Appendix E

Laboratory and Validation Reports

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ANALYTICAL REPORT

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-201857-2
Client Project/Site: Ft. Devens/Shepley Hill Landfill

For:
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Attn: Heather Levesque

Authorized for release by:
8/23/2021 5:05:01 PM

Jerry Lanier, Project Manager I
(912)250-0281
Jerry.Lanier@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Sample Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-201857-1	AS-21-1D (24-28)	Solid	07/21/21 07:30	07/22/21 10:10
680-201857-2	AS-21-1D (34-38)	Solid	07/21/21 08:20	07/22/21 10:10
680-201857-3	AS-21-1D (48-54)	Solid	07/21/21 09:45	07/22/21 10:10
680-201857-4	AS-21-1D (60-64)	Solid	07/21/21 11:05	07/22/21 10:10
680-201857-5	AS-21-1D (70-72)	Solid	07/21/21 13:45	07/22/21 10:10
680-201857-6	DUP 072121	Solid	07/21/21 00:00	07/22/21 10:10

Job ID: 680-201857-2

Laboratory: Eurofins TestAmerica, Savannah

Narrative

Job Narrative
680-201857-2

Comments
No additional comments.

Receipt
The samples were received on 7/22/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.5º C and 2.9º C.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work
Method Acid Base Account: AGP, ANP, Sulfur Forms: This method was subcontracted to SVL Analytical, Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.

Method Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-2

Method	Method Description	Protocol	Laboratory
Subcontract	Acid Base Account: AGP, ANP, Sulfur Forms	None	SVL Analyt

Protocol References:

None = None

Laboratory References:

SVL Analyt = SVL Analytical, Inc., 1 GOVERNMENT GULCH, POBOX 929, Kellogg, ID 83837

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

ANALYTICAL REPORT FOR SAMPLES COC Number: 680-661101.1

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
AS-21-1D (24-28) / 680-201857-1	X1G0394-01	Solid	21-Jul-21 07:30	23-Jul-2021	
AS-21-1D (34-38) / 680-201857-2	X1G0394-02	Solid	21-Jul-21 08:20	23-Jul-2021	
AS-21-1D (48-54) / 680-201857-3	X1G0394-03	Solid	21-Jul-21 09:45	23-Jul-2021	
AS-21-1D (48-54) / 680-201857-3MS	X1G0394-04	Solid	21-Jul-21 09:45	23-Jul-2021	
AS-21-1D (48-54) / 680-201857-3MSD	X1G0394-05	Solid	21-Jul-21 09:45	23-Jul-2021	
AS-21-1D (60-64) / 680-201857-4	X1G0394-06	Solid	21-Jul-21 11:05	23-Jul-2021	
AS-21-1D (70-72) / 680-201857-5	X1G0394-07	Solid	21-Jul-21 13:45	23-Jul-2021	
DUP 072121 / 680-201857-6	X1G0394-08	Solid	21-Jul-21 00:00	23-Jul-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Case Narrative: X1G0394

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **AS-21-1D (24-28) : 680-201857-1**
SVL Sample ID: **X1G0394-01 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 07:30
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	**ABA**	1.9	TCaCO3/kT	1.2			N/A		08/18/21 15:15	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/16/21 14:27	
Modified Sobek	**ANP**	1.9	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:27	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:27	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:27	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:27	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:27	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Herman J. Haring
Project Manager

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **AS-21-1D (34-38) : 680-201857-2**
SVL Sample ID: **X1G0394-02 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 08:20
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	< 1.2	TCaCO3/kT	1.2			N/A		08/18/21 15:15	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/16/21 14:30	
Modified Sobek	**ANP**	0.8	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:30	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:30	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:30	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:30	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:30	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **AS-21-1D (48-54) : 680-201857-3**
SVL Sample ID: **X1G0394-03 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 09:45
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	< 1.2	TCaCO3/kT	1.2			N/A		08/18/21 15:15	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/16/21 14:33	
Modified Sobek	**ANP**	1.1	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:33	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:33	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:33	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:33	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:33	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **AS-21-1D (48-54) : 680-201857-3MS**
SVL Sample ID: **X1G0394-04 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 09:45
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	< 1.2	TCaCO3/kT	1.2			N/A		08/19/21 16:05	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/19/21 16:05	
Modified Sobek	**ANP**	1.1	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/19/21 16:05	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/19/21 14:01	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/19/21 16:05	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/19/21 14:01	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:36	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **AS-21-1D (48-54) : 680-201857-3MSD**
SVL Sample ID: **X1G0394-05 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 09:45
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	< 1.2	TCaCO3/kT	1.2			N/A		08/19/21 16:08	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/19/21 16:08	
Modified Sobek	**ANP**	0.8	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	R2B
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/19/21 16:08	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/19/21 14:10	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/19/21 16:08	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/19/21 14:10	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:39	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **AS-21-1D (60-64) : 680-201857-4**
SVL Sample ID: **X1G0394-06 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 11:05
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	**ABA**	1.4	TCaCO3/kT	1.2			N/A		08/18/21 15:15	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/16/21 14:47	
Modified Sobek	**ANP**	1.4	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:47	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:47	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:47	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:47	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:47	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **AS-21-1D (70-72) : 680-201857-5**
SVL Sample ID: **X1G0394-07 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 13:45
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	**ABA**	2.2	TCaCO3/kT	1.2			N/A		08/18/21 15:15	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/16/21 14:50	
Modified Sobek	**ANP**	2.2	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:50	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:50	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:50	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:50	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:50	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Client Sample ID: **DUP 072121 : 680-201857-6**
SVL Sample ID: **X1G0394-08 (Solid)**

Sample Report Page 1 of 1

Sampled: 21-Jul-21 00:00
Received: 23-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms										
Modified Sobek	ABA	< 1.2	TCaCO3/kT	1.2			N/A		08/18/21 15:15	
Modified Sobek	AGP	< 1.2	TCaCO3/kT	1.2	0.844		N/A		08/16/21 14:53	
Modified Sobek	**ANP**	1.1	TCaCO3/kT	0.3			X134066	PRM	08/18/21 15:15	
Modified Sobek	Non-extractable Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:53	
Modified Sobek	Non-Sulfate Sulfur	< 0.040	%	0.040	0.027		X133168	PRM	08/16/21 14:53	
Modified Sobek	Pyritic Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:53	
Modified Sobek	Sulfate Sulfur	< 0.040	%	0.040	0.0270		N/A		08/16/21 14:53	
Modified Sobek	Total Sulfur	< 0.040	%	0.040	0.016		X133168	PRM	08/16/21 14:53	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms								
Modified Sobek	ANP	TCaCO3/kT	<0.3		0.3	X134066	18-Aug-21	
Modified Sobek	Non-extractable Sulfur	%	<0.040	0.027	0.040	X133168	19-Aug-21	
Modified Sobek	Non-Sulfate Sulfur	%	<0.040	0.027	0.040	X133168	19-Aug-21	
Modified Sobek	Total Sulfur	%	<0.040	0.016	0.040	X133168	16-Aug-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	1010	1000	101	80 - 120	X134066	18-Aug-21	
Modified Sobek	Total Sulfur	%	0.953	0.970	98.2	80 - 120	X133168	16-Aug-21	

Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch and Source ID	Analyzed	Notes
Acid/Base Accounting & Sulfur Forms									
Modified Sobek	ANP	TCaCO3/kT	1.1	1.1	0.0	20	X134066 - X1G0394-04	18-Aug-21	
Modified Sobek	ANP	TCaCO3/kT	<0.3	0.8	UDL	20	X134066 - X1G0394-05	18-Aug-21	R2B
Modified Sobek	Non-extractable Sulfur	%	<0.040	<0.040	UDL	20	X133168 - X1G0394-04	16-Aug-21	
Modified Sobek	Non-extractable Sulfur	%	<0.040	<0.040	UDL	20	X133168 - X1G0394-05	19-Aug-21	
Modified Sobek	Non-Sulfate Sulfur	%	<0.040	<0.040	UDL	20	X133168 - X1G0394-04	19-Aug-21	
Modified Sobek	Non-Sulfate Sulfur	%	<0.040	<0.040	UDL	20	X133168 - X1G0394-05	19-Aug-21	
Modified Sobek	Total Sulfur	%	<0.040	<0.040	UDL	20	X133168 - X1G0394-04	16-Aug-21	
Modified Sobek	Total Sulfur	%	<0.040	<0.040	UDL	20	X133168 - X1G0394-05	16-Aug-21	

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Test America - GA	**Project Name: No Project / 68023801**
5102 LaRoche Ave	Work Order: **X1G0394**
Savannah, GA 31404	Reported: 20-Aug-21 13:28

Notes and Definitions

R2B	RPD exceeded the laboratory acceptance limit.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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1469-434 RIT2 EXP 11/21

ORIGIN ID:SAVA (912) 354-7858
SHIPPING
EUROFINS/TESTAMERICA
5102 LA ROUCHE AVE

SAVANNAH, GA 31404
UNITED STATES US

SHIP DATE: 22JUL21
ACTWGT: 15.00 LB MAN
CAD: 0801261/CAFE3409

BILL SENDER

TO SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7053
REF: 127774

FedEx Express

J20112012180 1uv

680-201857 Waybill

RT 98 1 10:30 A 6280 07.23 FZ

FRI - 23 JUL 10:30A
PRIORITY OVERNIGHT

XH AGCA

15238
PA-US PIT

Uncorrected temp 1.9 °C
Thermometer ID 17
CF 0 Initials AS
PT-WI-SR-001 effective 11/8/18

Work Order: **X1G0394**
Test America - GA

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

ecord

eurofins | Environment Testing America

Client Information (Sub Contract Lab)		Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-661101.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@Eurofinset.com	State of Origin: Massachusetts	Page: Page 1 of 1
Company: SVL Analytical		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - ANAB		Job #: 680-201857-2
Address: 1 GOVERNMENT GULCH, POBOX 929,	Due Date Requested: 8/5/2021			
City: Kellogg	TAT Requested (days):			
State, Zip: ID, 83837				
Phone:	PO #:			
Email:	WO #:			
Project Name: Ft. Devens/Shepley Hill Landfill	Project #: 68023801			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Acid Base Account: AGP, ANP, Sulfur Forms)/ Acid Base Account: AGP, ANP, Sulfur Form	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
AS-21-1D (24-28) (680-201857-1)	7/21/21	07:30 Eastern		Solid			X	1	
AS-21-1D (34-38) (680-201857-2)	7/21/21	08:20 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3)	7/21/21	09:45 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3MS)	7/21/21	09:45 Eastern	MS	Solid			X	1	
AS-21-1D (48-54) (680-201857-3MSD)	7/21/21	09:45 Eastern	MSD	Solid			X	1	
AS-21-1D (60-64) (680-201857-4)	7/21/21	11:05 Eastern		Solid			X	1	
AS-21-1D (70-72) (680-201857-5)	7/21/21	13:45 Eastern		Solid			X	1	Jar+lid cracked NB
DUP 072121 (680-201857-6)	7/21/21	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: DO	Date/Time: 7-22-21/1540	Company: SAU	Received by:	Date/Time: 07/23/21 1110	Company: SVL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.1 °C		

Ver: 06/08/2021

8/23/2021

ICOC No:
680-661101

Containers

Count	Container Type	Preservative
8	Soil jar 8oz	None

1
2
3
4
5
6
7

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 07/23/21 **By:** NB

SVL Work No: XIG0394

Item	Description	V	NA	Comments
1	Client or project name			
2	Date and time of receipt at lab	✓		07/23/21 1110
3	Received by	✓		NB
4	Temperature blank or cooler temperature	✓		Temp. 2.1 °C
5	Were the sample(s) received on ice	✓		
6	Custody tape/bottle seals		✓	
7	Shipper's air bill	✓		Fed Ex 132894126290
8	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓		Sample AS-21-D(70-72)(680-201857-5) cracked jar
9	Analysis requested for each sample	✓		
10	Sample matrix description	✓		
11	The correct preservative for the analysis requested	✓		
12	Did an SVL employee preserve sample(s) upon receipt		✓	
13	Additional Information			

V- Verified **NA- Not Applicable**

Comments:

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-201857-2

Login Number: 201857
List Number: 1
Creator: Mooken, Darmal

List Source: Eurofins TestAmerica, Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SUBCONTRACTED DATA

February 0 , 0 Service Request No:R 005

Heather Manz
Katahdin Analytical Services
00 Technology Way
P.O. Bo 5 0
Scarborough, M 0 0 0

r r R r r D

Dear Heather,

nclosed are the results of the sample s submitted to our laboratory anuary , 0
For your reference, these analyses have been assigned our service request number **R**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards e cept as noted in the case narrative report. Any testing not included in the lab s accreditation is identified on a Non Certified Analytes report. All results are intended to be considered in their entirety. ALS nvironmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that e pected when using the prescribed method s , and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time e ceedances, which may add to the uncertainty are e plained in the report narrative or are flagged with qualifiers. The flags are e plained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My e tension is . You may also contact me via email at anice. aeger alsglobal.com.

Respectfully submitted,

r r d r

anice aeger
Pro ect Manager

CC: Greg Lull

ALS nvironmental
ALS Group USA, Corp
5 5 efferson Road, Building 00, Suite 0
Rochester, NY
5 5 5 0
5 5 5

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9060A - TOC 4X D DOD - 752551 44

9060A - TOC 4X D DOD - 752706 68

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

1565 Jefferson Rd, Building 300, Rochester, NY 14623 | 585-288-5380 | www.alsglobal.com

Client: Katahdin Analytical Services
Project: SO8914 Fort Devens
Sample Matrix: Water

Service Request: R2200581
Date Received: 01/21/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Six water samples were received for analysis at ALS Environmental on 01/21/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

General Chemistry:

No significant anomalies were noted with this analysis.

Approved by _____ Date 02/02/2022

M D MM R

D M D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.5	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.5	0.5	.0	mg L	0	0A

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.0	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

M R R R

SAMPL	CLI NT SAMPL ID	DAT	TIM
R 005 00	MW D FF V NT	0	0
R 005 00	AS DUP FF V NT	0	00
R 005 00	MW S FF V NT	0	5
R 005 00	SMH 0 0 FF V NT	0	05
R 005 005	MW D FF V NT	0	5
R 005 00	MW S FF V NT	0	5

ALS Rochester

Katahdin ANALYTICAL SERVICES

Sub-contract Laboratory Chain of Custody

Client:	Contact:	Email:		Phone #:
Katahdin Analytical Services	Ms. Heather Manz	hmanz@katahdinlab.com		(207) 874-2400
Address: 600 Technology Way	**City:** Scarborough	**State:** Maine	**Zip:** 04074	**Project Name:** Fort Devens
KAS WO #: SO8914	**Quote #:**	**Purchase Order #:** SO8914		**TAT:** 2 week **Verbal TAT:** N/A
RPT Level: 4	**Reporting Format:** DOD	**EDD:** General spreadsheet		

Sample ID:	Collect Date/Time:	Matrix:	No. of Containers	Pres. H2SO4	MS/MSD Dup.	Analysis: SW9060 DOC Filtered? Y / N	~~Analysis:~~ Filtered? Y / N	~~Analysis:~~ Filtered? Y / N
MW-21-3D-FF-EVENT#4	28-DEC-21 10:13	AQ	6		yes	X		
AS-DUP-FF-EVENT#4	28-DEC-21 11:00	AQ	2		No			
MW-21-3S-FF-EVENT#4	28-DEC-21 12:15	AQ	2					
SMH-10-06-FF-EVENT#4	28-DEC-21 14:05	AQ	2					
MW-21-4D-FF-EVENT#4	28-DEC-21 15:29	AQ	2					
MW-21-1S-FF-EVENT#4	28-DEC-21 11:35	AQ	2					

Relinquished By:	Date/Time:	Received By:
[signature]	01/20/22 1430	[signature] 1/21/22 10:30

Comments:

Hold time will expire on jan. 25

Please report this coc separately

R2200581 5
Katahdin Analytical Services
SO8914 Fort Devens

R2200581 5
Katahdin Analytical Services
S08914 Fort Devens

Cooler Receipt and Preservation Check Form

Project/Client Katahdin Folder Number _____

Cooler received on 1/21/22 by: MM COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y N	5a	Perchlorate samples have required headspace?	Y N NA
2	Custody papers properly completed (ink, signed)?	Y N	5b	Did VOA vials, Alk,or Sulfide have sig* bubbles?	Y N NA
3	Did all bottles arrive in good condition (unbroken)?	Y N	6	Where did the bottles originate? ALS/ROC CLIENT	
4	Circle: Wet Ice Dry Ice Gel packs present?	Y N	7	Soil VOA received as: Bulk Encore 5035set NA	

8. Temperature Readings Date: 1/21/22 Time: 10:50 ID: IR#7 IR#11 From: Temp Blank Sample Bottle

Observed Temp (°C)	2.0						
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Rloor by MM on 1/21/22 at 11:00
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 1/21/22 Time: 1343 by: [illegible]

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
13. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2	225320	H_2SO_4	✓		Client					
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: Client
Explain all Discrepancies/ Other Comments:

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: [illegible]
PC Secondary Review: [illegible] 1/24/22 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r19.doc 03/02/2021

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Katahdin Analytical Services **Service Request:** R2200581
Project: SO8914 Fort Devens

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2200581-001.01					
	9060A				
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-001.02					
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-001.03					
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-001.04					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-001.05					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-001.06					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-002.01					
	9060A				
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-002.02					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-003.01					
	9060A				
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-003.02					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Katahdin Analytical Services **Service Request:** R2200581
Project: SO8914 Fort Devens

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2200581-004.01					
	9060A				
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-004.02					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-005.01					
	9060A				
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-005.02					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-006.01					
	9060A				
		1/21/2022	1334	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200581-006.02					
		1/21/2022	1336	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for Accreditations[1]

NELAP State Accreditation #
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP State Accreditation #
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island ID #LAO00333

PJLA Testing DoD ELAP
Accreditation #65817

[1] Analyses were performed according to the current DoD Quality Systems Manual, our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current requirements, where applicable, except as noted in the case narrative. This report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

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.

Client: Katahdin Analytical Services
Project: SO8914 Fort Devens/
Service Request: R2200581

Sample Name: MW-21-3D-FF-EVENT#4
Lab Code: R2200581-001
Sample Matrix: Water
Date Collected: 12/28/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMEDBURY

Sample Name: AS-DUP-FF-EVENT#4
Lab Code: R2200581-002
Sample Matrix: Water
Date Collected: 12/28/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMEDBURY

Sample Name: MW-21-3S-FF-EVENT#4
Lab Code: R2200581-003
Sample Matrix: Water
Date Collected: 12/28/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMEDBURY

Sample Name: SMH-10-06-FF-EVENT#4
Lab Code: R2200581-004
Sample Matrix: Water
Date Collected: 12/28/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Sample Name: MW-21-4D-FF-EVENT#4
Lab Code: R2200581-005
Sample Matrix: Water
Date Collected: 12/28/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Analyst Summary report

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens/		

Sample Name:	MW-21-1S-FF-EVENT#4	**Date Collected:**	12/28/21
Lab Code:	R2200581-006	**Date Received:**	01/21/22
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

Sample Results

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1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 10:13
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3D-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/23/22 21:16	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 21:36	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 21:26	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 21:06	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 11:00
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	AS-DUP-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 23:28	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 23:19	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 23:38	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 23:09	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 12:15
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3S-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/24/22 00:19	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 23:59	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/24/22 00:09	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 23:49	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 14:05
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	SMH-10-06-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.3**	mg/L	1.0	0.5	0.5	1	01/25/22 12:03	
Carbon, Dissolved Organic (DOC)	9060A	**3.5**	mg/L	1.0	0.5	0.5	1	01/25/22 12:33	
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 12:23	
Carbon, Dissolved Organic (DOC)	9060A	**3.4**	mg/L	1.0	0.5	0.5	1	01/25/22 12:13	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 15:29
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-4D-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 12:54	
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 13:14	
Carbon, Dissolved Organic (DOC)	9060A	**4.7**	mg/L	1.0	0.5	0.5	1	01/25/22 12:44	
Carbon, Dissolved Organic (DOC)	9060A	**3.5**	mg/L	1.0	0.5	0.5	1	01/25/22 13:04	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 11:35
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1S-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.4**	mg/L	1.0	0.5	0.5	1	01/25/22 13:24	
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 13:54	
Carbon, Dissolved Organic (DOC)	9060A	**4.0**	mg/L	1.0	0.5	0.5	1	01/25/22 13:44	
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 13:34	

QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R2200581-MB1		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 20:14	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 19:54	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 19:45	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 20:04	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R2200581-MB2		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 10:51	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 11:01	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 10:41	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 11:11	

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QA/QC Report

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21
Sample Matrix:	Water	**Date Received:**	01/21/22
		Date Analyzed:	01/23/22

Duplicate Matrix Spike Summary
Carbon, Dissolved Organic (DOC)

Sample Name:	MW-21-3D-FF-EVENT#4	**Units:**	mg/L
Lab Code:	R2200581-001	**Basis:**	NA
Analysis Method:	9060A		

		Matrix Spike R2200581-001MS			**Duplicate Matrix Spike** R2200581-001DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Carbon, Dissolved Organic (DOC)	2.3	11.1	10.0	88	11.3	10.0	90	85-115	2	20
Carbon, Dissolved Organic (DOC)	2.1	11.2	10.0	90	11.4	10.0	92	85-115	2	20
Carbon, Dissolved Organic (DOC)	2.2	12.0	10.0	98	12.1	10.0	99	85-115	1	20
Carbon, Dissolved Organic (DOC)	2.2	11.1	10.0	89	11.0	10.0	89	85-115	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Katahdin Analytical Services
Project: SO8914 Fort Devens
Sample Matrix: Water

Service Request: R2200581
Date Analyzed: 01/23/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2200581-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Dissolved Organic (DOC)	9060A	9.9	10.0	99	85-115
Carbon, Dissolved Organic (DOC)	9060A	10	10.0	100	85-115
Carbon, Dissolved Organic (DOC)	9060A	9.4	10.0	94	85-115
Carbon, Dissolved Organic (DOC)	9060A	9.3	10.0	93	85-115

Client: Katahdin Analytical Services
Project: SO8914 Fort Devens
Sample Matrix: Water

Service Request: R2200581
Date Analyzed: 01/25/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2200581-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Dissolved Organic (DOC)	9060A	10.6	10.0	106	85-115
Carbon, Dissolved Organic (DOC)	9060A	9.41	10.0	94	85-115
Carbon, Dissolved Organic (DOC)	9060A	10.6	10.0	106	85-115
Carbon, Dissolved Organic (DOC)	9060A	10.5	10.0	105	85-115

Client: Katahdin Analytical Services **Service Request:**R2200581
Project: SO8914 Fort Devens

Continuing Calibration Blank (CCB) Summary
Carbon, Dissolved Organic (DOC)

Analysis Method: 9060A **Units:**mg/L

	Analysis Lot	Lab Code	Date Analyzed	LOQ	LOD	MDL	Result	Q
CCB1	752551	RQ2200677-02	01/23/22 19:45	1.0	0.5	0.5	ND	U
CCB2	752551	RQ2200677-02	01/23/22 20:04	1.0	0.5	0.5	ND	U
CCB3	752551	RQ2200677-02	01/23/22 19:54	1.0	0.5	0.5	ND	U
CCB4	752551	RQ2200677-02	01/23/22 20:14	1.0	0.5	0.5	ND	U
CCB5	752551	RQ2200677-08	01/24/22 04:04	1.0	0.5	0.5	ND	U
CCB6	752551	RQ2200677-08	01/24/22 04:14	1.0	0.5	0.5	ND	U
CCB7	752551	RQ2200677-08	01/24/22 03:54	1.0	0.5	0.5	ND	U
CCB8	752551	RQ2200677-08	01/24/22 04:24	1.0	0.5	0.5	ND	U
CCB9	752551	RQ2200677-10	01/24/22 12:23	1.0	0.5	0.5	ND	U
CCB10	752551	RQ2200677-10	01/24/22 12:33	1.0	0.5	0.5	ND	U
CCB11	752551	RQ2200677-10	01/24/22 12:03	1.0	0.5	0.5	ND	U
CCB12	752551	RQ2200677-10	01/24/22 12:13	1.0	0.5	0.5	ND	U
CCB13	752551	RQ2200677-11	01/24/22 20:42	1.0	0.5	0.5	ND	U
CCB14	752551	RQ2200677-11	01/24/22 20:32	1.0	0.5	0.5	ND	U
CCB15	752551	RQ2200677-11	01/24/22 20:12	1.0	0.5	0.5	ND	U
CCB16	752551	RQ2200677-11	01/24/22 20:22	1.0	0.5	0.5	ND	U
CCB17	752706	RQ2200792-02	01/25/22 11:01	1.0	0.5	0.5	ND	U
CCB18	752706	RQ2200792-02	01/25/22 10:51	1.0	0.5	0.5	ND	U
CCB19	752706	RQ2200792-02	01/25/22 11:11	1.0	0.5	0.5	ND	U
CCB20	752706	RQ2200792-02	01/25/22 10:41	1.0	0.5	0.5	ND	U
CCB21	752706	RQ2200792-08	01/25/22 19:10	1.0	0.5	0.5	ND	U
CCB22	752706	RQ2200792-08	01/25/22 19:01	1.0	0.5	0.5	ND	U
CCB23	752706	RQ2200792-08	01/25/22 18:51	1.0	0.5	0.5	ND	U
CCB24	752706	RQ2200792-08	01/25/22 19:20	1.0	0.5	0.5	ND	U
CCB25	752706	RQ2200792-10	01/26/22 03:00	1.0	0.5	0.5	ND	U
CCB26	752706	RQ2200792-10	01/26/22 03:10	1.0	0.5	0.5	ND	U
CCB27	752706	RQ2200792-10	01/26/22 03:20	1.0	0.5	0.5	ND	U
CCB28	752706	RQ2200792-10	01/26/22 03:30	1.0	0.5	0.5	ND	U
CCB29	752706	RQ2200792-12	01/26/22 11:38	1.0	0.5	0.5	ND	U
CCB30	752706	RQ2200792-12	01/26/22 11:08	1.0	0.5	0.5	ND	U
CCB31	752706	RQ2200792-12	01/26/22 11:18	1.0	0.5	0.5	ND	U
CCB32	752706	RQ2200792-12	01/26/22 11:28	1.0	0.5	0.5	ND	U

Client: Katahdin Analytical Services **Service Request:** R2200581
Project: SO8914 Fort Devens

Continuing Calibration Verification (CCV) Summary

Carbon, Dissolved Organic (DOC)

Analysis Method: 9060A **Units:** mg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	752551	RQ2200677-01	01/23/22 19:34	15.0	15.7	105	85-115
CCV2	752551	RQ2200677-01	01/23/22 19:14	15.0	14.7	98	85-115
CCV3	752551	RQ2200677-01	01/23/22 19:04	15.0	15.1	101	85-115
CCV4	752551	RQ2200677-01	01/23/22 19:24	15.0	15.6	104	85-115
CCV5	752551	RQ2200677-07	01/24/22 03:23	15.0	15.8	105	85-115
CCV6	752551	RQ2200677-07	01/24/22 03:33	15.0	15.2	101	85-115
CCV7	752551	RQ2200677-07	01/24/22 03:13	15.0	16.3	109	85-115
CCV8	752551	RQ2200677-07	01/24/22 03:43	15.0	15.9	106	85-115
CCV9	752551	RQ2200677-09	01/24/22 11:22	15.0	14.6	98	85-115
CCV10	752551	RQ2200677-09	01/24/22 11:52	15.0	15.5	103	85-115
CCV11	752551	RQ2200677-09	01/24/22 11:42	15.0	13.9	93	85-115
CCV12	752551	RQ2200677-09	01/24/22 11:32	15.0	13.5	90	85-115
CCV13	752551	RQ2200677-12	01/24/22 20:01	15.0	16.0	107	85-115
CCV14	752551	RQ2200677-12	01/24/22 19:31	15.0	16.1	108	85-115
CCV15	752551	RQ2200677-12	01/24/22 19:51	15.0	15.4	103	85-115
CCV16	752551	RQ2200677-12	01/24/22 19:41	15.0	15.3	102	85-115
CCV17	752706	RQ2200792-01	01/25/22 10:30	15.0	15.5	103	85-115
CCV18	752706	RQ2200792-01	01/25/22 10:20	15.0	15.5	103	85-115
CCV19	752706	RQ2200792-01	01/25/22 10:00	15.0	15.4	103	85-115
CCV20	752706	RQ2200792-01	01/25/22 10:10	15.0	15.0	100	85-115
CCV21	752706	RQ2200792-07	01/25/22 18:10	15.0	16.1	107	85-115
CCV22	752706	RQ2200792-07	01/25/22 18:20	15.0	15.1	101	85-115
CCV23	752706	RQ2200792-07	01/25/22 18:30	15.0	15.2	101	85-115
CCV24	752706	RQ2200792-07	01/25/22 18:40	15.0	16.0	106	85-115
CCV25	752706	RQ2200792-09	01/26/22 02:19	15.0	15.6	104	85-115
CCV26	752706	RQ2200792-09	01/26/22 02:49	15.0	16.4	109	85-115
CCV27	752706	RQ2200792-09	01/26/22 02:29	15.0	15.5	103	85-115
CCV28	752706	RQ2200792-09	01/26/22 02:39	15.0	15.5	103	85-115
CCV29	752706	RQ2200792-11	01/26/22 10:28	15.0	15.3	102	85-115
CCV30	752706	RQ2200792-11	01/26/22 10:48	15.0	15.6	104	85-115
CCV31	752706	RQ2200792-11	01/26/22 10:58	15.0	15.8	105	85-115
CCV32	752706	RQ2200792-11	01/26/22 10:38	15.0	14.8	99	85-115

Raw Data

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 10:13
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3D-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/23/22 21:16	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 21:36	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 21:26	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 21:06	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 11:00
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	AS-DUP-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 23:28	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 23:19	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 23:38	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/23/22 23:09	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 12:15
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3S-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/24/22 00:19	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 23:59	
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/24/22 00:09	
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/23/22 23:49	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 14:05
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	SMH-10-06-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.3**	mg/L	1.0	0.5	0.5	1	01/25/22 12:03	
Carbon, Dissolved Organic (DOC)	9060A	**3.5**	mg/L	1.0	0.5	0.5	1	01/25/22 12:33	
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 12:23	
Carbon, Dissolved Organic (DOC)	9060A	**3.4**	mg/L	1.0	0.5	0.5	1	01/25/22 12:13	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 15:29
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-4D-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 12:54	
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 13:14	
Carbon, Dissolved Organic (DOC)	9060A	**4.7**	mg/L	1.0	0.5	0.5	1	01/25/22 12:44	
Carbon, Dissolved Organic (DOC)	9060A	**3.5**	mg/L	1.0	0.5	0.5	1	01/25/22 13:04	

Client:	Katahdin Analytical Services	**Service Request:**	R2200581
Project:	SO8914 Fort Devens	**Date Collected:**	12/28/21 11:35
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1S-FF-EVENT#4	**Basis:**	NA
Lab Code:	R2200581-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.4**	mg/L	1.0	0.5	0.5	1	01/25/22 13:24	
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 13:54	
Carbon, Dissolved Organic (DOC)	9060A	**4.0**	mg/L	1.0	0.5	0.5	1	01/25/22 13:44	
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 13:34	

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.12 mg/L	42 mL	15.1 mg/L	1					1/23/22 19:04:00	N	IV
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	14.67 mg/L	42 mL	14.7 mg/L	1					1/23/22 19:14:00	N	IV
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.60 mg/L	42 mL	15.6 mg/L	1					1/23/22 19:24:00	N	IV
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.71 mg/L	42 mL	15.7 mg/L	1					1/23/22 19:34:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:45:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:45:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:54:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:54:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:04:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:04:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:14:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:14:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.31 mg/L	42 mL	9.31 mg/L	1	0.5	1.0	93		1/23/22 20:25:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.43 mg/L	42 mL	9.43 mg/L	1	0.5	1.0	94		1/23/22 20:35:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.98 mg/L	42 mL	9.98 mg/L	1	0.5	1.0	100		1/23/22 20:45:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.93 mg/L	42 mL	9.93 mg/L	1	0.5	1.0	99		1/23/22 20:55:00	N	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.13 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 21:06:00	Y	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.32 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/23/22 21:16:00	Y	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.18 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 21:26:00	Y	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.18 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 21:36:00	Y	IV
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.17 mg/L	42 mL	11.2 mg/L	1	0.5	1.0	90		1/23/22 21:47:00	N	IV
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.08 mg/L	42 mL	11.1 mg/L	1	0.5	1.0	88		1/23/22 21:57:00	N	IV
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.05 mg/L	42 mL	11.1 mg/L	1	0.5	1.0	89		1/23/22 22:07:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.96 mg/L	42 mL	12.0 mg/L	1	0.5	1.0	98		1/23/22 22:17:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	11.36 mg/L	42 mL	11.4 mg/L	1	0.5	1.0	92	2	1/23/22 22:28:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	11.29 mg/L	42 mL	11.3 mg/L	1	0.5	1.0	90	2	1/23/22 22:38:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	11.05 mg/L	42 mL	11.0 mg/L	1	0.5	1.0	89	<1	1/23/22 22:48:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	12.12 mg/L	42 mL	12.1 mg/L	1	0.5	1.0	99	1	1/23/22 22:58:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.14 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 23:09:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.11 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 23:19:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.12 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 23:28:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.21 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 23:38:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.17 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 23:49:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.16 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 23:59:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.05 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/24/22 00:09:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.29 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/24/22 00:19:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.55 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/24/22 02:33:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	3.33 mg/L	42 mL	3.3 mg/L	1	0.5	1.0			1/24/22 02:42:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.63 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/24/22 02:52:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.76 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/24/22 03:02:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	16.30 mg/L	42 mL	16.3 mg/L	1					1/24/22 03:13:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.82 mg/L	42 mL	15.8 mg/L	1					1/24/22 03:23:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.22 mg/L	42 mL	15.2 mg/L	1					1/24/22 03:33:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.86 mg/L	42 mL	15.9 mg/L	1					1/24/22 03:43:00	N	IV
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 03:54:00	N	IV
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 04:04:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 04:14:00	N	IV
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 04:24:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.34 mg/L	42 mL	1.3 mg/L	1	0.5	1.0			1/24/22 04:35:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.53 mg/L	42 mL	1.5 mg/L	1	0.5	1.0			1/24/22 04:45:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.65 mg/L	42 mL	1.6 mg/L	1	0.5	1.0			1/24/22 04:55:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.39 mg/L	42 mL	1.4 mg/L	1	0.5	1.0			1/24/22 05:05:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.76 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/24/22 05:16:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.79 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/24/22 05:26:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.97 mg/L	42 mL	3.0 mg/L	1	0.5	1.0			1/24/22 05:36:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	3.18 mg/L	42 mL	3.2 mg/L	1	0.5	1.0			1/24/22 05:45:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.49 mg/L	42 mL	2.5 mg/L	1	0.5	1.0			1/24/22 06:37:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.46 mg/L	42 mL	2.5 mg/L	1	0.5	1.0			1/24/22 06:47:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.57 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/24/22 06:57:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.73 mg/L	42 mL	2.7 mg/L	1	0.5	1.0			1/24/22 07:07:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.12 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/24/22 09:20:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.16 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 09:30:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.31 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/24/22 09:40:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.38 mg/L	42 mL	2.4 mg/L	1	0.5	1.0			1/24/22 09:50:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.54 mg/L	42 mL	2.5 mg/L	1	0.5	1.0			1/24/22 10:01:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.40 mg/L	42 mL	2.4 mg/L	1	0.5	1.0			1/24/22 10:11:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.35 mg/L	42 mL	2.4 mg/L	1	0.5	1.0			1/24/22 10:21:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	3.16 mg/L	42 mL	3.2 mg/L	1	0.5	1.0			1/24/22 10:31:00	N	IV
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	14.65 mg/L	42 mL	14.6 mg/L	1					1/24/22 11:22:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	13.48 mg/L	42 mL	13.5 mg/L	1					1/24/22 11:32:00	N	IV
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	13.93 mg/L	42 mL	13.9 mg/L	1					1/24/22 11:42:00	N	IV
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/24/22 11:52:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.16 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 15:27:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.09 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/24/22 15:37:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.22 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 15:47:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.19 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 15:57:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	16.13 mg/L	42 mL	16.1 mg/L	1					1/24/22 19:31:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	15.32 mg/L	42 mL	15.3 mg/L	1					1/24/22 19:41:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/24/22 19:51:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	16.02 mg/L	42 mL	16.0 mg/L	1					1/24/22 20:01:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.04 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:12:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:22:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:32:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:42:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752552 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	14.65 mg/L	42 mL	14.6 mg/L	1					1/24/22 11:22:00	N	IV
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	13.48 mg/L	42 mL	13.5 mg/L	1					1/24/22 11:32:00	N	IV
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	13.93 mg/L	42 mL	13.9 mg/L	1					1/24/22 11:42:00	N	IV
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/24/22 11:52:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.52 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/24/22 16:07:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.63 mg/L	42 mL	9.63 mg/L	1	0.5	1.0	96		1/24/22 16:17:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.14 mg/L	42 mL	10.1 mg/L	1	0.5	1.0	101		1/24/22 16:27:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.40 mg/L	42 mL	10.4 mg/L	1	0.5	1.0	104		1/24/22 16:37:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	5.99 mg/L	42 mL	1200 mg/L	200	90	200			1/24/22 17:29:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	5.81 mg/L	42 mL	1160 mg/L	200	90	200			1/24/22 17:39:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	6.07 mg/L	42 mL	1210 mg/L	200	90	200			1/24/22 17:49:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	6.16 mg/L	42 mL	1230 mg/L	200	90	200			1/24/22 17:59:00	N	IV
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.26 mg/L	42 mL	2.5 mg/L	2	0.9	2.0			1/24/22 18:10:00	N	IV
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.22 mg/L	42 mL	2.4 mg/L	2	0.9	2.0			1/24/22 18:20:00	N	IV
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.08 mg/L	42 mL	2.2 mg/L	2	0.9	2.0			1/24/22 18:30:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752552 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.53 mg/L	42 mL	3.1 mg/L	2	0.9	2.0			1/24/22 18:40:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.16 mg/L	42 mL	1.2 mg/L	1	0.5	1.0			1/24/22 18:50:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.04 mg/L	42 mL	1.0 mg/L	1	0.5	1.0			1/24/22 19:00:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	0.87 mg/L	42 mL	0.9 mg/L J	1	0.5	1.0			1/24/22 19:10:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	0.93 mg/L	42 mL	0.9 mg/L J	1	0.5	1.0			1/24/22 19:20:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	16.13 mg/L	42 mL	16.1 mg/L	1					1/24/22 19:31:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	15.32 mg/L	42 mL	15.3 mg/L	1					1/24/22 19:41:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/24/22 19:51:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	16.02 mg/L	42 mL	16.0 mg/L	1					1/24/22 20:01:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.04 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:12:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:22:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:32:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:42:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752553 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	14.65 mg/L	42 mL	14.6 mg/L	1					1/24/22 11:22:00	N	IV
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	13.48 mg/L	42 mL	13.5 mg/L	1					1/24/22 11:32:00	N	IV
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	13.93 mg/L	42 mL	13.9 mg/L	1					1/24/22 11:42:00	N	IV
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/24/22 11:52:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	10.52 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/24/22 16:07:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	9.63 mg/L	42 mL	9.63 mg/L	1	0.5	1.0	96		1/24/22 16:17:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	10.14 mg/L	42 mL	10.1 mg/L	1	0.5	1.0	101		1/24/22 16:27:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	10.40 mg/L	42 mL	10.4 mg/L	1	0.5	1.0	104		1/24/22 16:37:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	16.13 mg/L	42 mL	16.1 mg/L	1					1/24/22 19:31:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	15.32 mg/L	42 mL	15.3 mg/L	1					1/24/22 19:41:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/24/22 19:51:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	16.02 mg/L	42 mL	16.0 mg/L	1					1/24/22 20:01:00	N	IV
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.04 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:12:00	N	IV
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:22:00	N	IV
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:32:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752553 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:42:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	12.75 mg/L	42 mL	25.5 mg/L	2	0.9	2.0			1/24/22 21:34:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	13.48 mg/L	42 mL	27.0 mg/L	2	0.9	2.0			1/24/22 21:43:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	15.07 mg/L	42 mL	30.1 mg/L	2	0.9	2.0			1/24/22 21:53:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	15.44 mg/L	42 mL	30.9 mg/L	2	0.9	2.0			1/24/22 22:03:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.57 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:16:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.59 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:26:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.63 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:36:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.65 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:46:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	6.08 mg/L	42 mL	1220 mg/L	200	90	200			1/25/22 00:57:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	5.79 mg/L	42 mL	1160 mg/L	200	90	200			1/25/22 01:07:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	6.40 mg/L	42 mL	1280 mg/L	200	90	200			1/25/22 01:17:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	6.19 mg/L	42 mL	1240 mg/L	200	90	200			1/25/22 01:27:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.73 mg/L	42 mL	0.7 mg/L J	1	0.5	1.0			1/25/22 01:38:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.72 mg/L	42 mL	0.7 mg/L J	1	0.5	1.0			1/25/22 01:48:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.77 mg/L	42 mL	0.8 mg/L J	1	0.5	1.0			1/25/22 01:58:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.84 mg/L	42 mL	0.8 mg/L J	1	0.5	1.0			1/25/22 02:08:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	13.82 mg/L	42 mL	13.8 mg/L	1					1/25/22 02:19:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	14.90 mg/L	42 mL	14.9 mg/L	1					1/25/22 02:29:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	15.57 mg/L	42 mL	15.6 mg/L	1					1/25/22 02:39:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	15.69 mg/L	42 mL	15.7 mg/L	1					1/25/22 02:49:00	N	IV
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:00:00	N	IV
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:10:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752553 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:20:00	N	IV
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:30:00	N	IV

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Sample Dilutions

Final Volume: 30-40mL - TOC

Analyst: S MEDBURY
Instrument: TOC #1

Date 1/23/22
Analysis 9060A

Common Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor
1/2	DI	20	20	1/2												
1/3	DI	10	20	1/3												
1/4	DI	10	30	1/4												
1/6	DI	7	35	1/6												
1/7	DI	6	36	1/7												
1/10	DI	3	27	1/10												
1/10	DI	4	36	1/10												
1/20	DI	2	38	1/20												
1/30	DI	1	29	1/30												
1/40	DI	1	39	1/40												
1/100	DI	0.4	39.6	1/100												
1/200	DI	0.2	39.8	1/200												
1/300	DI	0.1	29.9	1/300												
1/400	DI	0.1	39.9	1/400												
1/1000	DI	1	9	1/10	0.4	39.6	1/1000									
1/2000	DI	1	9	1/10	0.2	39.8	1/2000									
1/4000	DI	1	9	1/10	0.1	39.9	1/4000									
1/10000	DI	0.4	39.6	1/100	0.4	39.6	1/10000									

Special Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor

TOC

CALIBRATION: 011321

1/23/22
SHEPBURY
TOC #1
90604
PIPETTE: WAYNE.

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Spl		Name:	WARM-UP				Data File: 0123052						
		Remarks:	<none>										
1	Spl	1	23Jan2022	17:42	-	-	-	678	0.428	0.428	-	-	-
1	Spl	2	23Jan2022	17:52	-	-	-	531	0.281	0.281	-	-	-
1	Spl	3	23Jan2022	18:02	-	-	-	599	0.349	0.349	-	-	-
1	Spl	4	23Jan2022	18:12	-	-	-	541	0.291	0.291	-	-	-
1	Spl	Avg						587	0.337	0.337			
1	Spl	SDev						67.520					
1	Spl	%RSD						11.50					
** Spl		Name:	WARM-UP				Data File: 0123053						
		Remarks:	<none>										
2	Spl	1	23Jan2022	18:23	-	-	-	411	0.161	0.161	-	-	-
2	Spl	2	23Jan2022	18:33	-	-	-	280	0.030	0.030	-	-	-
2	Spl	3	23Jan2022	18:43	-	-	-	254	0.004	0.004	-	-	-
2	Spl	4	23Jan2022	18:53	-	-	-	261	0.011	0.011	-	-	-
2	Spl	Avg						301	0.052	0.052			
2	Spl	SDev						73.822					
2	Spl	%RSD						24.48					
** Spl		Name:	CCV				Data File: 0123054						
		Remarks:	<none>										
3	Spl	1	23Jan2022	19:04	-	-	-	15358	15.114	15.115	-	-	-
3	Spl	2	23Jan2022	19:14	-	-	-	14913	14.669	14.669	-	-	-
3	Spl	3	23Jan2022	19:24	-	-	-	15842	15.599	15.599	-	-	-
3	Spl	4	23Jan2022	19:34	-	-	-	15957	15.714	15.714	-	-	-
3	Spl	Avg						15517	15.274	15.274			
3	Spl	SDev						479.347					
3	Spl	%RSD						3.09					
** Spl		Name:	CCB				Data File: 0123055						
		Remarks:	<none>										
4	Spl	1	23Jan2022	19:45	-	-	-	192	0.000	0.000	-	-	-
4	Spl	2	23Jan2022	19:54	-	-	-	196	0.000	0.000	-	-	-
4	Spl	3	23Jan2022	20:04	-	-	-	197	0.000	0.000	-	-	-
4	Spl	4	23Jan2022	20:14	-	-	-	148	0.000	0.000	-	-	-
4	Spl	Avg						183	0.000	0.000			
4	Spl	SDev						23.599					
4	Spl	%RSD						12.88					
** Spl		Name:	LCS				Data File: 0123056						
		Remarks:	<none>										
5	Spl	1	23Jan2022	20:25	-	-	-	9554	9.308	9.308	-	-	-
5	Spl	2	23Jan2022	20:35	-	-	-	9677	9.431	9.431	-	-	-
5	Spl	3	23Jan2022	20:45	-	-	-	10224	9.978	9.978	-	-	-
5	Spl	4	23Jan2022	20:55	-	-	-	10179	9.933	9.933	-	-	-
5	Spl	Avg						9908	9.663	9.663			
5	Spl	SDev						342.526					
5	Spl	%RSD						3.46					
** Spl		Name:	R2200581-001				Data File: 0123057						
		Remarks:	<none>										
6	Spl	1	23Jan2022	21:06	-	-	-	2375	2.126	2.126	-	-	-
6	Spl	2	23Jan2022	21:16	-	-	-	2570	2.321	2.321	-	-	-
6	Spl	3	23Jan2022	21:26	-	-	-	2425	2.176	2.176	-	-	-
6	Spl	4	23Jan2022	21:36	-	-	-	2433	2.184	2.184	-	-	-
6	Spl	Avg						2450	2.202	2.202			
6	Spl	SDev						83.540					
6	Spl	%RSD						3.41					
** Spl		Name:	R2200581-001S!				Data File: 0123058						
		Remarks:	<none>										
7	Spl	1	23Jan2022	21:47	-	-	-	11411	11.166	11.166	-	-	-
7	Spl	2	23Jan2022	21:57	-	-	-	11326	11.081	11.081	-	-	-
7	Spl	3	23Jan2022	22:07	-	-	-	11298	11.053	11.053	-	-	-
7	Spl	4	23Jan2022	22:17	-	-	-	12206	11.961	11.961	-	-	-
7	Spl	Avg						11560	11.315	11.315			
7	Spl	SDev						433.173					
7	Spl	%RSD						3.75					
** Spl		Name:	R2200581-001SD!				Data File: 0123059						
		Remarks:	<none>										
8	Spl	1	23Jan2022	22:28	-	-	-	11602	11.357	11.357	-	-	-
8	Spl	2	23Jan2022	22:38	-	-	-	11532	11.287	11.287	-	-	-
8	Spl	3	23Jan2022	22:48	-	-	-	11290	11.045	11.045	-	-	-

								012322				
8	Spl	4	23Jan2022 22:58	-	-	-	12363	12.118	12.118	-	-	-
8	Spl	Avg					11696	11.452	11.452			
8	Spl	SDev					463.844					
8	Spl	%RSD					3.97					

** Spl Name: R2200581-002 Data File: 0123060
Remarks: <none>

9	Spl	1	23Jan2022 23:09	-	-	-	2389	2.140	2.140	-	-	-
9	Spl	2	23Jan2022 23:19	-	-	-	2358	2.109	2.109	-	-	-
9	Spl	3	23Jan2022 23:28	-	-	-	2371	2.122	2.122	-	-	-
9	Spl	4	23Jan2022 23:38	-	-	-	2455	2.206	2.206	-	-	-
9	Spl	Avg					2393	2.144	2.144			
9	Spl	SDev					43.084					
9	Spl	%RSD					1.80					

** Spl Name: R2200581-003 Data File: 0123061
Remarks: <none>

10	Spl	1	23Jan2022 23:49	-	-	-	2419	2.170	2.170	-	-	-
10	Spl	2	23Jan2022 23:59	-	-	-	2411	2.162	2.162	-	-	-
10	Spl	3	24Jan2022 00:09	-	-	-	2300	2.051	2.051	-	-	-
10	Spl	4	24Jan2022 00:19	-	-	-	2536	2.287	2.287	-	-	-
10	Spl	Avg					2416	2.167	2.167			
10	Spl	SDev					96.417					
10	Spl	%RSD					3.99					

** Spl Name: R2200581-004 Data File: 0123062
Remarks: 4

11	Spl	1	24Jan2022 00:30	-	-	-	961	0.711	0.711	-	-	-
11	Spl	2	24Jan2022 00:40	-	-	-	949	0.699	0.699	-	-	-
11	Spl	3	24Jan2022 00:50	-	-	-	858	0.608	0.608	-	-	-
11	Spl	4	24Jan2022 01:00	-	-	-	979	0.729	0.729	-	-	-
11	Spl	Avg					936	0.687	0.687			
11	Spl	SDev					53.928					
11	Spl	%RSD					5.76					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200581-005 Data File: 0123063
Remarks: 10

12	Spl	1	24Jan2022 01:11	-	-	-	342	0.092	0.092	-	-	-
12	Spl	2	24Jan2022 01:21	-	-	-	347	0.097	0.097	-	-	-
12	Spl	3	24Jan2022 01:31	-	-	-	371	0.121	0.121	-	-	-
12	Spl	4	24Jan2022 01:41	-	-	-	379	0.129	0.129	-	-	-
12	Spl	Avg					359	0.110	0.110			
12	Spl	SDev					18.025					
12	Spl	%RSD					5.01					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200581-006 Data File: 0123064
Remarks: 10

13	Spl	1	24Jan2022 01:52	-	-	-	466	0.216	0.216	-	-	-
13	Spl	2	24Jan2022 02:02	-	-	-	448	0.198	0.198	-	-	-
13	Spl	3	24Jan2022 02:12	-	-	-	445	0.195	0.195	-	-	-
13	Spl	4	24Jan2022 02:22	-	-	-	522	0.272	0.272	-	-	-
13	Spl	Avg					470	0.220	0.220			
13	Spl	SDev					35.725					
13	Spl	%RSD					7.60					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200580-001 Data File: 0123065
Remarks: <none>

14	Spl	1	24Jan2022 02:33	-	-	-	2800	2.551	2.551	-	-	-
14	Spl	2	24Jan2022 02:42	-	-	-	3577	3.328	3.328	-	-	-
14	Spl	3	24Jan2022 02:52	-	-	-	2882	2.633	2.633	-	-	-
14	Spl	4	24Jan2022 03:02	-	-	-	3010	2.761	2.761	-	-	-
14	Spl	Avg					3067	2.818	2.819			
14	Spl	SDev					350.648					
14	Spl	%RSD					11.43					

** Spl Name: CCV Data File: 0123066
Remarks: <none>

15	Spl	1	24Jan2022 03:13	-	-	-	16543	16.300	16.300	-	-	-
15	Spl	2	24Jan2022 03:23	-	-	-	16060	15.817	15.817	-	-	-
15	Spl	3	24Jan2022 03:33	-	-	-	15462	15.219	15.219	-	-	-
15	Spl	4	24Jan2022 03:43	-	-	-	16101	15.858	15.858	-	-	-
15	Spl	Avg					16041	15.798	15.798			
15	Spl	SDev					443.924					
15	Spl	%RSD					2.77					

** Spl Name: CCB Data File: 0123067
Remarks: <none>

16	Spl	1	24Jan2022 03:54	-	-	-	169	0.000	0.000	-	-	-
16	Spl	2	24Jan2022 04:04	-	-	-	185	0.000	0.000	-	-	-
16	Spl	3	24Jan2022 04:14	-	-	-	164	0.000	0.000	-	-	-
16	Spl	4	24Jan2022 04:24	-	-	-	169	0.000	0.000	-	-	-
16	Spl	Avg					171	0.000	0.000			
16	Spl	SDev					9.142					

16	Spl	%RSD					5.32					

** Spl Name: R2200580-002 Data File: 0123068
Remarks: <none>

17	Spl	1	24Jan2022 04:35	-	-	-	1584	1.335	1.335	-	-	-
17	Spl	2	24Jan2022 04:45	-	-	-	1774	1.525	1.525	-	-	-
17	Spl	3	24Jan2022 04:55	-	-	-	1895	1.646	1.646	-	-	-
17	Spl	4	24Jan2022 05:05	-	-	-	1640	1.391	1.391	-	-	-
17	Spl	Avg					1723	1.474	1.474			
17	Spl	SDev					139.517					
17	Spl	%RSD					8.10					

** Spl Name: R2200580-003 Data File: 0123069
Remarks: <none>

18	Spl	1	24Jan2022 05:16	-	-	-	3005	2.756	2.756	-	-	-
18	Spl	2	24Jan2022 05:26	-	-	-	3034	2.785	2.785	-	-	-
18	Spl	3	24Jan2022 05:36	-	-	-	3222	2.973	2.973	-	-	-
18	Spl	4	24Jan2022 05:45	-	-	-	3424	3.175	3.175	-	-	-
18	Spl	Avg					3171	2.923	2.922			
18	Spl	SDev					194.023					
18	Spl	%RSD					6.12					

** Spl Name: R2200580-004 Data File: 0123070
Remarks: 4

19	Spl	1	24Jan2022 05:56	-	-	-	1003	0.753	0.753	-	-	-
19	Spl	2	24Jan2022 06:06	-	-	-	954	0.704	0.704	-	-	-
19	Spl	3	24Jan2022 06:16	-	-	-	967	0.717	0.717	-	-	-
19	Spl	4	24Jan2022 06:26	-	-	-	964	0.714	0.714	-	-	-
19	Spl	Avg					972	0.722	0.722			
19	Spl	SDev					21.401					
19	Spl	%RSD					2.20					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-001 Data File: 0123071
Remarks: <none>

20	Spl	1	24Jan2022 06:37	-	-	-	2742	2.493	2.493	-	-	-
20	Spl	2	24Jan2022 06:47	-	-	-	2710	2.461	2.461	-	-	-
20	Spl	3	24Jan2022 06:57	-	-	-	2814	2.565	2.565	-	-	-
20	Spl	4	24Jan2022 07:07	-	-	-	2981	2.732	2.732	-	-	-
20	Spl	Avg					2811	2.563	2.563			
20	Spl	SDev					120.925					
20	Spl	%RSD					4.30					

** Spl Name: R2200582-002 Data File: 0123072
Remarks: 10

21	Spl	1	24Jan2022 07:18	-	-	-	529	0.279	0.279	-	-	-
21	Spl	2	24Jan2022 07:28	-	-	-	473	0.223	0.223	-	-	-
21	Spl	3	24Jan2022 07:38	-	-	-	242	0.000	0.000	-	-	-
21	Spl	4	24Jan2022 07:48	-	-	-	552	0.302	0.302	-	-	-
21	Spl	Avg					449	0.199	0.199			
21	Spl	SDev					141.932					
21	Spl	%RSD					31.61					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-002S! Data File: 0123073
Remarks: 10

22	Spl	1	24Jan2022 07:59	-	-	-	10620	10.374	10.374	-	-	-
22	Spl	2	24Jan2022 08:09	-	-	-	10715	10.469	10.469	-	-	-
22	Spl	3	24Jan2022 08:18	-	-	-	10948	10.703	10.703	-	-	-
22	Spl	4	24Jan2022 08:28	-	-	-	10960	10.715	10.715	-	-	-
22	Spl	Avg					10810	10.565	10.565			
22	Spl	SDev					169.967					
22	Spl	%RSD					1.57					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-002SD! Data File: 0123074
Remarks: 10

23	Spl	1	24Jan2022 08:39	-	-	-	11052	10.807	10.807	-	-	-
23	Spl	2	24Jan2022 08:49	-	-	-	10259	10.013	10.013	-	-	-
23	Spl	3	24Jan2022 08:59	-	-	-	10695	10.449	10.450	-	-	-
23	Spl	4	24Jan2022 09:09	-	-	-	10553	10.307	10.307	-	-	-
23	Spl	Avg					10639	10.394	10.394			
23	Spl	SDev					329.393					
23	Spl	%RSD					3.10					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-003 Data File: 0123075
Remarks: <none>

