr4077 ppm F .00006 .00017 299.53	Bi2230 ppm .0565 .0012 2.122	S_1820 ppm . 0538 .0014 2.570	J	
#1 #2	.0104 .0113	.0027 .0032	00007 .00018	.0573 .0556	.0547 .0528		
Check ? Value Range	Chk Pass	Chk Fail .0100 -30.00%	Chk Fail .00020 -30.000%	Chk Pass	Chk Pass		

Sample Name: TLLCCV1 Acquired: 3/31/2011 17:18:54 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4876.2	105520.	1572.2	1290.3
Stddev	18.4	51.	7.7	.9
%RSD	.37657	.04844	.49271	.06798
#1	4863.2	105560.	1577.7	1289.7
#2	4889.1	105480.	1566.7	1290.9

Sample Name: TLLCCV1 Acquired: 3/31/2011 17:21:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Comment: 033111B Revun

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Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348		Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm		ppm
Avg	. 0016	. 0017	. 0103	. 0113	. 0021	. 00020		. 0005
Stddev	.0001	.0006	.0000	.0007	.0002	.00007		.0001
%RSD	6.744	32.46	.1588	6.551	9.792	35.983		10.47
#1	.0017	.0021	.0103	.0118	.0019	.00025	.0041	.0005
#2	.0015	.0013	.0103	.0108	.0022	.00015	.0044	.0005
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0100 -30.00%	Chk Pass
Elem	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247	Cu3273	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0005	.0194	. 0040	. 0018	.0008	. 0015	F .0010	. 0099
Stddev	.0001	.0226	.0002	.0003	.0003	.0003	.0001	.0057
%RSD	14.38	116.4	4.062	15.47	35.19	17.73	14.18	57.55
#1	.0005	.0355	.0039	.0016	.0006	.0013	.0009	.0139
#2	.0004	.0034	.0041	.0020	.0010	.0017	.0011	.0059
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .0020 -30.00%	Chk Pass
Elem	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576	Mn2605	Mo2020	Ni2216
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0100	.0033	F . 0012	0046	. 0007	. 0009	. 0022	. 0021
Stddev	.0005	.0202	.0001	.0016	.0000	.0047	.0002	.0002
%RSD	5.421	618.8	5.059	33.63	.9669	541.6	10.90	10.01
#1	.0096	.0175	.0012	0057	.0007	.0042	.0020	.0019
#2	.0104	0110	.0012	0035	.0007	0025	.0023	.0022
Check ? Value Range	Chk Pass	None	Chk Fail .0020 -30.00%	None	Chk Pass	None	Chk Pass	Chk Pass

Sample Name: TLLCCV1 Acquired: 3/31/2011 17:21:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : :

Elem Units Avg Stddev %RSD	K_7664 ppm F . 1753 .0745 42.49	Se1960 ppm .0178 .0003 1.662	•	ppm F . 0911 .0018	Sn1899 ppm .0103 .0006 6.024	V_2924 ppm .0018 .0003 18.67	Zn2062 ppm . 0020 .0000 2.311	Zn2138 ppm . 0020 .0001 3.894
#1 #2	.2279 .1226	.0175 .0180	.0017 .0019	.0898 .0923	.0099 .0107	.0020 .0015	.0020 .0020	.0020
Check ? Value Range	Chk Fail .1000 30.00%	Chk Pass	Chk Pass	Chk Fail .2000 -30.00%	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	P_2149 ppm . 0176 .0004 1.999	Si2516 ppm F .0334 .0203 60.88	Ti3361 ppm . 0008 .0002 18.04	TI1908 ppm . 0112 .0008 7.239	Li6707 ppm F . 0025 .0022 87.98	Sr4077 ppm .00018 .00007 36.811	Bi2230 ppm . 0537 .0031 5.683	S_1820 ppm . 0551 .0024 4.359
#1 #2	.0178 .0173	.0190 .0477	.0007 .0009	.0118 .0106	.0009 .0040	.00023 .00014	.0516 .0559	.0534 .0568
Check ? Value Range	Chk Pass	Chk Fail .0500 -30.00%	Chk Pass	Chk Pass	Chk Fail .0100 -30.00%	Chk Pass	Chk Pass	Chk Pass
Int. Std. Units Avg Stddev %RSD	Y_2243 Cts/S 4913.4 41.5 .84492	Y_3600 Cts/S 109850. 2048. 1.8646	Y_3600-2 Cts/S 1595.3 4.6 .28833	In2306 Cts/S 1297.6 12.9 .99666				
#1 #2	4942.8 4884.1	111290. 108400.	1598.6 1592.1	1306.7 1288.4				

Sample Name: TLLCCV1 2X Acquired: 3/31/2011 17:23:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem	Al1670	Al3944	Sb2068	As1890	Ba4554	Be2348	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0035	. 0050	.0183	. 0209	. 0043	.00040	.0141
Stddev	.0000	.0020	.0004	.0015	.0003	.00004	.0001
%RSD	.8018	39.72	2.392	6.990	7.476	10.097	.3785
#1	.0035	.0064	.0187	.0220	.0041	.00037	.0140
#2	.0035	.0036	.0180	.0199	.0046	.00043	.0141
Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cd2144	Cd2265	Ca3158	Ca3933	Cr2677	Co2307	Cu2247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0010	. 0010	. 0375	. 0082	. 0040	. 0017	. 0037
Stddev	.0000	.0000	.0042	.0002	.0000	.0004	.0000
%RSD	3.104	2.021	11.15	1.893	.6482	25.44	.2519
#1	.0010	.0010	.0345	.0081	.0040	.0014	.0037
#2	.0009	.0010	.0404	.0083	.0040	.0020	.0037
Check ? Value Range	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Cu3273	Fe2599	Pb2203	Mg2790	Mg2795	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	. 0038	. 0206	. 0201	. 0084	. 0029	.0006	. 0013
Stddev	.0002	.0017	.0005	.0535	.0000	.0013	.0000
%RSD	6.499	8.058	2.438	636.4	1.024	233.1	.6894
#1	.0039	.0194	.0205	0294	.0030	.0015	.0013
#2	.0036	.0218	.0198	.0463	.0029	0004	.0013
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass

Sample Name: TLLCCV1 2X Acquired: 3/31/2011 17:23:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Elem Units Avg Stddev %RSD	Mn2605 ppm . 0024 .0025 104.2	Mo2020 ppm . 0041 .0001 1.767	Ni2216 ppm . 0042 .0005 12.20	K_7664 ppm . 1727 .0142 8.235	Se1960 ppm .0387 .0016 4.222	Ag3280 ppm . 0036 .0006 16.95	Na5895 ppm F . 2509 .0282 11.25
#1 #2	.0006 .0042	.0041 .0042	.0038 .0045	.1626 .1827	.0398 .0375	.0041 .0032	.2310 .2709
Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail .4000 -30.00%
Elem Units Avg Stddev %RSD	Sn1899 ppm . 0194 .0005 2.523	V_2924 ppm . 0037 .0001 1.414	Zn2062 ppm . 0040 .0001 2.452	Zn2138 ppm . 0041 .0000 .2144	P_2149 ppm . 0378 .0018 4.747	Si2516 ppm .0802 .0136 16.95	Ti3361 ppm .0018 .0001 6.818
#1 #2	.0191 .0198	.0037 .0036	.0039 .0040	.0041 .0041	.0391 .0366	.0706 .0898	.0019
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem Units Avg Stddev %RSD	TI1908 ppm . 0210 .0004 1.816	Li6707 ppm F . 0056 .0023 41.23	Sr4077 ppm F .00023 .00015 67.683	Bi2230 ppm . 1081 .0008 .7608	S_1820 ppm . 1069 .0006 .5717		
#1 #2	.0207	.0040 .0073	.00033 .00012	.1075 .1087	.1073 .1065		
Check ? Value Range	Chk Pass	Chk Fail .0200 -30.00%	Chk Fail .00040 -30.000%	Chk Pass	Chk Pass		

Sample Name: TLLCCV1 2X Acquired: 3/31/2011 17:23:49 Type: QC

Method: 2011A(v5) Mode: CONC Corr. Factor: 1.000000

User: admin : : :

Int. Std.	Y_2243	Y_3600	Y_3600-2	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4897.5	106110.	1583.1	1302.4
Stddev	8.6	129.	5.0	1.8
%RSD	.17551	.12148	.31579	.14182
#1	4891.5	106020.	1586.6	1301.1
#2	4903.6	106200.	1579.5	1303.7

Service Request #	[£] K1102593	
Calibration	033011C	
QC in calibration_	_033011C	
QC Service Reque	est K1102593	
STARLIMS Batch	# 240753	

ICP-MS Data Revie	ew For	m	
	Yes	No	NA
 Appropriate standardization completed ICV within 10 % of true value CCV's in control CCB's and/or ICB's below MRL Method blank below MRL LCS in control Spike and duplicate in control All analytes within instrument linear range Adequate rinse out time allowed Internal standards in control Interferences checked Se over MRL CRA run ICSA and ICSAB in control Serial dilution run Post spike in control Was the run terminated? If so, why. 	XXXXXXXXX		
Comments:			
Primary Review by Secondary Review by Date Date		-	