24	Spl	1	24Jan2022 09:20	-	-	-	2369	2.120	2.120	-	-	-
24	Spl	2	24Jan2022 09:30	-	-	-	2410	2.161	2.161	-	-	-
24	Spl	3	24Jan2022 09:40	-	-	-	2559	2.310	2.310	-	-	-
24	Spl	4	24Jan2022 09:50	-	-	-	2627	2.378	2.378	-	-	-
24	Spl	Avg					2491	2.242	2.242			
24	Spl	SDev					121.881					
24	Spl	%RSD					4.89					

** Spl Name: R2200582-004 Data File: 0123076
Remarks: <none>

25	Spl	1 24Jan2022 10:01	-	-	-	2792	2.543	2.543	-	-	-
25	Spl	2 24Jan2022 10:11	-	-	-	2651	2.402	2.402	-	-	-
25	Spl	3 24Jan2022 10:21	-	-	-	2603	2.354	2.354	-	-	-
25	Spl	4 24Jan2022 10:31	-	-	-	3407	3.158	3.158	-	-	-
25	Spl	Avg				2863	2.614	2.614			
25	Spl	SDev				371.268					
25	Spl	%RSD				12.97					

** Spl Name: R2200582-005 Data File: 0123077
Remarks: 10

26	Spl	1 24Jan2022 10:41	-	-	-	407	0.157	0.157	-	-	-
26	Spl	2 24Jan2022 10:51	-	-	-	353	0.103	0.103	-	-	-
26	Spl	3 24Jan2022 11:01	-	-	-	444	0.194	0.194	-	-	-
26	Spl	4 24Jan2022 11:11	-	-	-	353	0.103	0.103	-	-	-
26	Spl	Avg				389	0.139	0.139			
26	Spl	SDev				44.500					
26	Spl	%RSD				11.43					

*********DNR; RERUN STRAIGHT*******

** Spl Name: CCV Data File: 0123078
Remarks: <none>

27	Spl	1 24Jan2022 11:22	-	-	-	14893	14.649	14.649	-	-	-
27	Spl	2 24Jan2022 11:32	-	-	-	13724	13.480	13.480	-	-	-
27	Spl	3 24Jan2022 11:42	-	-	-	14172	13.928	13.928	-	-	-
27	Spl	4 24Jan2022 11:52	-	-	-	15693	15.450	15.450	-	-	-
27	Spl	Avg				14620	14.377	14.377			
27	Spl	SDev				862.047					
27	Spl	%RSD				5.90					

** Spl Name: CCB Data File: 0123079
Remarks: <none>

28	Spl	1 24Jan2022 12:03	-	-	-	177	0.000	0.000	-	-	-
28	Spl	2 24Jan2022 12:13	-	-	-	129	0.000	0.000	-	-	-
28	Spl	3 24Jan2022 12:23	-	-	-	127	0.000	0.000	-	-	-
28	Spl	4 24Jan2022 12:33	-	-	-	158	0.000	0.000	-	-	-
28	Spl	Avg				147	0.000	0.000			
28	Spl	SDev				24.102					
28	Spl	%RSD				16.31					

** Spl Name: R2200582-006 Data File: 0123080
Remarks: 40

29	Spl	1 24Jan2022 12:44	-	-	-	168	0.000	0.000	-	-	-
29	Spl	2 24Jan2022 12:54	-	-	-	176	0.000	0.000	-	-	-
29	Spl	3 24Jan2022 13:04	-	-	-	157	0.000	0.000	-	-	-
29	Spl	4 24Jan2022 13:14	-	-	-	209	0.000	0.000	-	-	-
29	Spl	Avg				177	0.000	0.000			
29	Spl	SDev				22.398					
29	Spl	%RSD				12.62					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-007 Data File: 0123081
Remarks: 40

30	Spl	1 24Jan2022 13:24	-	-	-	135	0.000	0.000	-	-	-
30	Spl	2 24Jan2022 13:34	-	-	-	137	0.000	0.000	-	-	-
30	Spl	3 24Jan2022 13:44	-	-	-	180	0.000	0.000	-	-	-
30	Spl	4 24Jan2022 13:54	-	-	-	317	0.067	0.067	-	-	-
30	Spl	Avg				192	0.000	0.000			
30	Spl	SDev				85.718					
30	Spl	%RSD				44.59					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-008 Data File: 0123082
Remarks: 10

31	Spl	1 24Jan2022 14:05	-	-	-	431	0.181	0.181	-	-	-
31	Spl	2 24Jan2022 14:15	-	-	-	457	0.207	0.207	-	-	-
31	Spl	3 24Jan2022 14:25	-	-	-	476	0.226	0.226	-	-	-
31	Spl	4 24Jan2022 14:35	-	-	-	531	0.281	0.281	-	-	-
31	Spl	Avg				473	0.224	0.224			
31	Spl	SDev				42.390					
31	Spl	%RSD				8.95					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-009 Data File: 0123083
Remarks: 40

32	Spl	1 24Jan2022 14:46	-	-	-	156	0.000	0.000	-	-	-
32	Spl	2 24Jan2022 14:56	-	-	-	324	0.074	0.074	-	-	-
32	Spl	3 24Jan2022 15:06	-	-	-	263	0.013	0.013	-	-	-
32	Spl	4 24Jan2022 15:16	-	-	-	227	0.000	0.000	-	-	-
32	Spl	Avg				242	0.000	0.000			
32	Spl	SDev				70.202					
32	Spl	%RSD				28.95					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-010 Data File: 0123084
Remarks: <none>

33	Spl	1	24Jan2022 15:27	-	-	-	2406	2.157	2.157	-	-	-
33	Spl	2	24Jan2022 15:37	-	-	-	2341	2.092	2.092	-	-	-
33	Spl	3	24Jan2022 15:47	-	-	-	2470	2.221	2.221	-	-	-
33	Spl	4	24Jan2022 15:57	-	-	-	2440	2.191	2.191	-	-	-
33	Spl	Avg					2414	2.165	2.165			
33	Spl	SDev					55.392					
33	Spl	%RSD					2.29					

** Spl Name: LCS Data File: 0123085
Remarks: <none>

34	Spl	1	24Jan2022 16:07	-	-	-	10768	10.523	10.523	-	-	-
34	Spl	2	24Jan2022 16:17	-	-	-	9875	9.629	9.629	-	-	-
34	Spl	3	24Jan2022 16:27	-	-	-	10382	10.136	10.136	-	-	-
34	Spl	4	24Jan2022 16:37	-	-	-	10641	10.395	10.396	-	-	-
34	Spl	Avg					10416	10.171	10.171			
34	Spl	SDev					395.122					
34	Spl	%RSD					3.79					

** Spl Name: R2200544-008 Data File: 0123086
Remarks: 100

35	Spl	1	24Jan2022 16:48	-	-	-	993	0.743	0.743	-	-	-
35	Spl	2	24Jan2022 16:58	-	-	-	1003	0.753	0.753	-	-	-
35	Spl	3	24Jan2022 17:08	-	-	-	971	0.721	0.721	-	-	-
35	Spl	4	24Jan2022 17:18	-	-	-	1040	0.790	0.790	-	-	-
35	Spl	Avg					1001	0.752	0.752			
35	Spl	SDev					28.791					
35	Spl	%RSD					2.87					

*********REPEATED AT A 1/10 ON 1/25********

** Spl Name: R2200544-010 Data File: 0123087
Remarks: 200

36	Spl	1	24Jan2022 17:29	-	-	-	6235	5.988	5.988	-	-	-
36	Spl	2	24Jan2022 17:39	-	-	-	6060	5.812	5.812	-	-	-
36	Spl	3	24Jan2022 17:49	-	-	-	6312	6.065	6.065	-	-	-
36	Spl	4	24Jan2022 17:59	-	-	-	6402	6.155	6.155	-	-	-
36	Spl	Avg					6252	6.005	6.005			
36	Spl	SDev					145.204					
36	Spl	%RSD					2.32					

over range on 1/21/22

** Spl Name: R2200544-011 Data File: 0123088
Remarks: 2

37	Spl	1	24Jan2022 18:10	-	-	-	1506	1.257	1.257	-	-	-
37	Spl	2	24Jan2022 18:20	-	-	-	1465	1.216	1.215	-	-	-
37	Spl	3	24Jan2022 18:30	-	-	-	1331	1.081	1.082	-	-	-
37	Spl	4	24Jan2022 18:40	-	-	-	1777	1.528	1.528	-	-	-
37	Spl	Avg					1519	1.270	1.270			
37	Spl	SDev					187.075					
37	Spl	%RSD					12.31					

RPD on 1/21/22

** Spl Name: R2200544-012 Data File: 0123089
Remarks: <none>

38	Spl	1	24Jan2022 18:50	-	-	-	1405	1.155	1.156	-	-	-
38	Spl	2	24Jan2022 19:00	-	-	-	1288	1.038	1.038	-	-	-
38	Spl	3	24Jan2022 19:10	-	-	-	1123	0.873	0.873	-	-	-
38	Spl	4	24Jan2022 19:20	-	-	-	1182	0.932	0.932	-	-	-
38	Spl	Avg					1249	1.000	1.000			
38	Spl	SDev					124.125					
38	Spl	%RSD					9.93					

** Spl Name: CCV Data File: 0123090
Remarks: <none>

39	Spl	1	24Jan2022 19:31	-	-	-	16372	16.129	16.129	-	-	-
39	Spl	2	24Jan2022 19:41	-	-	-	15565	15.322	15.322	-	-	-
39	Spl	3	24Jan2022 19:51	-	-	-	15691	15.448	15.448	-	-	-
39	Spl	4	24Jan2022 20:01	-	-	-	16261	16.018	16.018	-	-	-
39	Spl	Avg					15972	15.729	15.729			
39	Spl	SDev					403.374					
39	Spl	%RSD					2.53					

** Spl Name: CCB Data File: 0123091
Remarks: <none>

40	Spl	1	24Jan2022 20:12	-	-	-	286	0.036	0.036	-	-	-
40	Spl	2	24Jan2022 20:22	-	-	-	209	0.000	0.000	-	-	-
40	Spl	3	24Jan2022 20:32	-	-	-	150	0.000	0.000	-	-	-
40	Spl	4	24Jan2022 20:42	-	-	-	124	0.000	0.000	-	-	-
40	Spl	Avg					192	0.000	0.000			
40	Spl	SDev					71.909					
40	Spl	%RSD					37.40					

** Spl Name: R2200544-001 Data File: 0123092
Remarks: <none>

41	Spl	1	24Jan2022 20:53	-	-	-	18789	18.547	18.547	-	-	-
41	Spl	2	24Jan2022 21:03	-	-	-	19563	19.321	19.321	-	-	-
41	Spl	3	24Jan2022 21:13	-	-	-	19527	19.285	19.285	-	-	-

							012322					
41	Spl	4 24Jan2022 21:23	-	-	-	22234	21.993	21.993	-	-	-
41	Spl	Avg				20028	19.787	19.787			
41	Spl	SDev				1513.141					
41	Spl	%RSD				7.55					

** Spl Name: R2200544-002 Data File: 0123093
Remarks: 2

42	Spl	1 24Jan2022 21:34	-	-	-	12994	12.749	12.750	-	-	-
42	Spl	2 24Jan2022 21:43	-	-	-	13723	13.479	13.479	-	-	-
42	Spl	3 24Jan2022 21:53	-	-	-	15311	15.067	15.068	-	-	-
42	Spl	4 24Jan2022 22:03	-	-	-	15683	15.440	15.440	-	-	-
42	Spl	Avg				14427	14.184	14.184			
42	Spl	SDev				1279.075					
42	Spl	%RSD				8.87	over range on 1/21				

** Spl Name: R2200544-003 Data File: 0123094
Remarks: 100

43	Spl	1 24Jan2022 22:14	-	-	-	1174	0.924	0.924	-	-	-
43	Spl	2 24Jan2022 22:24	-	-	-	1191	0.941	0.941	-	-	-
43	Spl	3 24Jan2022 22:34	-	-	-	1142	0.892	0.892	-	-	-
43	Spl	4 24Jan2022 22:44	-	-	-	1157	0.907	0.907	-	-	-
43	Spl	Avg				1166	0.916	0.916			
43	Spl	SDev				21.182					
43	Spl	%RSD				1.82					

*********REPEATED AT A 1/10 ON 1/25********

** Spl Name: R2200544-003S Data File: 0123095
Remarks: 100

44	Spl	1 24Jan2022 22:55	-	-	-	11591	11.346	11.346	-	-	-
44	Spl	2 24Jan2022 23:05	-	-	-	11545	11.300	11.300	-	-	-
44	Spl	3 24Jan2022 23:15	-	-	-	11065	10.820	10.820	-	-	-
44	Spl	4 24Jan2022 23:25	-	-	-	11279	11.034	11.034	-	-	-
44	Spl	Avg				11370	11.125	11.125			
44	Spl	SDev				245.474					
44	Spl	%RSD				2.16					

** Spl Name: R2200544-003SD Data File: 0123096
Remarks: 100

45	Spl	1 24Jan2022 23:36	-	-	-	11062	10.817	10.817	-	-	-
45	Spl	2 24Jan2022 23:46	-	-	-	10566	10.320	10.320	-	-	-
45	Spl	3 24Jan2022 23:56	-	-	-	11205	10.960	10.960	-	-	-
45	Spl	4 25Jan2022 00:05	-	-	-	11570	11.325	11.325	-	-	-
45	Spl	Avg				11100	10.855	10.855			
45	Spl	SDev				415.741					
45	Spl	%RSD				3.75					

** Spl Name: R2200544-004 Data File: 0123097
Remarks: <none>

46	Spl	1 25Jan2022 00:16	-	-	-	820	0.570	0.570	-	-	-
46	Spl	2 25Jan2022 00:26	-	-	-	844	0.594	0.594	-	-	-
46	Spl	3 25Jan2022 00:36	-	-	-	877	0.627	0.627	-	-	-
46	Spl	4 25Jan2022 00:46	-	-	-	896	0.646	0.646	-	-	-
46	Spl	Avg				859	0.610	0.609			
46	Spl	SDev				33.856					
46	Spl	%RSD				3.94					

** Spl Name: R2200544-005 Data File: 0123098
Remarks: 200

47	Spl	1 25Jan2022 00:57	-	-	-	6331	6.084	6.084	-	-	-
47	Spl	2 25Jan2022 01:07	-	-	-	6033	5.785	5.786	-	-	-
47	Spl	3 25Jan2022 01:17	-	-	-	6645	6.398	6.398	-	-	-
47	Spl	4 25Jan2022 01:27	-	-	-	6441	6.194	6.194	-	-	-
47	Spl	Avg				6362	6.115	6.115			
47	Spl	SDev				255.298					
47	Spl	%RSD				4.01	over range on 1/21/22				

** Spl Name: R2200544-006 Data File: 0123099
Remarks: <none>

48	Spl	1 25Jan2022 01:38	-	-	-	978	0.728	0.728	-	-	-
48	Spl	2 25Jan2022 01:48	-	-	-	971	0.721	0.721	-	-	-
48	Spl	3 25Jan2022 01:58	-	-	-	1015	0.765	0.765	-	-	-
48	Spl	4 25Jan2022 02:08	-	-	-	1085	0.835	0.835	-	-	-
48	Spl	Avg				1012	0.763	0.763			
48	Spl	SDev				52.201					
48	Spl	%RSD				5.16					

** Spl Name: CCV Data File: 0123100
Remarks: <none>

49	Spl	1 25Jan2022 02:19	-	-	-	14060	13.816	13.816	-	-	-
49	Spl	2 25Jan2022 02:29	-	-	-	15140	14.896	14.896	-	-	-
49	Spl	3 25Jan2022 02:39	-	-	-	15817	15.574	15.574	-	-	-
49	Spl	4 25Jan2022 02:49	-	-	-	15933	15.690	15.690	-	-	-
49	Spl	Avg				15237	14.994	14.994			
49	Spl	SDev				859.371					

012322

49	Spl	%RSD				5.64					

** Spl Name: CCB Data File: 0123101
Remarks: <none>

50	Spl	1 25Jan2022 03:00	-	-	-	203	0.000	0.000	-	-	-
50	Spl	2 25Jan2022 03:10	-	-	-	124	0.000	0.000	-	-	-
50	Spl	3 25Jan2022 03:20	-	-	-	144	0.000	0.000	-	-	-
50	Spl	4 25Jan2022 03:30	-	-	-	91	0.000	0.000	-	-	-
50	Spl	Avg				140	0.000	0.000			
50	Spl	SDev				47.050					
50	Spl	%RSD				33.49					

ALS Environmental
1565 Jefferson Rd., Rochester, NY 14623

General Chemistry Analytical Run Cover Sheet

Analyst: SMEDBURY Date: 1/29/22

Analysis: Total Organic Carbon, SM5310C/9060/9060A Instrument: (R-TOC-01) OI Analytical Model1010 TOC Analyzer
High Level: 1.0 to 30.0 ppm

PRIMARY STOCKS	Log ID Prep/Exp. Dates	Reagent	Weight (g)	Final Vol. (mLs)	Conc. (mg/L)
Standards *	**Log ID: 220617** **Received: 11/24/2021** **Expires: 09/30/2023**	Purchased Sucrose Solution			1000 (A)
Reference *	**Log ID: 218253** **Received: 07/17/2021** **Expires: 07/8/2023**	Purchased KHP Solution			1000 (B)

*Diluent is UPDI

QUALITY CONTROL	Vol. (mLs)	Conc. (mg/L)	Final Vol. (mLs)	TV (mg/L)
I/CCV	3.0	1000 (B)	200	15.0
LCS	1.0	1000 (A)	100	10.0
MS	0.42	1000 (A)	42	10.0

Standard Curve Prep

Concentration	mLs 1000 mg/L Stock (A)	Final Volume (mLs)
30.0	3.00	100
10.0	1.00	100
5.0	0.50	100
1.0	0.10	100
0.0	0.00	100

Comments:

Curve Date = 01/13/2021
Filter LOT: 41291103 (Phenex 0.45µm Syringe Filter)

Note: Dilutions greater than 1/1 are placed in the "comments" section of the Model 1010 Analyzer report.
The "Dilution Factor" on the Model 1010 will always read "1.00"
TOC results on the Model 1010 Analyzer reports do not include the dilution factor.
Final results on the Starlims run and final report include the dilution factor.

P:pet:wayne SM 1/14/2021

011321CAL

TOC

CALIBRATION: 011321

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std1	Name: 0						Data File: 0113001						
	Remarks: <none>												
1	Std1	1	13Jan2021	15:03	-	-	-	276	0.000	0.000	-	-	-
1	Std1	2	13Jan2021	15:13	-	-	-	278	0.000	0.000	-	-	-
1	Std1	3	13Jan2021	15:22	-	-	-	553	0.000	0.000	-	-	-
1	Std1	4	13Jan2021	15:32	-	-	-	287	0.000	0.000	-	-	-
1	Std	Avg						348	0.000	0.000			
1	Std	SDev						136.417					
1	Std	%RSD						39.14					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 191
Offset (ugC): -0.183

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std2	Name: 1						Data File: 0113002						
	Remarks: <none>												
2	Std2	1	13Jan2021	15:43	-	-	-	1150	1.000	1.000	-	-	-
2	Std2	2	13Jan2021	15:53	-	-	-	1137	1.000	1.000	-	-	-
2	Std2	3	13Jan2021	16:03	-	-	-	1099	1.000	1.000	-	-	-
2	Std2	4	13Jan2021	16:13	-	-	-	1195	1.000	1.000	-	-	-
2	Std	Avg						1145	1.000	1.000			
2	Std	SDev						39.601					
2	Std	%RSD						3.46					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 172
Offset (ugC): -0.166

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std3	Name: 5						Data File: 0113003						
	Remarks: <none>												
3	Std3	1	13Jan2021	16:24	-	-	-	4719	5.000	5.000	-	-	-
3	Std3	2	13Jan2021	16:34	-	-	-	4853	5.000	5.000	-	-	-
3	Std3	3	13Jan2021	16:44	-	-	-	4964	5.000	5.000	-	-	-
3	Std3	4	13Jan2021	16:54	-	-	-	4946	5.000	5.000	-	-	-
3	Std	Avg						4870	5.000	5.000			
3	Std	SDev						112.103					
3	Std	%RSD						2.30					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9984
Offset (cts): 48
Offset (ugC): -0.046

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std4	Name: 10						Data File: 0113004						
	Remarks: <none>												
4	Std4	1	13Jan2021	17:05	-	-	-	9889	10.000	10.000	-	-	-
4	Std4	2	13Jan2021	17:15	-	-	-	9564	10.000	10.000	-	-	-
4	Std4	3	13Jan2021	17:25	-	-	-	9514	10.000	10.000	-	-	-
4	Std4	4	13Jan2021	17:35	-	-	-	9819	10.000	10.000	-	-	-
4	Std	Avg						9696	10.000	10.000			
4	Std	SDev						185.225					
4	Std	%RSD						1.91					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9976
Offset (cts): -120
Offset (ugC): 0.115

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std5	Name: 30						Data File: 0113005						
	Remarks: <none>												
5	Std5	1	13Jan2021	17:46	-	-	-	31002	30.000	30.000	-	-	-
5	Std5	2	13Jan2021	17:56	-	-	-	29342	30.000	30.000	-	-	-
5	Std5	3	13Jan2021	18:06	-	-	-	29838	30.000	30.000	-	-	-
5	Std5	4	13Jan2021	18:16	-	-	-	30421	30.000	30.000	-	-	-
5	Std	Avg						30150	30.000	30.000			
5	Std	SDev						718.691					
5	Std	%RSD						2.38					

** Calibration:
RF (ugC/k-cts): 1.000
R-Squared: 0.9988
Offset (cts): 46
Offset (ugC): -0.046

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Spl	Name: ICV						Data File: 0113006						
	Remarks: <none>												
6	Spl	1	13Jan2021	18:27	-	-	-	15255	15.011	15.011	-	-	-

SM 1/14/2021

							011321CAL				
6	Spl	2 13Jan2021 18:37	-	-	-	14391	14.147	14.147	-	-	-
6	Spl	3 13Jan2021 18:46	-	-	-	14918	14.674	14.674	-	-	-
6	Spl	4 13Jan2021 18:56	-	-	-	15164	14.920	14.920	-	-	-
6	Spl	Avg				14932	14.688	14.688			
6	Spl	SDev				387.741					
6	Spl	%RSD				2.60					

** Spl Name: ICB Data File: 0113007
Remarks: <none>

7	Spl	1 13Jan2021 19:07	-	-	-	256	0.006	0.006	-	-	-
7	Spl	2 13Jan2021 19:17	-	-	-	274	0.024	0.024	-	-	-
7	Spl	3 13Jan2021 19:27	-	-	-	221	0.000	0.000	-	-	-
7	Spl	4 13Jan2021 19:37	-	-	-	246	0.000	0.000	-	-	-
7	Spl	Avg				249	0.000	0.000			
7	Spl	SDev				22.111					
7	Spl	%RSD				8.87					

Sm 1/14/2021

****
** CALIBRATION **
****

TOC Unit: TOC
011321TOC Wed Jan 13 18:16:06 2021

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	0.000	1.000
2	Yes	1.000	1.000
3	Yes	5.000	1.000
4	Yes	10.000	1.000
5	Yes	30.000	1.000

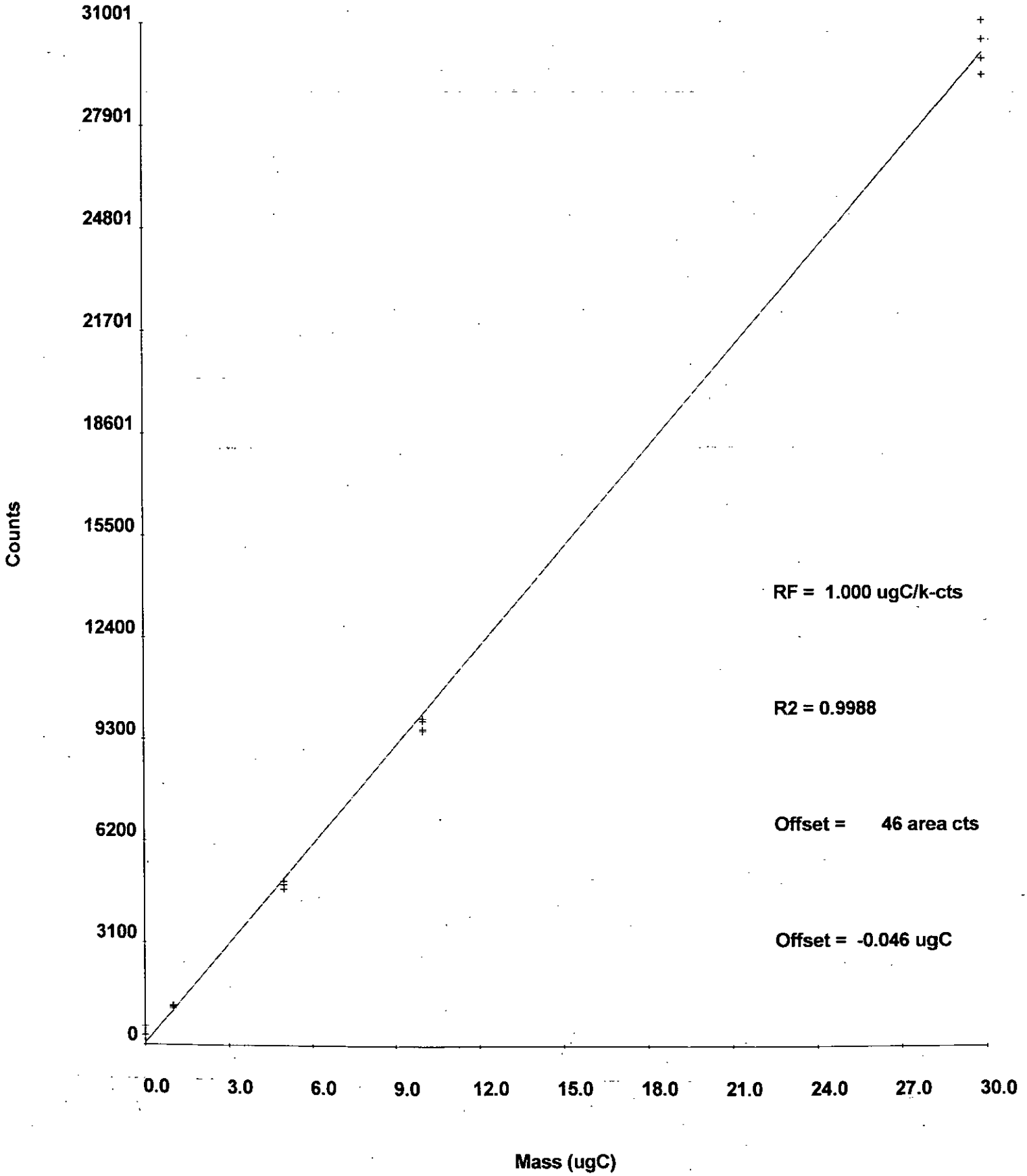
RF (ugC/k-cts):	1.000
R-Squared:	0.9988
Offset (cts):	46
Offset (ugC):	-0.046
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	276	1150	4719	9889	31002
2	278	1137	4853	9564	29342
3	553	1099	4964	9514	29838
4	287	1195	4946	9819	30421
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

SM 1/14/2021

Calibration - 011321TOC (TOC, 13Jan2021 18:16)



Standard Solution Logbook - Inventory ID Summary

Inventory ID:	220617	Date Received:	11/24/21
Standard Name:	Total Organic Carbon (TOC) Std 1000 mg/L as	Expiration Date:	9/30/23
Standard Type:	Working Standard	Source:	SCP Science
ALS Lab:	ROCHESTER	Catalog #:	250-250-051
ALSTeam:	GenChem	Lot #:	S210910014
Container ID:	220617	Amount Prepared:	1.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060A / TOC 4X T
Carbon Result	1000	ppm	9060A / TOC 4X T

Standard Solution Logbook - Inventory ID Summary

Inventory ID:	218253	Date Received:	7/17/21
Standard Name:	Total Organic Carbon (TOC) Ref 1000 mg/L as	Expiration Date:	7/8/23
Standard Type:	Working Standard	Source:	Absolute Standards
ALS Lab:	ROCHESTER	Catalog #:	50110A
ALSTeam:	GenChem	Lot #:	070821
Container ID:	218253	Amount Prepared:	2.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060 / TOC 4X T
Carbon Result	1000	ppm	9060 / TOC 4X T

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/25/22 10:00:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/25/22 10:00:00	N	IV
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.02 mg/L	42 mL	15.0 mg/L	1					1/25/22 10:10:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.02 mg/L	42 mL	15.0 mg/L	1					1/25/22 10:10:00	N	IV
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:20:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:20:00	N	IV
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.52 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:30:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.52 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:30:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.57 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:22:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	10.57 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:22:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.41 mg/L	42 mL	9.41 mg/L	1	0.5	1.0	94		1/25/22 11:32:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	9.41 mg/L	42 mL	9.41 mg/L	1	0.5	1.0	94		1/25/22 11:32:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.50 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/25/22 11:42:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	10.50 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/25/22 11:42:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.56 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:52:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	10.56 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:52:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.30 mg/L	42 mL	3.3 mg/L	1	0.5	1.0			1/25/22 12:03:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.43 mg/L	42 mL	3.4 mg/L	1	0.5	1.0			1/25/22 12:13:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.68 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 12:23:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.52 mg/L	42 mL	3.5 mg/L	1	0.5	1.0			1/25/22 12:33:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	4.73 mg/L	42 mL	4.7 mg/L	1	0.5	1.0			1/25/22 12:44:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.55 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 12:54:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.55 mg/L	42 mL	3.5 mg/L	1	0.5	1.0			1/25/22 13:04:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.64 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 13:14:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	3.37 mg/L	42 mL	3.4 mg/L	1	0.5	1.0			1/25/22 13:24:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	3.71 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 13:34:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	4.01 mg/L	42 mL	4.0 mg/L	1	0.5	1.0			1/25/22 13:44:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	3.56 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 13:54:00	N	IV
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.10 mg/L	42 mL	4.1 mg/L	1	0.5	1.0			1/25/22 14:05:00	Y	IV
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.22 mg/L	42 mL	4.2 mg/L	1	0.5	1.0			1/25/22 14:15:00	Y	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.39 mg/L	42 mL	4.4 mg/L	1	0.5	1.0			1/25/22 14:25:00	Y	IV
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.40 mg/L	42 mL	4.4 mg/L	1	0.5	1.0			1/25/22 14:35:00	Y	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	13.67 mg/L	42 mL	13.7 mg/L	1	0.5	1.0	96		1/25/22 14:46:00	N	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	13.69 mg/L	42 mL	13.7 mg/L	1	0.5	1.0	95		1/25/22 14:56:00	N	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	14.23 mg/L	42 mL	14.2 mg/L	1	0.5	1.0	98		1/25/22 15:06:00	N	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	13.64 mg/L	42 mL	13.6 mg/L	1	0.5	1.0	92		1/25/22 15:16:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	12.69 mg/L	42 mL	12.7 mg/L	1	0.5	1.0	86	7	1/25/22 15:27:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	12.96 mg/L	42 mL	13.0 mg/L	1	0.5	1.0	87	5	1/25/22 15:37:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	13.69 mg/L	42 mL	13.7 mg/L	1	0.5	1.0	93	4	1/25/22 15:47:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	14.57 mg/L	42 mL	14.6 mg/L	1	0.5	1.0	102	7	1/25/22 15:57:10	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	2.83 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/25/22 16:07:00	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	2.85 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/25/22 16:17:00	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.03 mg/L	42 mL	3.0 mg/L	1	0.5	1.0			1/25/22 16:27:00	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	2.79 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/25/22 16:37:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.37 mg/L	42 mL	1.4 mg/L	1	0.5	1.0			1/25/22 16:48:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.28 mg/L	42 mL	1.3 mg/L	1	0.5	1.0			1/25/22 16:58:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.34 mg/L	42 mL	1.3 mg/L	1	0.5	1.0			1/25/22 17:08:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.50 mg/L	42 mL	1.5 mg/L	1	0.5	1.0			1/25/22 17:18:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.28 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/25/22 17:29:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.29 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/25/22 17:39:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.60 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/25/22 17:49:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.56 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/25/22 17:59:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	16.12 mg/L	42 mL	16.1 mg/L	1					1/25/22 18:10:00	N	IV

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Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	16.12 mg/L	42 mL	16.1 mg/L	1					1/25/22 18:10:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.13 mg/L	42 mL	15.1 mg/L	1					1/25/22 18:20:00	N	IV
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	15.13 mg/L	42 mL	15.1 mg/L	1					1/25/22 18:20:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.15 mg/L	42 mL	15.2 mg/L	1					1/25/22 18:30:00	N	IV
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	15.15 mg/L	42 mL	15.2 mg/L	1					1/25/22 18:30:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.97 mg/L	42 mL	16.0 mg/L	1					1/25/22 18:40:00	N	IV
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	15.97 mg/L	42 mL	16.0 mg/L	1					1/25/22 18:40:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.06 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 18:51:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.06 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 18:51:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:01:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:01:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:10:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:10:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:20:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:20:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.83 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 19:31:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.67 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 19:41:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.78 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 19:51:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.92 mg/L	42 mL	3.9 mg/L	1	0.5	1.0			1/25/22 20:01:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.63 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 20:12:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.65 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 20:22:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.81 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 20:32:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.86 mg/L	42 mL	3.9 mg/L	1	0.5	1.0			1/25/22 20:42:00	N	IV

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Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	4.13 mg/L	42 mL	4.1 mg/L	1	0.5	1.0			1/25/22 20:53:00	N	IV
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	4.08 mg/L	42 mL	4.1 mg/L	1	0.5	1.0			1/25/22 21:03:00	N	IV
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.82 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 21:13:00	N	IV
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	4.01 mg/L	42 mL	4.0 mg/L	1	0.5	1.0			1/25/22 21:23:00	N	IV
R2200542-008	Carbon, Dissolved Organic (DOC), Average	N/A		Water	21.21 mg/L	42 mL	21.2 mg/L	1	0.5	1.0			1/26/22 00:06:00	N	IV
R2200542-011	Carbon, Dissolved Organic (DOC), Average	N/A		Water	0.41 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 01:27:00	N	IV
R2200543-008	Carbon, Dissolved Organic (DOC), Average	N/A		Water	3.25 mg/L	42 mL	6.5 mg/L	2	0.9	2.0			1/26/22 02:08:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.61 mg/L	42 mL	15.6 mg/L	1					1/26/22 02:19:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	15.61 mg/L	42 mL	15.6 mg/L	1					1/26/22 02:19:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.48 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:29:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	15.48 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:29:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.51 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:39:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	15.51 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:39:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	16.38 mg/L	42 mL	16.4 mg/L	1					1/26/22 02:49:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	16.38 mg/L	42 mL	16.4 mg/L	1					1/26/22 02:49:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV

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Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200543-009	Carbon, Dissolved Organic (DOC), Average	N/A		Water	0.15 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 04:10:00	N	IV
R2200541-006	Carbon, Dissolved Organic (DOC), Average	N/A		Water	~~15.51~~ mg/L 15.54 1/28/22	42 mL	1550 mg/L	100	50	100			1/26/22 04:51:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.55 mg/L	42 mL	96 mg/L	10	5	10			1/26/22 05:02:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.16 mg/L	42 mL	92 mg/L	10	5	10			1/26/22 05:12:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.48 mg/L	42 mL	95 mg/L	10	5	10			1/26/22 05:22:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.44 mg/L	42 mL	94 mg/L	10	5	10			1/26/22 05:32:00	N	IV
R2200541-003	Carbon, Total Organic (TOC), Average	N/A		Water	2.93 mg/L	42 mL	2.9 mg/L	1	0.5	1.0			1/26/22 06:12:00	N	IV
R2200542-001	Carbon, Total Organic (TOC), Average	N/A		Water	10.06 mg/L	42 mL	1010 mg/L	100	50	100			1/26/22 06:53:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	15.35 mg/L	42 mL	15.3 mg/L	1					1/26/22 10:28:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	15.35 mg/L	42 mL	15.3 mg/L	1					1/26/22 10:28:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	14.80 mg/L	42 mL	14.8 mg/L	1					1/26/22 10:38:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	14.80 mg/L	42 mL	14.8 mg/L	1					1/26/22 10:38:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	15.56 mg/L	42 mL	15.6 mg/L	1					1/26/22 10:48:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	15.56 mg/L	42 mL	15.6 mg/L	1					1/26/22 10:48:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	15.75 mg/L	42 mL	15.8 mg/L	1					1/26/22 10:58:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	15.75 mg/L	42 mL	15.8 mg/L	1					1/26/22 10:58:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:08:00	N	IV
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:08:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:18:00	N	IV
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:18:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:28:00	N	IV
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:28:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:38:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L ,U	1	0.5	1.0			1/26/22 11:38:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752819 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	15.61 mg/L	42 mL	15.6 mg/L	1					1/26/22 02:19:00	N	IV
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	15.48 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:29:00	N	IV
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	15.51 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:39:00	N	IV
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	16.38 mg/L	42 mL	16.4 mg/L	1					1/26/22 02:49:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	10.52 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/26/22 07:04:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	9.85 mg/L	42 mL	9.85 mg/L	1	0.5	1.0	99		1/26/22 07:14:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	10.22 mg/L	42 mL	10.2 mg/L	1	0.5	1.0	102		1/26/22 07:24:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	10.13 mg/L	42 mL	10.1 mg/L	1	0.5	1.0	101		1/26/22 07:34:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	15.35 mg/L	42 mL	15.3 mg/L	1					1/26/22 10:28:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	14.80 mg/L	42 mL	14.8 mg/L	1					1/26/22 10:38:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	15.56 mg/L	42 mL	15.6 mg/L	1					1/26/22 10:48:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	15.75 mg/L	42 mL	15.8 mg/L	1					1/26/22 10:58:00	N	IV
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:08:00	N	IV
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:18:00	N	IV
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:28:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752819 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:38:00	N	IV
R2200543-001	Carbon, Total Organic (TOC), Average	N/A		Water	0.35 mg/L	42 mL	2.0 mg/L U	2	0.9	2.0			1/26/22 12:19:00	N	IV
R2200543-003	Carbon, Total Organic (TOC), Average	N/A		Water	1.13 mg/L	42 mL	1.1 mg/L	1	0.5	1.0			1/26/22 13:00:00	N	IV
R2200543-007	Carbon, Total Organic (TOC), Average	N/A		Water	7.21 mg/L	42 mL	7.2 mg/L	1	0.5	1.0			1/26/22 13:41:00	N	IV
R2200544-003	Carbon, Total Organic (TOC), Average	N/A		Water	9.57 mg/L	42 mL	96 mg/L	10	5	10			1/26/22 14:21:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	15.97 mg/L	42 mL	16.0 mg/L	1					1/26/22 14:32:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	15.10 mg/L	42 mL	15.1 mg/L	1					1/26/22 14:42:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	16.48 mg/L	42 mL	16.5 mg/L	1					1/26/22 14:52:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	16.35 mg/L	42 mL	16.4 mg/L	1					1/26/22 15:02:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:13:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:23:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:33:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:43:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Sample Dilutions

Final Volume: 30-40mL - TOC

Analyst: SCGM
Instrument: TOC#1

Date 1/25/22
Analysis TOC [illegible]

Common Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor
1/2	DI	20	20	1/2												
1/3	DI	10	20	1/3												
1/4	DI	10	30	1/4												
1/6	DI	7	35	1/6												
1/7	DI	6	36	1/7												
1/10	DI	3	27	1/10												
1/10	DI	4	36	1/10												
1/20	DI	2	38	1/20												
1/30	DI	1	29	1/30												
1/40	DI	1	39	1/40												
1/100	DI	0.4	39.6	1/100												
1/200	DI	0.2	39.8	1/200												
1/300	DI	0.1	29.9	1/300												
1/400	DI	0.1	39.9	1/400												
1/1000	DI	1	9	1/10	0.4	39.6	1/1000									
1/2000	DI	1	9	1/10	0.2	39.8	1/2000									
1/4000	DI	1	9	1/10	0.1	39.9	1/4000									
1/10000	DI	0.4	39.6	1/100	0.4	39.6	1/10000									

Special Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor

SM 1/26/22

C:\Users\sam.medbury\Downloads\Sample Dilution Sheets R2 (3)Final Vol. 30-40mL (TOC) 9/18/15

Pipetwayne SCOM 1/26/22 CSM 1/26/22

TOC

012522

CALIBRATION: 011321

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Spl		Name:	WARM-UP				Data File: 0125001						
		Remarks:	<none>										
1	Spl	1	25Jan2022	08:39	-	-	-	255	0.005	0.005	-	-	-
1	Spl	2	25Jan2022	08:49	-	-	-	205	0.000	0.000	-	-	-
1	Spl	3	25Jan2022	08:59	-	-	-	356	0.106	0.106	-	-	-
1	Spl	4	25Jan2022	09:09	-	-	-	207	0.000	0.000	-	-	-
1	Spl	Avg						255	0.006	0.006			
1	Spl	SDev						70.717					
1	Spl	%RSD						27.65					
** Spl		Name:	WARM-UP				Data File: 0125002						
		Remarks:	<none>										
2	Spl	1	25Jan2022	09:20	-	-	-	382	0.132	0.132	-	-	-
2	Spl	2	25Jan2022	09:30	-	-	-	341	0.091	0.091	-	-	-
2	Spl	3	25Jan2022	09:39	-	-	-	180	0.000	0.000	-	-	-
2	Spl	4	25Jan2022	09:50	-	-	-	121	0.000	0.000	-	-	-
2	Spl	Avg						256	0.006	0.006			
2	Spl	SDev						125.302					
2	Spl	%RSD						48.95					
** Spl		Name:	CCV				Data File: 0125003						
		Remarks:	<none>										
3	Spl	1	25Jan2022	10:00	-	-	-	15690	15.447	15.447	-	-	-
3	Spl	2	25Jan2022	10:10	-	-	-	15268	15.024	15.024	-	-	-
3	Spl	3	25Jan2022	10:20	-	-	-	15697	15.454	15.454	-	-	-
3	Spl	4	25Jan2022	10:30	-	-	-	15762	15.519	15.519	-	-	-
3	Spl	Avg						15604	15.361	15.361			
3	Spl	SDev						226.499					
3	Spl	%RSD						1.45					
** Spl		Name:	CCB				Data File: 0125004						
		Remarks:	<none>										
4	Spl	1	25Jan2022	10:41	-	-	-	118	0.000	0.000	-	-	-
4	Spl	2	25Jan2022	10:51	-	-	-	130	0.000	0.000	-	-	-
4	Spl	3	25Jan2022	11:01	-	-	-	117	0.000	0.000	-	-	-
4	Spl	4	25Jan2022	11:11	-	-	-	106	0.000	0.000	-	-	-
4	Spl	Avg						117	0.000	0.000			
4	Spl	SDev						9.811					
4	Spl	%RSD						8.33					
** Spl		Name:	LCS				Data File: 0125005						
		Remarks:	<none>										
5	Spl	1	25Jan2022	11:22	-	-	-	10818	10.573	10.573	-	-	-
5	Spl	2	25Jan2022	11:32	-	-	-	9653	9.407	9.407	-	-	-
5	Spl	3	25Jan2022	11:42	-	-	-	10744	10.498	10.498	-	-	-
5	Spl	4	25Jan2022	11:52	-	-	-	10806	10.561	10.561	-	-	-
5	Spl	Avg						10505	10.260	10.260			
5	Spl	SDev						569.091					
5	Spl	%RSD						5.42					
** Spl		Name:	R2200581-004				Data File: 0125006						
		Remarks:	<none>										
6	Spl	1	25Jan2022	12:03	-	-	-	3546	3.297	3.297	-	-	-
6	Spl	2	25Jan2022	12:13	-	-	-	3676	3.427	3.428	-	-	-
6	Spl	3	25Jan2022	12:23	-	-	-	3923	3.675	3.675	-	-	-
6	Spl	4	25Jan2022	12:33	-	-	-	3772	3.524	3.523	-	-	-
6	Spl	Avg						3729	3.481	3.481			
6	Spl	SDev						158.937					
6	Spl	%RSD						4.26					
** Spl		Name:	R2200581-005				Data File: 0125007						
		Remarks:	<none>										
7	Spl	1	25Jan2022	12:44	-	-	-	4979	4.731	4.731	-	-	-
7	Spl	2	25Jan2022	12:54	-	-	-	3798	3.550	3.549	-	-	-
7	Spl	3	25Jan2022	13:04	-	-	-	3793	3.545	3.545	-	-	-
7	Spl	4	25Jan2022	13:14	-	-	-	3887	3.639	3.639	-	-	-
7	Spl	Avg						4114	3.866	3.866			
7	Spl	SDev						578.115					
7	Spl	%RSD						14.05					
** Spl		Name:	R2200581-006				Data File: 0125008						
		Remarks:	<none>										
8	Spl	1	25Jan2022	13:24	-	-	-	3620	3.371	3.371	-	-	-
8	Spl	2	25Jan2022	13:34	-	-	-	3960	3.712	3.712	-	-	-
8	Spl	3	25Jan2022	13:44	-	-	-	4261	4.013	4.013	-	-	-

								012522				
8	Spl	4 25Jan2022 13:54	-	-	-	3803	3.555	3.555	-	-	-
8	Spl	Avg				3911	3.663	3.663			
8	Spl	SDev				271.567					
8	Spl	%RSD				6.94					

** Spl Name: R2200582-002 Data File: 0125009
Remarks: <none>

9	Spl	1 25Jan2022 14:05	-	-	-	4350	4.102	4.102	-	-	-
9	Spl	2 25Jan2022 14:15	-	-	-	4466	4.218	4.218	-	-	-
9	Spl	3 25Jan2022 14:25	-	-	-	4639	4.391	4.391	-	-	-
9	Spl	4 25Jan2022 14:35	-	-	-	4651	4.403	4.403	-	-	-
9	Spl	Avg				4526	4.278	4.278			
9	Spl	SDev				144.878					
9	Spl	%RSD				3.20					

** Spl Name: R2200582-002S! Data File: 0125010
Remarks: <none>

10	Spl	1 25Jan2022 14:46	-	-	-	13915	13.671	13.671	-	-	-
10	Spl	2 25Jan2022 14:56	-	-	-	13936	13.692	13.692	-	-	-
10	Spl	3 25Jan2022 15:06	-	-	-	14478	14.234	14.234	-	-	-
10	Spl	4 25Jan2022 15:16	-	-	-	13885	13.641	13.641	-	-	-
10	Spl	Avg				14053	13.809	13.809			
10	Spl	SDev				283.773					
10	Spl	%RSD				2.02					

** Spl Name: R2200582-002SD! Data File: 0125011
Remarks: <none>

11	Spl	1 25Jan2022 15:27	-	-	-	12933	12.688	12.688	-	-	-
11	Spl	2 25Jan2022 15:37	-	-	-	13204	12.960	12.960	-	-	-
11	Spl	3 25Jan2022 15:47	-	-	-	13932	13.688	13.688	-	-	-
11	Spl	4 25Jan2022 15:57	-	-	-	14815	14.571	14.571	-	-	-
11	Spl	Avg				13721	13.477	13.477			
11	Spl	SDev				842.534					
11	Spl	%RSD				6.14					

** Spl Name: R2200582-005 Data File: 0125012
Remarks: <none>

12	Spl	1 25Jan2022 16:07	-	-	-	3077	2.828	2.828	-	-	-
12	Spl	2 25Jan2022 16:17	-	-	-	3097	2.848	2.848	-	-	-
12	Spl	3 25Jan2022 16:27	-	-	-	3283	3.034	3.034	-	-	-
12	Spl	4 25Jan2022 16:37	-	-	-	3037	2.788	2.788	-	-	-
12	Spl	Avg				3123	2.875	2.875			
12	Spl	SDev				109.220					
12	Spl	%RSD				3.50					

** Spl Name: R2200582-006 Data File: 0125013
Remarks: <none>

13	Spl	1 25Jan2022 16:48	-	-	-	1617	1.368	1.368	-	-	-
13	Spl	2 25Jan2022 16:58	-	-	-	1528	1.279	1.278	-	-	-
13	Spl	3 25Jan2022 17:08	-	-	-	1588	1.339	1.339	-	-	-
13	Spl	4 25Jan2022 17:18	-	-	-	1746	1.497	1.497	-	-	-
13	Spl	Avg				1619	1.370	1.370			
13	Spl	SDev				91.965					
13	Spl	%RSD				5.68					

** Spl Name: R2200582-007 Data File: 0125014
Remarks: <none>

14	Spl	1 25Jan2022 17:29	-	-	-	2532	2.283	2.283	-	-	-
14	Spl	2 25Jan2022 17:39	-	-	-	2538	2.289	2.289	-	-	-
14	Spl	3 25Jan2022 17:49	-	-	-	2852	2.603	2.603	-	-	-
14	Spl	4 25Jan2022 17:59	-	-	-	2812	2.563	2.563	-	-	-
14	Spl	Avg				2683	2.435	2.434			
14	Spl	SDev				172.266					
14	Spl	%RSD				6.42					

** Spl Name: CCV Data File: 0125015
Remarks: <none>

15	Spl	1 25Jan2022 18:10	-	-	-	16363	16.120	16.120	-	-	-
15	Spl	2 25Jan2022 18:20	-	-	-	15377	15.133	15.134	-	-	-
15	Spl	3 25Jan2022 18:30	-	-	-	15398	15.154	15.155	-	-	-
15	Spl	4 25Jan2022 18:40	-	-	-	16209	15.966	15.966	-	-	-
15	Spl	Avg				15836	15.593	15.593			
15	Spl	SDev				522.615					
15	Spl	%RSD				3.30					

** Spl Name: CCB Data File: 0125016
Remarks: <none>

16	Spl	1 25Jan2022 18:51	-	-	-	311	0.061	0.061	-	-	-
16	Spl	2 25Jan2022 19:01	-	-	-	150	0.000	0.000	-	-	-
16	Spl	3 25Jan2022 19:10	-	-	-	117	0.000	0.000	-	-	-
16	Spl	4 25Jan2022 19:20	-	-	-	202	0.000	0.000	-	-	-
16	Spl	Avg				195	0.000	0.000			
16	Spl	SDev				84.880					
16	Spl	%RSD				43.53					

** Spl Name: R2200582-008 Data File: 0125017
Remarks: <none>

17	Spl	1 25Jan2022 19:31	-	-	-	4075	3.827	3.827	-	-	-
17	Spl	2 25Jan2022 19:41	-	-	-	3916	3.668	3.668	-	-	-
17	Spl	3 25Jan2022 19:51	-	-	-	4027	3.779	3.779	-	-	-
17	Spl	4 25Jan2022 20:01	-	-	-	4165	3.917	3.917	-	-	-
17	Spl	Avg				4045	3.797	3.797			
17	Spl	SDev				103.703					
17	Spl	%RSD				2.56					

** Spl Name: R2200582-009 Data File: 0125018
Remarks: <none>

18	Spl	1 25Jan2022 20:12	-	-	-	3878	3.630	3.630	-	-	-
18	Spl	2 25Jan2022 20:22	-	-	-	3902	3.654	3.654	-	-	-
18	Spl	3 25Jan2022 20:32	-	-	-	4058	3.810	3.810	-	-	-
18	Spl	4 25Jan2022 20:42	-	-	-	4107	3.859	3.859	-	-	-
18	Spl	Avg				3986	3.738	3.738			
18	Spl	SDev				113.350					
18	Spl	%RSD				2.84					

** Spl Name: R2200580-004 Data File: 0125019
Remarks: <none>

19	Spl	1 25Jan2022 20:53	-	-	-	4373	4.125	4.125	-	-	-
19	Spl	2 25Jan2022 21:03	-	-	-	4323	4.075	4.075	-	-	-
19	Spl	3 25Jan2022 21:13	-	-	-	4064	3.816	3.816	-	-	-
19	Spl	4 25Jan2022 21:23	-	-	-	4253	4.005	4.005	-	-	-
19	Spl	Avg				4253	4.005	4.005			
19	Spl	SDev				135.426					
19	Spl	%RSD				3.18					

** Spl Name: R2200542-002 Data File: 0125020
Remarks: <none>

20	Spl	1 25Jan2022 21:34	-	-	-	406542	406.466	406.466	-	-	-
20	Spl	2 25Jan2022 21:44	-	-	-	543560	543.543	543.543	-	-	-
20	Spl	3 25Jan2022 21:53	-	-	-	408583	408.508	408.508	-	-	-
20	Spl	4 25Jan2022 22:03	-	-	-	390788	390.705	390.705	-	-	-
20	Spl	Avg				437368	437.305	437.306			
20	Spl	SDev				71239.633					
20	Spl	%RSD				16.29					

** Spl Name: R2200542-004 Data File: 0125021
Remarks: <none>

21	Spl	1 25Jan2022 22:14	-	-	-	332054	331.946	331.946	-	-	-
21	Spl	2 25Jan2022 22:24	-	-	-	371026	370.935	370.935	-	-	-
21	Spl	3 25Jan2022 22:34	-	-	-	359832	359.736	359.736	-	-	-
21	Spl	4 25Jan2022 22:44	-	-	-	563847	563.838	563.838	-	-	-
21	Spl	Avg				406689	406.614	406.614			
21	Spl	SDev				106044.719					
21	Spl	%RSD				26.08					

** Spl Name: R2200542-006 Data File: 0125022
Remarks: <none>

22	Spl	1 25Jan2022 22:55	-	-	-	43647	43.416	43.416	-	-	-
22	Spl	2 25Jan2022 23:05	-	-	-	24020	23.780	23.780	-	-	-
22	Spl	3 25Jan2022 23:15	-	-	-	16629	16.386	16.386	-	-	-
22	Spl	4 25Jan2022 23:25	-	-	-	15203	14.959	14.959	-	-	-
22	Spl	Avg				24874	24.635	24.635			
22	Spl	SDev				13097.877					
22	Spl	%RSD				52.66					

** Spl Name: R2200542-008 Data File: 0125023
Remarks: <none>

23	Spl	1 25Jan2022 23:36	-	-	-	21032	20.791	20.791	-	-	-
23	Spl	2 25Jan2022 23:46	-	-	-	18955	18.713	18.713	-	-	-
23	Spl	3 25Jan2022 23:56	-	-	-	22310	22.069	22.069	-	-	-
23	Spl	4 26Jan2022 00:06	-	-	-	23501	23.261	23.261	-	-	-
23	Spl	Avg				21449	21.209	21.209			
23	Spl	SDev				1944.732					
23	Spl	%RSD				9.07					

** Spl Name: R2200542-010 Data File: 0125024
Remarks: <none>

24	Spl	1 26Jan2022 00:17	-	-	-	33278	33.042	33.042	-	-	-
24	Spl	2 26Jan2022 00:27	-	-	-	34544	34.309	34.309	-	-	-
24	Spl	3 26Jan2022 00:37	-	-	-	33078	32.842	32.842	-	-	-
24	Spl	4 26Jan2022 00:47	-	-	-	37664	37.430	37.430	-	-	-
24	Spl	Avg				34641	34.406	34.406			
24	Spl	SDev				2117.284					
24	Spl	%RSD				6.11					

** Spl Name: R2200542-011 Data File: 0125025
Remarks: <none>

25	Spl	1 26Jan2022 00:57	-	-	-	923	0.673	0.673	-	-	-
25	Spl	2 26Jan2022 01:07	-	-	-	625	0.375	0.375	-	-	-
25	Spl	3 26Jan2022 01:17	-	-	-	569	0.319	0.319	-	-	-
25	Spl	4 26Jan2022 01:27	-	-	-	531	0.281	0.281	-	-	-
25	Spl	Avg				662	0.412	0.412			
25	Spl	SDev				178.232					
25	Spl	%RSD				26.92					

** Spl Name: R2200543-008 Data File: 0125026
Remarks: 2

26	Spl	1 26Jan2022 01:38	-	-	-	3343	3.094	3.094	-	-	-
26	Spl	2 26Jan2022 01:48	-	-	-	3644	3.395	3.395	x2	-	-
26	Spl	3 26Jan2022 01:58	-	-	-	3512	3.263	3.263	-	-	-
26	Spl	4 26Jan2022 02:08	-	-	-	3498	3.249	3.249	-	-	-
26	Spl	Avg				3499	3.251	3.251			
26	Spl	SDev				123.195					
26	Spl	%RSD				3.52					