Sample List

Sample List									
Num	Label	Туре	Weight	Volume	Dilution	Rack	Row	Column	Height
1	Cal. Blk	Blank	0 kg	0 ml	1.00	0	1	1	145
2	Cal. Stn	Fully Quant Standard	0 kg	0 ml	1.00	0	1	2	145
3	ICV1	Unknown	0 kg	0 ml	1.00	0	1	3	145
4	CCV1	Unknown	0 kg	0 ml	1.00	0	1	2	145
5	ICB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
6	CCB1	Unknown	0 kg	0 ml	1.00	0	1	1	145
7	LLICV	Unknown	0 kg	0 ml	1.00	0	1	4	145
8	ICSA	Unknown	0 kg	0 ml	1.00	0	1	5	145
9	ICSAB	Unknown	0 kg	0 ml	1.00	0	1	6	145
10	K1102578-MB	Unknown	0 kg	0 ml	1.00	2	1	1	145
11	LCSW	Unknown	0 kg	0 ml	1.00	2	1	2	145
12	K1102578-001	Unknown	0 kg	0 ml	1.00	2	1	3	145
13	K1102578-002	Unknown	0 kg	0 ml	1.00	2	1	4	145
14	K1102578-003	Unknown	0 kg	0 ml	1.00	2	1	5	145
15	K1102578-004	Unknown	0 kg	0 ml	1.00	2	1	6	145
16	K1102578-005	Unknown	0 kg	0 ml	1.00	2	1	7	145
17	K1102578-006	Unknown	0 kg	0 ml	1.00	2	1	8	145
18	K1102578-006D	Unknown	0 kg	0 ml	1.00	2	1	9	145
19	K1102578-006L 1/5	Unknown	0 kg	0 ml	1.00	2	1	10	145
20	CCV2	Unknown	0 kg	0 ml	1.00	0	1	2	145
21	CCB2	Unknown	0 kg	0 ml	1.00	0	1	1	145
22	K1102578-006A, +20	Unknown	0 kg	0 ml	1.00	2	1	11	145
23	K1102578-006S	Unknown	0 kg	0 ml	1.00	2	1	12	145
24	K1102578-007	Unknown	0 kg	0 ml	1.00	2	2	1	145
25	K1102593-001	Unknown	0 kg	0 ml	1.00	2	2	2	145
26	K1102593-002	Unknown	0 kg	0 ml	1.00	2	2	3	145
27	K1102593-002D	Unknown	0 kg	0 ml	1.00	2	2	4	145
28	K1102593-002S	Unknown	0 kg	0 ml	1.00	2	2	5	145
29	K1102520-MB	Unknown	0 kg	0 ml	1.00	2	2	6	145
30	LCSW	Unknown	0 kg	0 ml	1.00	2	2	7	145
31	K1102520-001	Unknown	0 kg	0 ml	1.00	2	2	8	145
32	CCV3	Unknown	0 kg	0 ml	1.00	0	1	2	145
33	CCB3	Unknown	0 kg	0 ml	1.00	0	1	1	145
34	LLCCV	Unknown	0 kg	0 ml	1.00	0	1	4	145
35	K1102520-002	Unknown	0 kg	0 ml	1.00	2	2	9	145
36	K1102520-003	Unknown	0 kg	0 mi	1.00	, 2	2	10	145
37	K1102520-004	Unknown	0 kg	0 ml	1.00	2	2	11	145
38	K1102520-005	Unknown	0 kg	0 ml	100	2	2	12	145
39	K1102520-005D	Unknown	0 kg	0 ml	1.00	2	3	1	145
40	K1102520-005L 1/5	Unknown	0 kg	0 ml	1.00	2	3	2	145
41	K1102520-005A,+20ppb	Unknown	0 kg	0 ml	1.00	2	3	3	145
42	K1102520-005S	Unknown	0 kg	0 ml	1.00	2	3	4	145
43	K1102520-006	Unknown	0 kg	0 ml	1.00	2	3	5	145
44	K1102520-007	Unknown	0 kg	0 ml	1.00	2	3	6	145
45	CCV4	Unknown	0 kg	0 ml	1.00	0	1	2	145
46	CCB4	Unknown	0 kg	0 ml	1.00	0	1	1	145
47	K1102520-008	Unknown	0 kg	0 ml	1.00	2	3	7	145
48	K1102520-009	Unknown	0 kg	0 ml	1.00	2	. 3	8	145

				7:18:57 033011C.vge	3/31/11			Pag	e 2 of 2
49	K1102520-010	Unknown	0 kg	0 ml	1.00	2	3	9	145
50	K1102520-011	Unknown	0 kg	0 ml	1.00	2	3	10	145
51	K1102520-012	Unknown	0 kg	0 ml	1.00	2	3	11	145
52	K1102520-013	Unknown	0 kg	0 ml	1.00	2	3	12	145
53	K1102520-014	Unknown	0 kg	0 ml	1.00	2	4	1	145
54	K1102520-015	Unknown	0 kg	0 ml	1.00	2	4	2	145
55	K1102520-016	Unknown	0 kg	0 ml	1.00	2	4	3	145
56	K1102520-018	Unknown	0 kg	0 ml	1.00	2	4	4	145
57	CCV5	Unknown	0 kg	0 ml	1.00	0	1	2	145
58	CCB5	Unknown	0 kg	0 ml	1.00	0	1	1	145
59	LLCCV	Unknown	0 kg	0 ml	1.00	0	1	4	145

Instrument Setup - Sample Configuration

 Sample
 Configuration
 Date

 All Samples
 acqmet11
 7:49:38 3/30/11

Instrument Setup - Configurations

Configuration Name - acqmet11

Description - PQExcell CCT Sim Default

Date - 7:49:38 3/30/11

Maximum Uptake Time - 0

Maximum Washout Time - 0

S-Option Pump Running - N_0

Plasma Screen Forward - No

Makeup Gas On - No

Use CCT - No

Use Accessory Gas - No

Setting	Value
Extraction	-500.00
Lensl	5.00
Lens2	-60.00
Lens3	-200.00
Pole Bias	2.00
Sampling Depth	395.00
Horizontal	-60.00
Vertical	90.00
Cool	13.00
Auxiliary	0.90
Nebuliser	0.81
Forward power	1,380.00
HT1 Voltage	1,900.00
HT2 Voltage	2,600.00
Dl	-36.00
Focus	20.00

Date: 3/30/2011

Masses	in
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Mass	Mass DAC	Peak Width (AMU)	Error (AMU)	Include	Tune Solution
6.015	1301	0.715	-0.015	TRUE	
7.016	1554	0.766	-0.008	TRUE	Li-7
9.012	2055	0.715	0.019	TRUE	Be-9
23.985	5877	0.715	-0.026	TRUE	Mg-24
25.983	6377	0.766	0.008	TRUE	Co-59
26.982	6631	0.715	0.009	TRUE	In-115
44.956	11209	0.766	-0.001	TRUE	Ce-140
45.953	11463	0.817	-0.001	TRUE	Pb-208
50.944	12737	0.715	-0.014	TRUE	Bi-209
53.949	13497	0.766	0.006	TRUE	U-238
55.935	14004	0.766	0.001	TRUE	
56.935	14264	0.766	-0.02	TRUE	
57.934	14511	0.766	0.009	TRUE	
58.933	14758	0.766	0.038	TRUE	
61.928	15538	0.766	-0.03	TRUE	
62.93	15792	0.817	-0.026	TRUE	
63.929	16032	0.766	0.03	TRUE	
65.926	16546	0.715	0.009	TRUE	
69.925	17566	0.766	0.003	TRUE	
75.92	19087	0.766	0.026	TRUE	
114.904	29019	0.714	0.025	TRUE	
118.903	30072	0.714	-0.108	FALSE	
128.905	32600	0.663	-0.026	TRUE	
131.905	33354	0.663	0.016	TRUE	
139.905	35402	0.714	-0.018	TRUE	
141.908	35915	0.663	-0.027	TRUE	
155.923	39477	0.663	0.016	TRUE	
205.974	52250	0.612	-0.012	TRUE	
206.976	52503	0.662	-0.003	TRUE	
207.977	52757	0.612	0.003	TRUE	
208.98	53017	0.612	-0.013	TRUE	
238.051	60427	0.611	0.021	TRUE	

8:08:13 3/30/11 SHORT TERM STABILITY 03-30-11.vge

The state of the s	luded in Calib Exclu	ied in Results 🛮 🗱			int Notice (Mi	000000000		ndand Addition
Unco	rrected ICPS Per Mass		S-Calibration Has E F-Interference Corre		-Calibration Edited -Tripped	I-Invalid Calibra P-Pulse Counting		ntegration Failed Over Max
Run	Label	TimeStamp	5814	7Li	9Be	59Co	115ln	208Pb
1	Stability 03-30-2011	3/30/2011 8:01:32 A	(P)0.000	(P)22498.210	(P)5007.044	(P)40387.685	(P)54669.245	(P)21171.516
2	Stability 03-30-2011	3/30/2011 8:02:47 A	(P)0.167	(P)22421.753	(P)4966.197	(P)40116.419	(P)54372.112	(P)21234.104
3	Stability 03-30-2011	3/30/2011 8:04:02 A	(P)0.167	(P)22434.773	(P)4920.014	(P)39819.427	(P)54012.084	(P)21455.436
4	Stability 03-30-2011	3/30/2011 8:05:18 A	(P)0.000	(P)22058.018	(P)4935.019	(P)39833.293	(P)54814.298	(P)21495.828
5	Stability 03-30-2011	3/30/2011 8:06:33 A	(P)0.167	(P)22100.087	(P)4930.184	(P)39607.008	(P)54206.487	(P)21669.924
hononon	Mean of Stability 03-30	3/30/2011 8:01:32 A	(P)0.100	(P)22302.568	(P)4951.691	(P)39952.766	(P)54414.845	(P)21405.361
becommon	SD of Stability 03-30-20		(P)0.091	(P)206.617	(P)35.420	(P)303.125	(P)328.534	(P)202.915
\$660000000	%RSD of Stability 03		(P)91.287	(P)0.926	(P)0.715	(P)0.759	(P)0.604	(P)0.948
from potent		Secondo contrato de participa de la contrato del la contrato de la						

Run	Label	TimeStamp	209Bi	220849	238U
1	Stability 03-30-2011	3/30/2011 8:01:32 A	(P)32992.223	(P)0.000	(P)35722.776
2	Stability 03-30-2011	3/30/2011 8:02:47 A	(P)32885.643	(P)0.167	(P)35589.445
3	Stability 03-30-2011	3/30/2011 8:04:02 A	(P)33167.460	(P)0.000	(P)35969.563
4	Stability 03-30-2011	3/30/2011 8:05:18 A	(P)33046.346	(P)0.000	(P)36152.189
5	Stability 03-30-2011	3/30/2011 8:06:33 A	(P)33522.286	(P)0.167	(P)36684.210
*********	Mean of Stability 03-30	3/30/2011 8:01:32 A	(P)33122.792	(P)0.067	(P)36023.637
00000000000	SD of Stability 03-30-20		(P)245.317	(P)0.091	(P)428.616
vanantitetiiv	%RSD of Stability 03		(P)0.741	(P)136.931	(P)1.190
555555555					

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		Cal. Blk 3/30/11 20:16	33		Mean	SD	%RSD
Arsenic	75	0.0885	-0.0779	-0.0106	0	0.0837	0
Selenium	77	-0.0021	0.0259	-0.0239	0	0.025	0
Selenium	78	0.024	0.0291	-0.0531	0	0.046	0
Selenium	82	0.3195	-0.2576	-0.0619	0	0.2935	0

Gallium	71	1.008	1.002	0.991	1.008 n/a	n/a
Rhodium	103	1.006	0.999	0.995	1.006 n/a	n/a
Indium	115	1.004	0.99	1.007	1.004 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		Cal. Stn 3/30/11 20:18			Mean	SD	%RSD
Arsenic	75	25	25.23	24.77	25	0.2279	0.9117
Selenium	77	25.05	24.89	25.06	25	0.094	0.3758
Selenium	78	24.98	25.12	24.9	25	0.1084	0.4338
Selenium	82	25.2	25.32	24.49	25	0.448	1.792