Report @ 1/2 due to high RPD in straight analysis.
CMW 1/28/22

********OVER RANGE ON 1/21*********

** Spl Name: CCV Data File: 0125027
Remarks: <none>

27	Spl	1 26Jan2022 02:19	-	-	-	15850	15.607	15.607	-	-	-
27	Spl	2 26Jan2022 02:29	-	-	-	15725	15.482	15.482	-	-	-
27	Spl	3 26Jan2022 02:39	-	-	-	15751	15.508	15.508	-	-	-
27	Spl	4 26Jan2022 02:49	-	-	-	16620	16.377	16.377	-	-	-
27	Spl	Avg				15986	15.743	15.743			
27	Spl	SDev				425.753					
27	Spl	%RSD				2.66					

** Spl Name: CCB Data File: 0125028
Remarks: <none>

28	Spl	1 26Jan2022 03:00	-	-	-	265	0.015	0.015	-	-	-
28	Spl	2 26Jan2022 03:10	-	-	-	168	0.000	0.000	-	-	-
28	Spl	3 26Jan2022 03:20	-	-	-	235	0.000	0.000	-	-	-
28	Spl	4 26Jan2022 03:30	-	-	-	221	0.000	0.000	-	-	-
28	Spl	Avg				222	0.000	0.000			
28	Spl	SDev				40.558					
28	Spl	%RSD				18.25					

** Spl Name: R2200543-009 Data File: 0125029
Remarks: <none>

29	Spl	1 26Jan2022 03:40	-	-	-	367	0.117	0.117	-	-	-
29	Spl	2 26Jan2022 03:50	-	-	-	376	0.126	0.126	-	-	-
29	Spl	3 26Jan2022 04:00	-	-	-	446	0.196	0.196	-	-	-
29	Spl	4 26Jan2022 04:10	-	-	-	421	0.171	0.171	-	-	-
29	Spl	Avg				402	0.153	0.153			
29	Spl	SDev				37.403					
29	Spl	%RSD				9.29					

** Spl Name: R2200541-006 Data File: 0125030
Remarks: 100

30	Spl	1 26Jan2022 04:21	-	-	-	15896	15.653	15.653	-	-	-
30	Spl	2 26Jan2022 04:31	-	-	-	14982	14.738	14.738	x100	-	-
30	Spl	3 26Jan2022 04:41	-	-	-	15341	15.097	15.097	-	-	-
30	Spl	4 26Jan2022 04:51	-	-	-	16898	16.655	16.655	-	-	-
30	Spl	Avg				15779	15.536	15.536			
30	Spl	SDev				835.245					
30	Spl	%RSD				5.29					

** Spl Name: R2200544-008 Data File: 0125031
Remarks: 10

31	Spl	1 26Jan2022 05:02	-	-	-	9800	9:554	9.554	-	-	-
31	Spl	2 26Jan2022 05:12	-	-	-	9409	9.163	9.163	x10	-	-
31	Spl	3 26Jan2022 05:22	-	-	-	9728	9.482	9.482	-	-	-
31	Spl	4 26Jan2022 05:32	-	-	-	9681	9.435	9.435	-	-	-
31	Spl	Avg				9654	9.409	9.408			
31	Spl	SDev				170.826					
31	Spl	%RSD				1.77					

** Spl Name: R2200541-003 Data File: 0125032
Remarks: <none>

32	Spl	1 26Jan2022 05:43	-	-	-	3234	2.985	2.985	-	-	-
32	Spl	2 26Jan2022 05:53	-	-	-	3168	2.919	2.919	-	-	-
32	Spl	3 26Jan2022 06:02	-	-	-	2895	2.646	2.646	-	-	-
32	Spl	4 26Jan2022 06:12	-	-	-	3433	3.184	3.184	-	-	-
32	Spl	Avg				3182	2.934	2.934			
32	Spl	SDev				222.313					
32	Spl	%RSD				6.99					

** Spl Name: R2200542-001 Data File: 0125033
Remarks: 100

33	Spl	1 26Jan2022 06:23	-	-	-	10049	9.803	9.803	x100	-	-
33	Spl	2 26Jan2022 06:33	-	-	-	10124	9.878	9.878	-	-	-

```
                                                                    012522
33   Spl    3 26Jan2022 06:43      -      -      -    10092   9.846     9.846  x100   -      -      -
33   Spl    4 26Jan2022 06:53      -      -      -    10955  10.710    10.710   -      -      -
33   Spl  Avg                                         10305  10.059    10.059
33   Spl  SDev                                       434.421
33   Spl  %RSD                                         4.22

** Spl      Name:    LCS                          Data File: 0125034
            Remarks: <none>

34   Spl    1 26Jan2022 07:04      -      -      -    10767  10.522    10.521   -      -      -
34   Spl    2 26Jan2022 07:14      -      -      -    10098   9.852     9.852   -      -      -
34   Spl    3 26Jan2022 07:24      -      -      -    10468  10.222    10.222   -      -      -
34   Spl    4 26Jan2022 07:34      -      -      -    10378  10.132    10.132   -      -      -
34   Spl  Avg                                         10427  10.182    10.182
34   Spl  SDev                                       275.633
34   Spl  %RSD                                         2.64

** Spl      Name:    R2200542-003                 Data File: 0125035
            Remarks: 2000

35   Spl    1 26Jan2022 07:45      -      -      -      420   0.170     0.170   -      -      -
35   Spl    2 26Jan2022 07:55      -      -      -      384   0.134     0.134  x2000   -      -
35   Spl    3 26Jan2022 08:05      -      -      -      428   0.178     0.178   -      -      -
35   Spl    4 26Jan2022 08:15      -      -      -      353   0.103     0.103   -      -      -
35   Spl  Avg                                           396   0.146     0.146
35   Spl  SDev                                        34.606
35   Spl  %RSD                                          8.73
*************REPEATED ON 1/26*********

** Spl      Name:    R2200542-005                 Data File: 0125036
            Remarks: 400

36   Spl    1 26Jan2022 08:25      -      -      -      281   0.031     0.031   -      -      -
36   Spl    2 26Jan2022 08:35      -      -      -      157   0.000     0.000  x400   -      -
36   Spl    3 26Jan2022 08:45      -      -      -      222   0.000     0.000   -      -      -
36   Spl    4 26Jan2022 08:55      -      -      -      171   0.000     0.000   -      -      -
36   Spl  Avg                                           207   0.000     0.000
36   Spl  SDev                                        56.258
36   Spl  %RSD                                         27.08
*************REPEATED ON 1/26*********

** Spl      Name:    R2200542-007                 Data File: 0125037
            Remarks: 200

37   Spl    1 26Jan2022 09:06      -      -      -      238   0.000     0.000   -      -      -
37   Spl    2 26Jan2022 09:16      -      -      -      152   0.000     0.000  x200   -      -
37   Spl    3 26Jan2022 09:26      -      -      -      170   0.000     0.000   -      -      -
37   Spl    4 26Jan2022 09:36      -      -      -      234   0.000     0.000   -      -      -
37   Spl  Avg                                           198   0.000     0.000
37   Spl  SDev                                        43.951
37   Spl  %RSD                                         22.14
*************REPEATED ON 1/26*********

** Spl      Name:    R2200542-009                 Data File: 0125038
            Remarks: 200

38   Spl    1 26Jan2022 09:47      -      -      -      270   0.020     0.020   -      -      -
38   Spl    2 26Jan2022 09:57      -      -      -      311   0.061     0.061  x200   -      -
38   Spl    3 26Jan2022 10:07      -      -      -      341   0.091     0.091   -      -      -
38   Spl    4 26Jan2022 10:17      -      -      -      262   0.012     0.012   -      -      -
38   Spl  Avg                                           296   0.046     0.046
38   Spl  SDev                                        36.887
38   Spl  %RSD                                         12.46
*************REPEATED ON 1/26*********

** Spl      Name:    CCV                          Data File: 0125039
            Remarks: <none>

39   Spl    1 26Jan2022 10:28      -      -      -    15590  15.347    15.347   -      -      -
39   Spl    2 26Jan2022 10:38      -      -      -    15041  14.797    14.797   -      -      -
39   Spl    3 26Jan2022 10:48      -      -      -    15803  15.560    15.560   -      -      -
39   Spl    4 26Jan2022 10:58      -      -      -    15994  15.751    15.751   -      -      -
39   Spl  Avg                                         15607  15.364    15.364
39   Spl  SDev                                       411.837
39   Spl  %RSD                                         2.64

** Spl      Name:    CCB                          Data File: 0125040
            Remarks: <none>

40   Spl    1 26Jan2022 11:08      -      -      -      183   0.000     0.000   -      -      -
40   Spl    2 26Jan2022 11:18      -      -      -      127   0.000     0.000   -      -      -
40   Spl    3 26Jan2022 11:28      -      -      -      139   0.000     0.000   -      -      -
40   Spl    4 26Jan2022 11:38      -      -      -      233   0.000     0.000   -      -      -
40   Spl  Avg                                           170   0.000     0.000
40   Spl  SDev                                        48.121
40   Spl  %RSD                                         28.22

** Spl      Name:    R2200543-001                 Data File: 0125041
            Remarks: 2

41   Spl    1 26Jan2022 11:49      -      -      -      563   0.313     0.313   -      -      -
41   Spl    2 26Jan2022 11:59      -      -      -      548   0.298     0.298  x2    -      -
41   Spl    3 26Jan2022 12:09      -      -      -      567   0.317     0.317   -      -      -
41   Spl    4 26Jan2022 12:19      -      -      -      706   0.456     0.456   -      -      -
41   Spl  Avg                                           596   0.346     0.346
41   Spl  SDev                                        73.788
```

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↑ Insufficient vol to Run Straight
SM 1/26/22

41 Spl %RSD 12.38
********HIGH RPD ON 1/21*********

** Spl Name: R2200543-003 Data File: 0125042
Remarks: <none>

42	Spl	1 26Jan2022 12:30	-	-	-	1251	1.001	1.001	-	-	-
42	Spl	2 26Jan2022 12:40	-	-	-	1382	1.132	1.133	-	-	-
42	Spl	3 26Jan2022 12:50	-	-	-	1442	1.193	1.192	-	-	-
42	Spl	4 26Jan2022 13:00	-	-	-	1460	1.211	1.211	-	-	-
42	Spl	Avg				1383	1.134	1.134			
42	Spl	SDev				94.574					
42	Spl	%RSD				6.83					

** Spl Name: R2200543-007 Data File: 0125043
Remarks: <none>

43	Spl	1 26Jan2022 13:11	-	-	-	7331	7.084	7.084	-	-	-
43	Spl	2 26Jan2022 13:21	-	-	-	7458	7.211	7.211	-	-	-
43	Spl	3 26Jan2022 13:31	-	-	-	7770	7.523	7.523	-	-	-
43	Spl	4 26Jan2022 13:41	-	-	-	7275	7.028	7.028	-	-	-
43	Spl	Avg				7458	7.212	7.212			
43	Spl	SDev				221.330					
43	Spl	%RSD				2.97					

** Spl Name: R2200544-003 Data File: 0125044
Remarks: 10

44	Spl	1 26Jan2022 13:52	-	-	-	9575	9.329	9.329	-	-	-
44	Spl	2 26Jan2022 14:01	-	-	-	9339	9.093	9.093	-	-	-
44	Spl	3 26Jan2022 14:11	-	-	-	10089	9.843	9.843	-	-	-
44	Spl	4 26Jan2022 14:21	-	-	-	10275	10.029	10.029	-	-	-
44	Spl	Avg				9819	9.574	9.574			
44	Spl	SDev				436.185					
44	Spl	%RSD				4.44					

x10

** Spl Name: CCV Data File: 0125045
Remarks: <none>

45	Spl	1 26Jan2022 14:32	-	-	-	16211	15.968	15.968	-	-	-
45	Spl	2 26Jan2022 14:42	-	-	-	15345	15.101	15.101	-	-	-
45	Spl	3 26Jan2022 14:52	-	-	-	16718	16.475	16.475	-	-	-
45	Spl	4 26Jan2022 15:02	-	-	-	16595	16.352	16.352	-	-	-
45	Spl	Avg				16217	15.974	15.974			
45	Spl	SDev				620.297					
45	Spl	%RSD				3.82					

** Spl Name: CCB Data File: 0125046
Remarks: <none>

46	Spl	1 26Jan2022 15:13	-	-	-	190	0.000	0.000	-	-	-
46	Spl	2 26Jan2022 15:23	-	-	-	161	0.000	0.000	-	-	-
46	Spl	3 26Jan2022 15:33	-	-	-	146	0.000	0.000	-	-	-
46	Spl	4 26Jan2022 15:43	-	-	-	102	0.000	0.000	-	-	-
46	Spl	Avg				149	0.000	0.000			
46	Spl	SDev				36.700					
46	Spl	%RSD				24.51					

ALS Environmental
1565 Jefferson Rd., Rochester, NY 14623

General Chemistry Analytical Run Cover Sheet

Analyst: SCGM

Date: 1/25/22

Analysis: Total Organic Carbon, SM5310C/9060/9060A
High Level: 1.0 to 30.0 ppm

Instrument: (R-TOC-01) OI Analytical Model1010 TOC Analyzer

PRIMARY STOCKS	Log ID Prep/Exp. Dates	Reagent	Weight (g)	Final Vol. (mLs)	Conc. (mg/L)
Standards *	**Log ID: 220617** **Received: 11/24/2021** **Expires: 09/30/2023**	Purchased Sucrose Solution			1000 (A)
Reference *	**Log ID: 218253** **Received: 07/17/2021** **Expires: 07/8/2023**	Purchased KHP Solution			1000 (B)

*Diluent is UPDI

QUALITY CONTROL	Vol. (mLs)	Conc. (mg/L)	Final Vol. (mLs)	TV (mg/L)
I/CCV	3.0	1000 (B)	200	15.0
LCS	1.0	1000 (A)	100	10.0
MS	0.42	1000 (A)	42	10.0

Standard Curve Prep

Concentration	mLs 1000 mg/L Stock (A)	Final Volume (mLs)
30.0	3.00	100
10.0	1.00	100
5.0	0.50	100
1.0	0.10	100
0.0	0.00	100

Comments:

Curve Date = 01/13/2021
Filter LOT: 41291103 (Phenex 0.45µm Syringe Filter)

Note: Dilutions greater than 1/1 are placed in the "comments" section of the Model 1010 Analyzer report.
The "Dilution Factor" on the Model 1010 will always read "1.00"
TOC results on the Model 1010 Analyzer reports do not include the dilution factor.
Final results on the Starlims run and final report include the dilution factor.

Pipetteexpne SM 1/14/2021

TOC

CALIBRATION: 011321

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std1		Name: 0					Data File: 0113001						
		Remarks: <none>											
1	Std1	1	13Jan2021	15:03	-	-	-	276	0.000	0.000	-	-	-
1	Std1	2	13Jan2021	15:13	-	-	-	278	0.000	0.000	-	-	-
1	Std1	3	13Jan2021	15:22	-	-	-	553	0.000	0.000	-	-	-
1	Std1	4	13Jan2021	15:32	-	-	-	287	0.000	0.000	-	-	-
1	Std	Avg						348	0.000	0.000			
1	Std	SDev						136.417					
1	Std	%RSD						39.14					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 191
Offset (ugC): -0.183

** Std2		Name: 1					Data File: 0113002						
		Remarks: <none>											
2	Std2	1	13Jan2021	15:43	-	-	-	1150	1.000	1.000	-	-	-
2	Std2	2	13Jan2021	15:53	-	-	-	1137	1.000	1.000	-	-	-
2	Std2	3	13Jan2021	16:03	-	-	-	1099	1.000	1.000	-	-	-
2	Std2	4	13Jan2021	16:13	-	-	-	1195	1.000	1.000	-	-	-
2	Std	Avg						1145	1.000	1.000			
2	Std	SDev						39.601					
2	Std	%RSD						3.46					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 172
Offset (ugC): -0.166

** Std3		Name: 5					Data File: 0113003						
		Remarks: <none>											
3	Std3	1	13Jan2021	16:24	-	-	-	4719	5.000	5.000	-	-	-
3	Std3	2	13Jan2021	16:34	-	-	-	4853	5.000	5.000	-	-	-
3	Std3	3	13Jan2021	16:44	-	-	-	4964	5.000	5.000	-	-	-
3	Std3	4	13Jan2021	16:54	-	-	-	4946	5.000	5.000	-	-	-
3	Std	Avg						4870	5.000	5.000			
3	Std	SDev						112.103					
3	Std	%RSD						2.30					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9984
Offset (cts): 48
Offset (ugC): -0.046

** Std4		Name: 10					Data File: 0113004						
		Remarks: <none>											
4	Std4	1	13Jan2021	17:05	-	-	-	9889	10.000	10.000	-	-	-
4	Std4	2	13Jan2021	17:15	-	-	-	9564	10.000	10.000	-	-	-
4	Std4	3	13Jan2021	17:25	-	-	-	9514	10.000	10.000	-	-	-
4	Std4	4	13Jan2021	17:35	-	-	-	9819	10.000	10.000	-	-	-
4	Std	Avg						9696	10.000	10.000			
4	Std	SDev						185.225					
4	Std	%RSD						1.91					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9976
Offset (cts): -120
Offset (ugC): 0.115

** Std5		Name: 30					Data File: 0113005						
		Remarks: <none>											
5	Std5	1	13Jan2021	17:46	-	-	-	31002	30.000	30.000	-	-	-
5	Std5	2	13Jan2021	17:56	-	-	-	29342	30.000	30.000	-	-	-
5	Std5	3	13Jan2021	18:06	-	-	-	29838	30.000	30.000	-	-	-
5	Std5	4	13Jan2021	18:16	-	-	-	30421	30.000	30.000	-	-	-
5	Std	Avg						30150	30.000	30.000			
5	Std	SDev						718.691					
5	Std	%RSD						2.38					

** Calibration:
RF (ugC/k-cts): 1.000
R-Squared: 0.9988
Offset (cts): 46
Offset (ugC): -0.046

** Spl		Name: ICV					Data File: 0113006						
		Remarks: <none>											
6	Spl	1	13Jan2021	18:27	-	-	-	15255	15.011	15.011	-	-	-

Sm 1/14/2021

							011321CAL					
6	Spl	2	13Jan2021 18:37	-	-	-	14391	14.147	14.147	-	-	-
6	Spl	3	13Jan2021 18:46	-	-	-	14918	14.674	14.674	-	-	-
6	Spl	4	13Jan2021 18:56	-	-	-	15164	14.920	14.920	-	-	-
6	Spl	Avg					14932	14.688	14.688			
6	Spl	SDev					387.741					
6	Spl	%RSD					2.60					

** Spl Name: ICB Data File: 0113007
Remarks: <none>

7	Spl	1	13Jan2021 19:07	-	-	-	256	0.006	0.006	-	-	-
7	Spl	2	13Jan2021 19:17	-	-	-	274	0.024	0.024	-	-	-
7	Spl	3	13Jan2021 19:27	-	-	-	221	0.000	0.000	-	-	-
7	Spl	4	13Jan2021 19:37	-	-	-	246	0.000	0.000	-	-	-
7	Spl	Avg					249	0.000	0.000			
7	Spl	SDev					22.111					
7	Spl	%RSD					8.87					

Sm 1/14/2021

****
** CALIBRATION **
****

TOC Unit: TOC
011321TOC Wed Jan 13 18:16:06 2021

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	0.000	1.000
2	Yes	1.000	1.000
3	Yes	5.000	1.000
4	Yes	10.000	1.000
5	Yes	30.000	1.000

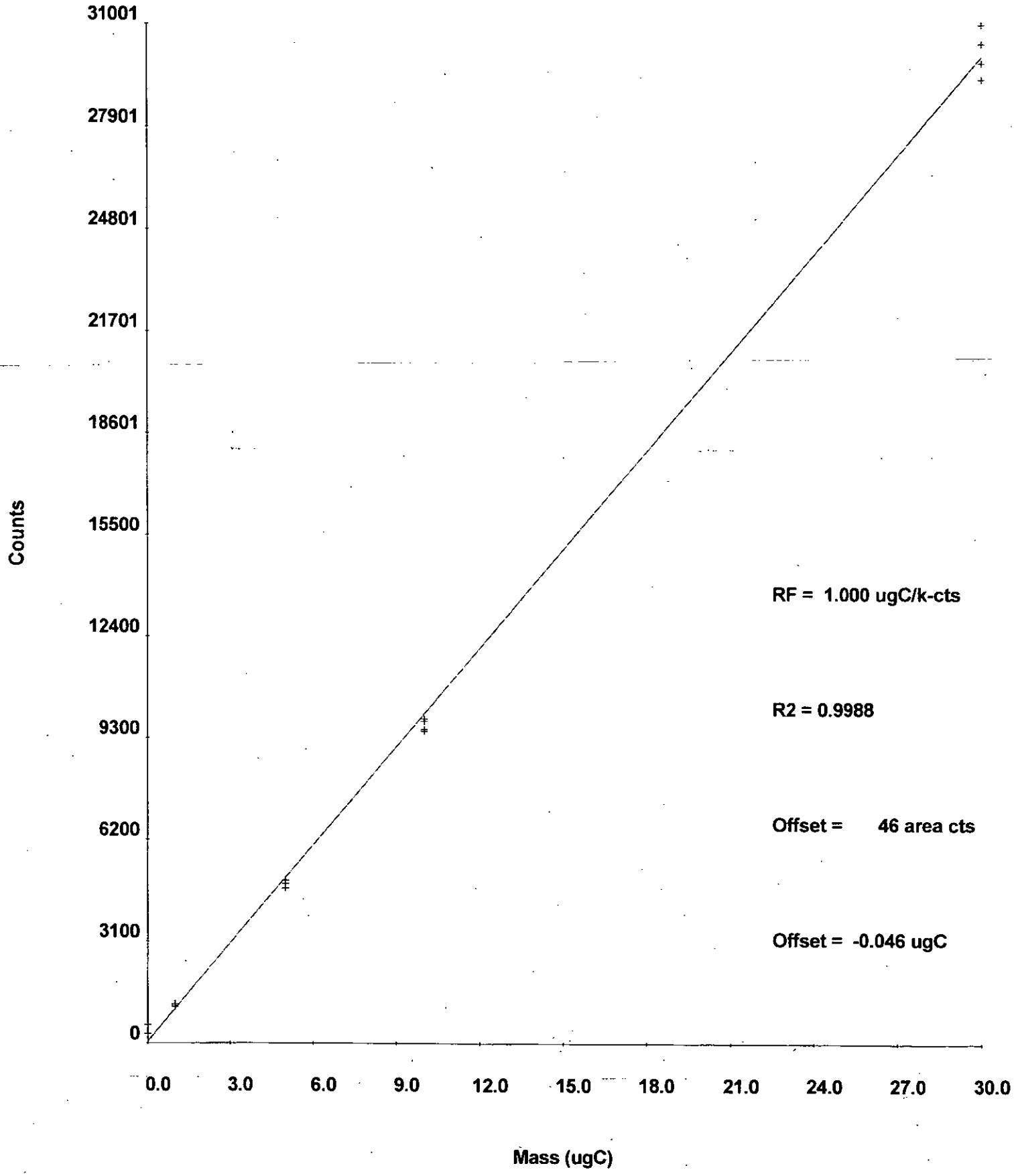
RF (ugC/k-cts):	1.000
R-Squared:	0.9988
Offset (cts):	46
Offset (ugC):	-0.046
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	276	1150	4719	9889	31002
2	278	1137	4853	9564	29342
3	553	1099	4964	9514	29838
4	287	1195	4946	9819	30421
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

SM 1/14/2021

Calibration - 011321TOC (TOC, 13Jan2021 18:16)



Standard Solution Logbook - Inventory ID Summary

Inventory ID:	218253	Date Received:	7/17/21
Standard Name:	Total Organic Carbon (TOC) Ref 1000 mg/L as	Expiration Date:	7/8/23
Standard Type:	Working Standard	Source:	Absolute Standards
ALS Lab:	ROCHESTER	Catalog #:	50110A
ALSTeam:	GenChem	Lot #:	070821
Container ID:	218253	Amount Prepared:	2.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060 / TOC 4X T
Carbon Result	1000	ppm	9060 / TOC 4X T

Standard Solution Logbook - Inventory ID Summary

Inventory ID:	220617	Date Received:	11/24/21
Standard Name:	Total Organic Carbon (TOC) Std 1000 mg/L as	Expiration Date:	9/30/23
Standard Type:	Working Standard	Source:	SCP Science
ALS Lab:	ROCHESTER	Catalog #:	250-250-051
ALSTeam:	GenChem	Lot #:	S210910014
Container ID:	220617	Amount Prepared:	1.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060A / TOC 4X T
Carbon Result	1000	ppm	9060A / TOC 4X T

SUBCONTRACTED DATA

February 0 , 0 Service Request No:R 005

Heather Manz
Katahdin Analytical Services
00 Technology Way
P.O. Bo 5 0
Scarborough, M 0 0 0

r r R r r D

Dear Heather,

nclosed are the results of the sample s submitted to our laboratory anuary , 0
For your reference, these analyses have been assigned our service request number **R**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards e cept as noted in the case narrative report. Any testing not included in the lab s accreditation is identified on a Non Certified Analytes report. All results are intended to be considered in their entirety. ALS nvironmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that e pected when using the prescribed method s , and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time e ceedances, which may add to the uncertainty are e plained in the report narrative or are flagged with qualifiers. The flags are e plained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My e tension is . You may also contact me via email at anice. aeger alsglobal.com.

Respectfully submitted,

r r d r

anice aeger
Pro ect Manager

CC: Greg Lull

ALS nvironmental
ALS Group USA, Corp
 5 5 efferson Road, Building 00, Suite 0
Rochester, NY
 5 5 5 0
 5 5 5

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MW-21-1S-FF-EVENT#2-DUP - GenChem 52
MW-21-1D-FF-EVENT#2 - GenChem 53
9060A - TOC 4X D DOD - 752551 54
9060A - TOC 4X D DOD - 752706 78

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

1565 Jefferson Rd, Building 300, Rochester, NY 14623 | 585-288-5380 | www.alsglobal.com

ALS Environmental

Client: Katahdin Analytical Services
Project: SO8173 Fort Devens
Sample Matrix: Water

Service Request: R2200582
Date Received: 01/21/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Ten water samples were received for analysis at ALS Environmental on 01/21/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

General Chemistry:

Method 9060A, One or more samples were received past the recommended holding time. The customer was notified when the discrepancy was found and instructed the laboratory to proceed with processing. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance.

Approved by _____ Date 02/02/2022

M D MM R

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.5	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.5	0.5	.0	mg L	0	0A

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.5	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.0	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.5	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

M D MM R

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

D M D		D R				
	R	MD	MR		M	d
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A
Carbon, Dissolved Organic DOC	.	0.5	.0	mg L	0	0A

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

M R R R

SAMPL	CLI NT SAMPL ID	DAT	TIM
R 005 00	SHM 0 0 FF V NT	0	0 5
R 005 00	MW S FF V NT	0	0 5
R 005 00	MW D FF V NT	0	5
R 005 00	MW D FF V NT	0	50
R 005 005	MW S FF V NT	0	5
R 005 00	MW D FF V NT	0	55
R 005 00	MW S FF V NT	0	05
R 005 00	MW S FF V NT	0	5
R 005 00	MW S FF V NT DUP	0	5
R 005 0 0	MW D FF V NT	0	0 0

ALS Rochester

Katahdin ANALYTICAL SERVICES

Sub-contract Laboratory Chain of Custody

Client: Katahdin Analytical Services	Contact: Ms. Heather Manz	Email: hmanz@katahdinlab.com	Phone #: (207) 874-2400
Address: 600 Technology Way	City: Scarborough	State: Maine / Zip: 04074	Project Name: Fort Devens
KAS WO #: SO8173	Quote #:	Purchase Order #: SO8173	TAT: 2 week / Verbal TAT: N/A
RPT Level: 4	Reporting Format: DOD	EDD: General spreadsheet	Analysis: SW9060 DOC / ~~Analysis:~~ / ~~Analysis:~~

Sample ID:	Collect Date/Time:	Matrix:	No. of Containers	Pres. H_2SO_4	MS/MSD Dup.	Filtered? Y / N	Filtered? Y / N	Filtered? Y / N
SHM-10-06-FF-EVENT #2	22-NOV-21 10:45	AQ	2		No	N		
MW-21-4S-FF-EVENT#2	22-NOV-21 10:25	AQ	6		yes			
MW-21-3D-FF-EVENT#2	22-NOV-21 12:57	AQ	2		No			
MW-21-4D-FF-EVENT#2	22-NOV-21 12:50	AQ	2					
MW-21-3S-FF-EVENT#2	22-NOV-21 14:35	AQ	2					
MW-21-2D-FF-EVENT#2	22-NOV-21 14:55	AQ	2					
MW-21-2S-FF-EVENT#2	23-NOV-21 10:51	AQ	2					
MW-21-1S-FF-EVENT#2	23-NOV-21 11:52	AQ	2					
MW-21-1S-FF-EVENT#2-DUP	23-NOV-21 11:52	AQ	2					
MW-21-1D-FF-EVENT#2	23-NOV-21 03:10	AQ	2					

Relinquished By:	Date/Time:	Received By:
[signature]	01/20/22 1430	[signature] 1/21/22 10:30

Comments:
Samples are already past 2x hold time.
Please report this COC separately.

R2200582 5
Katahdin Analytical Services
SO8173 Fort Devens

R2200582 5
Katahdin Analytical Services
SC8173 Fort Devens

Cooler Receipt and Preservation Check Form

Project/Client Katahdin Folder Number _____

Cooler received on 1/21/22 by: MM COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y N		5a	**Perchlorate** samples have required headspace?	Y N NA
2	**Custody papers** properly completed (ink, signed)?	Y N		5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
3	Did all bottles arrive in good **condition** (unbroken)?	Y N		6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice Dry Ice Gel packs** present?	Y N		7	Soil VOA received as:	Bulk Encore 5035set NA

8. Temperature Readings Date: 1/21/22 Time: 10:50 ID: IR#7 IR#11 From: Temp Blank Sample Bottle

Observed Temp (°C)	2.0						
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R/OOR by MM on 1/21/22 at 11:00
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 1/21/22 Time: 1340 by: [illegible]

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
13. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2	225320	H_2SO_4	✓		Client					
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: Client

Explain all Discrepancies/ Other Comments:

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: [illegible]

PC Secondary Review: [illegible] 1/24/22 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r19.doc 03/02/2021

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Katahdin Analytical Services **Service Request:** R2200582
Project: SO8173 Fort Devens

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2200582-001.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-001.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-002.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-002.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-002.03					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-002.04					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-002.05					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-002.06					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-003.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-003.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Katahdin Analytical Services **Service Request:** R2200582
Project: SO8173 Fort Devens

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2200582-004.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1405	RT000455 / GLAFORCE	
R2200582-004.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1405	RT000455 / GLAFORCE	
R2200582-005.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1405	RT000455 / GLAFORCE	
R2200582-005.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1405	RT000455 / GLAFORCE	
R2200582-006.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200582-006.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200582-007.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200582-007.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200582-008.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200582-008.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Katahdin Analytical Services **Service Request:** R2200582
Project: SO8173 Fort Devens

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2200582-009.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-009.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1407	RT000455 / GLAFORCE	
R2200582-010.01					
	9060A				
		1/21/2022	1338	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	
R2200582-010.02					
		1/21/2022	1340	SMO / GLAFORCE	
		1/21/2022	1406	RT000455 / GLAFORCE	

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for Accreditations[1]

NELAP State Accreditation #
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP State Accreditation #
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island ID #LAO00333

PJLA Testing DoD ELAP
Accreditation #65817

[1] Analyses were performed according to the current DoD Quality Systems Manual, our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current requirements, where applicable, except as noted in the case narrative. This report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

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.

Client: Katahdin Analytical Services
Project: SO8173 Fort Devens/
Service Request: R2200582

Sample Name: SHM-10-06-FF-EVENT#2
Lab Code: R2200582-001
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMEDBURY

Sample Name: MW-21-4S-FF-EVENT#2
Lab Code: R2200582-002
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Sample Name: MW-21-3D-FF-EVENT#2
Lab Code: R2200582-003
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMEDBURY

Sample Name: MW-21-4D-FF-EVENT#2
Lab Code: R2200582-004
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMEDBURY

Sample Name: MW-21-3S-FF-EVENT#2
Lab Code: R2200582-005
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Client: Katahdin Analytical Services
Project: SO8173 Fort Devens/
Service Request: R2200582

Sample Name: MW-21-2D-FF-EVENT#2
Lab Code: R2200582-006
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Sample Name: MW-21-2S-FF-EVENT#2
Lab Code: R2200582-007
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Sample Name: MW-21-1S-FF-EVENT#2
Lab Code: R2200582-008
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Sample Name: MW-21-1S-FF-EVENT#2-DUP
Lab Code: R2200582-009
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMORGAN

Sample Name: MW-21-1D-FF-EVENT#2
Lab Code: R2200582-010
Sample Matrix: Water
Date Collected: 11/22/21
Date Received: 01/21/22

Analysis Method	Extracted/Digested By	Analyzed By
9060A		SMEDBURY

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

Sample Results

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1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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General Chemistry

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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 10:45
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	SHM-10-06-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.7**	mg/L	1.0	0.5	0.5	1	01/24/22 07:07	*
Carbon, Dissolved Organic (DOC)	9060A	**2.6**	mg/L	1.0	0.5	0.5	1	01/24/22 06:57	*
Carbon, Dissolved Organic (DOC)	9060A	**2.5**	mg/L	1.0	0.5	0.5	1	01/24/22 06:37	*
Carbon, Dissolved Organic (DOC)	9060A	**2.5**	mg/L	1.0	0.5	0.5	1	01/24/22 06:47	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 10:25
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-4S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**4.4**	mg/L	1.0	0.5	0.5	1	01/25/22 14:35	*
Carbon, Dissolved Organic (DOC)	9060A	**4.1**	mg/L	1.0	0.5	0.5	1	01/25/22 14:05	*
Carbon, Dissolved Organic (DOC)	9060A	**4.2**	mg/L	1.0	0.5	0.5	1	01/25/22 14:15	*
Carbon, Dissolved Organic (DOC)	9060A	**4.4**	mg/L	1.0	0.5	0.5	1	01/25/22 14:25	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 12:57
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 09:30	*
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/24/22 09:40	*
Carbon, Dissolved Organic (DOC)	9060A	**2.4**	mg/L	1.0	0.5	0.5	1	01/24/22 09:50	*
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/24/22 09:20	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 12:50
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-4D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.4**	mg/L	1.0	0.5	0.5	1	01/24/22 10:21	*
Carbon, Dissolved Organic (DOC)	9060A	**2.4**	mg/L	1.0	0.5	0.5	1	01/24/22 10:11	*
Carbon, Dissolved Organic (DOC)	9060A	**2.5**	mg/L	1.0	0.5	0.5	1	01/24/22 10:01	*
Carbon, Dissolved Organic (DOC)	9060A	**3.2**	mg/L	1.0	0.5	0.5	1	01/24/22 10:31	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 14:35
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.8**	mg/L	1.0	0.5	0.5	1	01/25/22 16:07	*
Carbon, Dissolved Organic (DOC)	9060A	**2.8**	mg/L	1.0	0.5	0.5	1	01/25/22 16:37	*
Carbon, Dissolved Organic (DOC)	9060A	**3.0**	mg/L	1.0	0.5	0.5	1	01/25/22 16:27	*
Carbon, Dissolved Organic (DOC)	9060A	**2.8**	mg/L	1.0	0.5	0.5	1	01/25/22 16:17	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 14:55
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-2D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**1.3**	mg/L	1.0	0.5	0.5	1	01/25/22 16:58	*
Carbon, Dissolved Organic (DOC)	9060A	**1.4**	mg/L	1.0	0.5	0.5	1	01/25/22 16:48	*
Carbon, Dissolved Organic (DOC)	9060A	**1.5**	mg/L	1.0	0.5	0.5	1	01/25/22 17:18	*
Carbon, Dissolved Organic (DOC)	9060A	**1.3**	mg/L	1.0	0.5	0.5	1	01/25/22 17:08	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 10:51
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-2S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/25/22 17:29	*
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/25/22 17:39	*
Carbon, Dissolved Organic (DOC)	9060A	**2.6**	mg/L	1.0	0.5	0.5	1	01/25/22 17:59	*
Carbon, Dissolved Organic (DOC)	9060A	**2.6**	mg/L	1.0	0.5	0.5	1	01/25/22 17:49	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 11:52
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.8**	mg/L	1.0	0.5	0.5	1	01/25/22 19:31	*
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 19:41	*
Carbon, Dissolved Organic (DOC)	9060A	**3.9**	mg/L	1.0	0.5	0.5	1	01/25/22 20:01	*
Carbon, Dissolved Organic (DOC)	9060A	**3.8**	mg/L	1.0	0.5	0.5	1	01/25/22 19:51	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 11:52
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1S-FF-EVENT#2-DUP	**Basis:**	NA
Lab Code:	R2200582-009		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.8**	mg/L	1.0	0.5	0.5	1	01/25/22 20:32	*
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 20:12	*
Carbon, Dissolved Organic (DOC)	9060A	**3.9**	mg/L	1.0	0.5	0.5	1	01/25/22 20:42	*
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 20:22	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 03:10
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-010		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 15:57	*
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/24/22 15:37	*
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 15:27	*
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 15:47	*

QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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General Chemistry

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1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R2200582-MB1		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 19:54	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 20:04	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 20:14	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/23/22 19:45	

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R2200582-MB2		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 10:51	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 10:41	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 11:01	
Carbon, Dissolved Organic (DOC)	9060A	ND	U	mg/L	1.0	0.5	0.5	1	01/25/22 11:11	

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QA/QC Report

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21
Sample Matrix:	Water	**Date Received:**	01/21/22
		Date Analyzed:	01/25/22

Duplicate Matrix Spike Summary
Carbon, Dissolved Organic (DOC)

Sample Name:	MW-21-4S-FF-EVENT#2	**Units:**	mg/L
Lab Code:	R2200582-002	**Basis:**	NA
Analysis Method:	9060A		

		Matrix Spike R2200582-002MS			**Duplicate Matrix Spike** R2200582-002DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Carbon, Dissolved Organic (DOC)	4.1	13.7	10.0	96	12.7	10.0	86	85-115	7	20
Carbon, Dissolved Organic (DOC)	4.2	13.7	10.0	95	13.0	10.0	87	85-115	5	20
Carbon, Dissolved Organic (DOC)	4.4	13.6	10.0	92	14.6	10.0	102	85-115	7	20
Carbon, Dissolved Organic (DOC)	4.4	14.2	10.0	98	13.7	10.0	93	85-115	4	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Katahdin Analytical Services
Project: SO8173 Fort Devens
Sample Matrix: Water

Service Request: R2200582
Date Analyzed: 01/23/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2200582-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Dissolved Organic (DOC)	9060A	9.9	10.0	99	85-115
Carbon, Dissolved Organic (DOC)	9060A	9.4	10.0	94	85-115
Carbon, Dissolved Organic (DOC)	9060A	10	10.0	100	85-115
Carbon, Dissolved Organic (DOC)	9060A	9.3	10.0	93	85-115

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QA/QC Report

Client: Katahdin Analytical Services
Project: SO8173 Fort Devens
Sample Matrix: Water

Service Request: R2200582
Date Analyzed: 01/25/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2200582-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Dissolved Organic (DOC)	9060A	10.5	10.0	105	85-115
Carbon, Dissolved Organic (DOC)	9060A	9.41	10.0	94	85-115
Carbon, Dissolved Organic (DOC)	9060A	10.6	10.0	106	85-115
Carbon, Dissolved Organic (DOC)	9060A	10.6	10.0	106	85-115

Client: Katahdin Analytical Services **Service Request:**R2200582
Project: SO8173 Fort Devens

Continuing Calibration Blank (CCB) Summary
Carbon, Dissolved Organic (DOC)

Analysis Method: 9060A **Units:**mg/L

	Analysis Lot	Lab Code	Date Analyzed	LOQ	LOD	MDL	Result	Q
CCB1	752551	RQ2200677-02	01/23/22 20:14	1.0	0.5	0.5	ND	U
CCB2	752551	RQ2200677-02	01/23/22 20:04	1.0	0.5	0.5	ND	U
CCB3	752551	RQ2200677-02	01/23/22 19:54	1.0	0.5	0.5	ND	U
CCB4	752551	RQ2200677-02	01/23/22 19:45	1.0	0.5	0.5	ND	U
CCB5	752551	RQ2200677-08	01/24/22 04:24	1.0	0.5	0.5	ND	U
CCB6	752551	RQ2200677-08	01/24/22 04:04	1.0	0.5	0.5	ND	U
CCB7	752551	RQ2200677-08	01/24/22 04:14	1.0	0.5	0.5	ND	U
CCB8	752551	RQ2200677-08	01/24/22 03:54	1.0	0.5	0.5	ND	U
CCB9	752551	RQ2200677-10	01/24/22 12:13	1.0	0.5	0.5	ND	U
CCB10	752551	RQ2200677-10	01/24/22 12:23	1.0	0.5	0.5	ND	U
CCB11	752551	RQ2200677-10	01/24/22 12:03	1.0	0.5	0.5	ND	U
CCB12	752551	RQ2200677-10	01/24/22 12:33	1.0	0.5	0.5	ND	U
CCB13	752551	RQ2200677-11	01/24/22 20:42	1.0	0.5	0.5	ND	U
CCB14	752551	RQ2200677-11	01/24/22 20:12	1.0	0.5	0.5	ND	U
CCB15	752551	RQ2200677-11	01/24/22 20:22	1.0	0.5	0.5	ND	U
CCB16	752551	RQ2200677-11	01/24/22 20:32	1.0	0.5	0.5	ND	U
CCB17	752706	RQ2200792-02	01/25/22 10:51	1.0	0.5	0.5	ND	U
CCB18	752706	RQ2200792-02	01/25/22 10:41	1.0	0.5	0.5	ND	U
CCB19	752706	RQ2200792-02	01/25/22 11:01	1.0	0.5	0.5	ND	U
CCB20	752706	RQ2200792-02	01/25/22 11:11	1.0	0.5	0.5	ND	U
CCB21	752706	RQ2200792-08	01/25/22 18:51	1.0	0.5	0.5	ND	U
CCB22	752706	RQ2200792-08	01/25/22 19:10	1.0	0.5	0.5	ND	U
CCB23	752706	RQ2200792-08	01/25/22 19:20	1.0	0.5	0.5	ND	U
CCB24	752706	RQ2200792-08	01/25/22 19:01	1.0	0.5	0.5	ND	U
CCB25	752706	RQ2200792-10	01/26/22 03:20	1.0	0.5	0.5	ND	U
CCB26	752706	RQ2200792-10	01/26/22 03:10	1.0	0.5	0.5	ND	U
CCB27	752706	RQ2200792-10	01/26/22 03:00	1.0	0.5	0.5	ND	U
CCB28	752706	RQ2200792-10	01/26/22 03:30	1.0	0.5	0.5	ND	U
CCB29	752706	RQ2200792-12	01/26/22 11:08	1.0	0.5	0.5	ND	U
CCB30	752706	RQ2200792-12	01/26/22 11:28	1.0	0.5	0.5	ND	U
CCB31	752706	RQ2200792-12	01/26/22 11:38	1.0	0.5	0.5	ND	U
CCB32	752706	RQ2200792-12	01/26/22 11:18	1.0	0.5	0.5	ND	U

Client: Katahdin Analytical Services **Service Request:** R2200582
Project: SO8173 Fort Devens

Continuing Calibration Verification (CCV) Summary

Carbon, Dissolved Organic (DOC)

Analysis Method: 9060A **Units:** mg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	752551	RQ2200677-01	01/23/22 19:04	15.0	15.1	101	85-115
CCV2	752551	RQ2200677-01	01/23/22 19:24	15.0	15.6	104	85-115
CCV3	752551	RQ2200677-01	01/23/22 19:34	15.0	15.7	105	85-115
CCV4	752551	RQ2200677-01	01/23/22 19:14	15.0	14.7	98	85-115
CCV5	752551	RQ2200677-07	01/24/22 03:43	15.0	15.9	106	85-115
CCV6	752551	RQ2200677-07	01/24/22 03:23	15.0	15.8	105	85-115
CCV7	752551	RQ2200677-07	01/24/22 03:13	15.0	16.3	109	85-115
CCV8	752551	RQ2200677-07	01/24/22 03:33	15.0	15.2	101	85-115
CCV9	752551	RQ2200677-09	01/24/22 11:52	15.0	15.5	103	85-115
CCV10	752551	RQ2200677-09	01/24/22 11:32	15.0	13.5	90	85-115
CCV11	752551	RQ2200677-09	01/24/22 11:42	15.0	13.9	93	85-115
CCV12	752551	RQ2200677-09	01/24/22 11:22	15.0	14.6	98	85-115
CCV13	752551	RQ2200677-12	01/24/22 19:41	15.0	15.3	102	85-115
CCV14	752551	RQ2200677-12	01/24/22 20:01	15.0	16.0	107	85-115
CCV15	752551	RQ2200677-12	01/24/22 19:51	15.0	15.4	103	85-115
CCV16	752551	RQ2200677-12	01/24/22 19:31	15.0	16.1	108	85-115
CCV17	752706	RQ2200792-01	01/25/22 10:10	15.0	15.0	100	85-115
CCV18	752706	RQ2200792-01	01/25/22 10:00	15.0	15.4	103	85-115
CCV19	752706	RQ2200792-01	01/25/22 10:20	15.0	15.5	103	85-115
CCV20	752706	RQ2200792-01	01/25/22 10:30	15.0	15.5	103	85-115
CCV21	752706	RQ2200792-07	01/25/22 18:20	15.0	15.1	101	85-115
CCV22	752706	RQ2200792-07	01/25/22 18:30	15.0	15.2	101	85-115
CCV23	752706	RQ2200792-07	01/25/22 18:40	15.0	16.0	106	85-115
CCV24	752706	RQ2200792-07	01/25/22 18:10	15.0	16.1	107	85-115
CCV25	752706	RQ2200792-09	01/26/22 02:49	15.0	16.4	109	85-115
CCV26	752706	RQ2200792-09	01/26/22 02:29	15.0	15.5	103	85-115
CCV27	752706	RQ2200792-09	01/26/22 02:19	15.0	15.6	104	85-115
CCV28	752706	RQ2200792-09	01/26/22 02:39	15.0	15.5	103	85-115
CCV29	752706	RQ2200792-11	01/26/22 10:28	15.0	15.3	102	85-115
CCV30	752706	RQ2200792-11	01/26/22 10:48	15.0	15.6	104	85-115
CCV31	752706	RQ2200792-11	01/26/22 10:38	15.0	14.8	99	85-115
CCV32	752706	RQ2200792-11	01/26/22 10:58	15.0	15.8	105	85-115

Raw Data

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

General Chemistry

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Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 10:45
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	SHM-10-06-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.7**	mg/L	1.0	0.5	0.5	1	01/24/22 07:07	*
Carbon, Dissolved Organic (DOC)	9060A	**2.6**	mg/L	1.0	0.5	0.5	1	01/24/22 06:57	*
Carbon, Dissolved Organic (DOC)	9060A	**2.5**	mg/L	1.0	0.5	0.5	1	01/24/22 06:37	*
Carbon, Dissolved Organic (DOC)	9060A	**2.5**	mg/L	1.0	0.5	0.5	1	01/24/22 06:47	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 10:25
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-4S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**4.4**	mg/L	1.0	0.5	0.5	1	01/25/22 14:35	*
Carbon, Dissolved Organic (DOC)	9060A	**4.1**	mg/L	1.0	0.5	0.5	1	01/25/22 14:05	*
Carbon, Dissolved Organic (DOC)	9060A	**4.2**	mg/L	1.0	0.5	0.5	1	01/25/22 14:15	*
Carbon, Dissolved Organic (DOC)	9060A	**4.4**	mg/L	1.0	0.5	0.5	1	01/25/22 14:25	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 12:57
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 09:30	*
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/24/22 09:40	*
Carbon, Dissolved Organic (DOC)	9060A	**2.4**	mg/L	1.0	0.5	0.5	1	01/24/22 09:50	*
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/24/22 09:20	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 12:50
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-4D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.4**	mg/L	1.0	0.5	0.5	1	01/24/22 10:21	*
Carbon, Dissolved Organic (DOC)	9060A	**2.4**	mg/L	1.0	0.5	0.5	1	01/24/22 10:11	*
Carbon, Dissolved Organic (DOC)	9060A	**2.5**	mg/L	1.0	0.5	0.5	1	01/24/22 10:01	*
Carbon, Dissolved Organic (DOC)	9060A	**3.2**	mg/L	1.0	0.5	0.5	1	01/24/22 10:31	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 14:35
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-3S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.8**	mg/L	1.0	0.5	0.5	1	01/25/22 16:07	*
Carbon, Dissolved Organic (DOC)	9060A	**2.8**	mg/L	1.0	0.5	0.5	1	01/25/22 16:37	*
Carbon, Dissolved Organic (DOC)	9060A	**3.0**	mg/L	1.0	0.5	0.5	1	01/25/22 16:27	*
Carbon, Dissolved Organic (DOC)	9060A	**2.8**	mg/L	1.0	0.5	0.5	1	01/25/22 16:17	*

Analytical Report

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 14:55
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-2D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**1.3**	mg/L	1.0	0.5	0.5	1	01/25/22 16:58	*
Carbon, Dissolved Organic (DOC)	9060A	**1.4**	mg/L	1.0	0.5	0.5	1	01/25/22 16:48	*
Carbon, Dissolved Organic (DOC)	9060A	**1.5**	mg/L	1.0	0.5	0.5	1	01/25/22 17:18	*
Carbon, Dissolved Organic (DOC)	9060A	**1.3**	mg/L	1.0	0.5	0.5	1	01/25/22 17:08	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 10:51
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-2S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/25/22 17:29	*
Carbon, Dissolved Organic (DOC)	9060A	**2.3**	mg/L	1.0	0.5	0.5	1	01/25/22 17:39	*
Carbon, Dissolved Organic (DOC)	9060A	**2.6**	mg/L	1.0	0.5	0.5	1	01/25/22 17:59	*
Carbon, Dissolved Organic (DOC)	9060A	**2.6**	mg/L	1.0	0.5	0.5	1	01/25/22 17:49	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 11:52
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1S-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.8**	mg/L	1.0	0.5	0.5	1	01/25/22 19:31	*
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 19:41	*
Carbon, Dissolved Organic (DOC)	9060A	**3.9**	mg/L	1.0	0.5	0.5	1	01/25/22 20:01	*
Carbon, Dissolved Organic (DOC)	9060A	**3.8**	mg/L	1.0	0.5	0.5	1	01/25/22 19:51	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 11:52
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1S-FF-EVENT#2-DUP	**Basis:**	NA
Lab Code:	R2200582-009		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**3.8**	mg/L	1.0	0.5	0.5	1	01/25/22 20:32	*
Carbon, Dissolved Organic (DOC)	9060A	**3.6**	mg/L	1.0	0.5	0.5	1	01/25/22 20:12	*
Carbon, Dissolved Organic (DOC)	9060A	**3.9**	mg/L	1.0	0.5	0.5	1	01/25/22 20:42	*
Carbon, Dissolved Organic (DOC)	9060A	**3.7**	mg/L	1.0	0.5	0.5	1	01/25/22 20:22	*

Client:	Katahdin Analytical Services	**Service Request:**	R2200582
Project:	SO8173 Fort Devens	**Date Collected:**	11/22/21 03:10
Sample Matrix:	Water	**Date Received:**	01/21/22 10:30
Sample Name:	MW-21-1D-FF-EVENT#2	**Basis:**	NA
Lab Code:	R2200582-010		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 15:57	*
Carbon, Dissolved Organic (DOC)	9060A	**2.1**	mg/L	1.0	0.5	0.5	1	01/24/22 15:37	*
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 15:27	*
Carbon, Dissolved Organic (DOC)	9060A	**2.2**	mg/L	1.0	0.5	0.5	1	01/24/22 15:47	*