Internal Standard

Gallium	71	0.974	0.969	0.972	0.974 n/a	n/a
Rhodium	103	0.977	0.984	0.98	0.977 n/a	n/a
Indium	115	0.966	0.975	0.974	0.966 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		ICV1 3/30/11 20:21					%RSD
Arsenic	75	24.75	24.85	24.48	24.7	0.1914	0.7751
Selenium	77	24.86	25.28	25.71	25.28	0.4289	1.696
Selenium	78	24.99	25.2	24.91	25.03	0.151	0.6032
Selenium	82	25.45	25.83	25.01	25.43	0.4108	1.615

Gallium	71	0.956	0.962	0.977	0.956 n/a	n/a
Rhodium	103	0.975	0.99	0.974	0.975 n/a	n/a
Indium	115	0.971	0.972	0.969	0.971 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		CCV1 3/30/11 20:23			Mean	SD	%RSD
Arsenic	75	24.98	25.26	25.71	25.32	0.3659	1.445
Selenium	77	24.93	24.92	23.96	24.6	0.5545	2.254
Selenium	78	25.28	25.02	25.08	25.13	0.1351	0.5376
Selenium	82	25.28	25.29	25.58	25.38	0.171	0.6738

Gallium	71	0.957	0.971	0.981	0.957 n/a	n/a
Rhodium	103	0.969	0.977	0.981	0.969 n/a	n/a
Indium	115	0.96	0.978	0.963	0.96 n/a	n/a

Units: μg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		ICB1 3/30/11 20:25			Mean	SD	%RSD
Arsenic	75	0.0061	0.0592	-0.0366	0.0096	0.048	500.2
Selenium	77	-0.0554	0.0242	-0.0535	-0.0282	0.0454	161
Selenium	78	-0.1416	0.0117	0.0119	-0.0394	0.0885	225
Selenium	82	-0.0515	0.1909	-0.2351	-0.0319	0.2137	669.5

Gallium	71	0.975	0.974	0.979	0.975 n/a	n/a
Rhodium	103	0.972	0.979	0.98	0.972 n/a	n/a
Indium	115	0.969	0.984	0.997	0.969 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		CCB1 3/30/11 20:28			Mean	SD	%RSD	
Arsenic	75	-0.0003	-0.0096	0.003	-0.0023	0.0065	284.3	
Selenium	77	0.026	-0.021	-0.0441	-0.0131	0.0357	273.9	
Selenium	78	-0.0783	0.2028	0.1239	0.0828	0.145	175.1	
Selenium	82	0.0059	-0.0623	-0.0558	-0.0374	0.0376	100.7	

Gallium	71	0.968	0.976	0.979	0.968 n/a	n/a
Rhodium	103	0.967	0.962	0.974	0.967 n/a	n/a
Indium	115	0.975	0.983	0.961	0.975 n/a	n/a

Units: μg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		LLICV 3/30/11 20:30			Mean	SD	%RSD
Arsenic	75	0.4677	0.5605	0.5256	0.5179	0.0469	9.049
Selenium	77	0.8898	0.8654	0.9231	0.8928	0.029	3.248
Selenium	78	0.6233	0.8565	0.9458	0.8086	0.1665	20.59
Selenium	82	0.8129	1.126	1.009	0.9826	0.1583	16.11

Internal Standard

Gallium	71	0.972	0.963	0.971	0.972 n/a	n/a
Rhodium	103	0.983	0.967	0.982	0.983 n/a	n/a
Indium	115	0.983	0.989	0.976	0.983 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		ICSA 3/30/11 20:32			Mean	SD	%RSD	
Arsenic	75	0.0807	0.1332	0.0589	0.0909	0.0382	42.02	
Selenium	77	3.501	3.276	3.458	3.412	0.1193	3.496	
Selenium	78	0.2602	0.3115	0.4886	0.3534	0.1198	33.9	
Selenium	82	-0.1277	-0.0088	-0.0356	-0.0573	0.0624	108.8	

Gallium	71	1.044	1.069	1.08	1.044 n/a	n/a
Rhodium	103	1.118	1.121	1.14	1.118 n/a	n/a
Indium	115	1.09	1.081	1.084	1.09 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp	;	ICSAB 3/30/11 20:35			Mean	SD	%RSD
Arsenic	75	24.79	25.18	25.13	25.03	0.2153	0.8601
Selenium	77	27.88	27.13	27.85	27.62	0.4267	1.545
Selenium	78	25.28	24.14	24.27	24.56	0.6222	2.533
Selenium	82	24.48	24.66	25.2	24.78	0.3761	1.518

Gallium	71	1.041	1.042	1.069	1.041 n/a	n/a
Rhodium	103	1.11	1.103	1.116	1.11 n/a	n/a
Indium	115	1.073	1.077	1.071	1.073 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-MB 3/30/11 20:37			Mean	SD	%RSD
Arsenic	75	0.0081	-0.0494	0.0045	-0.0123	0.0322	261.8
Selenium	77	0.0518	0.1308	0.0347	0.0724	0.0513	70.74
Selenium	78	-0.0394	0.2804	-0.0631	0.0593	0.1918	323.5
Selenium	82	-0.0381	-0.1218	-0.0041	-0.0547	0.0606	110.8