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.12 mg/L	42 mL	15.1 mg/L	1					1/23/22 19:04:00	N	IV
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	14.67 mg/L	42 mL	14.7 mg/L	1					1/23/22 19:14:00	N	IV
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.60 mg/L	42 mL	15.6 mg/L	1					1/23/22 19:24:00	N	IV
RQ2200677-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.71 mg/L	42 mL	15.7 mg/L	1					1/23/22 19:34:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:45:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:45:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:54:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 19:54:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:04:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:04:00	N	IV
RQ2200677-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:14:00	N	IV
RQ2200677-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/23/22 20:14:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.31 mg/L	42 mL	9.31 mg/L	1	0.5	1.0	93		1/23/22 20:25:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.43 mg/L	42 mL	9.43 mg/L	1	0.5	1.0	94		1/23/22 20:35:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.98 mg/L	42 mL	9.98 mg/L	1	0.5	1.0	100		1/23/22 20:45:00	N	IV
RQ2200677-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.93 mg/L	42 mL	9.93 mg/L	1	0.5	1.0	99		1/23/22 20:55:00	N	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.13 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 21:06:00	Y	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.32 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/23/22 21:16:00	Y	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.18 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 21:26:00	Y	IV
R2200581-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.18 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 21:36:00	Y	IV
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.17 mg/L	42 mL	11.2 mg/L	1	0.5	1.0	90		1/23/22 21:47:00	N	IV
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.08 mg/L	42 mL	11.1 mg/L	1	0.5	1.0	88		1/23/22 21:57:00	N	IV
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.05 mg/L	42 mL	11.1 mg/L	1	0.5	1.0	89		1/23/22 22:07:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-05	Carbon, Dissolved Organic (DOC)	MS	R2200581-001	Water	11.96 mg/L	42 mL	12.0 mg/L	1	0.5	1.0	98		1/23/22 22:17:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	11.36 mg/L	42 mL	11.4 mg/L	1	0.5	1.0	92	2	1/23/22 22:28:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	11.29 mg/L	42 mL	11.3 mg/L	1	0.5	1.0	90	2	1/23/22 22:38:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	11.05 mg/L	42 mL	11.0 mg/L	1	0.5	1.0	89	<1	1/23/22 22:48:00	N	IV
RQ2200677-06	Carbon, Dissolved Organic (DOC)	DMS	R2200581-001	Water	12.12 mg/L	42 mL	12.1 mg/L	1	0.5	1.0	99	1	1/23/22 22:58:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.14 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 23:09:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.11 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 23:19:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.12 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/23/22 23:28:00	N	IV
R2200581-002	Carbon, Dissolved Organic (DOC)	N/A		Water	2.21 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 23:38:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.17 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 23:49:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.16 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/23/22 23:59:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.05 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/24/22 00:09:00	N	IV
R2200581-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.29 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/24/22 00:19:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.55 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/24/22 02:33:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	3.33 mg/L	42 mL	3.3 mg/L	1	0.5	1.0			1/24/22 02:42:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.63 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/24/22 02:52:00	N	IV
R2200580-001	Carbon, Dissolved Organic (DOC)	N/A		Water	2.76 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/24/22 03:02:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	16.30 mg/L	42 mL	16.3 mg/L	1					1/24/22 03:13:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.82 mg/L	42 mL	15.8 mg/L	1					1/24/22 03:23:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.22 mg/L	42 mL	15.2 mg/L	1					1/24/22 03:33:00	N	IV
RQ2200677-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.86 mg/L	42 mL	15.9 mg/L	1					1/24/22 03:43:00	N	IV
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 03:54:00	N	IV
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 04:04:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 04:14:00	N	IV
RQ2200677-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 04:24:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.34 mg/L	42 mL	1.3 mg/L	1	0.5	1.0			1/24/22 04:35:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.53 mg/L	42 mL	1.5 mg/L	1	0.5	1.0			1/24/22 04:45:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.65 mg/L	42 mL	1.6 mg/L	1	0.5	1.0			1/24/22 04:55:00	N	IV
R2200580-002	Carbon, Dissolved Organic (DOC)	N/A		Water	1.39 mg/L	42 mL	1.4 mg/L	1	0.5	1.0			1/24/22 05:05:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.76 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/24/22 05:16:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.79 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/24/22 05:26:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	2.97 mg/L	42 mL	3.0 mg/L	1	0.5	1.0			1/24/22 05:36:00	N	IV
R2200580-003	Carbon, Dissolved Organic (DOC)	N/A		Water	3.18 mg/L	42 mL	3.2 mg/L	1	0.5	1.0			1/24/22 05:45:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.49 mg/L	42 mL	2.5 mg/L	1	0.5	1.0			1/24/22 06:37:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.46 mg/L	42 mL	2.5 mg/L	1	0.5	1.0			1/24/22 06:47:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.57 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/24/22 06:57:00	N	IV
R2200582-001 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.73 mg/L	42 mL	2.7 mg/L	1	0.5	1.0			1/24/22 07:07:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.12 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/24/22 09:20:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.16 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 09:30:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.31 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/24/22 09:40:00	N	IV
R2200582-003 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.38 mg/L	42 mL	2.4 mg/L	1	0.5	1.0			1/24/22 09:50:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.54 mg/L	42 mL	2.5 mg/L	1	0.5	1.0			1/24/22 10:01:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.40 mg/L	42 mL	2.4 mg/L	1	0.5	1.0			1/24/22 10:11:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.35 mg/L	42 mL	2.4 mg/L	1	0.5	1.0			1/24/22 10:21:00	N	IV
R2200582-004 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	3.16 mg/L	42 mL	3.2 mg/L	1	0.5	1.0			1/24/22 10:31:00	N	IV
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	14.65 mg/L	42 mL	14.6 mg/L	1					1/24/22 11:22:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752551 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	13.48 mg/L	42 mL	13.5 mg/L	1					1/24/22 11:32:00	N	IV
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	13.93 mg/L	42 mL	13.9 mg/L	1					1/24/22 11:42:00	N	IV
RQ2200677-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/24/22 11:52:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200677-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.16 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 15:27:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.09 mg/L	42 mL	2.1 mg/L	1	0.5	1.0			1/24/22 15:37:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.22 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 15:47:00	N	IV
R2200582-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	2.19 mg/L	42 mL	2.2 mg/L	1	0.5	1.0			1/24/22 15:57:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	16.13 mg/L	42 mL	16.1 mg/L	1					1/24/22 19:31:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	15.32 mg/L	42 mL	15.3 mg/L	1					1/24/22 19:41:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/24/22 19:51:00	N	IV
RQ2200677-12	Carbon, Dissolved Organic (DOC)	CCV		Water	16.02 mg/L	42 mL	16.0 mg/L	1					1/24/22 20:01:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.04 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:12:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:22:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:32:00	N	IV
RQ2200677-11	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:42:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752552 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	14.65 mg/L	42 mL	14.6 mg/L	1					1/24/22 11:22:00	N	IV
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	13.48 mg/L	42 mL	13.5 mg/L	1					1/24/22 11:32:00	N	IV
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	13.93 mg/L	42 mL	13.9 mg/L	1					1/24/22 11:42:00	N	IV
RQ2200678-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/24/22 11:52:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200678-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200678-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.52 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/24/22 16:07:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.63 mg/L	42 mL	9.63 mg/L	1	0.5	1.0	96		1/24/22 16:17:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.14 mg/L	42 mL	10.1 mg/L	1	0.5	1.0	101		1/24/22 16:27:00	N	IV
RQ2200678-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.40 mg/L	42 mL	10.4 mg/L	1	0.5	1.0	104		1/24/22 16:37:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	5.99 mg/L	42 mL	1200 mg/L	200	90	200			1/24/22 17:29:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	5.81 mg/L	42 mL	1160 mg/L	200	90	200			1/24/22 17:39:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	6.07 mg/L	42 mL	1210 mg/L	200	90	200			1/24/22 17:49:00	N	IV
R2200544-010 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	6.16 mg/L	42 mL	1230 mg/L	200	90	200			1/24/22 17:59:00	N	IV
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.26 mg/L	42 mL	2.5 mg/L	2	0.9	2.0			1/24/22 18:10:00	N	IV
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.22 mg/L	42 mL	2.4 mg/L	2	0.9	2.0			1/24/22 18:20:00	N	IV
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.08 mg/L	42 mL	2.2 mg/L	2	0.9	2.0			1/24/22 18:30:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752552 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200544-011 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.53 mg/L	42 mL	3.1 mg/L	2	0.9	2.0			1/24/22 18:40:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.16 mg/L	42 mL	1.2 mg/L	1	0.5	1.0			1/24/22 18:50:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	1.04 mg/L	42 mL	1.0 mg/L	1	0.5	1.0			1/24/22 19:00:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	0.87 mg/L	42 mL	0.9 mg/L J	1	0.5	1.0			1/24/22 19:10:00	N	IV
R2200544-012 (H)	Carbon, Dissolved Organic (DOC)	N/A		Water	0.93 mg/L	42 mL	0.9 mg/L J	1	0.5	1.0			1/24/22 19:20:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	16.13 mg/L	42 mL	16.1 mg/L	1					1/24/22 19:31:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	15.32 mg/L	42 mL	15.3 mg/L	1					1/24/22 19:41:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/24/22 19:51:00	N	IV
RQ2200678-06	Carbon, Dissolved Organic (DOC)	CCV		Water	16.02 mg/L	42 mL	16.0 mg/L	1					1/24/22 20:01:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.04 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:12:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:22:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:32:00	N	IV
RQ2200678-05	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:42:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752553 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	14.65 mg/L	42 mL	14.6 mg/L	1					1/24/22 11:22:00	N	IV
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	13.48 mg/L	42 mL	13.5 mg/L	1					1/24/22 11:32:00	N	IV
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	13.93 mg/L	42 mL	13.9 mg/L	1					1/24/22 11:42:00	N	IV
RQ2200679-01	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/24/22 11:52:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:03:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:13:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:23:00	N	IV
RQ2200679-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200679-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 12:33:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	10.52 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/24/22 16:07:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	9.63 mg/L	42 mL	9.63 mg/L	1	0.5	1.0	96		1/24/22 16:17:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	10.14 mg/L	42 mL	10.1 mg/L	1	0.5	1.0	101		1/24/22 16:27:00	N	IV
RQ2200679-04	Carbon, Total Organic (TOC)	LCS		Water	10.40 mg/L	42 mL	10.4 mg/L	1	0.5	1.0	104		1/24/22 16:37:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	16.13 mg/L	42 mL	16.1 mg/L	1					1/24/22 19:31:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	15.32 mg/L	42 mL	15.3 mg/L	1					1/24/22 19:41:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/24/22 19:51:00	N	IV
RQ2200679-05	Carbon, Total Organic (TOC)	CCV		Water	16.02 mg/L	42 mL	16.0 mg/L	1					1/24/22 20:01:00	N	IV
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.04 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:12:00	N	IV
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:22:00	N	IV
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:32:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752553 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200679-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/24/22 20:42:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	12.75 mg/L	42 mL	25.5 mg/L	2	0.9	2.0			1/24/22 21:34:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	13.48 mg/L	42 mL	27.0 mg/L	2	0.9	2.0			1/24/22 21:43:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	15.07 mg/L	42 mL	30.1 mg/L	2	0.9	2.0			1/24/22 21:53:00	N	IV
R2200544-002 (H)	Carbon, Total Organic (TOC)	N/A		Water	15.44 mg/L	42 mL	30.9 mg/L	2	0.9	2.0			1/24/22 22:03:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.57 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:16:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.59 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:26:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.63 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:36:00	N	IV
R2200544-004 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.65 mg/L	42 mL	0.6 mg/L J	1	0.5	1.0			1/25/22 00:46:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	6.08 mg/L	42 mL	1220 mg/L	200	90	200			1/25/22 00:57:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	5.79 mg/L	42 mL	1160 mg/L	200	90	200			1/25/22 01:07:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	6.40 mg/L	42 mL	1280 mg/L	200	90	200			1/25/22 01:17:00	N	IV
R2200544-005 (H)	Carbon, Total Organic (TOC)	N/A		Water	6.19 mg/L	42 mL	1240 mg/L	200	90	200			1/25/22 01:27:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.73 mg/L	42 mL	0.7 mg/L J	1	0.5	1.0			1/25/22 01:38:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.72 mg/L	42 mL	0.7 mg/L J	1	0.5	1.0			1/25/22 01:48:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.77 mg/L	42 mL	0.8 mg/L J	1	0.5	1.0			1/25/22 01:58:00	N	IV
R2200544-006 (H)	Carbon, Total Organic (TOC)	N/A		Water	0.84 mg/L	42 mL	0.8 mg/L J	1	0.5	1.0			1/25/22 02:08:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	13.82 mg/L	42 mL	13.8 mg/L	1					1/25/22 02:19:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	14.90 mg/L	42 mL	14.9 mg/L	1					1/25/22 02:29:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	15.57 mg/L	42 mL	15.6 mg/L	1					1/25/22 02:39:00	N	IV
RQ2200679-08	Carbon, Total Organic (TOC)	CCV		Water	15.69 mg/L	42 mL	15.7 mg/L	1					1/25/22 02:49:00	N	IV
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:00:00	N	IV
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:10:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMEDBURY **Analysis Lot:** 752553 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:20:00	N	IV
RQ2200679-07	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 03:30:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Sample Dilutions

Final Volume: 30-40mL - TOC

Analyst: S MEDBURY
Instrument: TOC #1

Date 1/23/22
Analysis 9060A

Common Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor
1/2	DI	20	20	1/2												
1/3	DI	10	20	1/3												
1/4	DI	10	30	1/4												
1/6	DI	7	35	1/6												
1/7	DI	6	36	1/7												
1/10	DI	3	27	1/10												
1/10	DI	4	36	1/10												
1/20	DI	2	38	1/20												
1/30	DI	1	29	1/30												
1/40	DI	1	39	1/40												
1/100	DI	0.4	39.6	1/100												
1/200	DI	0.2	39.8	1/200												
1/300	DI	0.1	29.9	1/300												
1/400	DI	0.1	39.9	1/400												
1/1000	DI	1	9	1/10	0.4	39.6	1/1000									
1/2000	DI	1	9	1/10	0.2	39.8	1/2000									
1/4000	DI	1	9	1/10	0.1	39.9	1/4000									
1/10000	DI	0.4	39.6	1/100	0.4	39.6	1/10000									

Special Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor

TOC

CALIBRATION: 011321

1/23/22
SMEDBURY
TOC #1
90604
PIPETTE: WAYNE

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Spl		Name:	WARM-UP				Data File: 0123052						
		Remarks:	<none>										
1	Spl	1	23Jan2022	17:42	-	-	-	678	0.428	0.428	-	-	-
1	Spl	2	23Jan2022	17:52	-	-	-	531	0.281	0.281	-	-	-
1	Spl	3	23Jan2022	18:02	-	-	-	599	0.349	0.349	-	-	-
1	Spl	4	23Jan2022	18:12	-	-	-	541	0.291	0.291	-	-	-
1	Spl	Avg						587	0.337	0.337			
1	Spl	SDev						67.520					
1	Spl	%RSD						11.50					
** Spl		Name:	WARM-UP				Data File: 0123053						
		Remarks:	<none>										
2	Spl	1	23Jan2022	18:23	-	-	-	411	0.161	0.161	-	-	-
2	Spl	2	23Jan2022	18:33	-	-	-	280	0.030	0.030	-	-	-
2	Spl	3	23Jan2022	18:43	-	-	-	254	0.004	0.004	-	-	-
2	Spl	4	23Jan2022	18:53	-	-	-	261	0.011	0.011	-	-	-
2	Spl	Avg						301	0.052	0.052			
2	Spl	SDev						73.822					
2	Spl	%RSD						24.48					
** Spl		Name:	CCV				Data File: 0123054						
		Remarks:	<none>										
3	Spl	1	23Jan2022	19:04	-	-	-	15358	15.114	15.115	-	-	-
3	Spl	2	23Jan2022	19:14	-	-	-	14913	14.669	14.669	-	-	-
3	Spl	3	23Jan2022	19:24	-	-	-	15842	15.599	15.599	-	-	-
3	Spl	4	23Jan2022	19:34	-	-	-	15957	15.714	15.714	-	-	-
3	Spl	Avg						15517	15.274	15.274			
3	Spl	SDev						479.347					
3	Spl	%RSD						3.09					
** Spl		Name:	CCB				Data File: 0123055						
		Remarks:	<none>										
4	Spl	1	23Jan2022	19:45	-	-	-	192	0.000	0.000	-	-	-
4	Spl	2	23Jan2022	19:54	-	-	-	196	0.000	0.000	-	-	-
4	Spl	3	23Jan2022	20:04	-	-	-	197	0.000	0.000	-	-	-
4	Spl	4	23Jan2022	20:14	-	-	-	148	0.000	0.000	-	-	-
4	Spl	Avg						183	0.000	0.000			
4	Spl	SDev						23.599					
4	Spl	%RSD						12.88					
** Spl		Name:	LCS				Data File: 0123056						
		Remarks:	<none>										
5	Spl	1	23Jan2022	20:25	-	-	-	9554	9.308	9.308	-	-	-
5	Spl	2	23Jan2022	20:35	-	-	-	9677	9.431	9.431	-	-	-
5	Spl	3	23Jan2022	20:45	-	-	-	10224	9.978	9.978	-	-	-
5	Spl	4	23Jan2022	20:55	-	-	-	10179	9.933	9.933	-	-	-
5	Spl	Avg						9908	9.663	9.663			
5	Spl	SDev						342.526					
5	Spl	%RSD						3.46					
** Spl		Name:	R2200581-001				Data File: 0123057						
		Remarks:	<none>										
6	Spl	1	23Jan2022	21:06	-	-	-	2375	2.126	2.126	-	-	-
6	Spl	2	23Jan2022	21:16	-	-	-	2570	2.321	2.321	-	-	-
6	Spl	3	23Jan2022	21:26	-	-	-	2425	2.176	2.176	-	-	-
6	Spl	4	23Jan2022	21:36	-	-	-	2433	2.184	2.184	-	-	-
6	Spl	Avg						2450	2.202	2.202			
6	Spl	SDev						83.540					
6	Spl	%RSD						3.41					
** Spl		Name:	R2200581-001S!				Data File: 0123058						
		Remarks:	<none>										
7	Spl	1	23Jan2022	21:47	-	-	-	11411	11.166	11.166	-	-	-
7	Spl	2	23Jan2022	21:57	-	-	-	11326	11.081	11.081	-	-	-
7	Spl	3	23Jan2022	22:07	-	-	-	11298	11.053	11.053	-	-	-
7	Spl	4	23Jan2022	22:17	-	-	-	12206	11.961	11.961	-	-	-
7	Spl	Avg						11560	11.315	11.315			
7	Spl	SDev						433.173					
7	Spl	%RSD						3.75					
** Spl		Name:	R2200581-001SD!				Data File: 0123059						
		Remarks:	<none>										
8	Spl	1	23Jan2022	22:28	-	-	-	11602	11.357	11.357	-	-	-
8	Spl	2	23Jan2022	22:38	-	-	-	11532	11.287	11.287	-	-	-
8	Spl	3	23Jan2022	22:48	-	-	-	11290	11.045	11.045	-	-	-

							012322					
8	Spl	4 23Jan2022 22:58	-	-	-	12363	12.118	12.118	-	-	-
8	Spl	Avg				11696	11.452	11.452			
8	Spl	SDev				463.844					
8	Spl	%RSD				3.97					

** Spl Name: R2200581-002 Data File: 0123060
Remarks: <none>

9	Spl	1 23Jan2022 23:09	-	-	-	2389	2.140	2.140	-	-	-
9	Spl	2 23Jan2022 23:19	-	-	-	2358	2.109	2.109	-	-	-
9	Spl	3 23Jan2022 23:28	-	-	-	2371	2.122	2.122	-	-	-
9	Spl	4 23Jan2022 23:38	-	-	-	2455	2.206	2.206	-	-	-
9	Spl	Avg				2393	2.144	2.144			
9	Spl	SDev				43.084					
9	Spl	%RSD				1.80					

** Spl Name: R2200581-003 Data File: 0123061
Remarks: <none>

10	Spl	1 23Jan2022 23:49	-	-	-	2419	2.170	2.170	-	-	-
10	Spl	2 23Jan2022 23:59	-	-	-	2411	2.162	2.162	-	-	-
10	Spl	3 24Jan2022 00:09	-	-	-	2300	2.051	2.051	-	-	-
10	Spl	4 24Jan2022 00:19	-	-	-	2536	2.287	2.287	-	-	-
10	Spl	Avg				2416	2.167	2.167			
10	Spl	SDev				96.417					
10	Spl	%RSD				3.99					

** Spl Name: R2200581-004 Data File: 0123062
Remarks: 4

11	Spl	1 24Jan2022 00:30	-	-	-	961	0.711	0.711	-	-	-
11	Spl	2 24Jan2022 00:40	-	-	-	949	0.699	0.699	-	-	-
11	Spl	3 24Jan2022 00:50	-	-	-	858	0.608	0.608	-	-	-
11	Spl	4 24Jan2022 01:00	-	-	-	979	0.729	0.729	-	-	-
11	Spl	Avg				936	0.687	0.687			
11	Spl	SDev				53.928					
11	Spl	%RSD				5.76					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200581-005 Data File: 0123063
Remarks: 10

12	Spl	1 24Jan2022 01:11	-	-	-	342	0.092	0.092	-	-	-
12	Spl	2 24Jan2022 01:21	-	-	-	347	0.097	0.097	-	-	-
12	Spl	3 24Jan2022 01:31	-	-	-	371	0.121	0.121	-	-	-
12	Spl	4 24Jan2022 01:41	-	-	-	379	0.129	0.129	-	-	-
12	Spl	Avg				359	0.110	0.110			
12	Spl	SDev				18.025					
12	Spl	%RSD				5.01					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200581-006 Data File: 0123064
Remarks: 10

13	Spl	1 24Jan2022 01:52	-	-	-	466	0.216	0.216	-	-	-
13	Spl	2 24Jan2022 02:02	-	-	-	448	0.198	0.198	-	-	-
13	Spl	3 24Jan2022 02:12	-	-	-	445	0.195	0.195	-	-	-
13	Spl	4 24Jan2022 02:22	-	-	-	522	0.272	0.272	-	-	-
13	Spl	Avg				470	0.220	0.220			
13	Spl	SDev				35.725					
13	Spl	%RSD				7.60					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200580-001 Data File: 0123065
Remarks: <none>

14	Spl	1 24Jan2022 02:33	-	-	-	2800	2.551	2.551	-	-	-
14	Spl	2 24Jan2022 02:42	-	-	-	3577	3.328	3.328	-	-	-
14	Spl	3 24Jan2022 02:52	-	-	-	2882	2.633	2.633	-	-	-
14	Spl	4 24Jan2022 03:02	-	-	-	3010	2.761	2.761	-	-	-
14	Spl	Avg				3067	2.818	2.819			
14	Spl	SDev				350.648					
14	Spl	%RSD				11.43					

** Spl Name: CCV Data File: 0123066
Remarks: <none>

15	Spl	1 24Jan2022 03:13	-	-	-	16543	16.300	16.300	-	-	-
15	Spl	2 24Jan2022 03:23	-	-	-	16060	15.817	15.817	-	-	-
15	Spl	3 24Jan2022 03:33	-	-	-	15462	15.219	15.219	-	-	-
15	Spl	4 24Jan2022 03:43	-	-	-	16101	15.858	15.858	-	-	-
15	Spl	Avg				16041	15.798	15.798			
15	Spl	SDev				443.924					
15	Spl	%RSD				2.77					

** Spl Name: CCB Data File: 0123067
Remarks: <none>

16	Spl	1 24Jan2022 03:54	-	-	-	169	0.000	0.000	-	-	-
16	Spl	2 24Jan2022 04:04	-	-	-	185	0.000	0.000	-	-	-
16	Spl	3 24Jan2022 04:14	-	-	-	164	0.000	0.000	-	-	-
16	Spl	4 24Jan2022 04:24	-	-	-	169	0.000	0.000	-	-	-
16	Spl	Avg				171	0.000	0.000			
16	Spl	SDev				9.142					

16	Spl	%RSD					5.32					

** Spl Name: R2200580-002 Data File: 0123068
Remarks: <none>

17	Spl	1	24Jan2022 04:35	-	-	-	1584	1.335	1.335	-	-	-
17	Spl	2	24Jan2022 04:45	-	-	-	1774	1.525	1.525	-	-	-
17	Spl	3	24Jan2022 04:55	-	-	-	1895	1.646	1.646	-	-	-
17	Spl	4	24Jan2022 05:05	-	-	-	1640	1.391	1.391	-	-	-
17	Spl	Avg					1723	1.474	1.474			
17	Spl	SDev					139.517					
17	Spl	%RSD					8.10					

** Spl Name: R2200580-003 Data File: 0123069
Remarks: <none>

18	Spl	1	24Jan2022 05:16	-	-	-	3005	2.756	2.756	-	-	-
18	Spl	2	24Jan2022 05:26	-	-	-	3034	2.785	2.785	-	-	-
18	Spl	3	24Jan2022 05:36	-	-	-	3222	2.973	2.973	-	-	-
18	Spl	4	24Jan2022 05:45	-	-	-	3424	3.175	3.175	-	-	-
18	Spl	Avg					3171	2.923	2.922			
18	Spl	SDev					194.023					
18	Spl	%RSD					6.12					

** Spl Name: R2200580-004 Data File: 0123070
Remarks: 4

19	Spl	1	24Jan2022 05:56	-	-	-	1003	0.753	0.753	-	-	-
19	Spl	2	24Jan2022 06:06	-	-	-	954	0.704	0.704	-	-	-
19	Spl	3	24Jan2022 06:16	-	-	-	967	0.717	0.717	-	-	-
19	Spl	4	24Jan2022 06:26	-	-	-	964	0.714	0.714	-	-	-
19	Spl	Avg					972	0.722	0.722			
19	Spl	SDev					21.401					
19	Spl	%RSD					2.20					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-001 Data File: 0123071
Remarks: <none>

20	Spl	1	24Jan2022 06:37	-	-	-	2742	2.493	2.493	-	-	-
20	Spl	2	24Jan2022 06:47	-	-	-	2710	2.461	2.461	-	-	-
20	Spl	3	24Jan2022 06:57	-	-	-	2814	2.565	2.565	-	-	-
20	Spl	4	24Jan2022 07:07	-	-	-	2981	2.732	2.732	-	-	-
20	Spl	Avg					2811	2.563	2.563			
20	Spl	SDev					120.925					
20	Spl	%RSD					4.30					

** Spl Name: R2200582-002 Data File: 0123072
Remarks: 10

21	Spl	1	24Jan2022 07:18	-	-	-	529	0.279	0.279	-	-	-
21	Spl	2	24Jan2022 07:28	-	-	-	473	0.223	0.223	-	-	-
21	Spl	3	24Jan2022 07:38	-	-	-	242	0.000	0.000	-	-	-
21	Spl	4	24Jan2022 07:48	-	-	-	552	0.302	0.302	-	-	-
21	Spl	Avg					449	0.199	0.199			
21	Spl	SDev					141.932					
21	Spl	%RSD					31.61					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-002S! Data File: 0123073
Remarks: 10

22	Spl	1	24Jan2022 07:59	-	-	-	10620	10.374	10.374	-	-	-
22	Spl	2	24Jan2022 08:09	-	-	-	10715	10.469	10.469	-	-	-
22	Spl	3	24Jan2022 08:18	-	-	-	10948	10.703	10.703	-	-	-
22	Spl	4	24Jan2022 08:28	-	-	-	10960	10.715	10.715	-	-	-
22	Spl	Avg					10810	10.565	10.565			
22	Spl	SDev					169.967					
22	Spl	%RSD					1.57					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-002SD! Data File: 0123074
Remarks: 10

23	Spl	1	24Jan2022 08:39	-	-	-	11052	10.807	10.807	-	-	-
23	Spl	2	24Jan2022 08:49	-	-	-	10259	10.013	10.013	-	-	-
23	Spl	3	24Jan2022 08:59	-	-	-	10695	10.449	10.450	-	-	-
23	Spl	4	24Jan2022 09:09	-	-	-	10553	10.307	10.307	-	-	-
23	Spl	Avg					10639	10.394	10.394			
23	Spl	SDev					329.393					
23	Spl	%RSD					3.10					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-003 Data File: 0123075
Remarks: <none>

24	Spl	1	24Jan2022 09:20	-	-	-	2369	2.120	2.120	-	-	-
24	Spl	2	24Jan2022 09:30	-	-	-	2410	2.161	2.161	-	-	-
24	Spl	3	24Jan2022 09:40	-	-	-	2559	2.310	2.310	-	-	-
24	Spl	4	24Jan2022 09:50	-	-	-	2627	2.378	2.378	-	-	-
24	Spl	Avg					2491	2.242	2.242			
24	Spl	SDev					121.881					
24	Spl	%RSD					4.89					

** Spl Name: R2200582-004 Data File: 0123076
Remarks: <none>

25	Spl	1 24Jan2022 10:01	-	-	-	2792	2.543	2.543	-	-	-
25	Spl	2 24Jan2022 10:11	-	-	-	2651	2.402	2.402	-	-	-
25	Spl	3 24Jan2022 10:21	-	-	-	2603	2.354	2.354	-	-	-
25	Spl	4 24Jan2022 10:31	-	-	-	3407	3.158	3.158	-	-	-
25	Spl	Avg				2863	2.614	2.614			
25	Spl	SDev				371.268					
25	Spl	%RSD				12.97					

** Spl Name: R2200582-005 Data File: 0123077
Remarks: 10

26	Spl	1 24Jan2022 10:41	-	-	-	407	0.157	0.157	-	-	-
26	Spl	2 24Jan2022 10:51	-	-	-	353	0.103	0.103	-	-	-
26	Spl	3 24Jan2022 11:01	-	-	-	444	0.194	0.194	-	-	-
26	Spl	4 24Jan2022 11:11	-	-	-	353	0.103	0.103	-	-	-
26	Spl	Avg				389	0.139	0.139			
26	Spl	SDev				44.500					
26	Spl	%RSD				11.43					

*********DNR; RERUN STRAIGHT*******

** Spl Name: CCV Data File: 0123078
Remarks: <none>

27	Spl	1 24Jan2022 11:22	-	-	-	14893	14.649	14.649	-	-	-
27	Spl	2 24Jan2022 11:32	-	-	-	13724	13.480	13.480	-	-	-
27	Spl	3 24Jan2022 11:42	-	-	-	14172	13.928	13.928	-	-	-
27	Spl	4 24Jan2022 11:52	-	-	-	15693	15.450	15.450	-	-	-
27	Spl	Avg				14620	14.377	14.377			
27	Spl	SDev				862.047					
27	Spl	%RSD				5.90					

** Spl Name: CCB Data File: 0123079
Remarks: <none>

28	Spl	1 24Jan2022 12:03	-	-	-	177	0.000	0.000	-	-	-
28	Spl	2 24Jan2022 12:13	-	-	-	129	0.000	0.000	-	-	-
28	Spl	3 24Jan2022 12:23	-	-	-	127	0.000	0.000	-	-	-
28	Spl	4 24Jan2022 12:33	-	-	-	158	0.000	0.000	-	-	-
28	Spl	Avg				147	0.000	0.000			
28	Spl	SDev				24.102					
28	Spl	%RSD				16.31					

** Spl Name: R2200582-006 Data File: 0123080
Remarks: 40

29	Spl	1 24Jan2022 12:44	-	-	-	168	0.000	0.000	-	-	-
29	Spl	2 24Jan2022 12:54	-	-	-	176	0.000	0.000	-	-	-
29	Spl	3 24Jan2022 13:04	-	-	-	157	0.000	0.000	-	-	-
29	Spl	4 24Jan2022 13:14	-	-	-	209	0.000	0.000	-	-	-
29	Spl	Avg				177	0.000	0.000			
29	Spl	SDev				22.398					
29	Spl	%RSD				12.62					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-007 Data File: 0123081
Remarks: 40

30	Spl	1 24Jan2022 13:24	-	-	-	135	0.000	0.000	-	-	-
30	Spl	2 24Jan2022 13:34	-	-	-	137	0.000	0.000	-	-	-
30	Spl	3 24Jan2022 13:44	-	-	-	180	0.000	0.000	-	-	-
30	Spl	4 24Jan2022 13:54	-	-	-	317	0.067	0.067	-	-	-
30	Spl	Avg				192	0.000	0.000			
30	Spl	SDev				85.718					
30	Spl	%RSD				44.59					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-008 Data File: 0123082
Remarks: 10

31	Spl	1 24Jan2022 14:05	-	-	-	431	0.181	0.181	-	-	-
31	Spl	2 24Jan2022 14:15	-	-	-	457	0.207	0.207	-	-	-
31	Spl	3 24Jan2022 14:25	-	-	-	476	0.226	0.226	-	-	-
31	Spl	4 24Jan2022 14:35	-	-	-	531	0.281	0.281	-	-	-
31	Spl	Avg				473	0.224	0.224			
31	Spl	SDev				42.390					
31	Spl	%RSD				8.95					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-009 Data File: 0123083
Remarks: 40

32	Spl	1 24Jan2022 14:46	-	-	-	156	0.000	0.000	-	-	-
32	Spl	2 24Jan2022 14:56	-	-	-	324	0.074	0.074	-	-	-
32	Spl	3 24Jan2022 15:06	-	-	-	263	0.013	0.013	-	-	-
32	Spl	4 24Jan2022 15:16	-	-	-	227	0.000	0.000	-	-	-
32	Spl	Avg				242	0.000	0.000			
32	Spl	SDev				70.202					
32	Spl	%RSD				28.95					

*********DNR; RERUN STRAIGHT*******

** Spl Name: R2200582-010 Data File: 0123084
Remarks: <none>

33	Spl	1	24Jan2022 15:27	-	-	-	2406	2.157	2.157	-	-	-
33	Spl	2	24Jan2022 15:37	-	-	-	2341	2.092	2.092	-	-	-
33	Spl	3	24Jan2022 15:47	-	-	-	2470	2.221	2.221	-	-	-
33	Spl	4	24Jan2022 15:57	-	-	-	2440	2.191	2.191	-	-	-
33	Spl	Avg					2414	2.165	2.165			
33	Spl	SDev					55.392					
33	Spl	%RSD					2.29					

** Spl Name: LCS Data File: 0123085
Remarks: <none>

34	Spl	1	24Jan2022 16:07	-	-	-	10768	10.523	10.523	-	-	-
34	Spl	2	24Jan2022 16:17	-	-	-	9875	9.629	9.629	-	-	-
34	Spl	3	24Jan2022 16:27	-	-	-	10382	10.136	10.136	-	-	-
34	Spl	4	24Jan2022 16:37	-	-	-	10641	10.395	10.396	-	-	-
34	Spl	Avg					10416	10.171	10.171			
34	Spl	SDev					395.122					
34	Spl	%RSD					3.79					

** Spl Name: R2200544-008 Data File: 0123086
Remarks: 100

35	Spl	1	24Jan2022 16:48	-	-	-	993	0.743	0.743	-	-	-
35	Spl	2	24Jan2022 16:58	-	-	-	1003	0.753	0.753	-	-	-
35	Spl	3	24Jan2022 17:08	-	-	-	971	0.721	0.721	-	-	-
35	Spl	4	24Jan2022 17:18	-	-	-	1040	0.790	0.790	-	-	-
35	Spl	Avg					1001	0.752	0.752			
35	Spl	SDev					28.791					
35	Spl	%RSD					2.87					

*********REPEATED AT A 1/10 ON 1/25********

** Spl Name: R2200544-010 Data File: 0123087
Remarks: 200

36	Spl	1	24Jan2022 17:29	-	-	-	6235	5.988	5.988	-	-	-
36	Spl	2	24Jan2022 17:39	-	-	-	6060	5.812	5.812	-	-	-
36	Spl	3	24Jan2022 17:49	-	-	-	6312	6.065	6.065	-	-	-
36	Spl	4	24Jan2022 17:59	-	-	-	6402	6.155	6.155	-	-	-
36	Spl	Avg					6252	6.005	6.005			
36	Spl	SDev					145.204					
36	Spl	%RSD					2.32					

over range on 1/21/22

** Spl Name: R2200544-011 Data File: 0123088
Remarks: 2

37	Spl	1	24Jan2022 18:10	-	-	-	1506	1.257	1.257	-	-	-
37	Spl	2	24Jan2022 18:20	-	-	-	1465	1.216	1.215	-	-	-
37	Spl	3	24Jan2022 18:30	-	-	-	1331	1.081	1.082	-	-	-
37	Spl	4	24Jan2022 18:40	-	-	-	1777	1.528	1.528	-	-	-
37	Spl	Avg					1519	1.270	1.270			
37	Spl	SDev					187.075					
37	Spl	%RSD					12.31					

RPD on 1/21/22

** Spl Name: R2200544-012 Data File: 0123089
Remarks: <none>

38	Spl	1	24Jan2022 18:50	-	-	-	1405	1.155	1.156	-	-	-
38	Spl	2	24Jan2022 19:00	-	-	-	1288	1.038	1.038	-	-	-
38	Spl	3	24Jan2022 19:10	-	-	-	1123	0.873	0.873	-	-	-
38	Spl	4	24Jan2022 19:20	-	-	-	1182	0.932	0.932	-	-	-
38	Spl	Avg					1249	1.000	1.000			
38	Spl	SDev					124.125					
38	Spl	%RSD					9.93					

** Spl Name: CCV Data File: 0123090
Remarks: <none>

39	Spl	1	24Jan2022 19:31	-	-	-	16372	16.129	16.129	-	-	-
39	Spl	2	24Jan2022 19:41	-	-	-	15565	15.322	15.322	-	-	-
39	Spl	3	24Jan2022 19:51	-	-	-	15691	15.448	15.448	-	-	-
39	Spl	4	24Jan2022 20:01	-	-	-	16261	16.018	16.018	-	-	-
39	Spl	Avg					15972	15.729	15.729			
39	Spl	SDev					403.374					
39	Spl	%RSD					2.53					

** Spl Name: CCB Data File: 0123091
Remarks: <none>

40	Spl	1	24Jan2022 20:12	-	-	-	286	0.036	0.036	-	-	-
40	Spl	2	24Jan2022 20:22	-	-	-	209	0.000	0.000	-	-	-
40	Spl	3	24Jan2022 20:32	-	-	-	150	0.000	0.000	-	-	-
40	Spl	4	24Jan2022 20:42	-	-	-	124	0.000	0.000	-	-	-
40	Spl	Avg					192	0.000	0.000			
40	Spl	SDev					71.909					
40	Spl	%RSD					37.40					

** Spl Name: R2200544-001 Data File: 0123092
Remarks: <none>

41	Spl	1	24Jan2022 20:53	-	-	-	18789	18.547	18.547	-	-	-
41	Spl	2	24Jan2022 21:03	-	-	-	19563	19.321	19.321	-	-	-
41	Spl	3	24Jan2022 21:13	-	-	-	19527	19.285	19.285	-	-	-

							012322					
41	Spl	4 24Jan2022 21:23	-	-	-	22234	21.993	21.993	-	-	-
41	Spl	Avg				20028	19.787	19.787			
41	Spl	SDev				1513.141					
41	Spl	%RSD				7.55					

** Spl Name: R2200544-002 Data File: 0123093
Remarks: 2

42	Spl	1 24Jan2022 21:34	-	-	-	12994	12.749	12.750	-	-	-
42	Spl	2 24Jan2022 21:43	-	-	-	13723	13.479	13.479	-	-	-
42	Spl	3 24Jan2022 21:53	-	-	-	15311	15.067	15.068	-	-	-
42	Spl	4 24Jan2022 22:03	-	-	-	15683	15.440	15.440	-	-	-
42	Spl	Avg				14427	14.184	14.184			
42	Spl	SDev				1279.075					
42	Spl	%RSD				8.87	over range on 1/21				

** Spl Name: R2200544-003 Data File: 0123094
Remarks: 100

43	Spl	1 24Jan2022 22:14	-	-	-	1174	0.924	0.924	-	-	-
43	Spl	2 24Jan2022 22:24	-	-	-	1191	0.941	0.941	-	-	-
43	Spl	3 24Jan2022 22:34	-	-	-	1142	0.892	0.892	-	-	-
43	Spl	4 24Jan2022 22:44	-	-	-	1157	0.907	0.907	-	-	-
43	Spl	Avg				1166	0.916	0.916			
43	Spl	SDev				21.182					
43	Spl	%RSD				1.82					

*********REPEATED AT A 1/10 ON 1/25********

** Spl Name: R2200544-003S Data File: 0123095
Remarks: 100

44	Spl	1 24Jan2022 22:55	-	-	-	11591	11.346	11.346	-	-	-
44	Spl	2 24Jan2022 23:05	-	-	-	11545	11.300	11.300	-	-	-
44	Spl	3 24Jan2022 23:15	-	-	-	11065	10.820	10.820	-	-	-
44	Spl	4 24Jan2022 23:25	-	-	-	11279	11.034	11.034	-	-	-
44	Spl	Avg				11370	11.125	11.125			
44	Spl	SDev				245.474					
44	Spl	%RSD				2.16					

** Spl Name: R2200544-003SD Data File: 0123096
Remarks: 100

45	Spl	1 24Jan2022 23:36	-	-	-	11062	10.817	10.817	-	-	-
45	Spl	2 24Jan2022 23:46	-	-	-	10566	10.320	10.320	-	-	-
45	Spl	3 24Jan2022 23:56	-	-	-	11205	10.960	10.960	-	-	-
45	Spl	4 25Jan2022 00:05	-	-	-	11570	11.325	11.325	-	-	-
45	Spl	Avg				11100	10.855	10.855			
45	Spl	SDev				415.741					
45	Spl	%RSD				3.75					

** Spl Name: R2200544-004 Data File: 0123097
Remarks: <none>

46	Spl	1 25Jan2022 00:16	-	-	-	820	0.570	0.570	-	-	-
46	Spl	2 25Jan2022 00:26	-	-	-	844	0.594	0.594	-	-	-
46	Spl	3 25Jan2022 00:36	-	-	-	877	0.627	0.627	-	-	-
46	Spl	4 25Jan2022 00:46	-	-	-	896	0.646	0.646	-	-	-
46	Spl	Avg				859	0.610	0.609			
46	Spl	SDev				33.856					
46	Spl	%RSD				3.94					

** Spl Name: R2200544-005 Data File: 0123098
Remarks: 200

47	Spl	1 25Jan2022 00:57	-	-	-	6331	6.084	6.084	-	-	-
47	Spl	2 25Jan2022 01:07	-	-	-	6033	5.785	5.786	-	-	-
47	Spl	3 25Jan2022 01:17	-	-	-	6645	6.398	6.398	-	-	-
47	Spl	4 25Jan2022 01:27	-	-	-	6441	6.194	6.194	-	-	-
47	Spl	Avg				6362	6.115	6.115			
47	Spl	SDev				255.298					
47	Spl	%RSD				4.01	over range on 1/21/22				

** Spl Name: R2200544-006 Data File: 0123099
Remarks: <none>

48	Spl	1 25Jan2022 01:38	-	-	-	978	0.728	0.728	-	-	-
48	Spl	2 25Jan2022 01:48	-	-	-	971	0.721	0.721	-	-	-
48	Spl	3 25Jan2022 01:58	-	-	-	1015	0.765	0.765	-	-	-
48	Spl	4 25Jan2022 02:08	-	-	-	1085	0.835	0.835	-	-	-
48	Spl	Avg				1012	0.763	0.763			
48	Spl	SDev				52.201					
48	Spl	%RSD				5.16					

** Spl Name: CCV Data File: 0123100
Remarks: <none>

49	Spl	1 25Jan2022 02:19	-	-	-	14060	13.816	13.816	-	-	-
49	Spl	2 25Jan2022 02:29	-	-	-	15140	14.896	14.896	-	-	-
49	Spl	3 25Jan2022 02:39	-	-	-	15817	15.574	15.574	-	-	-
49	Spl	4 25Jan2022 02:49	-	-	-	15933	15.690	15.690	-	-	-
49	Spl	Avg				15237	14.994	14.994			
49	Spl	SDev				859.371					

49	Spl	%RSD	5.64

** Spl Name: CCB Data File: 0123101
Remarks: <none>

50	Spl	1	25Jan2022 03:00	-	-	-	203	0.000	0.000	-	-	-
50	Spl	2	25Jan2022 03:10	-	-	-	124	0.000	0.000	-	-	-
50	Spl	3	25Jan2022 03:20	-	-	-	144	0.000	0.000	-	-	-
50	Spl	4	25Jan2022 03:30	-	-	-	91	0.000	0.000	-	-	-
50	Spl	Avg					140	0.000	0.000			
50	Spl	SDev					47.050					
50	Spl	%RSD					33.49					

ALS Environmental
1565 Jefferson Rd., Rochester, NY 14623

General Chemistry Analytical Run Cover Sheet

Analyst: SMEDBURY Date: 1/29/22

Analysis: Total Organic Carbon, SM5310C/9060/9060A Instrument: (R-TOC-01) OI Analytical Model1010 TOC Analyzer
High Level: 1.0 to 30.0 ppm

PRIMARY STOCKS	Log ID Prep/Exp. Dates	Reagent	Weight (g)	Final Vol. (mLs)	Conc. (mg/L)
Standards *	**Log ID: 220617** **Received: 11/24/2021** **Expires: 09/30/2023**	Purchased Sucrose Solution			1000 (A)
Reference *	**Log ID: 218253** **Received: 07/17/2021** **Expires: 07/8/2023**	Purchased KHP Solution			1000 (B)

*Diluent is UPDI

QUALITY CONTROL	Vol. (mLs)	Conc. (mg/L)	Final Vol. (mLs)	TV (mg/L)
I/CCV	3.0	1000 (B)	200	15.0
LCS	1.0	1000 (A)	100	10.0
MS	0.42	1000 (A)	42	10.0

Standard Curve Prep

Concentration	mLs 1000 mg/L Stock (A)	Final Volume (mLs)
30.0	3.00	100
10.0	1.00	100
5.0	0.50	100
1.0	0.10	100
0.0	0.00	100

Comments:

Curve Date = 01/13/2021
Filter LOT: 41291103 (Phenex 0.45µm Syringe Filter)

Note: Dilutions greater than 1/1 are placed in the "comments" section of the Model 1010 Analyzer report.
The "Dilution Factor" on the Model 1010 will always read "1.00"
TOC results on the Model 1010 Analyzer reports do not include the dilution factor.
Final results on the Starlims run and final report include the dilution factor.

P:pet:wayne SM 1/14/2021

011321CAL

TOC

CALIBRATION: 011321

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std1	Name: 0						Data File: 0113001						
	Remarks: <none>												
1	Std1	1	13Jan2021	15:03	-	-	-	276	0.000	0.000	-	-	-
1	Std1	2	13Jan2021	15:13	-	-	-	278	0.000	0.000	-	-	-
1	Std1	3	13Jan2021	15:22	-	-	-	553	0.000	0.000	-	-	-
1	Std1	4	13Jan2021	15:32	-	-	-	287	0.000	0.000	-	-	-
1	Std	Avg						348	0.000	0.000			
1	Std	SDev						136.417					
1	Std	%RSD						39.14					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 191
Offset (ugC): -0.183

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std2	Name: 1						Data File: 0113002						
	Remarks: <none>												
2	Std2	1	13Jan2021	15:43	-	-	-	1150	1.000	1.000	-	-	-
2	Std2	2	13Jan2021	15:53	-	-	-	1137	1.000	1.000	-	-	-
2	Std2	3	13Jan2021	16:03	-	-	-	1099	1.000	1.000	-	-	-
2	Std2	4	13Jan2021	16:13	-	-	-	1195	1.000	1.000	-	-	-
2	Std	Avg						1145	1.000	1.000			
2	Std	SDev						39.601					
2	Std	%RSD						3.46					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 172
Offset (ugC): -0.166

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std3	Name: 5						Data File: 0113003						
	Remarks: <none>												
3	Std3	1	13Jan2021	16:24	-	-	-	4719	5.000	5.000	-	-	-
3	Std3	2	13Jan2021	16:34	-	-	-	4853	5.000	5.000	-	-	-
3	Std3	3	13Jan2021	16:44	-	-	-	4964	5.000	5.000	-	-	-
3	Std3	4	13Jan2021	16:54	-	-	-	4946	5.000	5.000	-	-	-
3	Std	Avg						4870	5.000	5.000			
3	Std	SDev						112.103					
3	Std	%RSD						2.30					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9984
Offset (cts): 48
Offset (ugC): -0.046

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std4	Name: 10						Data File: 0113004						
	Remarks: <none>												
4	Std4	1	13Jan2021	17:05	-	-	-	9889	10.000	10.000	-	-	-
4	Std4	2	13Jan2021	17:15	-	-	-	9564	10.000	10.000	-	-	-
4	Std4	3	13Jan2021	17:25	-	-	-	9514	10.000	10.000	-	-	-
4	Std4	4	13Jan2021	17:35	-	-	-	9819	10.000	10.000	-	-	-
4	Std	Avg						9696	10.000	10.000			
4	Std	SDev						185.225					
4	Std	%RSD						1.91					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9976
Offset (cts): -120
Offset (ugC): 0.115

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std5	Name: 30						Data File: 0113005						
	Remarks: <none>												
5	Std5	1	13Jan2021	17:46	-	-	-	31002	30.000	30.000	-	-	-
5	Std5	2	13Jan2021	17:56	-	-	-	29342	30.000	30.000	-	-	-
5	Std5	3	13Jan2021	18:06	-	-	-	29838	30.000	30.000	-	-	-
5	Std5	4	13Jan2021	18:16	-	-	-	30421	30.000	30.000	-	-	-
5	Std	Avg						30150	30.000	30.000			
5	Std	SDev						718.691					
5	Std	%RSD						2.38					

** Calibration:
RF (ugC/k-cts): 1.000
R-Squared: 0.9988
Offset (cts): 46
Offset (ugC): -0.046

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Spl	Name: ICV						Data File: 0113006						
	Remarks: <none>												
6	Spl	1	13Jan2021	18:27	-	-	-	15255	15.011	15.011	-	-	-

Sm 1/14/2021

							011321CAL					
6	Spl	2	13Jan2021 18:37	-	-	-	14391	14.147	14.147	-	-	-
6	Spl	3	13Jan2021 18:46	-	-	-	14918	14.674	14.674	-	-	-
6	Spl	4	13Jan2021 18:56	-	-	-	15164	14.920	14.920	-	-	-
6	Spl	Avg					14932	14.688	14.688			
6	Spl	SDev					387.741					
6	Spl	%RSD					2.60					

** Spl Name: ICB Data File: 0113007
Remarks: <none>

7	Spl	1	13Jan2021 19:07	-	-	-	256	0.006	0.006	-	-	-
7	Spl	2	13Jan2021 19:17	-	-	-	274	0.024	0.024	-	-	-
7	Spl	3	13Jan2021 19:27	-	-	-	221	0.000	0.000	-	-	-
7	Spl	4	13Jan2021 19:37	-	-	-	246	0.000	0.000	-	-	-
7	Spl	Avg					249	0.000	0.000			
7	Spl	SDev					22.111					
7	Spl	%RSD					8.87					

Sm 1/14/2021

****
** CALIBRATION **
****

TOC Unit: TOC
011321TOC Wed Jan 13 18:16:06 2021

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	0.000	1.000
2	Yes	1.000	1.000
3	Yes	5.000	1.000
4	Yes	10.000	1.000
5	Yes	30.000	1.000

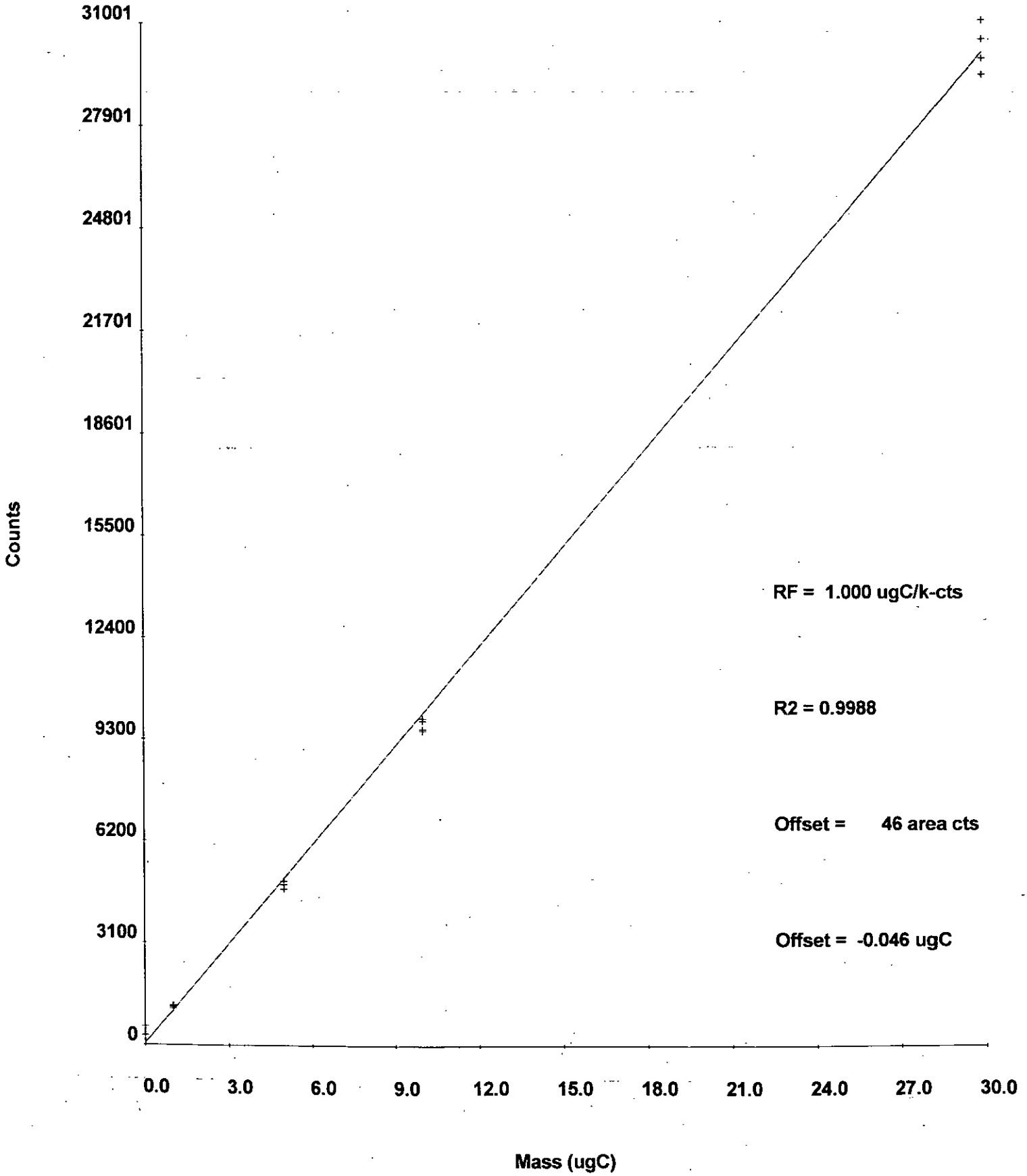
RF (ugC/k-cts):	1.000
R-Squared:	0.9988
Offset (cts):	46
Offset (ugC):	-0.046
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	276	1150	4719	9889	31002
2	278	1137	4853	9564	29342
3	553	1099	4964	9514	29838
4	287	1195	4946	9819	30421
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

SM 1/14/2021

Calibration - 011321TOC (TOC, 13Jan2021 18:16)



Standard Solution Logbook - Inventory ID Summary

Inventory ID:	220617	Date Received:	11/24/21
Standard Name:	Total Organic Carbon (TOC) Std 1000 mg/L as	Expiration Date:	9/30/23
Standard Type:	Working Standard	Source:	SCP Science
ALS Lab:	ROCHESTER	Catalog #:	250-250-051
ALSTeam:	GenChem	Lot #:	S210910014
Container ID:	220617	Amount Prepared:	1.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060A / TOC 4X T
Carbon Result	1000	ppm	9060A / TOC 4X T

Standard Solution Logbook - Inventory ID Summary

Inventory ID:	218253	Date Received:	7/17/21
Standard Name:	Total Organic Carbon (TOC) Ref 1000 mg/L as	Expiration Date:	7/8/23
Standard Type:	Working Standard	Source:	Absolute Standards
ALS Lab:	ROCHESTER	Catalog #:	50110A
ALSTeam:	GenChem	Lot #:	070821
Container ID:	218253	Amount Prepared:	2.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060 / TOC 4X T
Carbon Result	1000	ppm	9060 / TOC 4X T

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/25/22 10:00:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.4 mg/L	1					1/25/22 10:00:00	N	IV
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.02 mg/L	42 mL	15.0 mg/L	1					1/25/22 10:10:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.02 mg/L	42 mL	15.0 mg/L	1					1/25/22 10:10:00	N	IV
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:20:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.45 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:20:00	N	IV
RQ2200792-01	Carbon, Dissolved Organic (DOC)	CCV		Water	15.52 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:30:00	N	IV
RQ2200792-01	Carbon, Total Organic (TOC)	CCV		Water	15.52 mg/L	42 mL	15.5 mg/L	1					1/25/22 10:30:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:41:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 10:51:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:01:00	N	IV
RQ2200792-02	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV
RQ2200792-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV
RQ2200792-03	Carbon, Dissolved Organic (DOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 11:11:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.57 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:22:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	10.57 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:22:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	9.41 mg/L	42 mL	9.41 mg/L	1	0.5	1.0	94		1/25/22 11:32:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	9.41 mg/L	42 mL	9.41 mg/L	1	0.5	1.0	94		1/25/22 11:32:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.50 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/25/22 11:42:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	10.50 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/25/22 11:42:00	N	IV
RQ2200792-04	Carbon, Dissolved Organic (DOC)	LCS		Water	10.56 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:52:00	N	IV
RQ2200792-04	Carbon, Total Organic (TOC)	LCS		Water	10.56 mg/L	42 mL	10.6 mg/L	1	0.5	1.0	106		1/25/22 11:52:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.30 mg/L	42 mL	3.3 mg/L	1	0.5	1.0			1/25/22 12:03:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.43 mg/L	42 mL	3.4 mg/L	1	0.5	1.0			1/25/22 12:13:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.68 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 12:23:00	N	IV
R2200581-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.52 mg/L	42 mL	3.5 mg/L	1	0.5	1.0			1/25/22 12:33:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	4.73 mg/L	42 mL	4.7 mg/L	1	0.5	1.0			1/25/22 12:44:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.55 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 12:54:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.55 mg/L	42 mL	3.5 mg/L	1	0.5	1.0			1/25/22 13:04:00	N	IV
R2200581-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.64 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 13:14:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	3.37 mg/L	42 mL	3.4 mg/L	1	0.5	1.0			1/25/22 13:24:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	3.71 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 13:34:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	4.01 mg/L	42 mL	4.0 mg/L	1	0.5	1.0			1/25/22 13:44:00	N	IV
R2200581-006	Carbon, Dissolved Organic (DOC)	N/A		Water	3.56 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 13:54:00	N	IV
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.10 mg/L	42 mL	4.1 mg/L	1	0.5	1.0			1/25/22 14:05:00	Y	IV
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.22 mg/L	42 mL	4.2 mg/L	1	0.5	1.0			1/25/22 14:15:00	Y	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.39 mg/L	42 mL	4.4 mg/L	1	0.5	1.0			1/25/22 14:25:00	Y	IV
R2200582-002	Carbon, Dissolved Organic (DOC)	N/A		Water	4.40 mg/L	42 mL	4.4 mg/L	1	0.5	1.0			1/25/22 14:35:00	Y	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	13.67 mg/L	42 mL	13.7 mg/L	1	0.5	1.0	96		1/25/22 14:46:00	N	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	13.69 mg/L	42 mL	13.7 mg/L	1	0.5	1.0	95		1/25/22 14:56:00	N	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	14.23 mg/L	42 mL	14.2 mg/L	1	0.5	1.0	98		1/25/22 15:06:00	N	IV
RQ2200792-05	Carbon, Dissolved Organic (DOC)	MS	R2200582-002	Water	13.64 mg/L	42 mL	13.6 mg/L	1	0.5	1.0	92		1/25/22 15:16:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	12.69 mg/L	42 mL	12.7 mg/L	1	0.5	1.0	86	7	1/25/22 15:27:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	12.96 mg/L	42 mL	13.0 mg/L	1	0.5	1.0	87	5	1/25/22 15:37:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	13.69 mg/L	42 mL	13.7 mg/L	1	0.5	1.0	93	4	1/25/22 15:47:00	N	IV
RQ2200792-06	Carbon, Dissolved Organic (DOC)	DMS	R2200582-002	Water	14.57 mg/L	42 mL	14.6 mg/L	1	0.5	1.0	102	7	1/25/22 15:57:10	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	2.83 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/25/22 16:07:00	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	2.85 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/25/22 16:17:00	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	3.03 mg/L	42 mL	3.0 mg/L	1	0.5	1.0			1/25/22 16:27:00	N	IV
R2200582-005	Carbon, Dissolved Organic (DOC)	N/A		Water	2.79 mg/L	42 mL	2.8 mg/L	1	0.5	1.0			1/25/22 16:37:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.37 mg/L	42 mL	1.4 mg/L	1	0.5	1.0			1/25/22 16:48:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.28 mg/L	42 mL	1.3 mg/L	1	0.5	1.0			1/25/22 16:58:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.34 mg/L	42 mL	1.3 mg/L	1	0.5	1.0			1/25/22 17:08:00	N	IV
R2200582-006	Carbon, Dissolved Organic (DOC)	N/A		Water	1.50 mg/L	42 mL	1.5 mg/L	1	0.5	1.0			1/25/22 17:18:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.28 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/25/22 17:29:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.29 mg/L	42 mL	2.3 mg/L	1	0.5	1.0			1/25/22 17:39:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.60 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/25/22 17:49:00	N	IV
R2200582-007	Carbon, Dissolved Organic (DOC)	N/A		Water	2.56 mg/L	42 mL	2.6 mg/L	1	0.5	1.0			1/25/22 17:59:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	16.12 mg/L	42 mL	16.1 mg/L	1					1/25/22 18:10:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	16.12 mg/L	42 mL	16.1 mg/L	1					1/25/22 18:10:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.13 mg/L	42 mL	15.1 mg/L	1					1/25/22 18:20:00	N	IV
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	15.13 mg/L	42 mL	15.1 mg/L	1					1/25/22 18:20:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.15 mg/L	42 mL	15.2 mg/L	1					1/25/22 18:30:00	N	IV
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	15.15 mg/L	42 mL	15.2 mg/L	1					1/25/22 18:30:00	N	IV
RQ2200792-07	Carbon, Dissolved Organic (DOC)	CCV		Water	15.97 mg/L	42 mL	16.0 mg/L	1					1/25/22 18:40:00	N	IV
RQ2200792-07	Carbon, Total Organic (TOC)	CCV		Water	15.97 mg/L	42 mL	16.0 mg/L	1					1/25/22 18:40:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.06 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 18:51:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.06 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 18:51:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:01:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:01:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:10:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:10:00	N	IV
RQ2200792-08	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:20:00	N	IV
RQ2200792-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/25/22 19:20:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.83 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 19:31:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.67 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 19:41:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.78 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 19:51:00	N	IV
R2200582-008	Carbon, Dissolved Organic (DOC)	N/A		Water	3.92 mg/L	42 mL	3.9 mg/L	1	0.5	1.0			1/25/22 20:01:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.63 mg/L	42 mL	3.6 mg/L	1	0.5	1.0			1/25/22 20:12:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.65 mg/L	42 mL	3.7 mg/L	1	0.5	1.0			1/25/22 20:22:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.81 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 20:32:00	N	IV
R2200582-009	Carbon, Dissolved Organic (DOC)	N/A		Water	3.86 mg/L	42 mL	3.9 mg/L	1	0.5	1.0			1/25/22 20:42:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	4.13 mg/L	42 mL	4.1 mg/L	1	0.5	1.0			1/25/22 20:53:00	N	IV
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	4.08 mg/L	42 mL	4.1 mg/L	1	0.5	1.0			1/25/22 21:03:00	N	IV
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	3.82 mg/L	42 mL	3.8 mg/L	1	0.5	1.0			1/25/22 21:13:00	N	IV
R2200580-004	Carbon, Dissolved Organic (DOC)	N/A		Water	4.01 mg/L	42 mL	4.0 mg/L	1	0.5	1.0			1/25/22 21:23:00	N	IV
R2200542-008	Carbon, Dissolved Organic (DOC), Average	N/A		Water	21.21 mg/L	42 mL	21.2 mg/L	1	0.5	1.0			1/26/22 00:06:00	N	IV
R2200542-011	Carbon, Dissolved Organic (DOC), Average	N/A		Water	0.41 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 01:27:00	N	IV
R2200543-008	Carbon, Dissolved Organic (DOC), Average	N/A		Water	3.25 mg/L	42 mL	6.5 mg/L	2	0.9	2.0			1/26/22 02:08:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.61 mg/L	42 mL	15.6 mg/L	1					1/26/22 02:19:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	15.61 mg/L	42 mL	15.6 mg/L	1					1/26/22 02:19:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.48 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:29:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	15.48 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:29:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	15.51 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:39:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	15.51 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:39:00	N	IV
RQ2200792-09	Carbon, Dissolved Organic (DOC)	CCV		Water	16.38 mg/L	42 mL	16.4 mg/L	1					1/26/22 02:49:00	N	IV
RQ2200792-09	Carbon, Total Organic (TOC)	CCV		Water	16.38 mg/L	42 mL	16.4 mg/L	1					1/26/22 02:49:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200792-10	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV
RQ2200792-10	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X D DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R2200543-009	Carbon, Dissolved Organic (DOC), Average	N/A		Water	0.15 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 04:10:00	N	IV
R2200541-006	Carbon, Dissolved Organic (DOC), Average	N/A		Water	~~15.51~~ mg/L 15.54 1/28/22	42 mL	1550 mg/L	100	50	100			1/26/22 04:51:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.55 mg/L	42 mL	96 mg/L	10	5	10			1/26/22 05:02:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.16 mg/L	42 mL	92 mg/L	10	5	10			1/26/22 05:12:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.48 mg/L	42 mL	95 mg/L	10	5	10			1/26/22 05:22:00	N	IV
R2200544-008	Carbon, Dissolved Organic (DOC)	N/A		Water	9.44 mg/L	42 mL	94 mg/L	10	5	10			1/26/22 05:32:00	N	IV
R2200541-003	Carbon, Total Organic (TOC), Average	N/A		Water	2.93 mg/L	42 mL	2.9 mg/L	1	0.5	1.0			1/26/22 06:12:00	N	IV
R2200542-001	Carbon, Total Organic (TOC), Average	N/A		Water	10.06 mg/L	42 mL	1010 mg/L	100	50	100			1/26/22 06:53:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	15.35 mg/L	42 mL	15.3 mg/L	1					1/26/22 10:28:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	15.35 mg/L	42 mL	15.3 mg/L	1					1/26/22 10:28:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	14.80 mg/L	42 mL	14.8 mg/L	1					1/26/22 10:38:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	14.80 mg/L	42 mL	14.8 mg/L	1					1/26/22 10:38:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	15.56 mg/L	42 mL	15.6 mg/L	1					1/26/22 10:48:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	15.56 mg/L	42 mL	15.6 mg/L	1					1/26/22 10:48:00	N	IV
RQ2200792-11	Carbon, Dissolved Organic (DOC)	CCV		Water	15.75 mg/L	42 mL	15.8 mg/L	1					1/26/22 10:58:00	N	IV
RQ2200792-11	Carbon, Total Organic (TOC)	CCV		Water	15.75 mg/L	42 mL	15.8 mg/L	1					1/26/22 10:58:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:08:00	N	IV
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:08:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:18:00	N	IV
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:18:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:28:00	N	IV
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:28:00	N	IV
RQ2200792-12	Carbon, Dissolved Organic (DOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:38:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752706 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200792-12	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L ,U	1	0.5	1.0			1/26/22 11:38:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752819 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	15.61 mg/L	42 mL	15.6 mg/L	1					1/26/22 02:19:00	N	IV
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	15.48 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:29:00	N	IV
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	15.51 mg/L	42 mL	15.5 mg/L	1					1/26/22 02:39:00	N	IV
RQ2200791-01	Carbon, Total Organic (TOC)	CCV		Water	16.38 mg/L	42 mL	16.4 mg/L	1					1/26/22 02:49:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.02 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:00:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:10:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:20:00	N	IV
RQ2200791-02	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV
RQ2200791-03	Carbon, Total Organic (TOC)	MB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 03:30:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	10.52 mg/L	42 mL	10.5 mg/L	1	0.5	1.0	105		1/26/22 07:04:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	9.85 mg/L	42 mL	9.85 mg/L	1	0.5	1.0	99		1/26/22 07:14:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	10.22 mg/L	42 mL	10.2 mg/L	1	0.5	1.0	102		1/26/22 07:24:00	N	IV
RQ2200791-04	Carbon, Total Organic (TOC)	LCS		Water	10.13 mg/L	42 mL	10.1 mg/L	1	0.5	1.0	101		1/26/22 07:34:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	15.35 mg/L	42 mL	15.3 mg/L	1					1/26/22 10:28:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	14.80 mg/L	42 mL	14.8 mg/L	1					1/26/22 10:38:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	15.56 mg/L	42 mL	15.6 mg/L	1					1/26/22 10:48:00	N	IV
RQ2200791-05	Carbon, Total Organic (TOC)	CCV		Water	15.75 mg/L	42 mL	15.8 mg/L	1					1/26/22 10:58:00	N	IV
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:08:00	N	IV
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:18:00	N	IV
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:28:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: R-TOC-01 **Analyst:** SMORGAN **Analysis Lot:** 752819 **Method/Testcode:** 9060A/TOC 4X T DOD

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ2200791-06	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 11:38:00	N	IV
R2200543-001	Carbon, Total Organic (TOC), Average	N/A		Water	0.35 mg/L	42 mL	2.0 mg/L U	2	0.9	2.0			1/26/22 12:19:00	N	IV
R2200543-003	Carbon, Total Organic (TOC), Average	N/A		Water	1.13 mg/L	42 mL	1.1 mg/L	1	0.5	1.0			1/26/22 13:00:00	N	IV
R2200543-007	Carbon, Total Organic (TOC), Average	N/A		Water	7.21 mg/L	42 mL	7.2 mg/L	1	0.5	1.0			1/26/22 13:41:00	N	IV
R2200544-003	Carbon, Total Organic (TOC), Average	N/A		Water	9.57 mg/L	42 mL	96 mg/L	10	5	10			1/26/22 14:21:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	15.97 mg/L	42 mL	16.0 mg/L	1					1/26/22 14:32:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	15.10 mg/L	42 mL	15.1 mg/L	1					1/26/22 14:42:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	16.48 mg/L	42 mL	16.5 mg/L	1					1/26/22 14:52:00	N	IV
RQ2200791-07	Carbon, Total Organic (TOC)	CCV		Water	16.35 mg/L	42 mL	16.4 mg/L	1					1/26/22 15:02:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:13:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:23:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:33:00	N	IV
RQ2200791-08	Carbon, Total Organic (TOC)	CCB		Water	0.00 mg/L	42 mL	1.0 mg/L U	1	0.5	1.0			1/26/22 15:43:00	N	IV

! indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Sample Dilutions

Final Volume: 30-40mL - TOC

Analyst: SCGM
Instrument: TOC#1

Date 1/25/22
Analysis TOC[illegible]

Common Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor
1/2	DI	20	20	1/2												
1/3	DI	10	20	1/3												
1/4	DI	10	30	1/4												
1/6	DI	7	35	1/6												
1/7	DI	6	36	1/7												
1/10	DI	3	27	1/10												
1/10	DI	4	36	1/10												
1/20	DI	2	38	1/20												
1/30	DI	1	29	1/30												
1/40	DI	1	39	1/40												
1/100	DI	0.4	39.6	1/100												
1/200	DI	0.2	39.8	1/200												
1/300	DI	0.1	29.9	1/300												
1/400	DI	0.1	39.9	1/400												
1/1000	DI	1	9	1/10	0.4	39.6	1/1000									
1/2000	DI	1	9	1/10	0.2	39.8	1/2000									
1/4000	DI	1	9	1/10	0.1	39.9	1/4000									
1/10000	DI	0.4	39.6	1/100	0.4	39.6	1/10000									

Special Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor

SM 1/26/22

C:\Users\sam.medbury\Downloads\Sample Dilution Sheets R2 (3)Final Vol. 30-40mL (TOC) 9/18/15

Pipetwayne SCOM 1/26/22 CSM 1/26/22

TOC

012522

CALIBRATION: 011321

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Spl		Name:	WARM-UP				Data File: 0125001						
		Remarks:	<none>										
1	Spl	1	25Jan2022	08:39	-	-	-	255	0.005	0.005	-	-	-
1	Spl	2	25Jan2022	08:49	-	-	-	205	0.000	0.000	-	-	-
1	Spl	3	25Jan2022	08:59	-	-	-	356	0.106	0.106	-	-	-
1	Spl	4	25Jan2022	09:09	-	-	-	207	0.000	0.000	-	-	-
1	Spl	Avg						255	0.006	0.006			
1	Spl	SDev						70.717					
1	Spl	%RSD						27.65					
** Spl		Name:	WARM-UP				Data File: 0125002						
		Remarks:	<none>										
2	Spl	1	25Jan2022	09:20	-	-	-	382	0.132	0.132	-	-	-
2	Spl	2	25Jan2022	09:30	-	-	-	341	0.091	0.091	-	-	-
2	Spl	3	25Jan2022	09:39	-	-	-	180	0.000	0.000	-	-	-
2	Spl	4	25Jan2022	09:50	-	-	-	121	0.000	0.000	-	-	-
2	Spl	Avg						256	0.006	0.006			
2	Spl	SDev						125.302					
2	Spl	%RSD						48.95					
** Spl		Name:	CCV				Data File: 0125003						
		Remarks:	<none>										
3	Spl	1	25Jan2022	10:00	-	-	-	15690	15.447	15.447	-	-	-
3	Spl	2	25Jan2022	10:10	-	-	-	15268	15.024	15.024	-	-	-
3	Spl	3	25Jan2022	10:20	-	-	-	15697	15.454	15.454	-	-	-
3	Spl	4	25Jan2022	10:30	-	-	-	15762	15.519	15.519	-	-	-
3	Spl	Avg						15604	15.361	15.361			
3	Spl	SDev						226.499					
3	Spl	%RSD						1.45					
** Spl		Name:	CCB				Data File: 0125004						
		Remarks:	<none>										
4	Spl	1	25Jan2022	10:41	-	-	-	118	0.000	0.000	-	-	-
4	Spl	2	25Jan2022	10:51	-	-	-	130	0.000	0.000	-	-	-
4	Spl	3	25Jan2022	11:01	-	-	-	117	0.000	0.000	-	-	-
4	Spl	4	25Jan2022	11:11	-	-	-	106	0.000	0.000	-	-	-
4	Spl	Avg						117	0.000	0.000			
4	Spl	SDev						9.811					
4	Spl	%RSD						8.33					
** Spl		Name:	LCS				Data File: 0125005						
		Remarks:	<none>										
5	Spl	1	25Jan2022	11:22	-	-	-	10818	10.573	10.573	-	-	-
5	Spl	2	25Jan2022	11:32	-	-	-	9653	9.407	9.407	-	-	-
5	Spl	3	25Jan2022	11:42	-	-	-	10744	10.498	10.498	-	-	-
5	Spl	4	25Jan2022	11:52	-	-	-	10806	10.561	10.561	-	-	-
5	Spl	Avg						10505	10.260	10.260			
5	Spl	SDev						569.091					
5	Spl	%RSD						5.42					
** Spl		Name:	R2200581-004				Data File: 0125006						
		Remarks:	<none>										
6	Spl	1	25Jan2022	12:03	-	-	-	3546	3.297	3.297	-	-	-
6	Spl	2	25Jan2022	12:13	-	-	-	3676	3.427	3.428	-	-	-
6	Spl	3	25Jan2022	12:23	-	-	-	3923	3.675	3.675	-	-	-
6	Spl	4	25Jan2022	12:33	-	-	-	3772	3.524	3.523	-	-	-
6	Spl	Avg						3729	3.481	3.481			
6	Spl	SDev						158.937					
6	Spl	%RSD						4.26					
** Spl		Name:	R2200581-005				Data File: 0125007						
		Remarks:	<none>										
7	Spl	1	25Jan2022	12:44	-	-	-	4979	4.731	4.731	-	-	-
7	Spl	2	25Jan2022	12:54	-	-	-	3798	3.550	3.549	-	-	-
7	Spl	3	25Jan2022	13:04	-	-	-	3793	3.545	3.545	-	-	-
7	Spl	4	25Jan2022	13:14	-	-	-	3887	3.639	3.639	-	-	-
7	Spl	Avg						4114	3.866	3.866			
7	Spl	SDev						578.115					
7	Spl	%RSD						14.05					
** Spl		Name:	R2200581-006				Data File: 0125008						
		Remarks:	<none>										
8	Spl	1	25Jan2022	13:24	-	-	-	3620	3.371	3.371	-	-	-
8	Spl	2	25Jan2022	13:34	-	-	-	3960	3.712	3.712	-	-	-
8	Spl	3	25Jan2022	13:44	-	-	-	4261	4.013	4.013	-	-	-

								012522				
8	Spl	4 25Jan2022 13:54	-	-	-	3803	3.555	3.555	-	-	-
8	Spl	Avg				3911	3.663	3.663			
8	Spl	SDev				271.567					
8	Spl	%RSD				6.94					

** Spl Name: R2200582-002 Data File: 0125009
Remarks: <none>

9	Spl	1 25Jan2022 14:05	-	-	-	4350	4.102	4.102	-	-	-
9	Spl	2 25Jan2022 14:15	-	-	-	4466	4.218	4.218	-	-	-
9	Spl	3 25Jan2022 14:25	-	-	-	4639	4.391	4.391	-	-	-
9	Spl	4 25Jan2022 14:35	-	-	-	4651	4.403	4.403	-	-	-
9	Spl	Avg				4526	4.278	4.278			
9	Spl	SDev				144.878					
9	Spl	%RSD				3.20					

** Spl Name: R2200582-002S! Data File: 0125010
Remarks: <none>

10	Spl	1 25Jan2022 14:46	-	-	-	13915	13.671	13.671	-	-	-
10	Spl	2 25Jan2022 14:56	-	-	-	13936	13.692	13.692	-	-	-
10	Spl	3 25Jan2022 15:06	-	-	-	14478	14.234	14.234	-	-	-
10	Spl	4 25Jan2022 15:16	-	-	-	13885	13.641	13.641	-	-	-
10	Spl	Avg				14053	13.809	13.809			
10	Spl	SDev				283.773					
10	Spl	%RSD				2.02					

** Spl Name: R2200582-002SD! Data File: 0125011
Remarks: <none>

11	Spl	1 25Jan2022 15:27	-	-	-	12933	12.688	12.688	-	-	-
11	Spl	2 25Jan2022 15:37	-	-	-	13204	12.960	12.960	-	-	-
11	Spl	3 25Jan2022 15:47	-	-	-	13932	13.688	13.688	-	-	-
11	Spl	4 25Jan2022 15:57	-	-	-	14815	14.571	14.571	-	-	-
11	Spl	Avg				13721	13.477	13.477			
11	Spl	SDev				842.534					
11	Spl	%RSD				6.14					

** Spl Name: R2200582-005 Data File: 0125012
Remarks: <none>

12	Spl	1 25Jan2022 16:07	-	-	-	3077	2.828	2.828	-	-	-
12	Spl	2 25Jan2022 16:17	-	-	-	3097	2.848	2.848	-	-	-
12	Spl	3 25Jan2022 16:27	-	-	-	3283	3.034	3.034	-	-	-
12	Spl	4 25Jan2022 16:37	-	-	-	3037	2.788	2.788	-	-	-
12	Spl	Avg				3123	2.875	2.875			
12	Spl	SDev				109.220					
12	Spl	%RSD				3.50					

** Spl Name: R2200582-006 Data File: 0125013
Remarks: <none>

13	Spl	1 25Jan2022 16:48	-	-	-	1617	1.368	1.368	-	-	-
13	Spl	2 25Jan2022 16:58	-	-	-	1528	1.279	1.278	-	-	-
13	Spl	3 25Jan2022 17:08	-	-	-	1588	1.339	1.339	-	-	-
13	Spl	4 25Jan2022 17:18	-	-	-	1746	1.497	1.497	-	-	-
13	Spl	Avg				1619	1.370	1.370			
13	Spl	SDev				91.965					
13	Spl	%RSD				5.68					

** Spl Name: R2200582-007 Data File: 0125014
Remarks: <none>

14	Spl	1 25Jan2022 17:29	-	-	-	2532	2.283	2.283	-	-	-
14	Spl	2 25Jan2022 17:39	-	-	-	2538	2.289	2.289	-	-	-
14	Spl	3 25Jan2022 17:49	-	-	-	2852	2.603	2.603	-	-	-
14	Spl	4 25Jan2022 17:59	-	-	-	2812	2.563	2.563	-	-	-
14	Spl	Avg				2683	2.435	2.434			
14	Spl	SDev				172.266					
14	Spl	%RSD				6.42					

** Spl Name: CCV Data File: 0125015
Remarks: <none>

15	Spl	1 25Jan2022 18:10	-	-	-	16363	16.120	16.120	-	-	-
15	Spl	2 25Jan2022 18:20	-	-	-	15377	15.133	15.134	-	-	-
15	Spl	3 25Jan2022 18:30	-	-	-	15398	15.154	15.155	-	-	-
15	Spl	4 25Jan2022 18:40	-	-	-	16209	15.966	15.966	-	-	-
15	Spl	Avg				15836	15.593	15.593			
15	Spl	SDev				522.615					
15	Spl	%RSD				3.30					

** Spl Name: CCB Data File: 0125016
Remarks: <none>

16	Spl	1 25Jan2022 18:51	-	-	-	311	0.061	0.061	-	-	-
16	Spl	2 25Jan2022 19:01	-	-	-	150	0.000	0.000	-	-	-
16	Spl	3 25Jan2022 19:10	-	-	-	117	0.000	0.000	-	-	-
16	Spl	4 25Jan2022 19:20	-	-	-	202	0.000	0.000	-	-	-
16	Spl	Avg				195	0.000	0.000			
16	Spl	SDev				84.880					
16	Spl	%RSD				43.53					

** Spl Name: R2200582-008 Data File: 0125017
Remarks: <none>

17	Spl	1 25Jan2022 19:31	-	-	-	4075	3.827	3.827	-	-	-
17	Spl	2 25Jan2022 19:41	-	-	-	3916	3.668	3.668	-	-	-
17	Spl	3 25Jan2022 19:51	-	-	-	4027	3.779	3.779	-	-	-
17	Spl	4 25Jan2022 20:01	-	-	-	4165	3.917	3.917	-	-	-
17	Spl	Avg				4045	3.797	3.797			
17	Spl	SDev				103.703					
17	Spl	%RSD				2.56					

** Spl Name: R2200582-009 Data File: 0125018
Remarks: <none>

18	Spl	1 25Jan2022 20:12	-	-	-	3878	3.630	3.630	-	-	-
18	Spl	2 25Jan2022 20:22	-	-	-	3902	3.654	3.654	-	-	-
18	Spl	3 25Jan2022 20:32	-	-	-	4058	3.810	3.810	-	-	-
18	Spl	4 25Jan2022 20:42	-	-	-	4107	3.859	3.859	-	-	-
18	Spl	Avg				3986	3.738	3.738			
18	Spl	SDev				113.350					
18	Spl	%RSD				2.84					

** Spl Name: R2200580-004 Data File: 0125019
Remarks: <none>

19	Spl	1 25Jan2022 20:53	-	-	-	4373	4.125	4.125	-	-	-
19	Spl	2 25Jan2022 21:03	-	-	-	4323	4.075	4.075	-	-	-
19	Spl	3 25Jan2022 21:13	-	-	-	4064	3.816	3.816	-	-	-
19	Spl	4 25Jan2022 21:23	-	-	-	4253	4.005	4.005	-	-	-
19	Spl	Avg				4253	4.005	4.005			
19	Spl	SDev				135.426					
19	Spl	%RSD				3.18					

** Spl Name: R2200542-002 Data File: 0125020
Remarks: <none>

20	Spl	1 25Jan2022 21:34	-	-	-	406542	406.466	406.466	-	-	-
20	Spl	2 25Jan2022 21:44	-	-	-	543560	543.543	543.543	-	-	-
20	Spl	3 25Jan2022 21:53	-	-	-	408583	408.508	408.508	-	-	-
20	Spl	4 25Jan2022 22:03	-	-	-	390788	390.705	390.705	-	-	-
20	Spl	Avg				437368	437.305	437.306			
20	Spl	SDev				71239.633					
20	Spl	%RSD				16.29					

** Spl Name: R2200542-004 Data File: 0125021
Remarks: <none>

21	Spl	1 25Jan2022 22:14	-	-	-	332054	331.946	331.946	-	-	-
21	Spl	2 25Jan2022 22:24	-	-	-	371026	370.935	370.935	-	-	-
21	Spl	3 25Jan2022 22:34	-	-	-	359832	359.736	359.736	-	-	-
21	Spl	4 25Jan2022 22:44	-	-	-	563847	563.838	563.838	-	-	-
21	Spl	Avg				406689	406.614	406.614			
21	Spl	SDev				106044.719					
21	Spl	%RSD				26.08					

** Spl Name: R2200542-006 Data File: 0125022
Remarks: <none>

22	Spl	1 25Jan2022 22:55	-	-	-	43647	43.416	43.416	-	-	-
22	Spl	2 25Jan2022 23:05	-	-	-	24020	23.780	23.780	-	-	-
22	Spl	3 25Jan2022 23:15	-	-	-	16629	16.386	16.386	-	-	-
22	Spl	4 25Jan2022 23:25	-	-	-	15203	14.959	14.959	-	-	-
22	Spl	Avg				24874	24.635	24.635			
22	Spl	SDev				13097.877					
22	Spl	%RSD				52.66					

** Spl Name: R2200542-008 Data File: 0125023
Remarks: <none>

23	Spl	1 25Jan2022 23:36	-	-	-	21032	20.791	20.791	-	-	-
23	Spl	2 25Jan2022 23:46	-	-	-	18955	18.713	18.713	-	-	-
23	Spl	3 25Jan2022 23:56	-	-	-	22310	22.069	22.069	-	-	-
23	Spl	4 26Jan2022 00:06	-	-	-	23501	23.261	23.261	-	-	-
23	Spl	Avg				21449	21.209	21.209			
23	Spl	SDev				1944.732					
23	Spl	%RSD				9.07					

** Spl Name: R2200542-010 Data File: 0125024
Remarks: <none>

24	Spl	1 26Jan2022 00:17	-	-	-	33278	33.042	33.042	-	-	-
24	Spl	2 26Jan2022 00:27	-	-	-	34544	34.309	34.309	-	-	-
24	Spl	3 26Jan2022 00:37	-	-	-	33078	32.842	32.842	-	-	-
24	Spl	4 26Jan2022 00:47	-	-	-	37664	37.430	37.430	-	-	-
24	Spl	Avg				34641	34.406	34.406			
24	Spl	SDev				2117.284					
24	Spl	%RSD				6.11					

** Spl Name: R2200542-011 Data File: 0125025
Remarks: <none>

25	Spl	1 26Jan2022 00:57	-	-	-	923	0.673	0.673	-	-	-
25	Spl	2 26Jan2022 01:07	-	-	-	625	0.375	0.375	-	-	-
25	Spl	3 26Jan2022 01:17	-	-	-	569	0.319	0.319	-	-	-
25	Spl	4 26Jan2022 01:27	-	-	-	531	0.281	0.281	-	-	-
25	Spl	Avg				662	0.412	0.412			
25	Spl	SDev				178.232					
25	Spl	%RSD				26.92					

** Spl Name: R2200543-008 Data File: 0125026
Remarks: 2

26	Spl	1 26Jan2022 01:38	-	-	-	3343	3.094	3.094	-	-	-
26	Spl	2 26Jan2022 01:48	-	-	-	3644	3.395	3.395	x2	-	-
26	Spl	3 26Jan2022 01:58	-	-	-	3512	3.263	3.263	-	-	-
26	Spl	4 26Jan2022 02:08	-	-	-	3498	3.249	3.249	-	-	-
26	Spl	Avg				3499	3.251	3.251			
26	Spl	SDev				123.195					
26	Spl	%RSD				3.52					

Report @ 1/2 due to high RPD in straight analysis.
CMW 1/28/22

********OVER RANGE ON 1/21*********

** Spl Name: CCV Data File: 0125027
Remarks: <none>

27	Spl	1 26Jan2022 02:19	-	-	-	15850	15.607	15.607	-	-	-
27	Spl	2 26Jan2022 02:29	-	-	-	15725	15.482	15.482	-	-	-
27	Spl	3 26Jan2022 02:39	-	-	-	15751	15.508	15.508	-	-	-
27	Spl	4 26Jan2022 02:49	-	-	-	16620	16.377	16.377	-	-	-
27	Spl	Avg				15986	15.743	15.743			
27	Spl	SDev				425.753					
27	Spl	%RSD				2.66					

** Spl Name: CCB Data File: 0125028
Remarks: <none>

28	Spl	1 26Jan2022 03:00	-	-	-	265	0.015	0.015	-	-	-
28	Spl	2 26Jan2022 03:10	-	-	-	168	0.000	0.000	-	-	-
28	Spl	3 26Jan2022 03:20	-	-	-	235	0.000	0.000	-	-	-
28	Spl	4 26Jan2022 03:30	-	-	-	221	0.000	0.000	-	-	-
28	Spl	Avg				222	0.000	0.000			
28	Spl	SDev				40.558					
28	Spl	%RSD				18.25					

** Spl Name: R2200543-009 Data File: 0125029
Remarks: <none>

29	Spl	1 26Jan2022 03:40	-	-	-	367	0.117	0.117	-	-	-
29	Spl	2 26Jan2022 03:50	-	-	-	376	0.126	0.126	-	-	-
29	Spl	3 26Jan2022 04:00	-	-	-	446	0.196	0.196	-	-	-
29	Spl	4 26Jan2022 04:10	-	-	-	421	0.171	0.171	-	-	-
29	Spl	Avg				402	0.153	0.153			
29	Spl	SDev				37.403					
29	Spl	%RSD				9.29					

** Spl Name: R2200541-006 Data File: 0125030
Remarks: 100

30	Spl	1 26Jan2022 04:21	-	-	-	15896	15.653	15.653	-	-	-
30	Spl	2 26Jan2022 04:31	-	-	-	14982	14.738	14.738	x100	-	-
30	Spl	3 26Jan2022 04:41	-	-	-	15341	15.097	15.097	-	-	-
30	Spl	4 26Jan2022 04:51	-	-	-	16898	16.655	16.655	-	-	-
30	Spl	Avg				15779	15.536	15.536			
30	Spl	SDev				835.245					
30	Spl	%RSD				5.29					

** Spl Name: R2200544-008 Data File: 0125031
Remarks: 10

31	Spl	1 26Jan2022 05:02	-	-	-	9800	9:554	9.554	-	-	-
31	Spl	2 26Jan2022 05:12	-	-	-	9409	9.163	9.163	x10	-	-
31	Spl	3 26Jan2022 05:22	-	-	-	9728	9.482	9.482	-	-	-
31	Spl	4 26Jan2022 05:32	-	-	-	9681	9.435	9.435	-	-	-
31	Spl	Avg				9654	9.409	9.408			
31	Spl	SDev				170.826					
31	Spl	%RSD				1.77					

** Spl Name: R2200541-003 Data File: 0125032
Remarks: <none>

32	Spl	1 26Jan2022 05:43	-	-	-	3234	2.985	2.985	-	-	-
32	Spl	2 26Jan2022 05:53	-	-	-	3168	2.919	2.919	-	-	-
32	Spl	3 26Jan2022 06:02	-	-	-	2895	2.646	2.646	-	-	-
32	Spl	4 26Jan2022 06:12	-	-	-	3433	3.184	3.184	-	-	-
32	Spl	Avg				3182	2.934	2.934			
32	Spl	SDev				222.313					
32	Spl	%RSD				6.99					

** Spl Name: R2200542-001 Data File: 0125033
Remarks: 100

33	Spl	1 26Jan2022 06:23	-	-	-	10049	9.803	9.803	x100	-	-
33	Spl	2 26Jan2022 06:33	-	-	-	10124	9.878	9.878	-	-	-

								012522				
33	Spl	3	26Jan2022 06:43	-	-	-	10092	9.846	9.846	x100 -	-	-
33	Spl	4	26Jan2022 06:53	-	-	-	10955	10.710	10.710	-	-	-
33	Spl	Avg					10305	10.059	10.059			
33	Spl	SDev					434.421					
33	Spl	%RSD					4.22					

** Spl Name: LCS Data File: 0125034
Remarks: <none>

34	Spl	1	26Jan2022 07:04	-	-	-	10767	10.522	10.521	-	-	-
34	Spl	2	26Jan2022 07:14	-	-	-	10098	9.852	9.852	-	-	-
34	Spl	3	26Jan2022 07:24	-	-	-	10468	10.222	10.222	-	-	-
34	Spl	4	26Jan2022 07:34	-	-	-	10378	10.132	10.132	-	-	-
34	Spl	Avg					10427	10.182	10.182			
34	Spl	SDev					275.633					
34	Spl	%RSD					2.64					

** Spl Name: R2200542-003 Data File: 0125035
Remarks: 2000

35	Spl	1	26Jan2022 07:45	-	-	-	420	0.170	0.170	-	-	-
35	Spl	2	26Jan2022 07:55	-	-	-	384	0.134	0.134	x2000 -	-	-
35	Spl	3	26Jan2022 08:05	-	-	-	428	0.178	0.178	-	-	-
35	Spl	4	26Jan2022 08:15	-	-	-	353	0.103	0.103	-	-	-
35	Spl	Avg					396	0.146	0.146			
35	Spl	SDev					34.606					
35	Spl	%RSD					8.73					

**********REPEATED ON 1/26*********

** Spl Name: R2200542-005 Data File: 0125036
Remarks: 400

36	Spl	1	26Jan2022 08:25	-	-	-	281	0.031	0.031	-	-	-
36	Spl	2	26Jan2022 08:35	-	-	-	157	0.000	0.000	x400 -	-	-
36	Spl	3	26Jan2022 08:45	-	-	-	222	0.000	0.000	-	-	-
36	Spl	4	26Jan2022 08:55	-	-	-	171	0.000	0.000	-	-	-
36	Spl	Avg					207	0.000	0.000			
36	Spl	SDev					56.258					
36	Spl	%RSD					27.08					

**********REPEATED ON 1/26*********

** Spl Name: R2200542-007 Data File: 0125037
Remarks: 200

37	Spl	1	26Jan2022 09:06	-	-	-	238	0.000	0.000	-	-	-
37	Spl	2	26Jan2022 09:16	-	-	-	152	0.000	0.000	x200 -	-	-
37	Spl	3	26Jan2022 09:26	-	-	-	170	0.000	0.000	-	-	-
37	Spl	4	26Jan2022 09:36	-	-	-	234	0.000	0.000	-	-	-
37	Spl	Avg					198	0.000	0.000			
37	Spl	SDev					43.951					
37	Spl	%RSD					22.14					

**********REPEATED ON 1/26*********

** Spl Name: R2200542-009 Data File: 0125038
Remarks: 200

38	Spl	1	26Jan2022 09:47	-	-	-	270	0.020	0.020	-	-	-
38	Spl	2	26Jan2022 09:57	-	-	-	311	0.061	0.061	x200 -	-	-
38	Spl	3	26Jan2022 10:07	-	-	-	341	0.091	0.091	-	-	-
38	Spl	4	26Jan2022 10:17	-	-	-	262	0.012	0.012	-	-	-
38	Spl	Avg					296	0.046	0.046			
38	Spl	SDev					36.887					
38	Spl	%RSD					12.46					

**********REPEATED ON 1/26*********

** Spl Name: CCV Data File: 0125039
Remarks: <none>

39	Spl	1	26Jan2022 10:28	-	-	-	15590	15.347	15.347	-	-	-
39	Spl	2	26Jan2022 10:38	-	-	-	15041	14.797	14.797	-	-	-
39	Spl	3	26Jan2022 10:48	-	-	-	15803	15.560	15.560	-	-	-
39	Spl	4	26Jan2022 10:58	-	-	-	15994	15.751	15.751	-	-	-
39	Spl	Avg					15607	15.364	15.364			
39	Spl	SDev					411.837					
39	Spl	%RSD					2.64					

** Spl Name: CCB Data File: 0125040
Remarks: <none>

40	Spl	1	26Jan2022 11:08	-	-	-	183	0.000	0.000	-	-	-
40	Spl	2	26Jan2022 11:18	-	-	-	127	0.000	0.000	-	-	-
40	Spl	3	26Jan2022 11:28	-	-	-	139	0.000	0.000	-	-	-
40	Spl	4	26Jan2022 11:38	-	-	-	233	0.000	0.000	-	-	-
40	Spl	Avg					170	0.000	0.000			
40	Spl	SDev					48.121					
40	Spl	%RSD					28.22					

** Spl Name: R2200543-001 Data File: 0125041
Remarks: 2

41	Spl	1	26Jan2022 11:49	-	-	-	563	0.313	0.313	-	-	-
41	Spl	2	26Jan2022 11:59	-	-	-	548	0.298	0.298	x2 -	-	-
41	Spl	3	26Jan2022 12:09	-	-	-	567	0.317	0.317	-	-	-
41	Spl	4	26Jan2022 12:19	-	-	-	706	0.456	0.456	-	-	-
41	Spl	Avg					596	0.346	0.346			
41	Spl	SDev					73.788					

↑
Insufficient vol to Run Straight
SM 1/26/22

41 Spl %RSD 12.38
********HIGH RPD ON 1/21*********

** Spl Name: R2200543-003 Data File: 0125042
Remarks: <none>

42	Spl	1 26Jan2022 12:30	-	-	-	1251	1.001	1.001	-	-	-
42	Spl	2 26Jan2022 12:40	-	-	-	1382	1.132	1.133	-	-	-
42	Spl	3 26Jan2022 12:50	-	-	-	1442	1.193	1.192	-	-	-
42	Spl	4 26Jan2022 13:00	-	-	-	1460	1.211	1.211	-	-	-
42	Spl	Avg				1383	1.134	1.134			
42	Spl	SDev				94.574					
42	Spl	%RSD				6.83					

** Spl Name: R2200543-007 Data File: 0125043
Remarks: <none>

43	Spl	1 26Jan2022 13:11	-	-	-	7331	7.084	7.084	-	-	-
43	Spl	2 26Jan2022 13:21	-	-	-	7458	7.211	7.211	-	-	-
43	Spl	3 26Jan2022 13:31	-	-	-	7770	7.523	7.523	-	-	-
43	Spl	4 26Jan2022 13:41	-	-	-	7275	7.028	7.028	-	-	-
43	Spl	Avg				7458	7.212	7.212			
43	Spl	SDev				221.330					
43	Spl	%RSD				2.97					

** Spl Name: R2200544-003 Data File: 0125044
Remarks: 10

44	Spl	1 26Jan2022 13:52	-	-	-	9575	9.329	9.329	-	-	-
44	Spl	2 26Jan2022 14:01	-	-	-	9339	9.093	9.093	-	-	-
44	Spl	3 26Jan2022 14:11	-	-	-	10089	9.843	9.843	-	-	-
44	Spl	4 26Jan2022 14:21	-	-	-	10275	10.029	10.029	-	-	-
44	Spl	Avg				9819	9.574	9.574			
44	Spl	SDev				436.185					
44	Spl	%RSD				4.44					

x10

** Spl Name: CCV Data File: 0125045
Remarks: <none>

45	Spl	1 26Jan2022 14:32	-	-	-	16211	15.968	15.968	-	-	-
45	Spl	2 26Jan2022 14:42	-	-	-	15345	15.101	15.101	-	-	-
45	Spl	3 26Jan2022 14:52	-	-	-	16718	16.475	16.475	-	-	-
45	Spl	4 26Jan2022 15:02	-	-	-	16595	16.352	16.352	-	-	-
45	Spl	Avg				16217	15.974	15.974			
45	Spl	SDev				620.297					
45	Spl	%RSD				3.82					

** Spl Name: CCB Data File: 0125046
Remarks: <none>

46	Spl	1 26Jan2022 15:13	-	-	-	190	0.000	0.000	-	-	-
46	Spl	2 26Jan2022 15:23	-	-	-	161	0.000	0.000	-	-	-
46	Spl	3 26Jan2022 15:33	-	-	-	146	0.000	0.000	-	-	-
46	Spl	4 26Jan2022 15:43	-	-	-	102	0.000	0.000	-	-	-
46	Spl	Avg				149	0.000	0.000			
46	Spl	SDev				36.700					
46	Spl	%RSD				24.51					

ALS Environmental
1565 Jefferson Rd., Rochester, NY 14623

General Chemistry Analytical Run Cover Sheet

Analyst: SCGM

Date: 1/25/22

Analysis: Total Organic Carbon, SM5310C/9060/9060A
High Level: 1.0 to 30.0 ppm

Instrument: (R-TOC-01) OI Analytical Model1010 TOC Analyzer

PRIMARY STOCKS	Log ID Prep/Exp. Dates	Reagent	Weight (g)	Final Vol. (mLs)	Conc. (mg/L)
Standards *	**Log ID: 220617** **Received: 11/24/2021** **Expires: 09/30/2023**	Purchased Sucrose Solution			1000 (A)
Reference *	**Log ID: 218253** **Received: 07/17/2021** **Expires: 07/8/2023**	Purchased KHP Solution			1000 (B)

*Diluent is UPDI

QUALITY CONTROL	Vol. (mLs)	Conc. (mg/L)	Final Vol. (mLs)	TV (mg/L)
I/CCV	3.0	1000 (B)	200	15.0
LCS	1.0	1000 (A)	100	10.0
MS	0.42	1000 (A)	42	10.0

Standard Curve Prep

Concentration	mLs 1000 mg/L Stock (A)	Final Volume (mLs)
30.0	3.00	100
10.0	1.00	100
5.0	0.50	100
1.0	0.10	100
0.0	0.00	100

Comments:

Curve Date = 01/13/2021
Filter LOT: 41291103 (Phenex 0.45µm Syringe Filter)

Note: Dilutions greater than 1/1 are placed in the "comments" section of the Model 1010 Analyzer report.
The "Dilution Factor" on the Model 1010 will always read "1.00"
TOC results on the Model 1010 Analyzer reports do not include the dilution factor.
Final results on the Starlims run and final report include the dilution factor.

P.petitexayne SM 1/14/2021

TOC

CALIBRATION: 011321

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std1		Name: 0					Data File: 0113001						
		Remarks: <none>											
1	Std1	1	13Jan2021	15:03	-	-	-	276	0.000	0.000	-	-	-
1	Std1	2	13Jan2021	15:13	-	-	-	278	0.000	0.000	-	-	-
1	Std1	3	13Jan2021	15:22	-	-	-	553	0.000	0.000	-	-	-
1	Std1	4	13Jan2021	15:32	-	-	-	287	0.000	0.000	-	-	-
1	Std	Avg						348	0.000	0.000			
1	Std	SDev						136.417					
1	Std	%RSD						39.14					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 191
Offset (ugC): -0.183

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std2		Name: 1					Data File: 0113002						
		Remarks: <none>											
2	Std2	1	13Jan2021	15:43	-	-	-	1150	1.000	1.000	-	-	-
2	Std2	2	13Jan2021	15:53	-	-	-	1137	1.000	1.000	-	-	-
2	Std2	3	13Jan2021	16:03	-	-	-	1099	1.000	1.000	-	-	-
2	Std2	4	13Jan2021	16:13	-	-	-	1195	1.000	1.000	-	-	-
2	Std	Avg						1145	1.000	1.000			
2	Std	SDev						39.601					
2	Std	%RSD						3.46					

** Calibration:
RF (ugC/k-cts): 0.959
R-Squared: 0.9987
Offset (cts): 172
Offset (ugC): -0.166

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std3		Name: 5					Data File: 0113003						
		Remarks: <none>											
3	Std3	1	13Jan2021	16:24	-	-	-	4719	5.000	5.000	-	-	-
3	Std3	2	13Jan2021	16:34	-	-	-	4853	5.000	5.000	-	-	-
3	Std3	3	13Jan2021	16:44	-	-	-	4964	5.000	5.000	-	-	-
3	Std3	4	13Jan2021	16:54	-	-	-	4946	5.000	5.000	-	-	-
3	Std	Avg						4870	5.000	5.000			
3	Std	SDev						112.103					
3	Std	%RSD						2.30					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9984
Offset (cts): 48
Offset (ugC): -0.046

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std4		Name: 10					Data File: 0113004						
		Remarks: <none>											
4	Std4	1	13Jan2021	17:05	-	-	-	9889	10.000	10.000	-	-	-
4	Std4	2	13Jan2021	17:15	-	-	-	9564	10.000	10.000	-	-	-
4	Std4	3	13Jan2021	17:25	-	-	-	9514	10.000	10.000	-	-	-
4	Std4	4	13Jan2021	17:35	-	-	-	9819	10.000	10.000	-	-	-
4	Std	Avg						9696	10.000	10.000			
4	Std	SDev						185.225					
4	Std	%RSD						1.91					

** Calibration:
RF (ugC/k-cts): 0.956
R-Squared: 0.9976
Offset (cts): -120
Offset (ugC): 0.115

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Std5		Name: 30					Data File: 0113005						
		Remarks: <none>											
5	Std5	1	13Jan2021	17:46	-	-	-	31002	30.000	30.000	-	-	-
5	Std5	2	13Jan2021	17:56	-	-	-	29342	30.000	30.000	-	-	-
5	Std5	3	13Jan2021	18:06	-	-	-	29838	30.000	30.000	-	-	-
5	Std5	4	13Jan2021	18:16	-	-	-	30421	30.000	30.000	-	-	-
5	Std	Avg						30150	30.000	30.000			
5	Std	SDev						718.691					
5	Std	%RSD						2.38					

** Calibration:
RF (ugC/k-cts): 1.000
R-Squared: 0.9988
Offset (cts): 46
Offset (ugC): -0.046

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Spl		Name: ICV					Data File: 0113006						
		Remarks: <none>											
6	Spl	1	13Jan2021	18:27	-	-	-	15255	15.011	15.011	-	-	-

Sm 1/14/2021

								011321CAL				
6	Spl	2	13Jan2021 18:37	-	-	-	14391	14.147	14.147	-	-	-
6	Spl	3	13Jan2021 18:46	-	-	-	14918	14.674	14.674	-	-	-
6	Spl	4	13Jan2021 18:56	-	-	-	15164	14.920	14.920	-	-	-
6	Spl	Avg					14932	14.688	14.688			
6	Spl	SDev					387.741					
6	Spl	%RSD					2.60					

** Spl Name: ICB Data File: 0113007
Remarks: <none>

7	Spl	1	13Jan2021 19:07	-	-	-	256	0.006	0.006	-	-	-
7	Spl	2	13Jan2021 19:17	-	-	-	274	0.024	0.024	-	-	-
7	Spl	3	13Jan2021 19:27	-	-	-	221	0.000	0.000	-	-	-
7	Spl	4	13Jan2021 19:37	-	-	-	246	0.000	0.000	-	-	-
7	Spl	Avg					249	0.000	0.000			
7	Spl	SDev					22.111					
7	Spl	%RSD					8.87					

Sm 1/14/2021

****
** CALIBRATION **
****

TOC Unit: TOC
011321TOC Wed Jan 13 18:16:06 2021

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	0.000	1.000
2	Yes	1.000	1.000
3	Yes	5.000	1.000
4	Yes	10.000	1.000
5	Yes	30.000	1.000

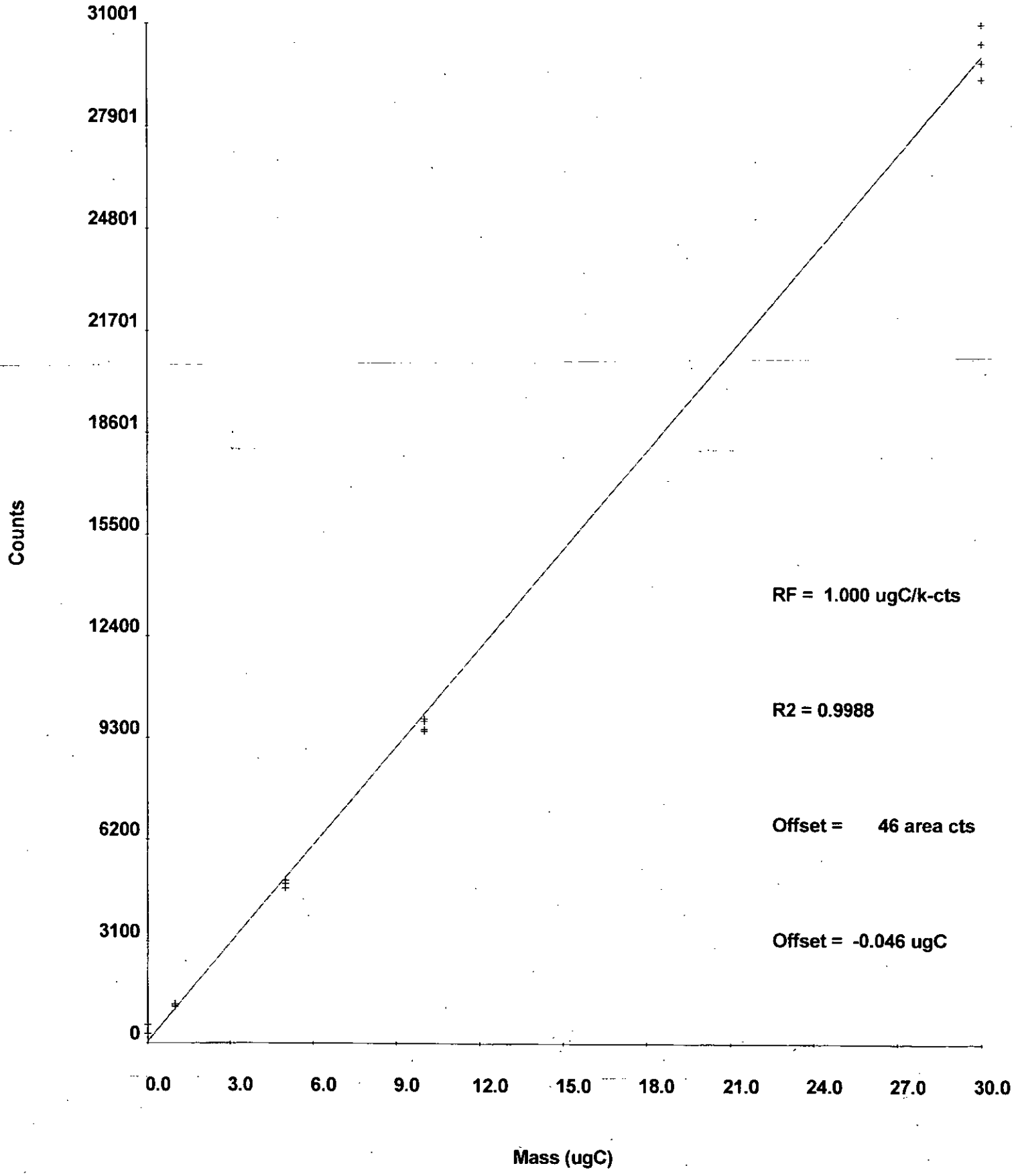
RF (ugC/k-cts):	1.000
R-Squared:	0.9988
Offset (cts):	46
Offset (ugC):	-0.046
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	276	1150	4719	9889	31002
2	278	1137	4853	9564	29342
3	553	1099	4964	9514	29838
4	287	1195	4946	9819	30421
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

SM 1/14/2021

Calibration - 011321TOC (TOC, 13Jan2021 18:16)



Standard Solution Logbook - Inventory ID Summary

Inventory ID:	218253	Date Received:	7/17/21
Standard Name:	Total Organic Carbon (TOC) Ref 1000 mg/L as	Expiration Date:	7/8/23
Standard Type:	Working Standard	Source:	Absolute Standards
ALS Lab:	ROCHESTER	Catalog #:	50110A
ALSTeam:	GenChem	Lot #:	070821
Container ID:	218253	Amount Prepared:	2.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060 / TOC 4X T
Carbon Result	1000	ppm	9060 / TOC 4X T

Standard Solution Logbook - Inventory ID Summary

Inventory ID:	220617	Date Received:	11/24/21
Standard Name:	Total Organic Carbon (TOC) Std 1000 mg/L as	Expiration Date:	9/30/23
Standard Type:	Working Standard	Source:	SCP Science
ALS Lab:	ROCHESTER	Catalog #:	250-250-051
ALSTeam:	GenChem	Lot #:	S210910014
Container ID:	220617	Amount Prepared:	1.00 mL
Location:	IC ROOM		

Component Name	Amount	Units	Method / Test Name
Carbon	1000	ppm	9060A / TOC 4X T
Carbon Result	1000	ppm	9060A / TOC 4X T

Environment Testing America

ANALYTICAL REPORT

Job Number: 680-201857-1

Job Description: Ft. Devens/Shepley Hill Landfill

For:
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, SC 29492

Attention: Heather Levesque

Approved for release.
Jerry A Lanier
Project Manager I
4/14/2022 12:03 PM

Jerry A Lanier, Project Manager I
5102 LaRoche Avenue, Savannah, GA, 31404
(912)250-0281
Jerry.Lanier@et.eurofinsus.com
04/14/2022
Revision: 1

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #s: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; AZ: AZ0741; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN: C-GA-02; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Eurofins Savannah
5102 LaRoche Avenue, Savannah, GA 31404
Tel (912) 354-7858 Fax (912) 352-0165 www.EurofinsUS.com

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Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
680-201857-1

Comments
No additional comments.

Receipt
The samples were received on 7/22/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.5º C and 2.9º C.

Revision
The final report was revised to report to the LOD.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 5210B: The following samples were received outside of holding time: AS-21-1D (24-28) (680-201857-1), AS-21-1D (34-38) (680-201857-2), AS-21-1D (48-54) (680-201857-3) and DUP 072121 (680-201857-6). The samples were prepared a few hours outside of 48 hour holding time but within the same day.