Gallium	71	0.961	0.971	0.954	0.961 n/a	n/a
Rhodium	103	0.956	0.96	0.958	0.956 n/a	n/a
Indium	115	0.961	0.964	0.971	0.961 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		LCSW 3/30/11 20:39			Mean	SD	%RSD
Arsenic	75	20.26	19.46	19.5	19.74	0.4515	2.287
Selenium	77	19.39	20.08	19.86	19.78	0.3544	1.792
Selenium	78	19.4	19.44	19.26	19.37	0.097	0.5009
Selenium	82	20.24	19.89	20.28	20.14	0.2133	1.059

Gallium	71	0.945	0.952	0.958	0.945 n/a	n/a
Rhodium	103	0.948	0.949	0.956	0.948 n/a	n/a
Indium	115	0.964	0.961	0.962	0.964 n/a	n/a

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-001 3/30/11 20:42			Mean	SD	%RSD
Arsenic	75	3.825	3.777	3.838	3.813	0.0322	0.8435
Selenium	77	0.1723	0.1026	0.1232	0.1327	0.0358	26.98
Selenium	78	0.2432	0.2404	0.1856	0.2231	0.0325	14.57
Selenium	82	-0.0671	0.0468	0.1959	0.0586	0.1319	225.2

Internal Standard

Gallium	71	0.968	0.967	0.978	0.968 n/a	n/a
Rhodium	103	0.993	0.996	1.003	0.993 n/a	n/a
Indium	115	0.96	0.991	0.994	0.96 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-002 3/30/11 20:44			Mean	SD	%RSD
Arsenic	75	0.5931	0.5935	0.5044	0.5636	0.0513	9.106
Selenium	77	0.3996	0.3267	0.4344	0.3869	0.055	14.21
Selenium	78	0.669	0.4516	0.6707	0.5971	0.126	21.11
Selenium	82	0.4109	0.2153	-0.0267	0.1999	0.2192	109.7

Internal Standard Factors:

Gallium 71 1.004 1.006 1.017 1.004 n/a n/a Rhodium 103 1.047 1.029 1.027 n/a n/a 1.027 1.005 n/a Indium 115 1.005 1.002 1.018 n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-003 3/30/11 20:46			Mean	SD	%RSD
Arsenic	75	4.344	4.176	4.26	4.26	0.0841	1.973
Selenium	77	-0.0145	0.0462	0.0765	0.0361	0.0463	128.4
Selenium	78	0.0542	0.0103	-0.1867	-0.0407	0.1283	315.1
Selenium	82	0.0308	-0.1933	0.1156	-0.0157	0.1596	1020

Gallium	71	0.986	0.985	0.968	0.986 n/a	n/a
Rhodium	103	1.007	1.01	1.029	1.007 n/a	n/a
Indium	115	0.992	1.005	1.007	0.992 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-004 3/30/11 20:49			Mean	SD	%RSD
Arsenic	75	1.402	1.457	1.415	1.425	0.029	2.033
Selenium	77	0.0624	0.033	0.0861	0.0605	0.0266	43.98
Selenium	78	0.4176	0.0463	0.4238	0.2959	0.2161	73.05
Selenium	82	0.0808	0.1508	0.1468	0.1261	0.0393	31.19

Internal Standard

Gallium	71	0.985	0.985	0.998	0.985 n/a	n/a
Rhodium	103	1.024	1.035	1.002	1.024 n/a	n/a
Indium	115	1.008	1.012	1.013	1.008 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-005 3/30/11 20:51			Mean	SD	%RSD
Arsenic	75	2.168	2.109	2.041	2.106	0.0639	3.032
Selenium	77	0.0914	0.0505	0.0997	0.0805	0.0263	32.7
Selenium	78	0.149	0.1831	0.1542	0.1621	0.0183	11.31
Selenium	82	0.1044	0.1704	-0.0334	0.0805	0.104	129.2

Internal Standard

Gallium	71	1.005	0.995	0.997	1.005 n/a	n/a
Rhodium	103	1.027	1.016	1.042	1.027 n/a	n/a
Indium	115	1.022	1.004	1.014	1.022 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-006 3/30/11 20:53				SD	%RSD	
Arsenic	75	2.441	2.551	2.476	2.489	0.0562	2.258	
Selenium	77	0.1272	0.0488	0.1104	0.0955	0.0413	43.22	
Selenium	78	0.029	-0.0322	0.0273	0.008	0.0349	435.1	
Selenium	82	-0.0633	0.3063	0.0179	0.087	0.1943	223.4	

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Gallium	71	0.996	0.989	1.001	0.996 n/a	n/a
Rhodium	103	1.014	1.022	1.027	1.014 n/a	n/a
Indium	115	1.003	1.008	1.021	1.003 n/a	n/a

Units: μg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-006D 3/30/11 20:56		Mean	SD	%RSD	
Arsenic	75	2.53	2.58	2.512	2.541	0.035	1.379
Selenium	77	0.0769	0.0787	0.1251	0.0935	0.0274	29.23
Selenium	78	0.2382	0.3677	-0.0305	0.1918	0.2031	105.9
Selenium	82	-0.0485	0.1041	0.0219	0.0258	0.0764	295.9