Method SM 5210B: The following sample(s) were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: AS-21-1D (60-64) (680-201857-4). The samples were prepared a few hours outside of 48 hour holding time but within the same day.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (24-28) — Lab Sample ID: 680-201857-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	17		2.1	2.1	0.84	mg/Kg	1	☼	6010C	Total/NA
Iron	7000		21	16	5.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	47		1.1	0.32	0.11	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AS-21-1D (34-38) — Lab Sample ID: 680-201857-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.3		2.5	2.5	1.0	mg/Kg	1	☼	6010C	Total/NA
Iron	3500		25	19	6.6	mg/Kg	1	☼	6010C	Total/NA
Manganese	43		1.2	0.37	0.12	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AS-21-1D (48-54) — Lab Sample ID: 680-201857-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.8	J	2.3	2.3	0.90	mg/Kg	1	☼	6010C	Total/NA
Iron	3700	J1	23	17	6.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	41		1.1	0.34	0.11	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AS-21-1D (60-64) — Lab Sample ID: 680-201857-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.5		2.4	2.4	0.97	mg/Kg	1	☼	6010C	Total/NA
Iron	4900		24	18	6.4	mg/Kg	1	☼	6010C	Total/NA
Manganese	47		1.2	0.36	0.12	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: AS-21-1D (70-72) — Lab Sample ID: 680-201857-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	33		1.9	1.9	0.77	mg/Kg	1	☼	6010C	Total/NA
Iron	5800		19	14	5.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	150		0.97	0.29	0.097	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: DUP 072121 — Lab Sample ID: 680-201857-6

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.8		2.3	2.3	0.92	mg/Kg	1	☼	6010C	Total/NA
Iron	3200		23	17	6.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	44		1.2	0.35	0.12	mg/Kg	1	☼	6010C	Total/NA
Total Organic Carbon	1.1	J	4.0	2.0	0.90	g/Kg	1		9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AS-21-1D (24-28)

Lab Sample ID: 680-201857-1
Date Collected: 07/21/21 07:30
Matrix: Solid
Date Received: 07/22/21 10:10

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 14:19	1

Client Sample ID: AS-21-1D (24-28)

Lab Sample ID: 680-201857-1
Date Collected: 07/21/21 07:30
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 83.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**17**		2.1	2.1	0.84	mg/Kg	☼	07/26/21 21:34	1
Iron	**7000**		21	16	5.6	mg/Kg	☼	07/26/21 21:34	1
Manganese	**47**		1.1	0.32	0.11	mg/Kg	☼	07/26/21 21:34	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	900	U H	900		900	mg/Kg	☼	07/23/21 12:31	1

Client Sample ID: AS-21-1D (34-38)

Lab Sample ID: 680-201857-2
Date Collected: 07/21/21 08:20
Matrix: Solid
Date Received: 07/22/21 10:10

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 14:55	1

Client Sample ID: AS-21-1D (34-38)

Lab Sample ID: 680-201857-2
Date Collected: 07/21/21 08:20
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 76.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**3.3**		2.5	2.5	1.0	mg/Kg	☼	07/26/21 21:39	1
Iron	**3500**		25	19	6.6	mg/Kg	☼	07/26/21 21:39	1
Manganese	**43**		1.2	0.37	0.12	mg/Kg	☼	07/26/21 21:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	980	U H	980		980	mg/Kg	☼	07/23/21 12:31	1

Client Sample ID: AS-21-1D (48-54)

Lab Sample ID: 680-201857-3
Date Collected: 07/21/21 09:45
Matrix: Solid
Date Received: 07/22/21 10:10

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 14:31	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (48-54)

Lab Sample ID: 680-201857-3
Date Collected: 07/21/21 09:45
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 76.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.8	J	2.3	2.3	0.90	mg/Kg	☼	07/26/21 21:02	1
Iron	3700	J1	23	17	6.0	mg/Kg	☼	07/26/21 21:02	1
Manganese	41		1.1	0.34	0.11	mg/Kg	☼	07/26/21 21:02	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	980	U H	980		980	mg/Kg	☼	07/23/21 12:31	1

Client Sample ID: AS-21-1D (60-64)

Lab Sample ID: 680-201857-4
Date Collected: 07/21/21 11:05
Matrix: Solid
Date Received: 07/22/21 10:10

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 15:03	1

Client Sample ID: AS-21-1D (60-64)

Lab Sample ID: 680-201857-4
Date Collected: 07/21/21 11:05
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 77.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	8.5		2.4	2.4	0.97	mg/Kg	☼	07/26/21 21:43	1
Iron	4900		24	18	6.4	mg/Kg	☼	07/26/21 21:43	1
Manganese	47		1.2	0.36	0.12	mg/Kg	☼	07/26/21 21:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	970	U H	970		970	mg/Kg	☼	07/23/21 14:07	1

Client Sample ID: AS-21-1D (70-72)

Lab Sample ID: 680-201857-5
Date Collected: 07/21/21 13:45
Matrix: Solid
Date Received: 07/22/21 10:10

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 15:12	1

Client Sample ID: AS-21-1D (70-72)

Lab Sample ID: 680-201857-5
Date Collected: 07/21/21 13:45
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 87.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	33		1.9	1.9	0.77	mg/Kg	☼	07/26/21 21:48	1
Iron	5800		19	14	5.1	mg/Kg	☼	07/26/21 21:48	1
Manganese	150		0.97	0.29	0.097	mg/Kg	☼	07/26/21 21:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	850	U	850		850	mg/Kg	☼	07/23/21 12:45	1

Client Sample ID: DUP 072121
Lab Sample ID: 680-201857-6

Date Collected: 07/21/21 00:00
Matrix: Solid
Date Received: 07/22/21 10:10

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	1.1	J	4.0	2.0	0.90	g/Kg		07/28/21 15:20	1

Client Sample ID: DUP 072121
Lab Sample ID: 680-201857-6

Date Collected: 07/21/21 00:00
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 78.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.8		2.3	2.3	0.92	mg/Kg	☼	07/26/21 21:52	1
Iron	3200		23	17	6.1	mg/Kg	☼	07/26/21 21:52	1
Manganese	44		1.2	0.35	0.12	mg/Kg	☼	07/26/21 21:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	960	U H	960		960	mg/Kg	☼	07/23/21 14:07	1

Default Detection Limits

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Method: 6010C - Metals (ICP)

Prep: 3050B

Analyte	LOQ	DL	Units
Arsenic	2.0	0.80	mg/Kg
Iron	20	5.3	mg/Kg
Manganese	1.0	0.10	mg/Kg

General Chemistry

Analyte	LOQ	DL	Units
Total Organic Carbon	4.0	0.90	g/Kg
Biochemical Oxygen Demand	750	750	mg/Kg

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-677691/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.0	U	2.0	2.0	0.79	mg/Kg		07/26/21 20:53	1
Iron	15	U	20	15	5.2	mg/Kg		07/26/21 20:53	1
Manganese	0.30	U	0.99	0.30	0.099	mg/Kg		07/26/21 20:53	1

Lab Sample ID: LCS 680-677691/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	9.62	9.85		mg/Kg		102	82 - 111
Iron	481	475		mg/Kg		99	81 - 118
Manganese	38.5	38.2		mg/Kg		99	84 - 114

Lab Sample ID: 680-201857-3 MS — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.8	J	12.2	12.9		mg/Kg	☼	91	82 - 111
Iron	3700	J1	609	4200	4	mg/Kg	☼	86	81 - 118
Manganese	41		48.8	84.0		mg/Kg	☼	88	84 - 114

Lab Sample ID: 680-201857-3 MSD — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.8	J	11.7	13.5		mg/Kg	☼	100	82 - 111	4	20
Iron	3700	J1	587	4400	4	mg/Kg	☼	122	81 - 118	4	20
Manganese	41		47.0	86.7		mg/Kg	☼	97	84 - 114	3	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-544631/4 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	0.934	J	4.0	2.0	0.90	g/Kg		07/28/21 11:51	1

Lab Sample ID: LCS 280-544631/3 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	4.16	3.40	J	g/Kg		82	46 - 130

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 680-201857-3 MS — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	2.0	U	11.5	12.0		g/Kg		104	46 - 130		

Lab Sample ID: 680-201857-3 MSD — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	2.0	U	11.5	11.8		g/Kg		103	46 - 130	2	20

Method: SM 5210B - 5 Day BOD test

Lab Sample ID: USB 180-366034/1 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 366034

Analyte	USB Result	USB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0		2.0	mg/Kg		07/23/21 12:31	1

Lab Sample ID: LCS 180-366034/2 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 366034

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Biochemical Oxygen Demand			198	182		mg/Kg		92	85 - 115		

Lab Sample ID: 680-201857-3 DU — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 366034

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	980	U H		980	U	mg/Kg	☼			NC	20

QC Association Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Metals

Prep Batch: 677691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	3050B	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	3050B	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	3050B	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	3050B	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	3050B	
680-201857-6	DUP 072121	Total/NA	Solid	3050B	
MB 680-677691/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 680-677691/2-A	Lab Control Sample	Total/NA	Solid	3050B	
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	3050B	
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	3050B	

Analysis Batch: 678148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	6010C	677691
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	6010C	677691
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	6010C	677691
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	6010C	677691
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	6010C	677691
680-201857-6	DUP 072121	Total/NA	Solid	6010C	677691
MB 680-677691/1-A	Method Blank	Total/NA	Solid	6010C	677691
LCS 680-677691/2-A	Lab Control Sample	Total/NA	Solid	6010C	677691
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	6010C	677691
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	6010C	677691

General Chemistry

Analysis Batch: 366034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	SM 5210B	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	SM 5210B	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	SM 5210B	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	SM 5210B	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	SM 5210B	
680-201857-6	DUP 072121	Total/NA	Solid	SM 5210B	
USB 180-366034/1	Method Blank	Total/NA	Solid	SM 5210B	
LCS 180-366034/2	Lab Control Sample	Total/NA	Solid	SM 5210B	
680-201857-3 DU	AS-21-1D (48-54)	Total/NA	Solid	SM 5210B	

Analysis Batch: 544631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	9060A	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	9060A	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	9060A	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	9060A	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	9060A	
680-201857-6	DUP 072121	Total/NA	Solid	9060A	
MB 280-544631/4	Method Blank	Total/NA	Solid	9060A	
LCS 280-544631/3	Lab Control Sample	Total/NA	Solid	9060A	
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	9060A	
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	9060A	

QC Association Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

General Chemistry

Analysis Batch: 677809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	Moisture	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	Moisture	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	Moisture	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	Moisture	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	Moisture	
680-201857-6	DUP 072121	Total/NA	Solid	Moisture	
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	Moisture	
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (24-28)
Date Collected: 07/21/21 07:30
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	544631	07/28/21 14:19	RAF	TAL DEN
Total/NA	Analysis	Moisture		1	677809	07/23/21 13:30	JB	TAL SAV

Client Sample ID: AS-21-1D (24-28)
Date Collected: 07/21/21 07:30
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-1
Matrix: Solid
Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1	678148	07/26/21 21:34	BCB	TAL SAV
Total/NA	Analysis	SM 5210B		1	366034	07/23/21 12:31	ELS	TAL PIT

Client Sample ID: AS-21-1D (34-38)
Date Collected: 07/21/21 08:20
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	544631	07/28/21 14:55	RAF	TAL DEN
Total/NA	Analysis	Moisture		1	677809	07/23/21 13:30	JB	TAL SAV

Client Sample ID: AS-21-1D (34-38)
Date Collected: 07/21/21 08:20
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-2
Matrix: Solid
Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1	678148	07/26/21 21:39	BCB	TAL SAV
Total/NA	Analysis	SM 5210B		1	366034	07/23/21 12:31	ELS	TAL PIT

Client Sample ID: AS-21-1D (48-54)
Date Collected: 07/21/21 09:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	544631	07/28/21 14:31	RAF	TAL DEN
Total/NA	Analysis	Moisture		1	677809	07/23/21 13:30	JB	TAL SAV

Client Sample ID: AS-21-1D (48-54)
Date Collected: 07/21/21 09:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-3
Matrix: Solid
Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1	678148	07/26/21 21:02	BCB	TAL SAV
Total/NA	Analysis	SM 5210B		1	366034	07/23/21 12:31	ELS	TAL PIT

Client Sample ID: AS-21-1D (60-64)
Lab Sample ID: 680-201857-4

Date Collected: 07/21/21 11:05
Matrix: Solid
Date Received: 07/22/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	544631	07/28/21 15:03	RAF	TAL DEN
Total/NA	Analysis	Moisture		1	677809	07/23/21 13:30	JB	TAL SAV

Client Sample ID: AS-21-1D (60-64)
Lab Sample ID: 680-201857-4

Date Collected: 07/21/21 11:05
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1	678148	07/26/21 21:43	BCB	TAL SAV
Total/NA	Analysis	SM 5210B		1	366034	07/23/21 14:07	ELS	TAL PIT

Client Sample ID: AS-21-1D (70-72)
Lab Sample ID: 680-201857-5

Date Collected: 07/21/21 13:45
Matrix: Solid
Date Received: 07/22/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	544631	07/28/21 15:12	RAF	TAL DEN
Total/NA	Analysis	Moisture		1	677809	07/23/21 13:30	JB	TAL SAV

Client Sample ID: AS-21-1D (70-72)
Lab Sample ID: 680-201857-5

Date Collected: 07/21/21 13:45
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1	678148	07/26/21 21:48	BCB	TAL SAV
Total/NA	Analysis	SM 5210B		1	366034	07/23/21 12:45	ELS	TAL PIT

Client Sample ID: DUP 072121
Lab Sample ID: 680-201857-6

Date Collected: 07/21/21 00:00
Matrix: Solid
Date Received: 07/22/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	544631	07/28/21 15:20	RAF	TAL DEN
Total/NA	Analysis	Moisture		1	677809	07/23/21 13:30	JB	TAL SAV

Client Sample ID: DUP 072121
Lab Sample ID: 680-201857-6

Date Collected: 07/21/21 00:00
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1	678148	07/26/21 21:52	BCB	TAL SAV
Total/NA	Analysis	SM 5210B		1	366034	07/23/21 14:07	ELS	TAL PIT

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-18-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-02-21

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	12-21-21
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	08-31-21
Georgia	State	PA 02-00416	08-31-21
Illinois	NELAP	004375	08-31-21
Kansas	NELAP	E-10350	08-31-21
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	08-31-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	08-31-21
Nevada	State	PA00164	07-30-21
New Hampshire	NELAP	2030	04-04-22
New Jersey	NELAP	PA005	08-31-21
New York	NELAP	11182	08-31-21
North Carolina (WW/SW)	State	434	11-11-21
North Dakota	State	R-227	08-31-21
Oregon	NELAP	PA-2151	08-31-21
Pennsylvania	NELAP	02-00416	08-11-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	11-11-21
Texas	NELAP	T104704528	08-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	08-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	08-31-21
Wisconsin	State	998027800	08-26-21

Method Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SAV
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL SAV
SM 5210B	5 Day BOD test	SM	TAL PIT
3050B	Preparation, Metals	SW846	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-201857-1	AS-21-1D (24-28)	Solid	07/21/21 07:30	07/22/21 10:10
680-201857-2	AS-21-1D (34-38)	Solid	07/21/21 08:20	07/22/21 10:10
680-201857-3	AS-21-1D (48-54)	Solid	07/21/21 09:45	07/22/21 10:10
680-201857-4	AS-21-1D (60-64)	Solid	07/21/21 11:05	07/22/21 10:10
680-201857-5	AS-21-1D (70-72)	Solid	07/21/21 13:45	07/22/21 10:10
680-201857-6	DUP 072121	Solid	07/21/21 00:00	07/22/21 10:10

METALS

COVER PAGE
METALS

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG No.:

Project: Ft. Devens/Shepley Hill Landfill

Client Sample ID	Lab Sample ID
AS-21-1D (24-28)	680-201857-1
AS-21-1D (34-38)	680-201857-2
AS-21-1D (48-54)	680-201857-3
AS-21-1D (60-64)	680-201857-4
AS-21-1D (70-72)	680-201857-5
DUP 072121	680-201857-6

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: AS-21-1D (24-28)
Lab Sample ID: 680-201857-1
Lab Name: Eurofins Savannah
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 07:30
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 83.4

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Arsenic	17	2.1	2.1	0.84	mg/Kg			1	6010C
Iron	7000	21	16	5.6	mg/Kg			1	6010C
Manganese	47	1.1	0.32	0.11	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: AS-21-1D (34-38)

Lab Sample ID: 680-201857-2

Lab Name: Eurofins Savannah

Job No.: 680-201857-1

SDG ID.:

Matrix: Solid

Date Sampled: 07/21/2021 08:20

Reporting Basis: DRY

Date Received: 07/22/2021 10:10

% Solids: 76.5

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Arsenic	3.3	2.5	2.5	1.0	mg/Kg			1	6010C
Iron	3500	25	19	6.6	mg/Kg			1	6010C
Manganese	43	1.2	0.37	0.12	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: AS-21-1D (48-54)
Lab Sample ID: 680-201857-3
Lab Name: Eurofins Savannah
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 09:45
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 76.6

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Arsenic	1.8	2.3	2.3	0.90	mg/Kg	J		1	6010C
Iron	3700	23	17	6.0	mg/Kg		J1	1	6010C
Manganese	41	1.1	0.34	0.11	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: AS-21-1D (60-64)

Lab Sample ID: 680-201857-4

Lab Name: Eurofins Savannah

Job No.: 680-201857-1

SDG ID.:

Matrix: Solid

Date Sampled: 07/21/2021 11:05

Reporting Basis: DRY

Date Received: 07/22/2021 10:10

% Solids: 77.4

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Arsenic	8.5	2.4	2.4	0.97	mg/Kg			1	6010C
Iron	4900	24	18	6.4	mg/Kg			1	6010C
Manganese	47	1.2	0.36	0.12	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: AS-21-1D (70-72)
Lab Sample ID: 680-201857-5
Lab Name: Eurofins Savannah
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 13:45
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 87.8

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Arsenic	33	1.9	1.9	0.77	mg/Kg			1	6010C
Iron	5800	19	14	5.1	mg/Kg			1	6010C
Manganese	150	0.97	0.29	0.097	mg/Kg			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP 072121

Lab Sample ID: 680-201857-6

Lab Name: Eurofins Savannah

Job No.: 680-201857-1

SDG ID.:

Matrix: Solid

Date Sampled: 07/21/2021 00:00

Reporting Basis: DRY

Date Received: 07/22/2021 10:10

% Solids: 78.1

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Arsenic	3.8	2.3	2.3	0.92	mg/Kg			1	6010C
Iron	3200	23	17	6.1	mg/Kg			1	6010C
Manganese	44	1.2	0.35	0.12	mg/Kg			1	6010C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

ICV Source: P_ICV_wk_00366 Concentration Units: ug/L

CCV Source: MEICP Cal Std_00018

Analyte	ICV 680-678148/4 07/26/2021 12:49				CCV 680-678148/105 07/26/2021 20:26				CCV 680-678148/117 07/26/2021 21:20			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	1040		1000	104	489		500	98	493		500	99
Iron	1000		1000	100	9820		10000	98	9880		10000	99
Manganese	1020		1000	102	499		500	100	502		500	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

ICV Source: P_ICV_wk_00366 Concentration Units: ug/L

CCV Source: MEICP Cal Std_00018

Analyte	CCV 680-678148/129 07/26/2021 22:15											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	485		500	97								
Iron	9900		10000	99								
Manganese	505		500	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Method: 6010C Instrument ID: ICPE

Lab Sample ID: CRI 680-678148/7 Concentration Units: ug/L

CRQL Check Standard Source: P_RL_Int_00091

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	20.0	18.6	J	93	80-120
Iron	50.0	46.6	J	93	80-120
Manganese	10.0	10.3		103	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 680-678148/5 07/26/2021 12:53		CCB 680-678148/106 07/26/2021 20:31		CCB 680-678148/118 07/26/2021 21:25		CCB 680-678148/130 07/26/2021 22:19	
		Found	C	Found	C	Found	C	Found	C
Arsenic	20	7.23	J	15	U	15	U	15	U
Iron	50	50	U	50	U	50	U	50	U
Manganese	10	3.0	U	3.0	U	3.0	U	3.0	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 680-677691/1-A

Instrument Code: ICPE Batch No.: 678148

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	2.0	U		6010C_DOD5
7439-89-6	Iron	15	U		6010C_DOD5
7439-96-5	Manganese	0.30	U		6010C_DOD5

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Lab Sample ID: ICSA 680-678148/8 Instrument ID: ICPE

Lab File ID: E07262021FINAL.csv ICS Source: P_ICSA_wk_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-1.48**	
Iron	**200000**	**183002**	**92**
Manganese		**-3.66**	
Aluminum	*500000*	*503088*	*101*
Antimony		*-4.19*	
Barium		*-1.80*	
Beryllium		*-0.0523*	
Boron		*33.0*	
Cadmium		*0.556*	
Calcium	*500000*	*479241*	*96*
Chromium		*1.07*	
Cobalt		*0.285*	
Copper		*0.921*	
Lead		*-4.06*	
Magnesium	*500000*	*488783*	*98*
Molybdenum		*0.537*	
Nickel		*4.00*	
Potassium		*-1.86*	
Selenium		*8.23*	
Silver		*-0.0820*	
Sodium		*-373*	
Strontium		*0.148*	
Thallium		*5.83*	
Tin		*-2.46*	
Titanium		*1.56*	
Zinc		*-1.94*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Lab Sample ID: ICSAB 680-678148/9 Instrument ID: ICPE

Lab File ID: E07262021FINAL.csv ICS Source: P_ICSAB_wk_00111

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**100**	**88.4**	**88**
Iron	**200000**	**183672**	**92**
Manganese	**500**	**478**	**96**
Aluminum	*500000*	*505771*	*101*
Antimony	*600*	*630*	*105*
Barium	*500*	*501*	*100*
Beryllium	*500*	*481*	*96*
Boron		*31.3*	
Cadmium	*1000*	*919*	*92*
Calcium	*500000*	*480987*	*96*
Chromium	*500*	*473*	*95*
Cobalt	*500*	*467*	*93*
Copper	*500*	*520*	*104*
Lead	*50.0*	*43.6*	*87*
Magnesium	*500000*	*490416*	*98*
Molybdenum	*997*	*1054*	*106*
Nickel	*1000*	*905*	*91*
Potassium		*-2.17*	
Selenium	*50.0*	*49.9*	*100*
Silver	*200*	*213*	*106*
Sodium		*-220*	
Strontium		*-1.52*	
Thallium	*100*	*99.5*	*100*
Tin	*999*	*1018*	*102*
Titanium		*1.55*	
Vanadium	*500*	*484*	*97*
Zinc	*1000*	*906*	*91*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: AS-21-1D (48-54) MS

Lab ID: 680-201857-3 MS

Lab Name: Eurofins Savannah

Job No.: 680-201857-1

SDG No.:

Matrix: Solid

Concentration Units: mg/Kg

% Solids: 73.9

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	12.9		1.8	J	12.2	91	82-111		6010C
Iron	4200		3700		609	86	81-118	4	6010C
Manganese	84.0		41		48.8	88	84-114		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: AS-21-1D (48-54) MSD

Lab ID: 680-201857-3 MSD

Lab Name: Eurofins Savannah

Job No.: 680-201857-1

SDG No.:

Matrix: Solid

Concentration Units: mg/Kg

% Solids: 77.4

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	13.5		11.7	100	82-111	4	20		6010C
Iron	4400		587	122	81-118	4	20	4	6010C
Manganese	86.7		47.0	97	84-114	3	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: AS-21-1D (48-54) PDS
Lab ID: 680-201857-3 PDS
Lab Name: Eurofins Savannah
Job No.: 680-201857-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	13.1		1.8	J	11.3	100	80-120		6010C
Iron	4140		3700		563	82	80-120		6010C
Manganese	83.8		41		45.1	95	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 680-677691/2-A

Lab Name: Eurofins Savannah Job No.: 680-201857-1

Sample Matrix: Solid LCS Source: MS_LCS1_WK_00108

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	9.62	9.85		102	82	111		6010C
Iron	481	475		99	81	118		6010C
Manganese	38.5	38.2		99	84	114		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 680-201857-3

SDG No:

Lab Name: Eurofins Savannah Job No: 680-201857-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	1.8	J	11	U	NC		6010C
Iron	3700		3700		0.72	D	6010C
Manganese	41		40.9		0.24	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: ICPE

Method: 6010C DL Date: 06/05/2015 09:48

Prep Method: 3050B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Arsenic		2	0.8
Iron		20	5.3
Manganese		1	0.1

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: ICPE

Method: 6010C XMDL Date: 06/12/2015 11:39

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Arsenic		20	6.2
Iron		50	17
Manganese		10	1

FORM IX - IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG No.:

ICP-AES Instrument ID: ICPE Date: 04/07/2021

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg
Aluminum	308.215									-0.001000			0.000016		
Antimony	206.834						0.000900				0.005000		0.000025		
Arsenic	188.980		0.000005								-0.000200		0.000005		
Barium	389.178						0.000013						0.000020		0.000080
Beryllium	313.042														
Boron	249.678												-0.000250		
Cadmium	226.502		0.000003										0.000100		
Calcium	370.602												-0.001000		
Chromium	267.716												0.000005		
Cobalt	228.615										0.000200		0.000006		
Copper	324.754												0.000006		
Iron	271.441									0.075000					
Lead	220.353		-0.000015							-0.000300	0.000120		0.000024		0.000007
Magnesium	279.078		-0.000142												
Manganese	257.610												-0.000008		
Molybdenum	202.032												-0.000007		
Nickel	231.604									-0.000800					
Potassium	766.491														
Selenium	196.026												0.000010		
Silicon	288.158														
Silver	328.068												-		
Sodium	330.237												-0.001200		
Strontium	216.596							0.000010					0.000040		
Thallium	190.794									0.001000			-0.000010		
Tin	189.925														
Titanium	334.941														
Vanadium	292.401										-0.000400		0.000006		
Zinc	206.200										-0.000800		0.000010		

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG No.:

ICP-AES Instrument ID: ICPE Date: 04/07/2021

Analyte	Wave Length	Mn	Mo	Na	Ni	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl	V	Zn
Aluminum	308.215		0.007000											0.009000	
Antimony	206.834		-0.003000							0.000200					
Arsenic	188.980		-0.000100												
Barium	389.178		0.000218											0.000095	
Beryllium	313.042		-0.000082											0.000020	
Boron	249.678														
Cadmium	226.502											-0.000020			
Calcium	370.602	0.008900										0.012000		0.003040	
Chromium	267.716	0.000090										0.000040		-0.000050	
Cobalt	228.615		-0.000600							-0.000060		0.001900			
Copper	324.754		0.000550											-0.000200	
Iron	271.441		0.001000											0.005000	
Lead	220.353	0.000130	-0.001000									0.000400			
Magnesium	279.078	-0.006600													
Manganese	257.610														
Molybdenum	202.032													-0.000100	
Nickel	231.604														
Potassium	766.491														
Selenium	196.026	0.000500													
Silicon	288.158		0.029000							0.018000		0.010000			
Silver	328.068	0.000061									-0.000100	-0.000040		0.000038	
Sodium	330.237											-0.400000			-0.450000
Strontium	216.596		-0.005000		-0.001500										
Thallium	190.794	0.000300	-0.000500											-0.000040	
Tin	189.925														
Titanium	334.941														
Vanadium	292.401		-0.000200									0.000500			
Zinc	206.200														

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Savannah Job No: 680-201857-1

SDG No.:

Instrument ID: ICPE Date: 02/27/2012 11:40

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		18000	6010C
Iron		900000	6010C
Manganese		27000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 680-677691/1-A	07/22/2021 15:01	677691	1.01		100
LCS 680-677691/2-A	07/22/2021 15:01	677691	1.04		100
680-201857-3	07/22/2021 15:01	677691	1.16		100
680-201857-3 MS	07/22/2021 15:01	677691	1.11		100
680-201857-3 MSD	07/22/2021 15:01	677691	1.10		100
680-201857-1	07/22/2021 15:01	677691	1.14		100
680-201857-2	07/22/2021 15:01	677691	1.05		100
680-201857-4	07/22/2021 15:01	677691	1.07		100
680-201857-5	07/22/2021 15:01	677691	1.18		100
680-201857-6	07/22/2021 15:01	677691	1.11		100

FORM XII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Instrument ID: ICPE Analysis Method: 6010C

Start Date: 07/26/2021 12:35 End Date: 07/27/2021 01:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				As	Fe	Mn																						
ZZZZZZ			12:35																									
ZZZZZZ			12:40																									
ZZZZZZ			12:44																									
ICV 680-678148/4	1		12:49	X	X	X																						
ICBIS 680-678148/5	1		12:53	X	X	X																						
ZZZZZZ			12:58																									
CRI 680-678148/7	1		13:02	X	X	X																						
ICSA 680-678148/8	1		13:07	X	X	X																						
ICSAB 680-678148/9	1		13:11	X	X	X																						
ZZZZZZ			13:16																									
RINSE 680-678148/11			13:21																									
CCV 680-678148/12			13:25																									
CCB 680-678148/13			13:30																									
ZZZZZZ			13:34																									
ZZZZZZ			13:39																									
ZZZZZZ			13:43																									
ZZZZZZ			13:48																									
ZZZZZZ			13:52																									
ZZZZZZ			13:57																									
ZZZZZZ			14:01																									
ZZZZZZ			14:06																									
ZZZZZZ			14:10																									
ZZZZZZ			14:15																									
CCV 680-678148/24			14:19																									
CCB 680-678148/25			14:24																									
ZZZZZZ			14:28																									
ZZZZZZ			14:33																									
ZZZZZZ			14:37																									
ZZZZZZ			14:42																									
ZZZZZZ			14:46																									
ZZZZZZ			14:51																									
ZZZZZZ			14:55																									
ZZZZZZ			15:00																									
ZZZZZZ			15:04																									
ZZZZZZ			15:09																									
CCV 680-678148/36			15:13																									
CCB 680-678148/37			15:18																									
ZZZZZZ			15:22																									
ZZZZZZ			15:27																									
ZZZZZZ			15:31																									
ZZZZZZ			15:36																									
ZZZZZZ			15:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Instrument ID: ICPE Analysis Method: 6010C

Start Date: 07/26/2021 12:35 End Date: 07/27/2021 01:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				As	Fe	Mn																						
ZZZZZZ			15:45																									
ZZZZZZ			15:49																									
ZZZZZZ			15:54																									
ZZZZZZ			15:58																									
ZZZZZZ			16:03																									
CCV 680-678148/48			16:07																									
CCB 680-678148/49			16:12																									
ZZZZZZ			16:16																									
ZZZZZZ			16:21																									
ZZZZZZ			16:25																									
ZZZZZZ			16:30																									
ZZZZZZ			16:34																									
ZZZZZZ			16:39																									
ZZZZZZ			16:43																									
ZZZZZZ			16:48																									
ZZZZZZ			16:52																									
ZZZZZZ			16:57																									
CCV 680-678148/60			17:01																									
CCB 680-678148/61			17:06																									
ZZZZZZ			17:10																									
ZZZZZZ			17:15																									
ZZZZZZ			17:19																									
ZZZZZZ			17:24																									
ZZZZZZ			17:28																									
ZZZZZZ			17:33																									
ZZZZZZ			17:37																									
ZZZZZZ			17:42																									
ZZZZZZ			17:46																									
ZZZZZZ			17:51																									
CCV 680-678148/72			17:55																									
CCB 680-678148/73			18:00																									
ZZZZZZ			18:04																									
ZZZZZZ			18:09																									
ZZZZZZ			18:13																									
ZZZZZZ			18:18																									
ZZZZZZ			18:22																									
ZZZZZZ			18:27																									
ZZZZZZ			18:31																									
CCV 680-678148/81			18:38																									
CCB 680-678148/82			18:43																									
ZZZZZZ			18:47																									
ZZZZZZ			18:52																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Instrument ID: ICPE Analysis Method: 6010C

Start Date: 07/26/2021 12:35 End Date: 07/27/2021 01:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				As	Fe	Mn																						
ZZZZZZ			18:56																									
ZZZZZZ			19:01																									
ZZZZZZ			19:05																									
ZZZZZZ			19:10																									
ZZZZZZ			19:14																									
ZZZZZZ			19:19																									
ZZZZZZ			19:23																									
ZZZZZZ			19:28																									
CCV 680-678148/93			19:32																									
CCB 680-678148/94			19:37																									
ZZZZZZ			19:41																									
ZZZZZZ			19:46																									
ZZZZZZ			19:50																									
ZZZZZZ			19:55																									
ZZZZZZ			19:59																									
ZZZZZZ			20:04																									
ZZZZZZ			20:08																									
ZZZZZZ			20:13																									
ZZZZZZ			20:17																									
ZZZZZZ			20:22																									
CCV 680-678148/105	1		20:26	X	X	X																						
CCB 680-678148/106	1		20:31	X	X	X																						
ZZZZZZ			20:35																									
ZZZZZZ			20:40																									
ZZZZZZ			20:44																									
ZZZZZZ			20:49																									
MB 680-677691/1-A	1	T	20:53	X	X	X																						
LCS 680-677691/2-A	1	T	20:58	X	X	X																						
680-201857-3	1	T	21:02	X	X	X																						
680-201857-3 SD	5	T	21:07	X	X	X																						
680-201857-3 PDS	1	T	21:11	X	X	X																						
680-201857-3 MS	1	T	21:16	X	X	X																						
CCV 680-678148/117	1		21:20	X	X	X																						
CCB 680-678148/118	1		21:25	X	X	X																						
680-201857-3 MSD	1	T	21:30	X	X	X																						
680-201857-1	1	T	21:34	X	X	X																						
680-201857-2	1	T	21:39	X	X	X																						
680-201857-4	1	T	21:43	X	X	X																						
680-201857-5	1	T	21:48	X	X	X																						
680-201857-6	1	T	21:52	X	X	X																						
ZZZZZZ			21:57																									
ZZZZZZ			22:01																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Instrument ID: ICPE Analysis Method: 6010C

Start Date: 07/26/2021 12:35 End Date: 07/27/2021 01:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				As	Fe	Mn																						
ZZZZZZ			22:06																									
ZZZZZZ			22:10																									
CCV 680-678148/129	1		22:15	X	X	X																						
CCB 680-678148/130	1		22:19	X	X	X																						
ZZZZZZ			22:24																									
ZZZZZZ			22:28																									
ZZZZZZ			22:33																									
ZZZZZZ			22:37																									
ZZZZZZ			22:42																									
ZZZZZZ			22:46																									
ZZZZZZ			22:51																									
ZZZZZZ			22:55																									
ZZZZZZ			23:00																									
ZZZZZZ			23:04																									
CCV 680-678148/141			23:09																									
CCB 680-678148/142			23:14																									
ZZZZZZ			23:18																									
ZZZZZZ			23:23																									
ZZZZZZ			23:27																									
ZZZZZZ			23:32																									
ZZZZZZ			23:36																									
ZZZZZZ			23:41																									
ZZZZZZ			23:45																									
ZZZZZZ			23:50																									
ZZZZZZ			23:54																									
ZZZZZZ			23:59																									
CCV 680-678148/153			00:03																									
CCB 680-678148/154			00:08																									
ZZZZZZ			00:12																									
ZZZZZZ			00:17																									
ZZZZZZ			00:21																									
ZZZZZZ			00:26																									
ZZZZZZ			00:30																									
ZZZZZZ			00:35																									
ZZZZZZ			00:40																									
ZZZZZZ			00:44																									
ZZZZZZ			00:49																									
ZZZZZZ			00:53																									
CCV 680-678148/165			00:58																									
CCB 680-678148/166			01:02																									
ZZZZZZ			01:07																									
ZZZZZZ			01:11																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Instrument ID: ICPE Analysis Method: 6010C

Start Date: 07/26/2021 12:35 End Date: 07/27/2021 01:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				As	Fe	Mn																						
ZZZZZZ			01:16																									
ZZZZZZ			01:20																									
ZZZZZZ			01:25																									
ZZZZZZ			01:29																									
ZZZZZZ			01:34																									
ZZZZZZ			01:38																									
CCV 680-678148/175			01:43																									
CCB 680-678148/176			01:47																									

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.: Analysis Batch No.: 678148

ICP Instrument ID: ICPE Start Date: 07/26/2021 End Date: 07/26/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y 371.029	Q	Element	Q	Element	Q	Element	Q	Element	Q
ICV 680-678148/4	12:49										
ICBIS 680-678148/5	12:53										
CRI 680-678148/7	13:02	101									
ICSA 680-678148/8	13:07	92									
ICSAB 680-678148/9	13:11	92									
CCV 680-678148/105	20:26	101									
CCB 680-678148/106	20:31	101									
MB 680-677691/1-A	20:53	99									
LCS 680-677691/2-A	20:58	99									
680-201857-3	21:02	100									
680-201857-3 SD	21:07	100									
680-201857-3 PDS	21:11	100									
680-201857-3 MS	21:16	101									
CCV 680-678148/117	21:20	101									
CCB 680-678148/118	21:25	101									
680-201857-3 MSD	21:30	101									
680-201857-1	21:34	101									
680-201857-2	21:39	102									
680-201857-4	21:43	102									
680-201857-5	21:48	102									
680-201857-6	21:52	101									
CCV 680-678148/129	22:15	101									
CCB 680-678148/130	22:19	98									

FORM XV - IN

15A-IN
ICP INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.: Analysis Batch No.: 678148

ICP Instrument ID: ICPE Start Date: 07/26/2021 End Date: 07/26/2021

Analyte	Wavelength	Internal Standard Used:				
		Element Y 371.029	Element	Element	Element	Element
Arsenic	188.980	X				
Iron	271.441	X				
Manganese	257.610	X				
Aluminum	308.215	X				
Antimony	206.834	X				
Barium	389.178	X				
Beryllium	313.042	X				
Boron	249.678	X				
Cadmium	226.502	X				
Calcium	370.602	X				
Chromium	267.716	X				
Cobalt	228.615	X				
Copper	324.754	X				
Lead	220.353	X				
Magnesium	279.078	X				
Molybdenum	202.032	X				
Nickel	231.604	X				
Potassium	766.491	X				
Selenium	196.026	X				
Silver	328.068	X				
Sodium	330.237	X				
Strontium	216.596	X				
Thallium	190.794	X				
Tin	189.925	X				
Titanium	334.941	X				
Vanadium	292.401	X				
Zinc	206.200	X				
Internal Standard Name on Instrument		Y				

FORM XV - IN

METALS BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Batch Number: 677691 Batch Start Date: 07/22/21 15:01 Batch Analyst: Bland, Brian C

Batch Method: 3050B Batch End Date: 07/23/21 14:33

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MS_Ag_LCS_SPK 00100	MS_LCS1_WK 00108		
MB 680-677691/1		3050B, 6010C		1.01 g	100 mL				
LCS 680-677691/2		3050B, 6010C		1.04 g	100 mL	1 mL	1 mL		
680-201857-C-3	AS-21-1D (48-54)	3050B, 6010C	T	1.16 g	100 mL				
680-201857-C-3 MS	AS-21-1D (48-54)	3050B, 6010C	T	1.11 g	100 mL	1 mL	1 mL		
680-201857-C-3 MSD	AS-21-1D (48-54)	3050B, 6010C	T	1.10 g	100 mL	1 mL	1 mL		
680-201857-C-1	AS-21-1D (24-28)	3050B, 6010C	T	1.14 g	100 mL				
680-201857-C-2	AS-21-1D (34-38)	3050B, 6010C	T	1.05 g	100 mL				
680-201857-C-4	AS-21-1D (60-64)	3050B, 6010C	T	1.07 g	100 mL				
680-201857-C-5	AS-21-1D (70-72)	3050B, 6010C	T	1.18 g	100 mL				
680-201857-C-6	DUP 072121	3050B, 6010C	T	1.11 g	100 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Batch Number: 677691 Batch Start Date: 07/22/21 15:01 Batch Analyst: Bland, Brian C

Batch Method: 3050B Batch End Date: 07/23/21 14:33

Batch Notes	
Nominal Amount Used	1.0 g g
Blank Soil Lot Number	7027608
Balance ID	27
Digestion Tube/Cup ID	7127196
Pipette/Syringe/Dispenser ID	ME19
Analyst ID - Spike Analyst	bjb
Sufficient Volume for Batch QC	YES
Hydrochloric Acid ID	7131512
Nitric Acid ID	7129360
Hydrogen Peroxide ID	7034146
Digestion Unit ID	12
Thermometer ID	MEPREP29
Temperature - Uncorrected - Start	94 Degrees C
Temperature - Corrected - Start	95 Degrees C
Temperature - Uncorrected - End	96 Degrees C
Temperature - Corrected - End	97 Degrees C
Digestion Start Time	07/23/2021 10:05
Digestion End Time	07/23/2021 14:13

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Blank (Blk) **7/26/2021, 12:35:49 PM** **Rack S, Tube 1**

Label	Replicates	Concentration	
Ag 328.068	-0.0362	-0.1826	0.2187
Al 308.215	-0.3390	-1.0267	1.3657
As 188.980	-3.8854	0.6780	3.2073
B 249.678	0.6683	-0.3148	-0.3535
Ba 389.178	0.2825	-0.2798	-0.0027
Be 313.042	0.0038	-0.0058	0.0020
Ca 370.602	0.3970	-0.1632	-0.2338
Cd 226.502	0.1146	-0.0741	-0.0405
Co 228.615	0.0559	0.4137	-0.4696
Cr 267.716	-0.2613	-0.0695	0.3308
Cu 324.754	-0.1972	0.0546	0.1427
Fe 271.441	2.6318	-6.8417	4.2099
K 766.491	0.0728	0.3728	-0.4456
Mg 279.078	-0.6765	2.7392	-2.0627
Mn 257.610	-0.0098	0.0148	-0.0051
Mo 202.032	-0.3836	-0.2775	0.6610
Na 330.237	118.072	-35.8490	-82.2232
Ni 231.604	0.3858	-0.3598	-0.0260
Pb 220.353	2.2970	-0.5536	-1.7435
Sb 206.834	-1.7058	0.9060	0.7999
Se 196.026	-6.4386	7.4203	-0.9817
Si 288.158	-1.3616	0.9704	0.3912
Sn 189.925	1.7802	-1.0561	-0.7241
Sr 216.596	0.0396	0.0406	-0.0802
Ti 334.941	-0.0498	0.0778	-0.0280
Tl 190.794	5.4645	-2.5586	-2.9059
V 292.401	0.0386	0.2748	-0.3135
Zn 206.200	-0.3483	1.3111	-0.9628

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Ag 328.068	0.0000	ppb	8.593	79.1	10.8604
Al 308.215	0.0000	ppb	3.985	0.5	734.383
As 188.980	0.0000	ppb	1.506	48.2	-3.1281
B 249.678	0.0000	ppb	4.438	8.1	-54.5861
Ba 389.178	0.0000	ppb	3.249	8.8	-36.9027
Be 313.042	0.0000	ppb	4.872	1.5	-315.436
Ca 370.602	0.0000	ppb	0.751	2.4	31.81
Cd 226.502	0.0000	ppb	2.088	11.0	-19.0499
Co 228.615	0.0000	ppb	2.402	7.8	-30.9781
Cr 267.716	0.0000	ppb	7.510	47.2	15.9256
Cu 324.754	0.0000	ppb	7.367	3.4	213.701
Fe 271.441	0.0000	ppb	4.929	10.7	45.8796
K 766.491	0.0000	ppb	10.559	4.1	260.238
Mg 279.078	0.0000	ppb	3.707	19.7	18.7755
Mn 257.610	0.0000	ppb	1.356	2.4	55.6611
Mo 202.032	0.0000	ppb	1.808	73.8	-2.4506
Na 330.237	0.0000	ppb	3.694	9.8	37.7632
Ni 231.604	0.0000	ppb	0.568	4.0	-14.1700
Pb 220.353	0.0000	ppb	1.524	15.9	9.5678
Sb 206.834	0.0000	ppb	0.909	45.0	-2.0222
Se 196.026	0.0000	ppb	2.075	328.4	0.6318
Si 288.158	0.0000	ppb	7.193	1.8	403.907
Sn 189.925	0.0000	ppb	0.639	127.8	0.4999

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Sr 216.596	0.0000	ppb	0.387	4.2	9.1787
Ti 334.941	0.0000	ppb	10.033	41.6	24.1425
Tl 190.794	0.0000	ppb	2.870	45.6	-6.2952
V 292.401	0.0000	ppb	3.862	39.4	9.7991
Zn 206.200	0.0000	ppb	0.798	36.2	-2.2055

HIGH STD (Std) **7/26/2021, 12:40:20 PM** **Rack S, Tube 2**

Label	Replicates Concentration		
Ag 328.068	1002.49	999.151	998.364
Al 308.215	20000.7	20018.7	19980.7
As 188.980	989.906	1015.15	994.946
B 249.678	995.237	1002.33	1002.43
Ba 389.178	999.021	1002.30	998.679
Be 313.042	999.454	1000.76	999.790
Ca 370.602	19977	20042	19981
Cd 226.502	1000.18	1000.78	999.045
Co 228.615	998.094	996.498	1005.41
Cr 267.716	999.561	1001.34	999.099
Cu 324.754	1002.83	996.980	1000.19
Fe 271.441	19969.0	20025.9	20005.1
K 766.491	20478.9	19876.4	19644.7
Mg 279.078	19992.7	20017.4	19989.9
Mn 257.610	1000.86	1000.52	998.614
Mo 202.032	1000.78	1001.88	997.337
Na 330.237	19875.3	19994.4	20130.4
Ni 231.604	1001.43	1004.45	994.123
Pb 220.353	999.268	999.466	1001.27
Sb 206.834	994.393	1006.85	998.759
Se 196.026	990.037	1011.76	998.206
Si 288.158	10014.0	10010.8	9975.18
Sn 189.925	1002.58	1002.27	995.143
Sr 216.596	999.803	1000.57	999.623
Ti 334.941	999.426	1001.53	999.043
Tl 190.794	1007.14	995.250	997.606
V 292.401	1000.00	1000.73	999.271
Zn 206.200	1990.59	2005.69	2003.72

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Ag 328.068	1000.00	ppb	92.566	0.2	42324.8
Al 308.215	20000.0	ppb	61.463	0.1	65449.9
As 188.980	1000.00	ppb	5.598	1.3	415.947
B 249.678	1000.00	ppb	31.609	0.4	7608.34
Ba 389.178	1000.00	ppb	23.093	0.2	11517.2
Be 313.042	1000.00	ppb	643.689	0.1	951226
Ca 370.602	20000	ppb	79.419	0.2	43498
Cd 226.502	1000.00	ppb	18.235	0.1	20725.3
Co 228.615	1000.00	ppb	25.680	0.5	5374.59
Cr 267.716	1000.00	ppb	29.422	0.1	24872.4
Cu 324.754	1000.00	ppb	122.400	0.3	41976.2
Fe 271.441	20000.0	ppb	23.739	0.1	16538.6
K 766.491	20000.0	ppb	10981.206	2.2	510306
Mg 279.078	20000.0	ppb	22.643	0.1	30015.8
Mn 257.610	1000.00	ppb	125.812	0.1	103849

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Mo 202.032	1000.00	ppb	7.458	0.2	3142.78
Na 330.237	20000.0	ppb	4.496	0.6	742.375
Ni 231.604	1000.00	ppb	8.071	0.5	1505.70
Pb 220.353	1000.00	ppb	0.809	0.1	743.356
Sb 206.834	1000.00	ppb	3.887	0.6	613.092
Se 196.026	1000.00	ppb	3.261	1.1	297.831
Si 288.158	10000.0	ppb	127.656	0.2	59645.3
Sn 189.925	1000.00	ppb	1.735	0.4	412.616
Sr 216.596	1000.00	ppb	2.815	0.1	5585.92
Ti 334.941	1000.00	ppb	196.965	0.1	147020
Tl 190.794	1000.00	ppb	3.818	0.6	599.821
V 292.401	1000.00	ppb	9.492	0.1	13053.0
Zn 206.200	2000.00	ppb	5.570	0.4	1354.13

Ag 328.068 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		10.8604	0.0000	0.0000	-	-
HIGH STD		42324.8	1000.00	1000.00	0.0002	0.0

Curve Type: Linear Equation: y = 42.3 x + 10.9

Al 308.215 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		734.383	0.0000	0.0000	-	-
HIGH STD		65449.9	20000.0	20000.0	0.0020	0.0

Curve Type: Linear Equation: y = 3.2 x + 734.4

As 188.980 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-3.1281	0.0000	0.0000	-	-
HIGH STD		415.947	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 0.4 x + -3.1

B 249.678 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-54.5861	0.0000	0.0000	-	-
HIGH STD		7608.34	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 7.7 x + -54.6

Ba 389.178 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-36.9027	0.0000	0.0000	-	-
HIGH STD		11517.2	1000.00	1000.000	-0.0001	0.0

Curve Type: Linear Equation: y = 11.6 x + -36.9

Be 313.042 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-315.436	0.0000	0.0000	-	-
HIGH STD		951226	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 951.5 x + -315.4

Ca 370.602 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		31.81	0.0000	0.0000	-	-
HIGH STD		43498	20000	20000	0.0020	0.0

Curve Type: Linear Equation: y = 2.2 x + 31.8

Cd 226.502 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-19.0499	0.0000	0.0000	-	-
HIGH STD		20725.3	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 20.7 x + -19.0

Co 228.615 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-30.9781	0.0000	0.0000	-	-
HIGH STD		5374.59	1000.00	1000.000	-0.0001	0.0

Curve Type: Linear Equation: y = 5.4 x + -31.0

Cr 267.716 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		15.9256	0.0000	0.0000	-	-
HIGH STD		24872.4	1000.00	1000.00	0.0001	0.0

Curve Type: Linear Equation: y = 24.9 x + 15.9

Cu 324.754 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		213.701	0.0000	0.0000	-	-
HIGH STD		41976.2	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 41.8 x + 213.7

Fe 271.441 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		45.8796	0.0000	0.0000	-	-
HIGH STD		16538.6	20000.0	20000.0	0.0000	0.0

Curve Type: Linear Equation: y = 0.8 x + 45.9

K 766.491 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		260.238	0.0000	0.0000	-	-
HIGH STD		510306	20000.0	20000.0	0.0000	0.0

Curve Type: Linear Equation: y = 25.5 x + 260.2

Mg 279.078 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		18.7755	0.0000	0.0000	-	-
HIGH STD		30015.8	20000.0	20000.0	0.0000	0.0

Curve Type: Linear Equation: y = 1.5 x + 18.8

Mn 257.610 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		55.6611	0.0000	0.0000	-	-
HIGH STD		103849	1000.00	1000.000	-0.0001	0.0

Curve Type: Linear Equation: y = 103.8 x + 55.7

Mo 202.032 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-2.4506	0.0000	0.0000	-	-
HIGH STD		3142.78	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 3.1 x + -2.5

Na 330.237 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		37.7632	0.0000	0.0000	-	-
HIGH STD		742.375	20000.0	20000.0	0.0000	0.0

Curve Type: Linear Equation: y = 0.0 x + 37.8

Ni 231.604 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-14.1700	0.0000	0.0000	-	-
HIGH STD		1505.70	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 1.5 x + -14.2

Pb 220.353 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		9.5678	0.0000	0.0000	-	-
HIGH STD		743.356	1000.00	1000.00	0.0001	0.0

Curve Type: Linear Equation: y = 0.7 x + 9.6

Sb 206.834 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-2.0222	0.0000	0.0000	-	-
HIGH STD		613.092	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 0.6 x + -2.0

Se 196.026 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		0.6318	0.0000	0.0000	-	-
HIGH STD		297.831	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 0.3 x + 0.6

Si 288.158 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		403.907	0.0000	0.0000	-	-
HIGH STD		59645.3	10000.0	10000.0	0.0000	0.0

Curve Type: Linear Equation: y = 5.9 x + 403.9

Sn 189.925 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		0.4999	0.0000	0.0000	-	-
HIGH STD		412.616	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 0.4 x + 0.5

Sr 216.596 Calibration (ppb) 7/26/2021, 12:40:20 PM Correlation Coefficient: 1.000000

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		9.1787	0.0000	0.0000	-	-
HIGH STD		5585.92	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 5.6 x + 9.2

Ti 334.941 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		24.1425	0.0000	0.0000	-	-
HIGH STD		147020	1000.00	1000.000	-0.0001	0.0

Curve Type: Linear Equation: y = 147.0 x + 24.1

Tl 190.794 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-6.2952	0.0000	0.0000	-	-
HIGH STD		599.821	1000.00	1000.000	-0.0001	0.0

Curve Type: Linear Equation: y = 0.6 x + -6.3

V 292.401 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		9.7991	0.0000	0.0000	-	-
HIGH STD		13053.0	1000.00	1000.00	0.0000	0.0

Curve Type: Linear Equation: y = 13.0 x + 9.8

Zn 206.200 Calibration (ppb) **7/26/2021, 12:40:20 PM** **Correlation Coefficient: 1.000000**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Blank		-2.2055	0.0000	0.0000	-	-
HIGH STD		1354.13	2000.00	2000.00	0.0000	0.0

Curve Type: Linear Equation: y = 0.7 x + -2.2

Lab Control Sample (LCS) **7/26/2021, 12:44:50 PM** **Rack S, Tube 2**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	1008.67x	1001.63x	990.116
Al 308.215	19966.4	20008.2	19914.0
As 188.980	985.116	998.397	991.237
B 249.678	1007.39	1016.59	1013.94
Ba 389.178	998.188	1000.89	994.942
Be 313.042	989.404	991.279	987.900
Ca 370.602	19870	19913	19832
Cd 226.502	990.672	993.181	988.642
Co 228.615	996.188	1004.48	992.925
Cr 267.716	992.172	995.440	991.519
Cu 324.754	1012.67	1000.96	989.515
Fe 271.441	19783.4	19888.0	19751.9
K 766.491	19571.9	19744.5	19869.4
Mg 279.078	19737.2	19813.1	19712.4
Mn 257.610	996.621	998.794	993.916
Mo 202.032	999.132	1000.23	994.380
Na 330.237	20081.1	20429.4	20139.0
Ni 231.604	989.285	989.474	992.527

Label	Replicates Concentration		
Pb 220.353	993.736	993.818	988.149
Sb 206.834	998.980	993.796	986.864
Se 196.026	976.896	979.463	997.263
Si 288.158	9815.26	9840.20	9775.67
Sn 189.925	985.732	987.715	1001.71
Sr 216.596	993.821	996.975	995.349
Ti 334.941	992.715	996.508	991.893
Tl 190.794	1003.29x	1001.25	1002.68x
V 292.401	996.895	1000.64	995.061
Zn 206.200	1980.73	1994.23	1973.43

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	1000.14xb	ppb	9.3682	0.9	42332.3	100.01406
Al 308.215	19962.9b	ppb	47.1987	0.2	65411.4	99.81441
As 188.980	991.583b	ppb	6.6474	0.7	412.378	99.15833
B 249.678	1012.64b	ppb	4.7379	0.5	7667.13	101.26408
Ba 389.178	998.005b	ppb	2.9765	0.3	11521.7	99.80052
Be 313.042	989.528b	ppb	1.6930	0.2	941270	98.95276
Ca 370.602	19871b	ppb	40.44	0.2	43227	99.35703
Cd 226.502	990.832b	ppb	2.2738	0.2	20560.8	99.08318
Co 228.615	997.864b	ppb	5.9564	0.6	5371.46	99.78637
Cr 267.716	993.044b	ppb	2.1006	0.2	24701.6	99.30437
Cu 324.754	1001.05b	ppb	11.5793	1.2	42039.6	100.10496
Fe 271.441	19807.8b	ppb	71.2221	0.4	16447.6	98.98929
K 766.491	19728.6b	ppb	149.372	0.8	503384	98.64289
Mg 279.078	19754.2b	ppb	52.5020	0.3	29633.1	98.77116
Mn 257.610	996.444b	ppb	2.4437	0.2	103484	99.64436
Mo 202.032	997.913b	ppb	3.1077	0.3	3135.47	99.79128
Na 330.237	20216.5b	ppb	186.655	0.9	703.749	101.08253
Ni 231.604	990.429b	ppb	1.8199	0.2	1489.94	99.04289
Pb 220.353	991.901b	ppb	3.2494	0.3	736.922	99.19010
Sb 206.834	993.214b	ppb	6.0787	0.6	601.935	99.32137
Se 196.026	984.541b	ppb	11.0927	1.1	293.562	98.45409
Si 288.158	9810.38b	ppb	32.5383	0.3	58858.1	98.10378
Sn 189.925	991.719b	ppb	8.7095	0.9	409.206	99.17195
Sr 216.596	995.382b	ppb	1.5773	0.2	5538.58	99.53816
Ti 334.941	993.705b	ppb	2.4619	0.2	146094	99.37052
Tl 190.794	1002.41xb	ppb	1.0462	0.1	600.411	100.24055
V 292.401	997.532b	ppb	2.8437	0.3	13021.0	99.75320
Zn 206.200	1982.80b	ppb	10.5540	0.5	1342.05	99.13979

Initial Calib Verif (ICV) **7/26/2021, 12:49:21 PM** **Rack S, Tube 3**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	999.502	1008.84x	1011.08x
Al 308.215	966.397	982.083	981.834
As 188.980	1030.54	1047.74	1048.46
B 249.678	1014.17	1029.93	1038.12
Ba 389.178	1026.25	1039.65	1039.76
Be 313.042	990.459	1002.56x	1005.34x
Ca 370.602	1005	1016	1020
Cd 226.502	1023.82x	1035.64x	1040.90x
Co 228.615	997.824	1005.13	1003.74

Label	Replicates Concentration		
Cr 267.716	1003.94	1016.07	1019.87
Cu 324.754	981.118	993.018	998.812
Fe 271.441	993.586	996.130	1017.54
K 766.491	10026.4	10135.9	10181.5
Mg 279.078	982.903	983.422	1004.91
Mn 257.610	1013.06	1024.10	1029.64
Mo 202.032	1002.64	1015.71	1022.46
Na 330.237	9375.54	9677.23	9878.54
Ni 231.604	997.085	1005.98	1018.57
Pb 220.353	1050.43	1067.58	1069.06
Sb 206.834	1054.51x	1077.14x	1081.20x
Se 196.026	978.261	987.367	990.027
Si 288.158	423.771	433.346	434.243
Sn 189.925	4829.52	4869.62	4856.40
Sr 216.596	5067.81x	5113.45x	5132.84x
Ti 334.941	996.612	1008.05	1012.76
Tl 190.794	984.698	1000.31	1006.43x
V 292.401	1023.73	1036.89	1040.17
Zn 206.200	1027.21	1034.44	1048.60

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	1006.47xb	ppb	6.1396	0.6	42582.9	100.64719
Al 308.215	976.771b	ppb	8.9851	0.9	3978.11	97.67712
As 188.980	1042.25b	ppb	10.1426	1.0	433.530	104.22494
B 249.678	1027.40b	ppb	12.1730	1.2	7816.17	102.74028
Ba 389.178	1035.22b	ppb	7.7678	0.8	11929.0	103.52189
Be 313.042	999.452xb	ppb	7.9118	0.8	950713	99.94518
Ca 370.602	1014b	ppb	7.792	0.8	2286	101.40361
Cd 226.502	1033.45xb	ppb	8.7461	0.8	21420.3	103.34534
Co 228.615	1002.23b	ppb	3.8790	0.4	5393.31	100.22305
Cr 267.716	1013.29b	ppb	8.3178	0.8	25204.8	101.32915
Cu 324.754	990.983b	ppb	9.0206	0.9	41614.5	99.09827
Fe 271.441	1002.42b	ppb	13.1549	1.3	940.404	100.24174
K 766.491	10114.6b	ppb	79.7147	0.8	258206	101.14613
Mg 279.078	990.412b	ppb	12.5581	1.3	1493.94	99.04117
Mn 257.610	1022.27b	ppb	8.4407	0.8	106180	102.22664
Mo 202.032	1013.60b	ppb	10.0796	1.0	3185.22	101.36033
Na 330.237	9643.77b	ppb	253.164	2.6	346.938	96.43771
Ni 231.604	1007.21b	ppb	10.7950	1.1	1515.44	100.72118
Pb 220.353	1062.36b	ppb	10.3536	1.0	787.991	106.23576Q
Sb 206.834	1070.95xb	ppb	14.3807	1.3	649.849	107.09489Q
Se 196.026	985.218b	ppb	6.1706	0.6	293.600	98.52184
Si 288.158	430.453b	ppb	5.8047	1.3	3704.76	86.09068Q
Sn 189.925	4851.85b	ppb	20.4331	0.4	2000.02	97.03694
Sr 216.596	5104.70xb	ppb	33.3832	0.7	28449.0	102.09399
Ti 334.941	1005.81b	ppb	8.3051	0.8	147873	100.58081
Tl 190.794	997.145xb	ppb	11.2057	1.1	597.319	99.71452
V 292.401	1033.60b	ppb	8.6989	0.8	13489.9	103.35972
Zn 206.200	1036.75b	ppb	10.8831	1.0	700.339	103.67509