Gallium	71	0.992	0.989	0.999	0.992 n/a	n/a
Rhodium	103	1.039	1.015	1.03	1.039 n/a	n/a
Indium	115	1.005	1.01	1.02	1.005 n/a	n/a

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-006L 1/5 3/30/11 20:58			Mean	SD	%RSD
Arsenic	75	0.5558	0.5582	0.5527	0.5556	0.0027	0.4891
Selenium	77	-0.0224	-0.0141	-0.002	-0.0128	0.0102	79.79
Selenium	78	-0.0415	0.1238	-0.0727	0.0032	0.1056	3277
Selenium	82	0.1414	0.1369	0.1072	0.1285	0.0186	14.46

Gallium	71	0.97	0.951	0.959	0.97 n/a	n/a
Rhodium	103	0.971	0.968	0.963	0.971 n/a	n/a
Indium:	115	0.978	0.974	0.975	0.978 n/a	n/a

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		CCV2 3/30/11 21:00				SD	%RSD
Arsenic	75	26.33	25.18	25.59	25.7	0.5806	2.259
Selenium	77	25.59	24.89	25.61	25.37	0.4092	1.613
Selenium	78	26.53	24.89	25.47	25.63	0.8328	3.25
Selenium	82	26.57	25.79	25.81	26.06	0.4449	1.707

Gallium	71	0.96	0.946	0.968	0.96 n/a	n/a
Rhodium	103	0.962	0.952	0.969	0.962 n/a	n/a
Indium	115	0.979	0.969	0.954	0.979 n/a	n/a

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		CCB2 3/30/11 21:03				SD	%RSD	
Arsenic	75	-0.0278	-0.0493	-0.0092	-0.0288	0.02	69.69	
Selenium	77	0.0867	0.0431	-0.0223	0.0359	0.0549	153	
Selenium	78	-0.0135	0.2315	0.1006	0.1062	0.1226	115.4	
Selenium	82	-0.0728	-0.2071	-0.0738	-0.1179	0.0773	65.55	

Internal Standard

Gallium	71	0.94	0.952	0.942	0.94 n/a	n/a
Rhodium	103	0.951	0.95	0.965	0.951 n/a	n/a
Indium	115	0.959	0.958	0.957	0.959 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-006A, +20 ppb 3/30/11 21:05			Mean	SD	%RSD
Arsenic	75	23.45	23.16	22.93	23.18	0.2641	1.139
Selenium	77	20.37	21.04	21.65	21.02	0.6401	3.045
Selenium	78	20.81	21.3	20.79	20.97	0.2899	1.382
Selenium	82	21.7	21.11	20.94	21.25	0.399	1.878

Internal Standard

Gallium	71	0.973	0.984	0.98	0.973 n/a	n/a
Rhodium	103	1.009	1.01	1.017	1.009 n/a	n/a
Indium	115	1.014	1.009	1	1.014 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-006S 3/30/11 21:07			Mean	SD	%RSD
Arsenic	75	21.94	22.17	22.66	22.26	0.3687	1.657
Selenium	77	20.28	19.84	20.28	20.13	0.2546	1.265
Selenium	78	20.12	20.06	20.38	20.19	0.17	0.8421
Selenium	82	20.16	19.82	20.38	20.12	0.2789	1.386

Internal Standard

Gallium	71	0.961	0.979	0.997	0.961 n/a	n/a
Rhodium	103	1.024	1.018	1.024	1.024 n/a	n/a
Indium	115	0.99	1.012	1.017	0.99 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102578-007 3/30/11 21:10	Mean	SD	%RSD		
Arsenic	75	1.01	1.012	1.063	1.028	0.0301	2.928
Selenium	77	0.5	0.533	0.4051	0.4794	0.0664	13.86
Selenium	78	0.4578	0.1023	0.4381	0.3327	0.1998	60.05
Selenium	82	0.5179	0.3605	0.6358	0.5047	0.1381	27.36

Gallium	71	0.994	0.993	1.003	0.994 n/a	n/a
Rhodium	103	1.026	1.014	1.033	1.026 n/a	n/a
Indium	115	1.013	1.021	1.02	1.013 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102593-001 3/30/11 21:12			Mean	SD	%RSD
Arsenic	75	0.7754	0.7827	0.8215	0.7932	0.0248	3.124
Selenium	77	0.9307	0.6412	0.8373	0.8031	0.1478	18.4
Selenium	78	0.6919	0.8716	0.6804	0.748	0.1072	14.34
Selenium	82	0.4888	0.3248	0.4876	0.4337	0.0943	21.75

Gallium	71	1.061	1.051	1.059	1.061 n/a	n/a
Rhodium	103	1.066	1.098	1.091	1.066 n/a	n/a
Indium	115	1.072	1.051	1.06	1.072 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102593-002 3/30/11 21:14			Mean	SD	%RSD
Arsenic	75	0.5495	0.5908	0.6475	0.5959	0.0492	8.255
Selenium	77	5.324	5.294	5.325	5.314	0.0179	0.3363
Selenium	78	0.944	1.065	1.046	1.018	0.065	6.386
Selenium	82	0.9689	0.8558	0.9361	0.9202	0.0582	6.325

Internal Standard

Gallium	71	1.15	1.149	1.165	1.15 n/a	n/a
Rhodium	103	1.204	1.188	1.189	1.204 n/a	n/a
Indium	115	1.16	1.165	1.171	1.16 n/a	n/a

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102593-002D 3/30/11 21:17			Mean	SD	%RSD
Arsenic	75	0.5017	0.5017	0.5681	0.5238	0.0383	7.32
Selenium	77	6.053	5.988	5.574	5.872	0.2598	4.425
Selenium	78	1.107	1.138	1.196	1.147	0.0453	3.944
Selenium	82	0.7825	0.9313	0.8713	0.8617	0.0749	8.688

Internal Standard

Gallium	71	1.162	1.149	1.151	1.162 n/a	n/a
Rhodium	103	1.202	1.219	1.212	1.202 n/a	n/a
Indium	115	1,174	1.147	1.155	1.174 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102593-002S 3/30/11 21:19			Mean	SD	%RSD
Arsenic	75	21.47	21.48	21.58	21.51	0.063	0.293
Selenium	77	25.49	24.94	26.17	25.54	0.6196	2.426
Selenium	78	20.78	21.05	20.63	20.82	0.2098	1.008
Selenium	82	21.24	20.77	21.48	21.16	0.3636	1.718

Internal Standard

Gallium	71	1.151	1.157	1.165	1.151 n/a	n/a
Rhodium	103	1.192	1.216	1.222	1.192 n/a	n/a
Indium	115	1.138	1.164	1.188	1.138 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102520-MB 3/30/11 21:22	, , , , , , , , , , , , , , , , , , , ,			SD	%RSD
Arsenic	75	0.0004	0.0081	-0.0137	-0.0018	0.0111	632.1
Selenium	77	0.211	0.0858	0.0802	0.1256	0.074	58.87
Selenium	78	0.4369	0.4217	0.304	0.3875	0.0728	18.77
Selenium	82	0.0218	-0.0185	-0.0661	-0.021	0.044	210

Internal Standard

Gallium	71	0.957	0.949	0.948	0.957 n/a	n/a
Rhodium	103	0.949	0.952	0.949	0.949 n/a	n/a
Indium	115	0.966	0.976	0.977	0.966 n/a	n/a

Units: μg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		LCSW 3/30/11 21:24			Mean	SD	%RSD
Arsenic	75	19.25	19.4	19.97	19.54	0.3835	1.963
Selenium	77	19.78	20.24	19.89	19.97	0.2399	1.201
Selenium	78	19.88	19.72	19.76	19.79	0.083	0.4193
Selenium	82	19.57	19.5	20.21	19.76	0.3904	1.976

Gallium	71	0.941	0.958	0.964	0.941 n/a	n/a
Rhodium	103	0.958	0.973	0.978	0.958 n/a	n/a
Indium	115	0.96	0.966	0.981	0.96 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		K1102520-001 3/30/11 21:26			Mean	SD	%RSD
Arsenic	75	0.3604	0.4375	0.4349	0.4109	0.0438	10.65
Selenium	77	0.5619	0.3834	0.4098	0.4517	0.0964	21.33
Selenium	78	0.4854	0.4305	0.2691	0.395	0.1125	28.47
Selenium	82	0.3448	0.388	0.3496	0.3608	0.0237	6.563

Gallium	71	1.007	1.027	1.034	1.007 n/a	n/a
Rhodium	103	1.03	1.029	1.032	1.03 n/a	n/a
Indium	115	1.013	1.028	1.034	1.013 n/a	n/a

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		CCV3 3/30/11 21:29					%RSD	
Arsenic	75	25.59	25.4	25.48	25.49	0.0962	0.3774	
Selenium	77	25.52	26.35	25.84	25.9	0.4173	1.611	
Selenium	78	25.79	25.93	25.34	25.68	0.3091	1.203	
Selenium	82	25.58	25.49	25.66	25.58	0.0816	0.3191	

Gallium	71	0.956	0.977	0.978	0.956 n/a	n/a
Rhodium	103	0.965	0.965	0.982	0.965 n/a	n/a
Indium	115	0.96	0.999	1.002	0.96 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		CCB3 3/30/11 21:31	+				%RSD	
Arsenic	75	0.0247	-0.0043	0.0335	0.0179	0.0198	110.3	
Selenium	77	0.0256	0.0238	-0.0081	0.0138	0.019	137.6	
Selenium	78	0.3292	0.1818	0.1582	0.223	0.0927	41.56	
Selenium	82	-0.0093	-0.1349	-0.0018	-0.0487	0.0747	153.6	

Gallium	71	0.965	0.972	0.967	0.965 n/a	n/a
Rhodium	103	0.974	0.979	0.975	0.974 n/a	n/a
Indium	115	0.962	0.971	0.988	0.962 n/a	n/a

Units: µg/L (ppb)

Method: EPA 6020A Analyst: Greg Jasper STARLIMS #240753

Sample Name: TimeStamp		LLCCV 3/30/11 21:33			Mean	SD	%RSD
Arsenic	75	0.5622	0.5383	0.5709	0.5571	0.0169	3.033
Selenium	77	0.9407	1.133	0.9592	1.011	0.106	10.48
Selenium	78	1.151	0.8996	1.233	1.095	0.1739	15.89
Selenium	82	1.074	1.131	1.082	1.095	0.0307	2.802

Gallium	71	0.961	0.958	0.969	0.961 n/a	n/a
Rhodium	103	0.981	0.978	0.979	0.981 n/a	n/a
Indium	115	0.984	0.983	0.979	0.984 n/a	n/a