Initial Calib Blank (ICB) **7/26/2021, 12:53:51 PM** **Rack S, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0108	0.0094	-0.2300u
Al 308.215	-44.6314u	-38.2736u	-34.7373u
As 188.980	3.6072	6.7487	11.3205
B 249.678	34.3702	32.5567	30.7213
Ba 389.178	2.4919	0.4220	1.8274
Be 313.042	0.0778	0.0759	0.0839
Ca 370.602	-3.325u	-2.463u	-1.502u
Cd 226.502	0.2241	0.1418	0.2307
Co 228.615	-0.7056u	0.1006	0.5505
Cr 267.716	0.1241	-0.0861u	-0.1823u
Cu 324.754	0.2467	0.3921	0.5303
Fe 271.441	-8.2750u	3.7402	-1.6581u
K 766.491	-0.9244u	-0.9951u	0.3284
Mg 279.078	-1.2317u	-1.5142u	-3.6962u
Mn 257.610	-0.0543u	-0.0265u	0.0371
Mo 202.032	0.7187	-0.4156u	0.9054
Na 330.237	-123.006u	-168.983u	-248.467u
Ni 231.604	3.0825	2.2711	1.4535
Pb 220.353	1.7178	3.3014	5.0558
Sb 206.834	-4.4659u	1.0205	2.8895
Se 196.026	-9.4750u	-6.8308u	-1.8761u
Si 288.158	3.7103	2.1637	3.3661
Sn 189.925	-2.0431u	1.7102	-2.9529u
Sr 216.596	0.4165	0.4111	0.1474
Ti 334.941	0.0904	0.1368	0.0568
Tl 190.794	3.6663	0.6088	-0.5994u
V 292.401	-0.0236u	0.2943	0.1809
Zn 206.200	2.5956	-0.1788u	2.3088

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.0700	ppb	0.1386	198.1	7.8990	-0.06996
Al 308.215	-39.2141	ppb	5.0137	12.8	607.511	-39.21408
As 188.980	7.2255	ppb	3.8787	53.7	-0.1001	7.22548
B 249.678	32.5494	ppb	1.8245	5.6	194.839	32.54939
Ba 389.178	1.5805	ppb	1.0568	66.9	-18.6409	1.58045
Be 313.042	0.0792	ppb	0.0042	5.3	-240.062	0.07920
Ca 370.602	-2.430	ppb	0.9121	37.5	26.54	-2.43015
Cd 226.502	0.1989	ppb	0.0495	24.9	-14.9253	0.19890
Co 228.615	-0.0181	ppb	0.6364	3507.3	-31.0768	-0.01815
Cr 267.716	-0.0481	ppb	0.1567	325.5	14.7269	-0.04814
Cu 324.754	0.3897	ppb	0.1418	36.4	229.980	0.38973
Fe 271.441	-2.0643	ppb	6.0179	291.5	44.2445	-2.06430
K 766.491	-0.5303	ppb	0.7446	140.4	246.713	-0.53034
Mg 279.078	-2.1474	ppb	1.3488	62.8	15.5587	-2.14737
Mn 257.610	-0.0146	ppb	0.0469	321.5	54.1504	-0.01458
Mo 202.032	0.4028	ppb	0.7149	177.5	-1.1837	0.40284
Na 330.237	-180.152	ppb	63.4716	35.2	31.4132	-180.15192
Ni 231.604	2.2690	ppb	0.8145	35.9	-10.7227	2.26904
Pb 220.353	3.3583	ppb	1.6697	49.7	12.0319	3.35833
Sb 206.834	-0.1853	ppb	3.8231	2063.1	-2.1371	-0.18531
Se 196.026	-6.0606	ppb	3.8575	63.6	-1.1694	-6.06064
Si 288.158	3.0800	ppb	0.8120	26.4	422.508	3.08004

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Sn 189.925	-1.0953	ppb	2.4718	225.7	0.0485	-1.09528
Sr 216.596	0.3250	ppb	0.1538	47.3	10.9817	0.32501
Ti 334.941	0.0947	ppb	0.0402	42.4	38.0687	0.09468
Tl 190.794	1.2252	ppb	2.1987	179.5	-5.5520	1.22523
V 292.401	0.1505	ppb	0.1611	107.0	11.7620	0.15051
Zn 206.200	1.5752	ppb	1.5257	96.9	-1.1374	1.57518

CRI (CRI) **7/26/2021, 12:58:21 PM** **Rack S, Tube 4**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	10.1834	10.0919	10.0168
Al 308.215	170.205	170.791	175.383
As 188.980	22.9731	19.5050	12.7286
B 249.678	117.185	116.894	117.290
Ba 389.178	12.1641	11.1978	11.1933
Be 313.042	4.1504	4.1243	4.1675
Ca 370.602	524.1	525.0	525.1
Cd 226.502	5.4291	5.1494	5.2737
Co 228.615	10.9501	10.0644	9.7464
Cr 267.716	10.4441	10.1780	10.2432
Cu 324.754	20.5737	21.3454	20.7747
Fe 271.441	50.7085	56.6732	55.7018
K 766.491	1058.43	1055.54	1066.57
Mg 279.078	499.258	499.434	500.700
Mn 257.610	10.3644	10.2132	10.3450
Mo 202.032	10.3715	10.9550	11.4090
Na 330.237	853.751	1131.45	928.139
Ni 231.604	45.4739	42.5792	46.0285
Pb 220.353	6.3035	9.2569	5.7342
Sb 206.834	23.0227	16.8512	21.9589
Se 196.026	16.1888	13.7705	9.6244
Si 288.158	12.5823	12.0249	13.2550
Sn 189.925	44.2452	51.1037	47.6517
Sr 216.596	10.4359	10.7935	10.5978
Ti 334.941	10.2903	10.3503	10.3664
Tl 190.794	31.6515	29.5744	29.4523
V 292.401	10.3690	10.4477	10.3932
Zn 206.200	22.0795	21.9948	20.6785

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	10.0974	ppb	0.0834	0.8	438.129	100.97359
Al 308.215	172.126	ppb	2.8356	1.6	1292.19	86.06312
As 188.980	18.4022	ppb	5.2105	28.3	4.5831	92.01112
B 249.678	117.123	ppb	0.2050	0.2	842.811	117.12309
Ba 389.178	11.5184	ppb	0.5592	4.9	96.7308	115.18425
Be 313.042	4.1474	ppb	0.0218	0.5	3631.10	103.68555
Ca 370.602	524.7	ppb	0.5899	0.1	1173	104.94827
Cd 226.502	5.2840	ppb	0.1401	2.7	90.6427	105.68078
Co 228.615	10.2536	ppb	0.6238	6.1	24.5166	102.53613
Cr 267.716	10.2884	ppb	0.1387	1.3	271.688	102.88441
Cu 324.754	20.8979	ppb	0.4003	1.9	1086.62	104.48958
Fe 271.441	54.3612	ppb	3.2004	5.9	91.4585	108.72235
K 766.491	1060.18	ppb	5.7198	0.5	27297.2	106.01776

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Mg 279.078	499.797	ppb	0.7866	0.2	768.254	99.95942
Mn 257.610	10.3075	ppb	0.0822	0.8	1125.68	103.07549
Mo 202.032	10.9119	ppb	0.5201	4.8	31.8651	109.11856
Na 330.237	971.114	ppb	143.752	14.8	71.5056	97.11141
Ni 231.604	44.6939	ppb	1.8523	4.1	53.7453	111.73466
Pb 220.353	7.0982	ppb	1.8910	26.6	14.7647	70.98191R
Sb 206.834	20.6109	ppb	3.2992	16.0	10.5819	103.05467
Se 196.026	13.1946	ppb	3.3199	25.2	4.5553	65.97289R
Si 288.158	12.6207	ppb	0.6160	4.9	486.773	12.62071R
Sn 189.925	47.6669	ppb	3.4293	7.2	20.1443	95.33382
Sr 216.596	10.6091	ppb	0.1791	1.7	67.8392	106.09099
Ti 334.941	10.3357	ppb	0.0401	0.4	1543.41	103.35681
Tl 190.794	30.2261	ppb	1.2360	4.1	12.0177	120.90432R
V 292.401	10.4033	ppb	0.0403	0.4	145.481	104.03308
Zn 206.200	21.5843	ppb	0.7856	3.6	12.4270	107.92129

CRI (CRI) **7/26/2021, 1:02:52 PM** **Rack S, Tube 4**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	9.6405	9.8769	9.9699
Al 308.215	173.438	176.134	166.275
As 188.980	18.7162	18.5172	18.6859
B 249.678	113.542	114.023	113.306
Ba 389.178	10.7841	10.9994	10.3125
Be 313.042	4.1732	4.1833	4.1263
Ca 370.602	517.3	523.6	516.7
Cd 226.502	5.5547	6.2134	5.4083
Co 228.615	10.5332	10.9865	11.2813
Cr 267.716	10.3124	10.1705	10.0227
Cu 324.754	20.7767	21.0494	20.4099
Fe 271.441	49.5940	42.9006	47.4187
K 766.491	1063.00	1066.46	1053.20
Mg 279.078	509.842	507.032	503.742
Mn 257.610	10.3638	10.4134	10.2109
Mo 202.032	10.7946	10.2018	11.3348
Na 330.237	966.851	870.065	829.630
Ni 231.604	45.9687	45.0359	45.4615
Pb 220.353	9.3417	8.3624	11.5370
Sb 206.834	13.2038	15.8391	22.8026
Se 196.026	22.1397	19.7690	16.1212
Si 288.158	15.2914	11.1352	10.6003
Sn 189.925	53.6520	46.6245	49.5723
Sr 216.596	10.8790	10.7224	10.4309
Ti 334.941	10.4286	10.3814	10.2813
Tl 190.794	27.6188	24.9404	33.1663
V 292.401	10.9087	10.9852	10.7910
Zn 206.200	21.5447	22.2153	22.9340

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	9.8291	ppb	0.1698	1.7	426.779	98.29116
Al 308.215	171.949	ppb	5.0951	3.0	1291.63	85.97444
As 188.980	18.6398	ppb	0.1072	0.6	4.6826	93.19892
B 249.678	113.624	ppb	0.3651	0.3	816.006	113.62370

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	10.6987	ppb	0.3513	3.3	87.2627	106.98650
Be 313.042	4.1609	ppb	0.0304	0.7	3643.99	104.02348
Ca 370.602	519.2	ppb	3.806	0.7	1161	103.83813
Cd 226.502	5.7255	ppb	0.4289	7.5	99.7936	114.50909
Co 228.615	10.9337	ppb	0.3769	3.4	28.1923	109.33674
Cr 267.716	10.1685	ppb	0.1449	1.4	268.706	101.68541
Cu 324.754	20.7453	ppb	0.3209	1.5	1080.24	103.72669
Fe 271.441	46.6378	ppb	3.4143	7.3	85.1148	93.27553
K 766.491	1060.89	ppb	6.8815	0.6	27315.3	106.08873
Mg 279.078	506.872	ppb	3.0531	0.6	778.865	101.37441
Mn 257.610	10.3294	ppb	0.1056	1.0	1127.95	103.29391
Mo 202.032	10.7771	ppb	0.5667	5.3	31.4414	107.77101
Na 330.237	888.849	ppb	70.5127	7.9	68.5913	88.88485
Ni 231.604	45.4887	ppb	0.4670	1.0	54.9529	113.72178
Pb 220.353	9.7470	ppb	1.6256	16.7	16.7081	97.47024
Sb 206.834	17.2818	ppb	4.9594	28.7	8.5359	86.40908
Se 196.026	19.3433	ppb	3.0317	15.7	6.3826	96.71657
Si 288.158	12.3423	ppb	2.5680	20.8	485.415	12.34231R
Sn 189.925	49.9496	ppb	3.5290	7.1	21.0851	99.89923
Sr 216.596	10.6774	ppb	0.2274	2.1	68.2115	106.77435
Ti 334.941	10.3638	ppb	0.0752	0.7	1547.54	103.63750
Tl 190.794	28.5752	ppb	4.1955	14.7	11.0174	114.30070
V 292.401	10.8949	ppb	0.0978	0.9	151.893	108.94940
Zn 206.200	22.2313	ppb	0.6948	3.1	12.8657	111.15662

Interf Check A (ICSA) **7/26/2021, 1:07:24 PM** **Rack S, Tube 5**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1557u	-0.1467u	0.0565u
Al 308.215	502598	502847	503818
As 188.980	8.8592	-2.9766	-10.3261u
B 249.678	33.8959u	33.6407u	31.5542u
Ba 389.178	-2.5929	-1.4194	-1.3827
Be 313.042	-0.0453	-0.0670	-0.0445
Ca 370.602	479035	478730	479960
Cd 226.502	0.3303	0.4894	0.8476
Co 228.615	0.8548	0.8156	-0.8156
Cr 267.716	0.5697	1.4537	1.1914
Cu 324.754	0.6807	0.8269	1.2559
Fe 271.441	182827	182869	183309
K 766.491	-1.6433u	-1.4871u	-2.4532u
Mg 279.078	488362	488666	489321
Mn 257.610	-3.6211u	-3.6402u	-3.7055u
Mo 202.032	-0.0007u	0.7748u	0.8382u
Na 330.237	-415.141u	-362.488u	-342.305u
Ni 231.604	4.0101	4.6949	3.2951
Pb 220.353	-9.6685u	-2.0244	-0.4806
Sb 206.834	7.7488	-15.9348u	-4.3693
Se 196.026	7.3654	13.7080	3.6206
Si 288.158	13.9745	16.0847	17.0571
Sn 189.925	-3.5565u	-5.2519u	1.4344
Sr 216.596	-2.1269	0.7122	1.8573
Ti 334.941	1.5595	1.5495	1.5853

Label	Replicates Concentration		
Tl 190.794	5.9610	4.5456	6.9860
V 292.401	7.6869	7.0679	7.2112
Zn 206.200	-1.3031	-2.8351u	-1.6792

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.0820	ppb	0.1200	146.3	4.0563	-0.08198
Al 308.215	503088	ppb	644.518	0.1	1628623	-
As 188.980	-1.4812	ppb	9.6797	653.5	-2.3174	-1.48116
B 249.678	33.0303	ppb	1.2847	3.9	-150.771	33.03025
Ba 389.178	-1.7983	ppb	0.6884	38.3	464.368	-1.79834
Be 313.042	-0.0523	ppb	0.0128	24.5	-266.608	-0.05227
Ca 370.602	479241	ppb	640.6	0.1	1041165	-
Cd 226.502	0.5558	ppb	0.2650	47.7	253.975	0.55577
Co 228.615	0.2849	ppb	0.9533	334.6	-23.5073	0.28491
Cr 267.716	1.0716	ppb	0.4540	42.4	42.5544	1.07160
Cu 324.754	0.9212	ppb	0.2990	32.5	297.821	0.92118
Fe 271.441	183002	ppb	267.113	0.1	150956	-
K 766.491	-1.8612	ppb	0.5186	27.9	212.773	-1.86120
Mg 279.078	488783	ppb	489.997	0.1	733012	-
Mn 257.610	-3.6556	ppb	0.0442	1.2	-472.325	-3.65561
Mo 202.032	0.5375	ppb	0.4671	86.9	-4.7756	0.53746
Na 330.237	-373.312	ppb	37.6048	10.1	16.8046	-373.31165
Ni 231.604	4.0000	ppb	0.7000	17.5	-7.9838	4.00004
Pb 220.353	-4.0578	ppb	4.9199	121.2	9.1049	-4.05784
Sb 206.834	-4.1851	ppb	11.8429	283.0	-1.7846	-4.18507
Se 196.026	8.2313	ppb	5.0991	61.9	4.7043	8.23132
Si 288.158	15.7054	ppb	1.5759	10.0	497.279	15.70542
Sn 189.925	-2.4580	ppb	3.4759	141.4	-0.5133	-2.45800
Sr 216.596	0.1476	ppb	2.0512	1390.1	92.3602	0.14756
Ti 334.941	1.5648	ppb	0.0185	1.2	267.329	1.56476
Tl 190.794	5.8309	ppb	1.2254	21.0	-3.8671	5.83088
V 292.401	7.3220	ppb	0.3240	4.4	120.667	7.32202
Zn 206.200	-1.9392	ppb	0.7984	41.2	-2.2847	-1.93917

Interf Check AB (ICSAB) **7/26/2021, 1:11:56 PM** **Rack S, Tube 6**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	210.470	213.480	213.608
Al 308.215	503377	506080	507855
As 188.980	85.0238	97.8513	82.4487
B 249.678	31.4809u	30.9115u	31.5502u
Ba 389.178	497.124	501.545	503.065
Be 313.042	479.790	481.215	482.461
Ca 370.602	480543	479881	482536
Cd 226.502	914.365	918.997	922.939
Co 228.615	462.077	468.399	469.636
Cr 267.716	471.288	472.521	474.688
Cu 324.754	516.855	523.834	520.084
Fe 271.441	182961	183790	184266
K 766.491	-1.5979u	-3.0651u	-1.8475u
Mg 279.078	488762	490744	491744
Mn 257.610	476.285	478.536	480.228
Mo 202.032	1048.59	1054.30	1060.18

Label	Replicates Concentration		
Na 330.237	-210.179u	-327.430u	-122.250u
Ni 231.604	899.523	909.968	905.590
Pb 220.353	40.4811	44.1374	46.0328
Sb 206.834	621.824	636.132	632.138
Se 196.026	65.6554	50.3575	33.6136
Si 288.158	-37.4276	-36.5322	-33.8943
Sn 189.925	1025.21	1011.63	1016.04
Sr 216.596	-1.9082	-0.6769	-1.9675
Ti 334.941	1.4110	1.5603	1.6801
Tl 190.794	104.840	96.3573	97.3906
V 292.401	480.316	484.235	488.857
Zn 206.200	906.660	904.214	908.373

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	212.519	ppb	1.7759	0.8	9002.07	106.25962
Al 308.215	505771	ppb	2254.85	0.4	1637356	101.15412
As 188.980	88.4412	ppb	8.2504	9.3	35.2895	88.44125
B 249.678	31.3142	ppb	0.3505	1.1	-165.552	-
Ba 389.178	500.578	ppb	3.0866	0.6	6273.88	100.11560
Be 313.042	481.155	ppb	1.3367	0.3	457581	96.23105
Ca 370.602	480987	ppb	1382	0.3	1044969	96.19733
Cd 226.502	918.767	ppb	4.2919	0.5	19302.9	91.87671
Co 228.615	466.704	ppb	4.0548	0.9	2494.55	93.34081
Cr 267.716	472.833	ppb	1.7213	0.4	11769.3	94.56653
Cu 324.754	520.258	ppb	3.4927	0.7	22007.0	104.05153
Fe 271.441	183672	ppb	660.313	0.4	151541	91.83605
K 766.491	-2.1702	ppb	0.7850	36.2	204.893	-
Mg 279.078	490416	ppb	1517.86	0.3	735457	98.08327
Mn 257.610	478.350	ppb	1.9783	0.4	49555.7	95.66991
Mo 202.032	1054.36	ppb	5.7953	0.5	3309.57	105.43575
Na 330.237	-219.953	ppb	102.939	46.8	7.8328	-
Ni 231.604	905.027	ppb	5.2450	0.6	1360.90	90.50267
Pb 220.353	43.5504	ppb	2.8220	6.5	43.2244	87.10088
Sb 206.834	630.031	ppb	7.3826	1.2	378.527	105.00519
Se 196.026	49.8755	ppb	16.0263	32.1	17.1599	99.75098
Si 288.158	-35.9514	ppb	1.8369	5.1	481.058	-
Sn 189.925	1017.63	ppb	6.9261	0.7	419.880	101.76279
Sr 216.596	-1.5175	ppb	0.7286	48.0	55.3292	-
Ti 334.941	1.5504	ppb	0.1348	8.7	265.291	-
Tl 190.794	99.5294	ppb	4.6282	4.7	52.7815	99.52937
V 292.401	484.469	ppb	4.2754	0.9	6339.05	96.89389
Zn 206.200	906.415	ppb	2.0904	0.2	613.480	90.64153

LRA1 (CCV) **7/26/2021, 1:16:28 PM** **Rack S, Tube 7**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1302u	-0.2344u	-0.2491u
Al 308.215	-27.6305u	-29.7043u	-25.4180u
As 188.980	9698.51x	9677.80x	9690.92x
B 249.678	4883.38	4892.08	4880.67
Ba 389.178	19878.2x	19809.7x	19651.6x
Be 313.042	0.1062	0.1035	0.1003
Ca 370.602	15.27	7.365	8.125

Label	Replicates Concentration		
Cd 226.502	-0.7195u	-0.8668u	-0.7455u
Co 228.615	4.6958	4.9518	4.2815
Cr 267.716	-0.0742u	-0.1917u	-0.2686u
Cu 324.754	47166.8x	46793.9x	47398.1x
Fe 271.441	3.9678	2.1629	-4.5194u
K 766.491	39328.0x	39135.5x	38940.3x
Mg 279.078	3.7569	5.7331	5.4005
Mn 257.610	0.3379	0.2420	0.2276
Mo 202.032	0.6871	0.9346	-0.1674u
Na 330.237	101649x	101749x	101163x
Ni 231.604	9780.17x	9747.82x	9773.39x
Pb 220.353	19817.9x	19739.7x	19598.1x
Sb 206.834	-0.0983u	-1.4426u	-0.2326u
Se 196.026	-19.2445u	-2.9168u	5.6655
Si 288.158	7.1843	8.4377	6.7479
Sn 189.925	-0.4849u	-0.5860u	-2.6414u
Sr 216.596	2.8521u	2.1247u	3.6709u
Ti 334.941	-0.1546u	-0.0921u	0.1051
Tl 190.794	3.2630	2.4322	4.5170
V 292.401	0.9907	0.8568	0.9808
Zn 206.200	3.7408	4.8479	3.7707

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.2046b	ppb	0.0648	31.7	2.3226	-
Al 308.215	-27.5843b	ppb	2.1436	7.8	645.122	-
As 188.980	9689.08xb	ppb	10.4752	0.1	4057.32	96.89077
B 249.678	4885.37b	ppb	5.9651	0.1	37381.7	97.70749
Ba 389.178	19779.8xb	ppb	116.241	0.6	228500	-
Be 313.042	0.1033b	ppb	0.0029	2.8	-228.081	-
Ca 370.602	10.25b	ppb	4.361	42.5	54.10	-
Cd 226.502	-0.7773b	ppb	0.0786	10.1	-35.3072	-
Co 228.615	4.6430b	ppb	0.3382	7.3	-5.8732	-
Cr 267.716	-0.1782b	ppb	0.0979	54.9	12.3885	-
Cu 324.754	47119.6xb	ppb	304.888	0.6	1968046	94.23919
Fe 271.441	0.5371b	ppb	4.4711	832.4	46.6106	-
K 766.491	39134.6xb	ppb	193.881	0.5	998283	97.83656
Mg 279.078	4.9635b	ppb	1.0581	21.3	26.2190	-
Mn 257.610	0.2692b	ppb	0.0600	22.3	83.0292	-
Mo 202.032	0.4848b	ppb	0.5782	119.3	-0.9259	-
Na 330.237	101521xb	ppb	313.526	0.3	3614.33	101.52065
Ni 231.604	9767.13xb	ppb	17.0598	0.2	14830.6	97.67128
Pb 220.353	19718.5xb	ppb	111.416	0.6	14478.8	98.59270
Sb 206.834	-0.5912b	ppb	0.7404	125.2	-2.3879	-
Se 196.026	-5.4986b	ppb	12.6541	230.1	-1.0037	-
Si 288.158	7.4566b	ppb	0.8772	11.8	448.543	-
Sn 189.925	-1.2374b	ppb	1.2169	98.3	0.0070	-
Sr 216.596	2.8826b	ppb	0.7736	26.8	-56.3459	-
Ti 334.941	-0.0472b	ppb	0.1355	287.4	13.2508	-
Tl 190.794	3.4041b	ppb	1.0495	30.8	-4.2289	-
V 292.401	0.9427b	ppb	0.0746	7.9	21.7282	-
Zn 206.200	4.1198b	ppb	0.6308	15.3	0.5884	-

rinse (Samp) **7/26/2021, 1:21:02 PM** **Rack S, Tube 9**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1487u	-0.2374u	-0.1632u
Al 308.215	-30.1218u	-24.2629u	-29.2111u
As 188.980	3.7924	11.9852	2.8513
B 249.678	103.214	95.7322	88.1301
Ba 389.178	2.6577	1.9588	1.5218
Be 313.042	0.0510	0.0378	0.0654
Ca 370.602	9.031	10.50	11.61
Cd 226.502	0.0228	0.4192	0.0935
Co 228.615	0.6586	1.2717	0.8579
Cr 267.716	0.3014	0.2988	0.4956
Cu 324.754	2.5902	2.4057	2.2822
Fe 271.441	52.3362	51.9361	58.4377
K 766.491	2.6909	2.7985	1.9171
Mg 279.078	1.7113	2.4381	3.3364
Mn 257.610	0.1870	0.1954	0.0866
Mo 202.032	0.6238	1.1892	0.5463
Na 330.237	13.3238	-233.697u	-233.632u
Ni 231.604	4.4092	1.7763	2.0195
Pb 220.353	1.6968	-1.0338u	1.7404
Sb 206.834	1.4270	-1.8846u	-4.3632u
Se 196.026	0.3814	-1.2315u	2.3356
Si 288.158	3.1530	2.6431	3.4688
Sn 189.925	-5.6572u	-3.4290u	-4.1873u
Sr 216.596	-0.2047u	0.2514	0.6893
Ti 334.941	-0.0325u	0.0147	0.0361
Tl 190.794	4.6282	1.3050	3.5900
V 292.401	0.1497	-0.0518u	0.1966
Zn 206.200	3.6362	3.9460	1.9298

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1831	ppb	0.0476	26.0	3.1153
Al 308.215	-27.8653	ppb	3.1528	11.3	644.249
As 188.980	6.2097	ppb	5.0239	80.9	-0.5257
B 249.678	95.6921	ppb	7.5420	7.9	678.588
Ba 389.178	2.0461	ppb	0.5729	28.0	-13.2431
Be 313.042	0.0514	ppb	0.0138	26.8	-266.498
Ca 370.602	10.38	ppb	1.294	12.5	54.26
Cd 226.502	0.1785	ppb	0.2114	118.5	-15.2779
Co 228.615	0.9294	ppb	0.3128	33.7	-25.9537
Cr 267.716	0.3653	ppb	0.1128	30.9	25.0030
Cu 324.754	2.4260	ppb	0.1550	6.4	315.037
Fe 271.441	54.2367	ppb	3.6437	6.7	90.6824
K 766.491	2.4688	ppb	0.4808	19.5	323.198
Mg 279.078	2.4953	ppb	0.8141	32.6	22.5172
Mn 257.610	0.1563	ppb	0.0605	38.7	71.8409
Mo 202.032	0.7864	ppb	0.3509	44.6	0.0215
Na 330.237	-151.335	ppb	142.599	94.2	32.3946
Ni 231.604	2.7350	ppb	1.4550	53.2	-10.0147
Pb 220.353	0.8011	ppb	1.5893	198.4	10.1577
Sb 206.834	-1.6069	ppb	2.9051	180.8	-3.0119
Se 196.026	0.4952	ppb	1.7863	360.7	0.7795
Si 288.158	3.0883	ppb	0.4166	13.5	422.335

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-4.4245	ppb	1.1329	25.6	-1.3235
Sr 216.596	0.2453	ppb	0.4470	182.2	10.5378
Ti 334.941	0.0061	ppb	0.0351	574.6	25.0481
Tl 190.794	3.1744	ppb	1.7001	53.6	-4.3708
V 292.401	0.0982	ppb	0.1320	134.4	11.0818
Zn 206.200	3.1707	ppb	1.0857	34.2	-0.0551

Cont Calib Verif (CCV) **7/26/2021, 1:25:36 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	490.316	482.723	486.759
Al 308.215	9654.80	9624.17	9641.29
As 188.980	492.466	485.328	485.827
B 249.678	521.012	519.476	521.638
Ba 389.178	495.285	495.931	496.558
Be 313.042	494.021	492.661	494.022
Ca 370.602	9818	9771	9808
Cd 226.502	487.547	486.278	487.358
Co 228.615	489.147	486.811	488.909
Cr 267.716	489.797	489.787	488.901
Cu 324.754	490.991	483.293	488.982
Fe 271.441	9780.08	9751.41	9738.29
K 766.491	9958.42	9926.44	9956.82
Mg 279.078	9656.72	9617.10	9661.28
Mn 257.610	495.197	493.382	494.813
Mo 202.032	492.644	491.150	491.992
Na 330.237	9869.33	9376.09	9661.00
Ni 231.604	493.507	483.731	492.010
Pb 220.353	487.284	484.602	492.959
Sb 206.834	493.292	486.586	481.358
Se 196.026	471.204	471.017	482.737
Si 288.158	4837.16	4816.92	4824.20
Sn 189.925	492.712	493.728	494.353
Sr 216.596	494.329	491.483	493.840
Ti 334.941	496.081	494.648	496.614
Tl 190.794	499.890	492.189	497.639
V 292.401	491.591	489.361	491.842
Zn 206.200	976.171	969.806	972.342

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	486.599	ppb	3.7989	0.8	20601.5	97.31980
Al 308.215	9640.08	ppb	15.3531	0.2	31967.7	96.40085
As 188.980	487.873	ppb	3.9851	0.8	201.307	97.57469
B 249.678	520.709	ppb	1.1126	0.2	3916.85	104.14174
Ba 389.178	495.924	ppb	0.6365	0.1	5706.55	99.18487
Be 313.042	493.568	ppb	0.7852	0.2	469339	98.71360
Ca 370.602	9799	ppb	24.61	0.3	21332	97.98808
Cd 226.502	487.061	ppb	0.6849	0.1	10097.3	97.41222
Co 228.615	488.289	ppb	1.2855	0.3	2612.69	97.65779
Cr 267.716	489.495	ppb	0.5145	0.1	12184.1	97.89894
Cu 324.754	487.755	ppb	3.9931	0.8	20593.2	97.55108
Fe 271.441	9756.59	ppb	21.3760	0.2	8124.57	97.51717
K 766.491	9947.23	ppb	18.0194	0.2	253937	99.47227

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Mg 279.078	9645.03	ppb	24.2947	0.3	14477.9	96.45033
Mn 257.610	494.464	ppb	0.9565	0.2	51379.7	98.89278
Mo 202.032	491.929	ppb	0.7489	0.2	1544.41	98.38578
Na 330.237	9635.47	ppb	247.607	2.6	354.493	96.35474
Ni 231.604	489.750	ppb	5.2655	1.1	729.595	97.94991
Pb 220.353	488.282	ppb	4.2672	0.9	367.621	97.65635
Sb 206.834	487.079	ppb	5.9823	1.2	294.135	97.41573
Se 196.026	474.986	ppb	6.7135	1.4	141.958	94.99716
Si 288.158	4826.09	ppb	10.2494	0.2	29161.1	96.52184
Sn 189.925	493.598	ppb	0.8286	0.2	203.921	98.71955
Sr 216.596	493.218	ppb	1.5217	0.3	2749.04	98.64351
Ti 334.941	495.781	ppb	1.0167	0.2	72901.9	99.15627
Tl 190.794	496.573	ppb	3.9595	0.8	294.251	99.31452
V 292.401	490.932	ppb	1.3657	0.3	6413.26	98.18635
Zn 206.200	972.773	ppb	3.2042	0.3	657.297	97.27733

Cont Calib Blank (CCB) **7/26/2021, 1:30:08 PM** **Rack S, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.2744	0.1003	-0.0968u
Al 308.215	-34.1187u	-38.3073u	-35.5473u
As 188.980	-1.2380u	-3.3618u	-3.7376u
B 249.678	31.5635	29.3887	27.1861
Ba 389.178	1.2120	1.0432	2.2304
Be 313.042	0.0517	0.0573	0.0792
Ca 370.602	-0.8569u	-1.835u	3.713
Cd 226.502	0.0933	0.1824	0.2622
Co 228.615	0.8136	0.2356	-0.2068u
Cr 267.716	0.0364	-0.0781u	0.0906
Cu 324.754	0.3211	0.1560	0.2088
Fe 271.441	-7.0220u	-3.5621u	-1.2789u
K 766.491	-0.5757u	-0.3093u	0.4876
Mg 279.078	-2.3451u	1.0573	-1.5064u
Mn 257.610	-0.0701u	0.0117	0.0467
Mo 202.032	-0.0814u	-0.2098u	0.7379
Na 330.237	-275.715u	16.7397	-215.449u
Ni 231.604	2.6501	2.9823	1.5287
Pb 220.353	1.2824	-1.8121u	-2.0189u
Sb 206.834	1.1165	-0.2380u	-2.2435u
Se 196.026	0.0018	-8.7006u	2.4362
Si 288.158	0.7135	0.2026	-1.4388u
Sn 189.925	-0.0460u	-0.0505u	-2.5629u
Sr 216.596	-0.3528u	-0.0987u	0.8275
Ti 334.941	0.0787	0.0874	0.0223
Tl 190.794	6.2391	4.3333	0.3478
V 292.401	-0.0028u	0.3710	0.3548
Zn 206.200	-2.0622u	-0.8234u	-0.6512u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	0.0927	ppb	0.1857	200.4	14.7819	0.09265
Al 308.215	-35.9911	ppb	2.1293	5.9	617.946	-35.99109
As 188.980	-2.7791	ppb	1.3479	48.5	-4.2928	-2.77914
B 249.678	29.3794	ppb	2.1887	7.4	170.551	29.37944

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	1.4952	ppb	0.6423	43.0	-19.6265	1.49518
Be 313.042	0.0627	ppb	0.0146	23.2	-255.707	0.06275
Ca 370.602	0.3403	ppb	2.961	870.3	32.56	0.34028
Cd 226.502	0.1793	ppb	0.0845	47.1	-15.3342	0.17930
Co 228.615	0.2808	ppb	0.5117	182.2	-29.4615	0.28081
Cr 267.716	0.0163	ppb	0.0861	528.9	16.3291	0.01629
Cu 324.754	0.2286	ppb	0.0843	36.9	223.249	0.22862
Fe 271.441	-3.9543	ppb	2.8916	73.1	42.6630	-3.95430
K 766.491	-0.1325	ppb	0.5533	417.6	256.859	-0.13248
Mg 279.078	-0.9314	ppb	1.7726	190.3	17.3815	-0.93139
Mn 257.610	-0.0039	ppb	0.0599	1530.0	55.2579	-0.00392
Mo 202.032	0.1489	ppb	0.5141	345.3	-1.9824	0.14889
Na 330.237	-158.142	ppb	154.420	97.6	32.2090	-158.14159
Ni 231.604	2.3871	ppb	0.7617	31.9	-10.5429	2.38705
Pb 220.353	-0.8495	ppb	1.8492	217.7	8.9443	-0.84952
Sb 206.834	-0.4550	ppb	1.6905	371.6	-2.3028	-0.45496
Se 196.026	-2.0875	ppb	5.8550	280.5	0.0114	-2.08755
Si 288.158	-0.1742uv	ppb	1.1246	645.5	403.310	-0.17422
Sn 189.925	-0.8864	ppb	1.4518	163.8	0.1346	-0.88643
Sr 216.596	0.1254	ppb	0.6212	495.6	9.8664	0.12536
Ti 334.941	0.0628	ppb	0.0354	56.3	33.3771	0.06279
Tl 190.794	3.6401	ppb	3.0062	82.6	-4.0885	3.64007
V 292.401	0.2410	ppb	0.2113	87.7	12.9429	0.24101
Zn 206.200	-1.1790	ppb	0.7698	65.3	-3.0051	-1.17895

mb 680-677824/1-a (Samp) **7/26/2021, 1:34:37 PM** **Rack 1, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0512	-0.2300u	-0.0480u
Al 308.215	-37.0321u	-37.3939u	-40.6932u
As 188.980	1.6100	6.2860	4.8337
B 249.678	17.4924	16.0683	14.5054
Ba 389.178	0.8067	1.3818	1.5009
Be 313.042	0.0535	0.0484	0.0550
Ca 370.602	2.794	6.112	-3.214u
Cd 226.502	0.1774	0.3844	0.1424
Co 228.615	0.1133	0.7596	0.1842
Cr 267.716	0.3985	0.4091	0.0321
Cu 324.754	0.1536	0.2425	0.3531
Fe 271.441	-7.1519u	0.1562	-11.0846u
K 766.491	-0.5151u	-0.1816u	0.5954
Mg 279.078	0.1143	-1.0686u	1.5594
Mn 257.610	0.0131	-0.0080u	-0.0677u
Mo 202.032	1.6894	0.4963	-0.6956u
Na 330.237	-221.831u	-287.319u	-177.426u
Ni 231.604	2.7158	3.9571	2.3055
Pb 220.353	0.4052	2.1093	-0.9769u
Sb 206.834	-3.3073u	-2.5562u	1.7859
Se 196.026	-1.7811u	2.0395	-3.9115u
Si 288.158	-0.8283u	-2.9297u	-3.3019u
Sn 189.925	-1.1605u	-4.3037u	-0.3048u
Sr 216.596	-0.4185u	0.1704	-0.0226u
Ti 334.941	0.0536	0.0834	0.0174

Label	Replicates Concentration		
Tl 190.794	4.9605	5.5021	-1.6290u
V 292.401	0.1328	-0.3034u	0.0529
Zn 206.200	-0.5619u	0.3893	0.9134

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0756	ppb	0.1426	188.6	7.6604
Al 308.215	-38.3731	ppb	2.0174	5.3	610.232
As 188.980	4.2432	ppb	2.3933	56.4	-1.3499
B 249.678	16.0220	ppb	1.4940	9.3	68.2004
Ba 389.178	1.2298	ppb	0.3712	30.2	-22.6926
Be 313.042	0.0523	ppb	0.0034	6.6	-265.660
Ca 370.602	1.897	ppb	4.727	249.2	35.95
Cd 226.502	0.2347	ppb	0.1308	55.7	-14.1880
Co 228.615	0.3524	ppb	0.3544	100.6	-29.0753
Cr 267.716	0.2799	ppb	0.2147	76.7	22.8809
Cu 324.754	0.2497	ppb	0.0999	40.0	224.139
Fe 271.441	-6.0267	ppb	5.7042	94.6	40.9530
K 766.491	-0.0338	ppb	0.5698	1687.5	259.377
Mg 279.078	0.2017	ppb	1.3162	652.6	19.0810
Mn 257.610	-0.0209	ppb	0.0419	200.5	53.4975
Mo 202.032	0.4967	ppb	1.1925	240.1	-0.8884
Na 330.237	-228.859	ppb	55.2825	24.2	29.6798
Ni 231.604	2.9928	ppb	0.8599	28.7	-9.6222
Pb 220.353	0.5125	ppb	1.5459	301.6	9.9434
Sb 206.834	-1.3592	ppb	2.7495	202.3	-2.8617
Se 196.026	-1.2177	ppb	3.0152	247.6	0.2699
Si 288.158	-2.3533uv	ppb	1.3337	56.7	390.254
Sn 189.925	-1.9230	ppb	2.1056	109.5	-0.2926
Sr 216.596	-0.0903	ppb	0.3002	332.6	8.6489
Ti 334.941	0.0515	ppb	0.0330	64.2	31.7156
Tl 190.794	2.9445	ppb	3.9700	134.8	-4.5101
V 292.401	-0.0392	ppb	0.2322	592.3	9.2859
Zn 206.200	0.2470	ppb	0.7479	302.9	-2.0382

lcs 680-677824/2-a (Samp) **7/26/2021, 1:39:06 PM** **Rack 1, Tube 2**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.0808	47.9222	48.1255
Al 308.215	4710.62	4708.95	4719.00
As 188.980	90.7331	104.613	95.8523
B 249.678	202.186	203.267	205.475
Ba 389.178	102.912	102.389	101.898
Be 313.042	47.2582	47.1341	47.1851
Ca 370.602	4820	4806	4813
Cd 226.502	48.5125	48.2500	48.2208
Co 228.615	48.1385	49.6558	47.9257
Cr 267.716	97.4334	97.1990	96.9534
Cu 324.754	95.3113	95.0866	95.5407
Fe 271.441	4829.61	4821.88	4836.51
K 766.491	7013.55	7019.45	7027.77
Mg 279.078	4715.37	4702.23	4711.12
Mn 257.610	387.025	386.714	386.746
Mo 202.032	98.0915	96.8708	97.7715

Label	Replicates Concentration		
Na 330.237	4469.30	4617.95	4627.38
Ni 231.604	100.161	96.8316	99.3251
Pb 220.353	485.235	484.865	482.005
Sb 206.834	52.6701	49.6900	44.2397
Se 196.026	96.6885	93.7797	82.6533
Si 288.158	-7.5787	-8.3940u	-8.2572u
Sn 189.925	100.689	94.3874	96.2780
Sr 216.596	96.8297	96.0032	95.3495
Ti 334.941	340.837	340.685	341.012
Tl 190.794	38.3077	46.8165	40.2402
V 292.401	96.6981	97.1456	97.3282
Zn 206.200	93.4936	94.3334	93.1248

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.0428	ppb	0.1069	0.2	2045.03
Al 308.215	4712.86	ppb	5.3861	0.1	15992.4
As 188.980	97.0661	ppb	7.0191	7.2	37.5576
B 249.678	203.643	ppb	1.6762	0.8	1496.69
Ba 389.178	102.400	ppb	0.5069	0.5	1152.33
Be 313.042	47.1925	ppb	0.0624	0.1	44591.2
Ca 370.602	4813	ppb	7.320	0.2	10498
Cd 226.502	48.3278	ppb	0.1607	0.3	989.654
Co 228.615	48.5733	ppb	0.9435	1.9	235.009
Cr 267.716	97.1952	ppb	0.2400	0.2	2432.97
Cu 324.754	95.3129	ppb	0.2271	0.2	4196.84
Fe 271.441	4829.33	ppb	7.3204	0.2	4031.92
K 766.491	7020.26	ppb	7.1430	0.1	179293
Mg 279.078	4709.57	ppb	6.7006	0.1	7077.61
Mn 257.610	386.828	ppb	0.1707	0.0	40208.8
Mo 202.032	97.5779	ppb	0.6330	0.6	304.318
Na 330.237	4571.54	ppb	88.6742	1.9	192.302
Ni 231.604	98.7726	ppb	1.7321	1.8	135.893
Pb 220.353	484.035	ppb	1.7682	0.4	364.762
Sb 206.834	48.8666	ppb	4.2751	8.7	27.3723
Se 196.026	91.0405	ppb	7.4077	8.1	27.7893
Si 288.158	-8.0767uv	ppb	0.4366	5.4	403.643
Sn 189.925	97.1181	ppb	3.2337	3.3	40.5245
Sr 216.596	96.0608	ppb	0.7418	0.8	543.653
Ti 334.941	340.845	ppb	0.1637	0.0	50126.9
Tl 190.794	41.7881	ppb	4.4606	10.7	18.6423
V 292.401	97.0573	ppb	0.3242	0.3	1277.57
Zn 206.200	93.6506	ppb	0.6194	0.7	61.2849

lcsd 680-677824/3-a (Samp) **7/26/2021, 1:43:35 PM** **Rack 1, Tube 3**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.4778	48.3955	47.3835
Al 308.215	4708.78	4714.44	4716.31
As 188.980	94.0338	93.1724	96.3284
B 249.678	204.233	204.430	203.793
Ba 389.178	101.572	101.626	103.207
Be 313.042	47.1682	47.0396	47.1315
Ca 370.602	4808	4785	4801

Label	Replicates Concentration		
Cd 226.502	48.4780	48.4205	48.4751
Co 228.615	49.3734	48.8590	47.5446
Cr 267.716	96.9471	97.2566	97.3159
Cu 324.754	94.5748	94.1812	94.7603
Fe 271.441	4823.58	4826.94	4833.09
K 766.491	7013.94	7024.02	7021.63
Mg 279.078	4705.16	4701.97	4697.60
Mn 257.610	384.423	384.820	385.491
Mo 202.032	96.7454	97.9469	96.7492
Na 330.237	4368.35	4363.53	4622.89
Ni 231.604	100.141	97.5333	100.217
Pb 220.353	475.300	486.702	479.487
Sb 206.834	49.2293	48.3465	49.5382
Se 196.026	88.9744	96.4881	86.9344
Si 288.158	-8.5347u	-9.6228u	-9.8348u
Sn 189.925	98.8613	93.8644	100.533
Sr 216.596	97.1544	95.2527	96.1792
Ti 334.941	340.796	340.698	339.956
Tl 190.794	38.5224	42.6317	43.4430
V 292.401	96.6577	96.7806	96.3040
Zn 206.200	98.1217	97.2965	96.7818

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.0856	ppb	0.6095	1.3	2046.83
Al 308.215	4713.18	ppb	3.9187	0.1	15993.4
As 188.980	94.5116	ppb	1.6313	1.7	36.4871
B 249.678	204.152	ppb	0.3259	0.2	1500.59
Ba 389.178	102.135	ppb	0.9289	0.9	1149.26
Be 313.042	47.1131	ppb	0.0662	0.1	44515.7
Ca 370.602	4798	ppb	11.94	0.2	10466
Cd 226.502	48.4579	ppb	0.0324	0.1	992.352
Co 228.615	48.5923	ppb	0.9431	1.9	235.105
Cr 267.716	97.1732	ppb	0.1981	0.2	2432.42
Cu 324.754	94.5054	ppb	0.2957	0.3	4163.11
Fe 271.441	4827.87	ppb	4.8237	0.1	4030.72
K 766.491	7019.86	ppb	5.2685	0.1	179283
Mg 279.078	4701.58	ppb	3.7941	0.1	7065.63
Mn 257.610	384.911	ppb	0.5401	0.1	40009.8
Mo 202.032	97.1472	ppb	0.6926	0.7	302.963
Na 330.237	4451.59	ppb	148.373	3.3	188.086
Ni 231.604	99.2970	ppb	1.5278	1.5	136.690
Pb 220.353	480.496	ppb	5.7677	1.2	362.165
Sb 206.834	49.0380	ppb	0.6184	1.3	27.4811
Se 196.026	90.7990	ppb	5.0314	5.5	27.7173
Si 288.158	-9.3308uv	ppb	0.6975	7.5	396.280
Sn 189.925	97.7528	ppb	3.4696	3.5	40.7861
Sr 216.596	96.1955	ppb	0.9510	1.0	544.417
Ti 334.941	340.483	ppb	0.4591	0.1	50073.8
Tl 190.794	41.5324	ppb	2.6381	6.4	18.4884
V 292.401	96.5807	ppb	0.2474	0.3	1271.35
Zn 206.200	97.4000	ppb	0.6759	0.7	63.8277

680-201746-a-3-a (Samp) **7/26/2021, 1:48:04 PM** **Rack 1, Tube 4**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.3762	-0.2431u	-0.2530u
Al 308.215	546.013	524.394	526.086
As 188.980	-13.0282u	-14.5653u	-11.7343u
B 249.678	15.8020	14.8241	14.7464
Ba 389.178	103.151	98.6649	100.667
Be 313.042	0.1629	0.1751	0.1560
Ca 370.602	463.4	444.8	449.2
Cd 226.502	0.3245	0.4656	0.7498
Co 228.615	318.384	309.213	308.051
Cr 267.716	28.2859	27.8009	27.6079
Cu 324.754	535.930	521.648	527.600
Fe 271.441	4519.45	4388.32	4426.03
K 766.491	87.0640	84.1593	85.8830
Mg 279.078	88.4639	84.0920	86.9277
Mn 257.610	29.2528	28.2399	28.4240
Mo 202.032	6.5256	6.6663	7.0236
Na 330.237	2410.63u	2510.07u	2356.54u
Ni 231.604	24.4381	22.8236	23.0123
Pb 220.353	4.9703	5.1066	8.0581
Sb 206.834	-4.7855u	-3.2624u	-4.1361u
Se 196.026	47.2712	39.1190	40.9441
Si 288.158	878.519	850.828	858.034
Sn 189.925	22.9253	19.5546	16.1584
Sr 216.596	4.3138	4.2561	3.8216
Ti 334.941	17.4696	16.8390	17.1303
Tl 190.794	-0.9676u	0.8057	2.6766
V 292.401	4.5125	4.3834	4.6667
Zn 206.200	7144.46	6914.37	6958.20

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0400	ppb	0.3604	901.5	9.2618
Al 308.215	532.164	ppb	12.0234	2.3	2455.95
As 188.980	-13.1093	ppb	1.4172	10.8	-8.6142
B 249.678	15.1242	ppb	0.5883	3.9	52.8105
Ba 389.178	100.828	ppb	2.2473	2.2	1129.20
Be 313.042	0.1647	ppb	0.0096	5.9	-158.462
Ca 370.602	452.5	ppb	9.754	2.2	1006
Cd 226.502	0.5133	ppb	0.2166	42.2	-2.8496
Co 228.615	311.883	ppb	5.6601	1.8	1655.25
Cr 267.716	27.8982	ppb	0.3493	1.3	709.379
Cu 324.754	528.393	ppb	7.1739	1.4	22281.9
Fe 271.441	4444.60	ppb	67.5077	1.5	3730.66
K 766.491	85.7021	ppb	1.4608	1.7	2445.84
Mg 279.078	86.4945	ppb	2.2179	2.6	148.115
Mn 257.610	28.6389	ppb	0.5396	1.9	3024.85
Mo 202.032	6.7385	ppb	0.2567	3.8	18.6445
Na 330.237	2425.75	ppb	77.8735	3.2	11.6804
Ni 231.604	23.4247	ppb	0.8827	3.8	21.0517
Pb 220.353	6.0450	ppb	1.7447	28.9	14.1170
Sb 206.834	-4.0613	ppb	0.7643	18.8	-4.4100
Se 196.026	42.4448	ppb	4.2783	10.1	13.2900
Si 288.158	862.460	ppb	14.3668	1.7	5517.68

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	19.5461	ppb	3.3834	17.3	8.5550
Sr 216.596	4.1305	ppb	0.2691	6.5	32.9182
Ti 334.941	17.1463	ppb	0.3156	1.8	2544.62
Tl 190.794	0.8382	ppb	1.8223	217.4	-5.6434
V 292.401	4.5209	ppb	0.1418	3.1	69.0476
Zn 206.200	7005.68	ppb	122.171	1.7	4748.82

680-201746-a-4-a (Samp) **7/26/2021, 1:52:34 PM** **Rack 1, Tube 5**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1147u	-0.2123u	-0.1745u
Al 308.215	17.3162	17.8882	12.2955
As 188.980	-0.2940u	2.3255	1.1222
B 249.678	8.0787	8.1025	8.3890
Ba 389.178	6.2841	4.8700	5.2554
Be 313.042	0.0450	0.0394	0.0525
Ca 370.602	92.07	89.43	86.81
Cd 226.502	0.4390	0.3019	0.2521
Co 228.615	73.6862	73.9921	72.3573
Cr 267.716	2.0959	1.9639	2.1106
Cu 324.754	28.0626	29.0610	27.7118
Fe 271.441	245.658	244.642	240.719
K 766.491	41.9277	42.7988	43.1913
Mg 279.078	23.6658	27.2353	20.9059
Mn 257.610	5.7042	5.8438	5.7661
Mo 202.032	0.4006	1.0291	-0.3365u
Na 330.237	306.105u	291.819u	245.767u
Ni 231.604	4.0739	4.9827	5.1295
Pb 220.353	-1.3159u	-2.8619u	-3.5500u
Sb 206.834	-2.8615u	-1.8475u	2.2670
Se 196.026	-1.4080u	8.1233	-0.2927u
Si 288.158	85.8970	85.4841	82.2615
Sn 189.925	8.1383	12.9302	6.3825
Sr 216.596	0.8452	0.6000	0.2784
Ti 334.941	2.6600	2.6587	2.6572
Tl 190.794	0.2064	0.1867	1.5934
V 292.401	0.5087	0.7023	0.1658
Zn 206.200	709.347	710.255	696.584

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1672	ppb	0.0492	29.4	3.8067
Al 308.215	15.8333	ppb	3.0771	19.4	785.441
As 188.980	1.0512	ppb	1.3112	124.7	-2.6871
B 249.678	8.1900	ppb	0.1727	2.1	7.6975
Ba 389.178	5.4699	ppb	0.7310	13.4	26.3836
Be 313.042	0.0456	ppb	0.0066	14.4	-271.960
Ca 370.602	89.44	ppb	2.629	2.9	225.8
Cd 226.502	0.3310	ppb	0.0968	29.2	-11.8725
Co 228.615	73.3452	ppb	0.8691	1.2	365.527
Cr 267.716	2.0568	ppb	0.0808	3.9	67.0578
Cu 324.754	28.2785	ppb	0.7000	2.5	1394.75
Fe 271.441	243.673	ppb	2.6083	1.1	251.379
K 766.491	42.6393	ppb	0.6467	1.5	1347.64

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	23.9357	ppb	3.1733	13.3	54.6111
Mn 257.610	5.7714	ppb	0.0700	1.2	654.536
Mo 202.032	0.3644	ppb	0.6835	187.6	-1.3102
Na 330.237	281.231	ppb	31.5319	11.2	36.4501
Ni 231.604	4.7287	ppb	0.5718	12.1	-7.0722
Pb 220.353	-2.5760	ppb	1.1442	44.4	7.6714
Sb 206.834	-0.8140	ppb	2.7160	333.6	-2.5151
Se 196.026	2.1409	ppb	5.2108	243.4	1.2712
Si 288.158	84.5475	ppb	1.9905	2.4	906.236
Sn 189.925	9.1504	ppb	3.3891	37.0	4.2709
Sr 216.596	0.5745	ppb	0.2843	49.5	12.4082
Ti 334.941	2.6586	ppb	0.0014	0.1	414.954
Tl 190.794	0.6622	ppb	0.8065	121.8	-5.8541
V 292.401	0.4590	ppb	0.2717	59.2	15.8095
Zn 206.200	705.395	ppb	7.6439	1.1	476.170

mb 680-677841/1-a (Samp) **7/26/2021, 1:57:03 PM** **Rack 1, Tube 6**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2533u	-0.1105u	-0.1576u
Al 308.215	-34.0257u	-32.1138u	-22.4868u
As 188.980	-6.3725u	-4.1944u	-0.7482u
B 249.678	4.9091	5.7557	5.8468
Ba 389.178	1.9831	1.1093	0.4170
Be 313.042	0.0417	0.0411	0.0234
Ca 370.602	1.456	3.875	-1.447u
Cd 226.502	0.3252	0.0666	0.0856
Co 228.615	0.3071	-0.1535u	-0.5582u
Cr 267.716	0.0326	0.2481	0.2865
Cu 324.754	0.1284	0.2361	0.1595
Fe 271.441	-11.9410u	-1.5576u	-0.6620u
K 766.491	-0.4942u	0.0162	-0.1285u
Mg 279.078	-2.9864u	2.0313	1.6535
Mn 257.610	-0.0428u	0.0030	0.0007
Mo 202.032	0.0233	-0.1721u	0.5469
Na 330.237	-89.0757u	-159.399u	-187.632u
Ni 231.604	2.0474	1.8766	1.7547
Pb 220.353	-0.4981u	0.0482	1.2783
Sb 206.834	-1.0554u	-1.9909u	4.1280
Se 196.026	2.6082	-9.9717u	1.3260
Si 288.158	2.0243	3.6753	3.9843
Sn 189.925	2.8369	2.8373	1.4946
Sr 216.596	0.2837	-0.3287u	0.2892
Ti 334.941	0.0288	-0.0199u	0.0203
Tl 190.794	0.6279	-1.0657u	-1.1239u
V 292.401	-0.0632u	0.2559	-0.0239u
Zn 206.200	-3.0887u	0.9131	-0.0466u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1738	ppb	0.0728	41.9	3.5048
Al 308.215	-29.5421	ppb	6.1844	20.9	638.802
As 188.980	-3.7717	ppb	2.8359	75.2	-4.7087
B 249.678	5.5038	ppb	0.5171	9.4	-12.4083

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	1.1698	ppb	0.7848	67.1	-23.3839
Be 313.042	0.0354	ppb	0.0104	29.3	-281.740
Ca 370.602	1.295	ppb	2.665	205.8	34.63
Cd 226.502	0.1591	ppb	0.1442	90.6	-15.7508
Co 228.615	-0.1349	ppb	0.4329	321.0	-31.7089
Cr 267.716	0.1891	ppb	0.1369	72.4	20.6237
Cu 324.754	0.1747	ppb	0.0555	31.8	220.999
Fe 271.441	-4.7202	ppb	6.2694	132.8	42.0180
K 766.491	-0.2022	ppb	0.2630	130.1	255.082
Mg 279.078	0.2328	ppb	2.7943	1200.2	19.1264
Mn 257.610	-0.0130	ppb	0.0258	197.9	54.3078
Mo 202.032	0.1327	ppb	0.3717	280.1	-2.0333
Na 330.237	-145.369	ppb	50.7539	34.9	32.6540
Ni 231.604	1.8929	ppb	0.1470	7.8	-11.2937
Pb 220.353	0.2761	ppb	0.9099	329.5	9.7702
Sb 206.834	0.3606	ppb	3.2960	914.1	-1.8013
Se 196.026	-2.0125	ppb	6.9226	344.0	0.0337
Si 288.158	3.2280	ppb	1.0538	32.6	423.403
Sn 189.925	2.3896	ppb	0.7751	32.4	1.4847
Sr 216.596	0.0814	ppb	0.3552	436.3	9.6181
Ti 334.941	0.0097	ppb	0.0260	267.3	25.5776
Tl 190.794	-0.5206	ppb	0.9950	191.1	-6.6104
V 292.401	0.0563	ppb	0.1740	309.2	10.5314
Zn 206.200	-0.7407	ppb	2.0892	282.0	-2.7080

lcs 680-677841/2-a (Samp) **7/26/2021, 2:01:34 PM** **Rack 1, Tube 7**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.1787	47.1421	47.6011
Al 308.215	4649.00	4629.70	4644.71
As 188.980	96.5482	93.1799	94.6596
B 249.678	194.625	193.949	194.558
Ba 389.178	99.4455	100.230	101.810
Be 313.042	47.2764	47.0032	47.1838
Ca 370.602	4761	4732	4738
Cd 226.502	47.8576	47.8350	47.5565
Co 228.615	48.6716	47.6017	48.6559
Cr 267.716	96.2308	96.2705	96.0821
Cu 324.754	94.3757	95.0379	95.3754
Fe 271.441	4769.89	4742.22	4770.73
K 766.491	6726.00	6682.72	6714.64
Mg 279.078	4659.09	4628.53	4638.44
Mn 257.610	382.003	379.663	380.789
Mo 202.032	96.4560	95.4223	95.7715
Na 330.237	4469.93	4519.92	4575.41
Ni 231.604	95.7612	99.6732	94.9911
Pb 220.353	479.262	473.358	474.763
Sb 206.834	43.9388	50.4121	48.9992
Se 196.026	89.4938	86.8033	96.2088
Si 288.158	-4.8477	-5.4831	-3.2175
Sn 189.925	99.5548	91.1355	92.4147
Sr 216.596	94.5050	94.7211	95.1748
Ti 334.941	336.853	335.331	336.310

Label	Replicates Concentration		
Tl 190.794	39.3469	43.7378	37.8194
V 292.401	95.2237	96.0030	95.3570
Zn 206.200	97.0051	93.0455	95.8371

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.3073	ppb	0.2551	0.5	2013.89
Al 308.215	4641.14	ppb	10.1377	0.2	15760.2
As 188.980	94.7959	ppb	1.6883	1.8	36.6062
B 249.678	194.378	ppb	0.3724	0.2	1425.81
Ba 389.178	100.495	ppb	1.2044	1.2	1130.24
Be 313.042	47.1545	ppb	0.1390	0.3	44555.1
Ca 370.602	4744	ppb	15.18	0.3	10348
Cd 226.502	47.7497	ppb	0.1677	0.4	977.576
Co 228.615	48.3097	ppb	0.6132	1.3	233.537
Cr 267.716	96.1945	ppb	0.0993	0.1	2408.08
Cu 324.754	94.9297	ppb	0.5086	0.5	4180.79
Fe 271.441	4760.95	ppb	16.2219	0.3	3975.52
K 766.491	6707.79	ppb	22.4397	0.3	171324
Mg 279.078	4642.02	ppb	15.5891	0.3	6976.36
Mn 257.610	380.818	ppb	1.1703	0.3	39584.9
Mo 202.032	95.8832	ppb	0.5258	0.5	298.990
Na 330.237	4521.76	ppb	52.7630	1.2	190.638
Ni 231.604	96.8085	ppb	2.5106	2.6	132.908
Pb 220.353	475.794	ppb	3.0843	0.6	358.715
Sb 206.834	47.7834	ppb	3.4036	7.1	26.7186
Se 196.026	90.8353	ppb	4.8441	5.3	27.7269
Si 288.158	-4.5161	ppb	1.1686	25.9	423.651
Sn 189.925	94.3683	ppb	4.5369	4.8	39.3913
Sr 216.596	94.8003	ppb	0.3419	0.4	536.639
Ti 334.941	336.164	ppb	0.7713	0.2	49438.9
Tl 190.794	40.3014	ppb	3.0725	7.6	17.7473
V 292.401	95.5279	ppb	0.4168	0.4	1257.60
Zn 206.200	95.2959	ppb	2.0345	2.1	62.4009

680-201897-a-2-d (Samp) **7/26/2021, 2:06:04 PM** **Rack 1, Tube 8**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1871u	-0.1800u	-0.2197u
Al 308.215	527.913	519.124	531.164
As 188.980	3.2957	-2.7265u	4.4327
B 249.678	25.0169	23.5134	23.4611
Ba 389.178	124.089	122.171	122.106
Be 313.042	0.2965	0.2904	0.3000
Ca 370.602	1299	1288	1303
Cd 226.502	0.4097	0.1788	0.1292
Co 228.615	2.6949	2.4365	2.9049
Cr 267.716	0.3005	0.3319	0.1362
Cu 324.754	0.2323	0.5039	0.4963
Fe 271.441	-9.7923u	-2.2184u	0.5029
K 766.491	1425.11	1410.84	1428.41
Mg 279.078	8416.92	8348.86	8456.13
Mn 257.610	21.3756	21.2820	21.3481
Mo 202.032	0.0688	-0.5446u	0.7254

Label	Replicates Concentration		
Na 330.237	5308.31	5519.23	5217.49
Ni 231.604	4.9401	5.1980	3.0434
Pb 220.353	3.2899	-1.4082u	1.3915
Sb 206.834	5.9823	0.8324	-3.7644u
Se 196.026	5.0134	-1.3491u	-3.8253u
Si 288.158	3884.29	3841.68	3877.81
Sn 189.925	0.1561	0.5172	1.9087
Sr 216.596	45.1318	45.3814	45.9095
Ti 334.941	0.1058	0.0724	0.1240
Tl 190.794	0.1057	7.2762	-2.3240u
V 292.401	0.1070	-0.2287u	0.3861
Zn 206.200	-1.2722u	3.2333	0.5785

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1956	ppb	0.0212	10.8	2.3741
Al 308.215	526.067	ppb	6.2286	1.2	2436.61
As 188.980	1.6673	ppb	3.8474	230.8	-2.4282
B 249.678	23.9971	ppb	0.8835	3.7	129.302
Ba 389.178	122.789	ppb	1.1264	0.9	1389.66
Be 313.042	0.2956	ppb	0.0048	1.6	-34.3494
Ca 370.602	1297	ppb	8.196	0.6	2850
Cd 226.502	0.2392	ppb	0.1497	62.6	-14.0095
Co 228.615	2.6787	ppb	0.2346	8.8	-16.4966
Cr 267.716	0.2562	ppb	0.1051	41.0	22.3879
Cu 324.754	0.4108	ppb	0.1547	37.6	230.853
Fe 271.441	-3.8359	ppb	5.3348	139.1	42.9023
K 766.491	1421.45	ppb	9.3423	0.7	36510.6
Mg 279.078	8407.30	ppb	54.2765	0.6	12628.1
Mn 257.610	21.3352	ppb	0.0481	0.2	2270.10
Mo 202.032	0.0832	ppb	0.6351	763.2	-2.1889
Na 330.237	5348.35	ppb	154.800	2.9	226.185
Ni 231.604	4.3938	ppb	1.1766	26.8	-7.4955
Pb 220.353	1.0911	ppb	2.3634	216.6	10.3641
Sb 206.834	1.0168	ppb	4.8759	479.5	-1.3921
Se 196.026	-0.0536	ppb	4.5595	8500.6	0.6191
Si 288.158	3867.93	ppb	22.9561	0.6	23318.3
Sn 189.925	0.8607	ppb	0.9254	107.5	0.8555
Sr 216.596	45.4742	ppb	0.3971	0.9	262.879
Ti 334.941	0.1007	ppb	0.0262	26.0	38.7540
Tl 190.794	1.6860	ppb	4.9914	296.1	-5.2753
V 292.401	0.0882	ppb	0.3078	349.2	10.9759
Zn 206.200	0.8465	ppb	2.2647	267.5	-1.6315

680-201897-a-2-e ms (Samp) **7/26/2021, 2:10:35 PM** **Rack 1, Tube 9**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.0101	47.2597	47.3786
Al 308.215	5269.15	5262.86	5268.79
As 188.980	94.3135	94.5344	95.2140
B 249.678	210.548	211.446	212.314
Ba 389.178	218.457	219.746	218.395
Be 313.042	47.6454	47.6503	47.5749
Ca 370.602	6037	6049	6039

Label	Replicates Concentration		
Cd 226.502	47.5301	47.9069	47.4409
Co 228.615	49.2172	49.7706	49.8997
Cr 267.716	96.2391	96.4087	96.0645
Cu 324.754	95.8759	95.4278	95.3328
Fe 271.441	4789.30	4774.92	4774.02
K 766.491	8246.82	8232.30	8213.21
Mg 279.078	13097.8	13089.3	13085.6
Mn 257.610	405.283	404.447	404.427
Mo 202.032	95.7790	97.2268	97.7945
Na 330.237	9997.13	10067.0	9915.00
Ni 231.604	97.5324	98.8477	98.7463
Pb 220.353	479.475	481.767	482.034
Sb 206.834	53.2502	48.4312	46.7412
Se 196.026	93.3314	98.8336	88.0354
Si 288.158	3914.82	3906.03	3906.34
Sn 189.925	90.8925	95.0548	94.2881
Sr 216.596	139.791	139.929	139.791
Ti 334.941	337.163	337.254	336.890
Tl 190.794	38.8901	42.1951	38.0568
V 292.401	96.3142	96.6936	95.8143
Zn 206.200	96.6164	95.0234	99.6878

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.5495	ppb	0.4033	0.8	2023.93
Al 308.215	5266.94	ppb	3.5327	0.1	17785.2
As 188.980	94.6873	ppb	0.4693	0.5	36.5619
B 249.678	211.436	ppb	0.8832	0.4	1556.50
Ba 389.178	218.866	ppb	0.7629	0.3	2505.79
Be 313.042	47.6235	ppb	0.0422	0.1	45001.1
Ca 370.602	6042	ppb	6.359	0.1	13169
Cd 226.502	47.6259	ppb	0.2473	0.5	975.113
Co 228.615	49.6292	ppb	0.3626	0.7	240.679
Cr 267.716	96.2375	ppb	0.1721	0.2	2409.25
Cu 324.754	95.5455	ppb	0.2900	0.3	4206.53
Fe 271.441	4779.41	ppb	8.5724	0.2	3990.86
K 766.491	8230.77	ppb	16.8548	0.2	210164
Mg 279.078	13090.9	ppb	6.2556	0.0	19648.1
Mn 257.610	404.719	ppb	0.4886	0.1	42065.7
Mo 202.032	96.9334	ppb	1.0393	1.1	302.292
Na 330.237	9993.03	ppb	76.0644	0.8	383.353
Ni 231.604	98.3755	ppb	0.7319	0.7	135.287
Pb 220.353	481.092	ppb	1.4069	0.3	362.597
Sb 206.834	49.4742	ppb	3.3775	6.8	27.7498
Se 196.026	93.4001	ppb	5.3994	5.8	28.4928
Si 288.158	3909.06	ppb	4.9869	0.1	23608.8
Sn 189.925	93.4118	ppb	2.2152	2.4	38.9980
Sr 216.596	139.837	ppb	0.0795	0.1	787.889
Ti 334.941	337.102	ppb	0.1892	0.1	49576.5
Tl 190.794	39.7140	ppb	2.1887	5.5	17.3867
V 292.401	96.2740	ppb	0.4410	0.5	1267.36
Zn 206.200	97.1092	ppb	2.3709	2.4	63.6307

680-201897-a-2-f msd (Samp) **7/26/2021, 2:15:05 PM** **Rack 1, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.2272	47.5867	46.5058
Al 308.215	5263.65	5249.97	5244.45
As 188.980	90.2870	84.8904	98.4598
B 249.678	214.389	213.970	214.340
Ba 389.178	221.017	219.271	219.659
Be 313.042	47.8896	47.7859	47.6871
Ca 370.602	6061	6043	6045
Cd 226.502	47.4632	47.5082	47.9898
Co 228.615	49.2016	49.2801	49.7860
Cr 267.716	96.9033	96.6111	96.3660
Cu 324.754	95.6149	94.7824	95.3850
Fe 271.441	4802.83	4794.27	4765.11
K 766.491	8264.14	8243.63	8230.91
Mg 279.078	13200.2	13157.0	13152.5
Mn 257.610	402.488	402.903	401.816
Mo 202.032	96.2409	96.3036	95.8739
Na 330.237	10133.2	10186.9	10048.7
Ni 231.604	97.2927	98.3509	99.3721
Pb 220.353	475.474	476.637	474.651
Sb 206.834	50.2120	43.8384	49.3003
Se 196.026	97.2551	95.9632	83.3202
Si 288.158	3938.73	3929.03	3919.82
Sn 189.925	97.6255	95.4218	99.4983
Sr 216.596	141.298	140.135	139.398
Ti 334.941	338.897	338.269	337.088
Tl 190.794	39.7718	41.0036	37.2222
V 292.401	95.7486	96.4667	95.8399
Zn 206.200	96.0569	93.5998	96.3181

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.1066	ppb	0.5505	1.2	2005.19
Al 308.215	5252.69	ppb	9.8815	0.2	17739.1
As 188.980	91.2124	ppb	6.8319	7.5	35.1057
B 249.678	214.233	ppb	0.2294	0.1	1577.94
Ba 389.178	219.982	ppb	0.9169	0.4	2518.77
Be 313.042	47.7875	ppb	0.1013	0.2	45157.2
Ca 370.602	6050	ppb	9.584	0.2	13187
Cd 226.502	47.6538	ppb	0.2919	0.6	975.686
Co 228.615	49.4226	ppb	0.3172	0.6	239.566
Cr 267.716	96.6268	ppb	0.2690	0.3	2418.93
Cu 324.754	95.2607	ppb	0.4299	0.5	4194.63
Fe 271.441	4787.40	ppb	19.7789	0.4	3997.45
K 766.491	8246.23	ppb	16.7693	0.2	210558
Mg 279.078	13169.9	ppb	26.3101	0.2	19766.6
Mn 257.610	402.402	ppb	0.5485	0.1	41825.2
Mo 202.032	96.1394	ppb	0.2321	0.2	299.795
Na 330.237	10122.9	ppb	69.6642	0.7	387.926
Ni 231.604	98.3385	ppb	1.0398	1.1	135.231
Pb 220.353	475.587	ppb	0.9982	0.2	358.558
Sb 206.834	47.7836	ppb	3.4469	7.2	26.7164
Se 196.026	92.1795	ppb	7.6995	8.4	28.1299
Si 288.158	3929.19	ppb	9.4537	0.2	23728.2

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	97.5152	ppb	2.0405	2.1	40.6891
Sr 216.596	140.277	ppb	0.9577	0.7	790.357
Ti 334.941	338.084	ppb	0.9186	0.3	49720.9
Tl 190.794	39.3326	ppb	1.9286	4.9	17.1555
V 292.401	96.0184	ppb	0.3909	0.4	1264.03
Zn 206.200	95.3250	ppb	1.4997	1.6	62.4205

Cont Calib Verif (CCV) **7/26/2021, 2:19:38 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	481.633	482.451	485.913
Al 308.215	9549.46	9542.05	9556.79
As 188.980	485.954	486.743	477.895
B 249.678	488.088	486.933	491.944
Ba 389.178	494.617	492.058	493.740
Be 313.042	492.462	491.361	492.743
Ca 370.602	9752	9723	9747
Cd 226.502	484.505	484.156	484.246
Co 228.615	490.499	491.171	490.673
Cr 267.716	486.591	486.666	488.001
Cu 324.754	485.990	485.922	488.118
Fe 271.441	9701.91	9697.77	9710.67
K 766.491	9960.72	9942.47	9963.09
Mg 279.078	9575.79	9572.59	9597.58
Mn 257.610	490.647	490.163	491.753
Mo 202.032	489.940	487.523	487.960
Na 330.237	9494.41	9583.11	9717.60
Ni 231.604	490.868	482.038	483.694
Pb 220.353	492.446	493.321	482.268
Sb 206.834	488.499	487.467	498.718
Se 196.026	472.333	485.372	477.725
Si 288.158	4817.51	4785.96	4805.54
Sn 189.925	481.026	489.862	493.073
Sr 216.596	489.917	491.077	491.207
Ti 334.941	493.682	492.765	494.520
Tl 190.794	489.396	490.022	489.086
V 292.401	486.896	487.768	488.962
Zn 206.200	967.750	966.629	958.740

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	483.332	ppb	2.2721	0.5	20463.3	96.66649
Al 308.215	9549.43	ppb	7.3721	0.1	31674.2	95.49432
As 188.980	483.531	ppb	4.8966	1.0	199.487	96.70619
B 249.678	488.988	ppb	2.6239	0.5	3673.88	97.79764
Ba 389.178	493.472	ppb	1.3005	0.3	5678.13	98.69437
Be 313.042	492.189	ppb	0.7308	0.1	468027	98.43773
Ca 370.602	9740	ppb	15.73	0.2	21205	97.40466
Cd 226.502	484.302	ppb	0.1812	0.0	10040.0	96.86050
Co 228.615	490.781	ppb	0.3489	0.1	2626.14	98.15623
Cr 267.716	487.086	ppb	0.7933	0.2	12124.2	97.41725
Cu 324.754	486.676	ppb	1.2486	0.3	20548.1	97.33530
Fe 271.441	9703.45	ppb	6.5870	0.1	8080.85	96.98603
K 766.491	9955.43	ppb	11.2867	0.1	254146	99.55429

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Mg 279.078	9581.99	ppb	13.5997	0.1	14383.4	95.81987
Mn 257.610	490.855	ppb	0.8152	0.2	51005.1	98.17092
Mo 202.032	488.474	ppb	1.2880	0.3	1533.55	97.69485
Na 330.237	9598.37	ppb	112.376	1.2	353.274	95.98372
Ni 231.604	485.534	ppb	4.6937	1.0	723.185	97.10670
Pb 220.353	489.345	ppb	6.1440	1.3	368.401	97.86899
Sb 206.834	491.561	ppb	6.2190	1.3	296.907	98.31223
Se 196.026	478.477	ppb	6.5521	1.4	142.995	95.69535
Si 288.158	4803.01	ppb	15.9261	0.3	29022.8	96.06013
Sn 189.925	487.987	ppb	6.2389	1.3	201.609	97.59741
Sr 216.596	490.734	ppb	0.7101	0.1	2735.27	98.14671
Ti 334.941	493.656	ppb	0.8776	0.2	72589.4	98.73112
Tl 190.794	489.501	ppb	0.4769	0.1	289.970	97.90025
V 292.401	487.875	ppb	1.0368	0.2	6373.40	97.57507
Zn 206.200	964.373	ppb	4.9102	0.5	651.601	96.43729

Cont Calib Blank (CCB) **7/26/2021, 2:24:10 PM** **Rack S, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0115u	-0.1735u	0.1575
Al 308.215	-40.1734u	-36.7117u	-41.5973u
As 188.980	-0.0238u	4.5899	-0.6811u
B 249.678	14.8376	14.3723	12.9472
Ba 389.178	0.0217	0.7572	1.3556
Be 313.042	0.0578	0.0505	0.0654
Ca 370.602	-2.158u	-0.1002u	-1.991u
Cd 226.502	0.0419	0.2132	0.1193
Co 228.615	0.4902	0.3381	0.0980
Cr 267.716	-0.1258u	-0.1216u	0.1814
Cu 324.754	0.1338	-0.0986u	0.0964
Fe 271.441	-7.6566u	-3.3852u	-4.3465u
K 766.491	0.2354	-0.7980u	0.1310
Mg 279.078	-1.0273u	-4.3554u	-1.2888u
Mn 257.610	-0.0532u	-0.0587u	-0.0161u
Mo 202.032	0.8687	-0.0866u	0.4214
Na 330.237	-156.576u	-71.1916u	-89.3153u
Ni 231.604	2.0482	2.0330	2.1496
Pb 220.353	0.0686	-3.8506u	0.4934
Sb 206.834	5.5234	-1.4130u	-2.3968u
Se 196.026	-5.4557u	0.5379	-2.8353u
Si 288.158	1.2692	0.7331	-0.4254u
Sn 189.925	-0.5790u	0.3254	-2.3362u
Sr 216.596	0.6068	0.2355	0.7542
Ti 334.941	-0.0032u	-0.0027u	0.0383
Tl 190.794	1.4595	-3.1095u	5.7607
V 292.401	-0.1611u	-0.1823u	0.0703
Zn 206.200	0.7284	0.6184	0.4660

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.0092	ppb	0.1655	1803.0	10.4727	-0.00918
Al 308.215	-39.4941	ppb	2.5126	6.4	606.601	-39.49413
As 188.980	1.2950	ppb	2.8723	221.8	-2.5854	1.29499
B 249.678	14.0523	ppb	0.9850	7.0	53.1004	14.05235

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	0.7115	ppb	0.6681	93.9	-28.6819	0.71149
Be 313.042	0.0579	ppb	0.0075	12.9	-260.369	0.05790
Ca 370.602	-1.416	ppb	1.143	80.7	28.74	-1.41615
Cd 226.502	0.1248	ppb	0.0858	68.7	-16.4652	0.12478
Co 228.615	0.3088	ppb	0.1977	64.0	-29.3117	0.30878
Cr 267.716	-0.0220	ppb	0.1762	800.8	15.3779	-0.02200
Cu 324.754	0.0439	ppb	0.1248	284.5	215.542	0.04387
Fe 271.441	-5.1294	ppb	2.2407	43.7	41.6991	-5.12944
K 766.491	-0.1439	ppb	0.5689	395.5	256.569	-0.14386
Mg 279.078	-2.2239	ppb	1.8506	83.2	15.4437	-2.22386
Mn 257.610	-0.0427	ppb	0.0232	54.3	51.2341	-0.04267
Mo 202.032	0.4012	ppb	0.4780	119.1	-1.1889	0.40116
Na 330.237	-105.694	ppb	44.9868	42.6	34.0541	-105.69421
Ni 231.604	2.0769	ppb	0.0634	3.1	-11.0143	2.07695
Pb 220.353	-1.0962	ppb	2.3948	218.5	8.7630	-1.09624
Sb 206.834	0.5712	ppb	4.3169	755.7	-1.6755	0.57121
Se 196.026	-2.5844	ppb	3.0046	116.3	-0.1363	-2.58438
Si 288.158	0.5257uv	ppb	0.8661	164.8	407.384	0.52565
Sn 189.925	-0.8633	ppb	1.3534	156.8	0.1441	-0.86330
Sr 216.596	0.5322	ppb	0.2673	50.2	12.1283	0.53219
Ti 334.941	0.0108	ppb	0.0238	220.4	25.7346	0.01081
Tl 190.794	1.3703	ppb	4.4358	323.7	-5.4643	1.37027
V 292.401	-0.0911	ppb	0.1401	153.9	8.6115	-0.09105
Zn 206.200	0.6043	ppb	0.1318	21.8	-1.7956	0.60428

680-201860-d-1-c (Samp) **7/26/2021, 2:28:41 PM** **Rack 1, Tube 11**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0881u	-0.1733u	-0.1754u
Al 308.215	44.4929	38.9391	38.9077
As 188.980	-2.2038u	0.7263	3.7821
B 249.678	211.795	211.948	212.226
Ba 389.178	17.2337	17.6958	16.9787
Be 313.042	0.0419	0.0285	0.0335
Ca 370.602	94802	94718	94751
Cd 226.502	0.0537	0.1129	0.1600
Co 228.615	0.7687	0.0305	0.7510
Cr 267.716	0.2664	0.5762	-0.2477u
Cu 324.754	0.1434	0.7325	0.6228
Fe 271.441	0.3998	-1.6857u	-0.6870u
K 766.491	8065.70	8030.56	8042.31
Mg 279.078	10518.9	10507.5	10495.5
Mn 257.610	29.3743	29.3514	29.3961
Mo 202.032	3.9501	0.9194	2.8019
Na 330.237	120683x	120281x	120331x
Ni 231.604	3.4758	3.7684	3.3406
Pb 220.353	0.5337	-0.9816u	0.0551
Sb 206.834	0.8864	-5.1599u	3.6912
Se 196.026	4.2309	-1.2142u	4.3848
Si 288.158	7615.67	7596.23	7601.82
Sn 189.925	-4.6537u	-1.5187u	-5.4932u
Sr 216.596	498.473	497.982	495.637
Ti 334.941	0.2138	0.3249	0.3276

Label	Replicates Concentration		
Tl 190.794	-3.0888u	1.5740	0.1065
V 292.401	2.4234	1.6801	1.4430
Zn 206.200	1.2080	1.0424	1.4173

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1456b	ppb	0.0498	34.2	2.4706
Al 308.215	40.7799b	ppb	3.2156	7.9	866.422
As 188.980	0.7682b	ppb	2.9932	389.6	-2.8061
B 249.678	211.989b	ppb	0.2185	0.1	1569.88
Ba 389.178	17.3027b	ppb	0.3635	2.1	178.596
Be 313.042	0.0346b	ppb	0.0068	19.6	-272.794
Ca 370.602	94757b	ppb	42.16	0.0	205967
Cd 226.502	0.1089b	ppb	0.0533	48.9	-17.0697
Co 228.615	0.5167b	ppb	0.4212	81.5	-28.1887
Cr 267.716	0.1983b	ppb	0.4162	209.9	21.9787
Cu 324.754	0.4995b	ppb	0.3132	62.7	234.610
Fe 271.441	-0.6576b	ppb	1.0431	158.6	45.4055
K 766.491	8046.19b	ppb	17.8854	0.2	205456
Mg 279.078	10507.3b	ppb	11.7205	0.1	15777.8
Mn 257.610	29.3739b	ppb	0.0223	0.1	3104.76
Mo 202.032	2.5572b	ppb	1.5301	59.8	5.5920
Na 330.237	120432xb	ppb	219.110	0.2	4280.65
Ni 231.604	3.5283b	ppb	0.2187	6.2	-8.8087
Pb 220.353	-0.1310b	ppb	0.7746	591.4	9.4721
Sb 206.834	-0.1941b	ppb	4.5234	2330.3	-2.1652
Se 196.026	2.4672b	ppb	3.1891	129.3	1.3694
Si 288.158	7604.57b	ppb	10.0103	0.1	45455.3
Sn 189.925	-3.8885b	ppb	2.0948	53.9	-1.0824
Sr 216.596	497.364b	ppb	1.5153	0.3	2791.29
Ti 334.941	0.2888b	ppb	0.0649	22.5	61.8917
Tl 190.794	-0.4695b	ppb	2.3841	507.9	-6.5853
V 292.401	1.8488b	ppb	0.5116	27.7	33.5360
Zn 206.200	1.2226b	ppb	0.1879	15.4	-1.3764

mb 680-677774/1-a (Samp) **7/26/2021, 2:33:12 PM** **Rack 1, Tube 12**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1836u	-0.0321u	-0.0789u
Al 308.215	-40.4361u	-36.0668u	-35.0480u
As 188.980	4.5476	-1.3243u	-1.2922u
B 249.678	8.4968	8.5154	7.7532
Ba 389.178	1.1325	1.8360	2.1793
Be 313.042	0.0494	0.0571	0.0418
Ca 370.602	2.425	4.779	-0.1384u
Cd 226.502	0.3552	0.3220	0.1100
Co 228.615	1.1156	1.0543	0.4899
Cr 267.716	0.1161	0.4269	0.4029
Cu 324.754	-0.0522u	-0.2843u	0.0975
Fe 271.441	2.5980	5.3831	4.2361
K 766.491	2.1669	2.8022	1.4717
Mg 279.078	1.4627	3.7296	0.3795
Mn 257.610	0.1211	0.1894	0.2260
Mo 202.032	0.2968	-0.6895u	0.6342

Label	Replicates Concentration		
Na 330.237	82.0568	-218.636u	121.152
Ni 231.604	2.8426	4.0280	2.4308
Pb 220.353	1.0737	-1.9602u	0.1810
Sb 206.834	-3.7108u	-3.1613u	2.2598
Se 196.026	-8.3251u	-3.8275u	-0.8464u
Si 288.158	3.2211	3.9917	3.8901
Sn 189.925	1.9728	-2.6078u	2.3113
Sr 216.596	0.0431	-0.0811u	-0.3638u
Ti 334.941	0.0094	0.0476	0.0225
Tl 190.794	4.0192	1.6094	0.9693
V 292.401	0.1902	0.2558	-0.1714u
Zn 206.200	1.0686	-1.0303u	0.8935

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0982	ppb	0.0776	78.9	6.7047
Al 308.215	-37.1836	ppb	2.8624	7.7	614.069
As 188.980	0.6437	ppb	3.3809	525.2	-2.8584
B 249.678	8.2551	ppb	0.4348	5.3	8.6627
Ba 389.178	1.7159	ppb	0.5336	31.1	-17.0711
Be 313.042	0.0494	ppb	0.0077	15.5	-268.397
Ca 370.602	2.355	ppb	2.459	104.4	36.92
Cd 226.502	0.2624	ppb	0.1330	50.7	-13.6012
Co 228.615	0.8866	ppb	0.3449	38.9	-26.1871
Cr 267.716	0.3153	ppb	0.1729	54.9	23.7614
Cu 324.754	-0.0797	ppb	0.1924	241.4	210.377
Fe 271.441	4.0724	ppb	1.3997	34.4	49.3161
K 766.491	2.1469	ppb	0.6655	31.0	314.990
Mg 279.078	1.8573	ppb	1.7095	92.0	21.5624
Mn 257.610	0.1788	ppb	0.0532	29.8	74.2182
Mo 202.032	0.0805	ppb	0.6878	854.2	-2.1975
Na 330.237	-5.1427	ppb	185.921	3615.3	37.5885
Ni 231.604	3.1005	ppb	0.8293	26.7	-9.4593
Pb 220.353	-0.2352	ppb	1.5591	663.0	9.3953
Sb 206.834	-1.5374	ppb	3.3000	214.6	-2.9670
Se 196.026	-4.3330	ppb	3.7649	86.9	-0.6559
Si 288.158	3.7010	ppb	0.4187	11.3	426.366
Sn 189.925	0.5588	ppb	2.7475	491.7	0.7302
Sr 216.596	-0.1339	ppb	0.2086	155.7	8.4199
Ti 334.941	0.0265	ppb	0.0194	73.2	28.0433
Tl 190.794	2.1993	ppb	1.6083	73.1	-4.9615
V 292.401	0.0915	ppb	0.2301	251.4	10.9919
Zn 206.200	0.3106	ppb	1.1646	374.9	-1.9950

lcs 680-677774/2-a (Samp) **7/26/2021, 2:37:42 PM** **Rack 1, Tube 13**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.7731	46.1989	47.3277
Al 308.215	4661.78	4651.31	4650.34
As 188.980	88.3369	97.3112	96.5080
B 249.678	194.654	195.473	197.357
Ba 389.178	101.175	99.4296	100.550
Be 313.042	47.3898	47.4436	47.5306
Ca 370.602	4760	4747	4768

Label	Replicates Concentration		
Cd 226.502	47.3113	47.8672	47.9015
Co 228.615	48.0916	49.2230	48.1332
Cr 267.716	96.6397	96.5152	96.4137
Cu 324.754	95.0634	95.5927	95.1254
Fe 271.441	4779.81	4780.61	4777.99
K 766.491	6740.52	6739.49	6757.34
Mg 279.078	4650.34	4648.00	4671.65
Mn 257.610	381.113	380.798	381.730
Mo 202.032	95.5086	96.5012	95.8676
Na 330.237	4544.85	4479.97	4545.93
Ni 231.604	94.9209	95.7292	97.6153
Pb 220.353	473.335	475.790	470.412
Sb 206.834	49.5166	48.2334	50.1395
Se 196.026	91.7379	95.4404	101.760
Si 288.158	-7.7331	-4.9961	-5.2040
Sn 189.925	92.3841	87.2984	95.2652
Sr 216.596	95.7172	94.2125	95.2183
Ti 334.941	337.552	337.464	338.506
Tl 190.794	36.8706	44.1028	42.5855
V 292.401	95.2748	95.9887	96.1005
Zn 206.200	95.4182	95.1865	96.4587

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.0999	ppb	0.8114	1.7	2005.12
Al 308.215	4654.48	ppb	6.3467	0.1	15803.4
As 188.980	94.0520	ppb	4.9657	5.3	36.2944
B 249.678	195.828	ppb	1.3860	0.7	1436.90
Ba 389.178	100.385	ppb	0.8846	0.9	1128.98
Be 313.042	47.4547	ppb	0.0710	0.1	44840.7
Ca 370.602	4758	ppb	10.79	0.2	10379
Cd 226.502	47.6933	ppb	0.3313	0.7	976.425
Co 228.615	48.4826	ppb	0.6416	1.3	234.483
Cr 267.716	96.5229	ppb	0.1132	0.1	2416.25
Cu 324.754	95.2605	ppb	0.2893	0.3	4194.62
Fe 271.441	4779.47	ppb	1.3405	0.0	3990.84
K 766.491	6745.78	ppb	10.0220	0.1	172293
Mg 279.078	4656.67	ppb	13.0285	0.3	6998.31
Mn 257.610	381.214	ppb	0.4742	0.1	39626.0
Mo 202.032	95.9591	ppb	0.5026	0.5	299.228
Na 330.237	4523.58	ppb	37.7774	0.8	190.680
Ni 231.604	96.0885	ppb	1.3827	1.4	131.813
Pb 220.353	473.179	ppb	2.6923	0.6	356.796
Sb 206.834	49.2965	ppb	0.9720	2.0	27.6447
Se 196.026	96.3126	ppb	5.0675	5.3	29.3551
Si 288.158	-5.9777	ppb	1.5237	25.5	415.255
Sn 189.925	91.6493	ppb	4.0339	4.4	38.2707
Sr 216.596	95.0493	ppb	0.7664	0.8	538.027
Ti 334.941	337.841	ppb	0.5782	0.2	49685.3
Tl 190.794	41.1863	ppb	3.8137	9.3	18.2826
V 292.401	95.7880	ppb	0.4479	0.5	1261.00
Zn 206.200	95.6878	ppb	0.6776	0.7	62.6667

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680-201856-b-10-d (Samp) **7/26/2021, 2:42:11 PM** **Rack 1, Tube 14**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2432u	-0.2272u	-0.2252u
Al 308.215	121.929	124.421	121.459
As 188.980	4.9079	-4.7911u	-0.4425u
B 249.678	10.5083	11.1207	11.0740
Ba 389.178	274.173	273.411	272.569
Be 313.042	0.3487	0.3447	0.3464
Ca 370.602	2297	2299	2310
Cd 226.502	0.2387	0.0754	0.1077
Co 228.615	6.5213	4.8834	5.5722
Cr 267.716	1.7577	2.0880	1.8900
Cu 324.754	1.3678	1.2376	0.7087
Fe 271.441	142.448	148.373	134.578
K 766.491	3551.13	3530.08	3554.44
Mg 279.078	1585.87	1587.49	1598.29
Mn 257.610	21.9211	21.9288	22.0679
Mo 202.032	0.9930	0.0530	1.0821
Na 330.237	7748.52	7645.69	7690.03
Ni 231.604	5.9032	4.5135	5.8997
Pb 220.353	-1.2003u	0.5275	0.1815
Sb 206.834	-2.5899u	1.9534	4.5983
Se 196.026	-1.9291u	7.2123	4.0131
Si 288.158	6056.08	6038.53	6076.81
Sn 189.925	5.0736	2.7118	-4.1240u
Sr 216.596	44.8243	44.9118	45.0528
Ti 334.941	1.7128	1.6302	1.7389
Tl 190.794	3.4773	0.8376	4.1906
V 292.401	0.6451	-0.1179u	0.5114
Zn 206.200	15.3499	16.1203	17.9829

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2319	ppb	0.0099	4.3	0.9031
Al 308.215	122.603	ppb	1.5915	1.3	1131.11
As 188.980	-0.1086	ppb	4.8581	4474.7	-3.1731
B 249.678	10.9010	ppb	0.3409	3.1	28.6825
Ba 389.178	273.384	ppb	0.8026	0.3	3123.45
Be 313.042	0.3466	ppb	0.0020	0.6	14.1397
Ca 370.602	2302	ppb	6.911	0.3	5035
Cd 226.502	0.1406	ppb	0.0865	61.5	-15.9617
Co 228.615	5.6590	ppb	0.8224	14.5	-0.3661
Cr 267.716	1.9119	ppb	0.1662	8.7	63.5668
Cu 324.754	1.1047	ppb	0.3491	31.6	259.880
Fe 271.441	141.800	ppb	6.9202	4.9	163.186
K 766.491	3545.22	ppb	13.2171	0.4	90671.4
Mg 279.078	1590.55	ppb	6.7517	0.4	2404.11
Mn 257.610	21.9726	ppb	0.0826	0.4	2336.17
Mo 202.032	0.7094	ppb	0.5702	80.4	-0.2227
Na 330.237	7694.75	ppb	51.5745	0.7	308.576
Ni 231.604	5.4388	ppb	0.8014	14.7	-5.9110
Pb 220.353	-0.1638	ppb	0.9142	558.3	9.4523
Sb 206.834	1.3206	ppb	3.6356	275.3	-1.2053
Se 196.026	3.0987	ppb	4.6388	149.7	1.5573
Si 288.158	6057.14	ppb	19.1614	0.3	36288.0

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	1.2204	ppb	4.7767	391.4	1.0041
Sr 216.596	44.9297	ppb	0.1153	0.3	259.930
Ti 334.941	1.6940	ppb	0.0567	3.3	272.855
Tl 190.794	2.8352	ppb	1.7663	62.3	-4.5795
V 292.401	0.3462	ppb	0.4075	117.7	14.3068
Zn 206.200	16.4843	ppb	1.3537	8.2	8.9735

680-201856-b-10-e ms (Samp) **7/26/2021, 2:46:40 PM** **Rack 1, Tube 15**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.4878	48.1175	47.9989
Al 308.215	4916.30	4961.92	4958.55
As 188.980	92.8849	93.3494	93.4086
B 249.678	199.730	202.731	203.273
Ba 389.178	373.812	377.518	377.726
Be 313.042	48.6516	49.0281	48.7985
Ca 370.602	7144	7209	7182
Cd 226.502	48.4496	48.4910	48.7944
Co 228.615	53.3309	53.4732	53.9721
Cr 267.716	99.8482	99.9071	100.098
Cu 324.754	97.3789	98.5815	98.3755
Fe 271.441	5041.50	5083.97	5052.35
K 766.491	10518.3	10594.0	10585.6
Mg 279.078	6334.60	6372.31	6348.25
Mn 257.610	407.098	410.651	410.076
Mo 202.032	97.2553	96.2553	96.8202
Na 330.237	12426.9	12567.7	12604.4
Ni 231.604	102.524	102.625	102.677
Pb 220.353	482.697	489.458	494.289
Sb 206.834	40.0375	56.4921	55.8116
Se 196.026	90.4403	93.3269	94.5622
Si 288.158	6251.40	6301.33	6289.73
Sn 189.925	95.2899	102.665	93.0235
Sr 216.596	142.563	143.056	143.990
Ti 334.941	343.450	346.291	345.038
Tl 190.794	39.4654	41.0219	43.1432
V 292.401	96.4977	98.3867	97.6453
Zn 206.200	119.335	112.948	113.911

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.8681	ppb	0.3346	0.7	2037.50
Al 308.215	4945.59	ppb	25.4233	0.5	16745.5
As 188.980	93.2143	ppb	0.2868	0.3	35.9443
B 249.678	201.911	ppb	1.9084	0.9	1483.01
Ba 389.178	376.352	ppb	2.2021	0.6	4319.30
Be 313.042	48.8261	ppb	0.1898	0.4	46145.6
Ca 370.602	7178	ppb	32.72	0.5	15639
Cd 226.502	48.5783	ppb	0.1883	0.4	995.121
Co 228.615	53.5921	ppb	0.3367	0.6	262.188
Cr 267.716	99.9512	ppb	0.1308	0.1	2501.60
Cu 324.754	98.1120	ppb	0.6432	0.7	4313.77
Fe 271.441	5059.27	ppb	22.0634	0.4	4221.86
K 766.491	10565.9	ppb	41.5145	0.4	269716

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	6351.72	ppb	19.0918	0.3	9540.28
Mn 257.610	409.275	ppb	1.9069	0.5	42538.5
Mo 202.032	96.7769	ppb	0.5014	0.5	301.794
Na 330.237	12533.0	ppb	93.7107	0.7	472.415
Ni 231.604	102.609	ppb	0.0775	0.1	141.717
Pb 220.353	488.815	ppb	5.8228	1.2	368.276
Sb 206.834	50.7804	ppb	9.3098	18.3	28.5644
Se 196.026	92.7765	ppb	2.1154	2.3	28.3108
Si 288.158	6280.82	ppb	26.1288	0.4	37659.9
Sn 189.925	96.9928	ppb	5.0412	5.2	40.4742
Sr 216.596	143.203	ppb	0.7245	0.5	806.785
Ti 334.941	344.927	ppb	1.4239	0.4	50726.6
Tl 190.794	41.2102	ppb	1.8461	4.5	18.2865
V 292.401	97.5099	ppb	0.9517	1.0	1283.48
Zn 206.200	115.398	ppb	3.4432	3.0	76.0334

680-201856-b-10-f ms (Samp) **7/26/2021, 2:51:09 PM** **Rack 1, Tube 16**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.2274	47.3290	46.9092
Al 308.215	4868.93	4890.17	4881.55
As 188.980	93.7946	97.3747	89.3236
B 249.678	201.483	202.364	202.978
Ba 389.178	367.045	366.249	366.958
Be 313.042	48.3364	48.3980	48.3690
Ca 370.602	7055	7083	7073
Cd 226.502	48.3023	47.9471	48.0765
Co 228.615	51.4523	53.4825	53.0785
Cr 267.716	98.8322	99.3711	99.4899
Cu 324.754	96.8588	96.5832	96.4445
Fe 271.441	4977.42	4995.81	4989.18
K 766.491	10390.8	10412.9	10408.2
Mg 279.078	6262.71	6273.03	6278.40
Mn 257.610	403.937	405.454	405.039
Mo 202.032	95.5542	97.6668	97.3551
Na 330.237	12352.9	12369.6	12650.0
Ni 231.604	102.342	101.535	100.699
Pb 220.353	475.667	475.181	474.578
Sb 206.834	45.6174	51.9522	51.6738
Se 196.026	96.3518	92.2451	83.3885
Si 288.158	6110.36	6121.14	6120.87
Sn 189.925	99.7344	96.1017	100.625
Sr 216.596	140.961	141.232	142.651
Ti 334.941	341.055	341.771	341.527
Tl 190.794	41.0237	44.6731	33.9926
V 292.401	95.7257	96.9865	96.4183
Zn 206.200	113.860	112.851	115.515

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.1552	ppb	0.2190	0.5	2007.32
Al 308.215	4880.21	ppb	10.6784	0.2	16533.9
As 188.980	93.4976	ppb	4.0338	4.3	36.0628
B 249.678	202.275	ppb	0.7517	0.4	1485.93

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	366.751	ppb	0.4363	0.1	4208.27
Be 313.042	48.3678	ppb	0.0308	0.1	45709.4
Ca 370.602	7070	ppb	14.12	0.2	15404
Cd 226.502	48.1086	ppb	0.1797	0.4	985.287
Co 228.615	52.6711	ppb	1.0747	2.0	257.164
Cr 267.716	99.2311	ppb	0.3505	0.4	2483.69
Cu 324.754	96.6288	ppb	0.2109	0.2	4251.83
Fe 271.441	4987.47	ppb	9.3128	0.2	4162.64
K 766.491	10404.0	ppb	11.6325	0.1	265586
Mg 279.078	6271.38	ppb	7.9731	0.1	9419.84
Mn 257.610	404.810	ppb	0.7837	0.2	42075.0
Mo 202.032	96.8587	ppb	1.1404	1.2	302.053
Na 330.237	12457.5	ppb	166.905	1.3	469.822
Ni 231.604	101.526	ppb	0.8219	0.8	140.071
Pb 220.353	475.142	ppb	0.5454	0.1	358.241
Sb 206.834	49.7478	ppb	3.5797	7.2	27.9241
Se 196.026	90.6618	ppb	6.6251	7.3	27.6811
Si 288.158	6117.46	ppb	6.1452	0.1	36692.3
Sn 189.925	98.8204	ppb	2.3962	2.4	41.2274
Sr 216.596	141.615	ppb	0.9077	0.6	797.898
Ti 334.941	341.451	ppb	0.3640	0.1	50215.7
Tl 190.794	39.8965	ppb	5.4287	13.6	17.4947
V 292.401	96.3768	ppb	0.6314	0.7	1268.68
Zn 206.200	114.076	ppb	1.3453	1.2	75.1365

680-201860-a-2-b (Samp) **7/26/2021, 2:55:38 PM** **Rack 1, Tube 17**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1384u	-0.1627u	0.0159u
Al 308.215	-27.2317u	-28.0055u	-24.7251u
As 188.980	3.2380	1.7363	-3.4093u
B 249.678	161.642	161.936	162.369
Ba 389.178	95.1046	95.9137	94.0697
Be 313.042	0.0168	0.0255	0.0180
Ca 370.602	114402	114387	114458
Cd 226.502	0.2378	0.2983	0.3628
Co 228.615	-0.2690u	0.0659	1.4527
Cr 267.716	0.0450	0.1241	0.5455
Cu 324.754	1.3338	1.5618	1.7867
Fe 271.441	475.787	478.448	492.686
K 766.491	6907.28	6921.36	6915.00
Mg 279.078	12143.6	12157.0	12148.1
Mn 257.610	80.0796	80.2676	80.2818
Mo 202.032	2.2131	2.3234	0.6784
Na 330.237	125136x	124675x	124843x
Ni 231.604	2.4503	1.9064	4.9179
Pb 220.353	-0.2808u	-1.2812u	1.1709
Sb 206.834	-5.0099u	-2.8550u	5.3466
Se 196.026	1.2753	2.5785	2.1251
Si 288.158	7783.88	7786.66	7792.43
Sn 189.925	-2.3205u	4.6058	-4.1112u
Sr 216.596	552.938	555.185	556.363
Ti 334.941	0.2869	0.2986	0.2895

Label	Replicates Concentration		
Tl 190.794	-4.3809u	2.4014	2.9110
V 292.401	2.1621	2.1648	2.1242
Zn 206.200	4.3960	3.0581	0.3803

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0951b	ppb	0.0969	101.9	4.4929
Al 308.215	-26.6541b	ppb	1.7148	6.4	648.241
As 188.980	0.5217b	ppb	3.4861	668.3	-2.9085
B 249.678	161.982b	ppb	0.3655	0.2	1185.76
Ba 389.178	95.0293b	ppb	0.9243	1.0	1079.50
Be 313.042	0.0201b	ppb	0.0047	23.4	-283.391
Ca 370.602	114416b	ppb	37.72	0.0	248691
Cd 226.502	0.2996b	ppb	0.0625	20.9	-12.5216
Co 228.615	0.4165b	ppb	0.9128	219.1	-28.7131
Cr 267.716	0.2382b	ppb	0.2690	113.0	23.1224
Cu 324.754	1.5608b	ppb	0.2264	14.5	279.039
Fe 271.441	482.307b	ppb	9.0862	1.9	443.645
K 766.491	6914.55b	ppb	7.0495	0.1	176597
Mg 279.078	12149.6b	ppb	6.8260	0.1	18240.5
Mn 257.610	80.2097b	ppb	0.1128	0.1	8380.86
Mo 202.032	1.7383b	ppb	0.9196	52.9	3.0060
Na 330.237	124884xb	ppb	233.342	0.2	4437.47
Ni 231.604	3.0915b	ppb	1.6049	51.9	-9.4719
Pb 220.353	-0.1303b	ppb	1.2329	945.9	9.4997
Sb 206.834	-0.8394b	ppb	5.4645	651.0	-2.5495
Se 196.026	1.9930b	ppb	0.6615	33.2	1.2403
Si 288.158	7787.66b	ppb	4.3640	0.1	46539.8
Sn 189.925	-0.6087b	ppb	4.6037	756.4	0.2700
Sr 216.596	554.829b	ppb	1.7402	0.3	3113.62
Ti 334.941	0.2917b	ppb	0.0062	2.1	62.1458
Tl 190.794	0.3105b	ppb	4.0709	1311.1	-6.1249
V 292.401	2.1504b	ppb	0.0227	1.1	37.5019
Zn 206.200	2.6114b	ppb	2.0448	78.3	-0.4313

mb 680-677771/1-a (Samp) **7/26/2021, 3:00:08 PM** **Rack 1, Tube 18**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.3427	0.1142	-0.1292u
Al 308.215	-38.1126u	-36.0110u	-34.1266u
As 188.980	0.9177	-0.0393u	4.2777
B 249.678	7.3534	7.3777	6.1796
Ba 389.178	0.7854	1.2650	0.4134
Be 313.042	0.0403	0.0393	0.0510
Ca 370.602	1.620	-3.591u	1.057
Cd 226.502	0.3419	-0.1255u	0.4238
Co 228.615	0.9944	-0.2998u	0.2886
Cr 267.716	-0.0530u	-0.0396u	0.2067
Cu 324.754	0.0293	0.4838	0.0959
Fe 271.441	-8.4639u	7.4822	-4.6404u
K 766.491	0.5521	0.5298	0.4679
Mg 279.078	-5.6744u	0.1444	-0.4973u
Mn 257.610	0.0271	-0.0572u	0.0049
Mo 202.032	-0.1035u	0.2254	0.0518

Label	Replicates Concentration		
Na 330.237	-61.5606u	-142.724u	-190.816u
Ni 231.604	3.3895	2.6730	1.3397
Pb 220.353	-6.4222u	-2.7730u	-2.6599u
Sb 206.834	8.6816	-4.2297u	1.8652
Se 196.026	7.6616	-3.8051u	-4.8798u
Si 288.158	0.2409	-1.4340u	-0.9210u
Sn 189.925	-4.0714u	-0.8267u	-0.8064u
Sr 216.596	0.6026	0.4370	-0.5658u
Ti 334.941	-0.0086u	0.0558	0.0339
Tl 190.794	2.3521	-0.2124u	2.4241
V 292.401	0.5511	0.3062	0.2598
Zn 206.200	1.4817	0.0191	0.2927

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.1092	ppb	0.2360	216.1	15.4839
Al 308.215	-36.0834	ppb	1.9940	5.5	617.638
As 188.980	1.7187	ppb	2.2672	131.9	-2.4078
B 249.678	6.9702	ppb	0.6848	9.8	-1.1767
Ba 389.178	0.8213	ppb	0.4270	52.0	-27.4140
Be 313.042	0.0435	ppb	0.0065	14.9	-273.967
Ca 370.602	-0.3047	ppb	2.860	938.8	31.15
Cd 226.502	0.2134	ppb	0.2963	138.9	-14.6224
Co 228.615	0.3277	ppb	0.6480	197.7	-29.2072
Cr 267.716	0.0380	ppb	0.1462	384.7	16.8691
Cu 324.754	0.2030	ppb	0.2455	120.9	222.175
Fe 271.441	-1.8740	ppb	8.3252	444.2	44.3901
K 766.491	0.5166	ppb	0.0436	8.4	273.412
Mg 279.078	-2.0091	ppb	3.1904	158.8	15.7653
Mn 257.610	-0.0084	ppb	0.0437	519.7	54.7882
Mo 202.032	0.0579	ppb	0.1645	284.3	-2.2687
Na 330.237	-131.700	ppb	65.3291	49.6	33.1192
Ni 231.604	2.4674	ppb	1.0403	42.2	-10.4211
Pb 220.353	-3.9517	ppb	2.1403	54.2	6.6683
Sb 206.834	2.1057	ppb	6.4590	306.7	-0.7240
Se 196.026	-0.3411	ppb	6.9514	2037.9	0.5305
Si 288.158	-0.7047uv	ppb	0.8582	121.8	400.078
Sn 189.925	-1.9015	ppb	1.8792	98.8	-0.2838
Sr 216.596	0.1580	ppb	0.6322	400.2	10.0542
Ti 334.941	0.0270	ppb	0.0327	121.0	28.1206
Tl 190.794	1.5213	ppb	1.5018	98.7	-5.3726
V 292.401	0.3724	ppb	0.1566	42.0	14.6556
Zn 206.200	0.5978	ppb	0.7776	130.1	-1.8002

lcs 680-677771/2-a (Samp) **7/26/2021, 3:04:38 PM** **Rack 1, Tube 19**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.8493	48.5279	48.0236
Al 308.215	4690.64	4674.78	4672.96
As 188.980	97.3675	95.4251	89.6446
B 249.678	195.575	195.859	196.970
Ba 389.178	101.027	101.703	101.733
Be 313.042	47.6358	47.5720	47.6621
Ca 370.602	4782	4769	4767

Label	Replicates Concentration		
Cd 226.502	47.8338	47.7843	48.1626
Co 228.615	47.0029	48.1669	47.2141
Cr 267.716	96.9962	96.2341	96.8027
Cu 324.754	96.0092	95.8958	96.1437
Fe 271.441	4841.24	4821.22	4831.41
K 766.491	6834.46	6829.07	6831.60
Mg 279.078	4698.30	4677.49	4671.92
Mn 257.610	385.432	383.555	384.196
Mo 202.032	95.4640	97.4548	96.8217
Na 330.237	4356.87	4465.10	4423.02
Ni 231.604	100.561	98.6079	99.5119
Pb 220.353	473.475	477.961	480.468
Sb 206.834	56.1825	46.0831	42.4692
Se 196.026	92.8476	95.3638	92.6595
Si 288.158	-6.6194	-5.8924	-7.2273
Sn 189.925	91.4759	98.1288	96.9658
Sr 216.596	95.3509	95.5813	95.7233
Ti 334.941	338.265	337.343	338.444
Tl 190.794	38.8807	36.9613	40.4209
V 292.401	97.0696	96.6828	95.8264
Zn 206.200	96.4019	96.6344	95.8289

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.4669	ppb	0.4162	0.9	2062.97
Al 308.215	4679.46	ppb	9.7238	0.2	15884.3
As 188.980	94.1457	ppb	4.0173	4.3	36.3339
B 249.678	196.135	ppb	0.7371	0.4	1439.13
Ba 389.178	101.488	ppb	0.3988	0.4	1141.77
Be 313.042	47.6233	ppb	0.0463	0.1	45001.2
Ca 370.602	4773	ppb	8.149	0.2	10411
Cd 226.502	47.9269	ppb	0.2056	0.4	981.349
Co 228.615	47.4613	ppb	0.6201	1.3	228.974
Cr 267.716	96.6777	ppb	0.3962	0.4	2420.10
Cu 324.754	96.0163	ppb	0.1241	0.1	4226.20
Fe 271.441	4831.29	ppb	10.0111	0.2	4033.55
K 766.491	6831.71	ppb	2.6959	0.0	174485
Mg 279.078	4682.57	ppb	13.9019	0.3	7037.13
Mn 257.610	384.394	ppb	0.9542	0.2	39956.1
Mo 202.032	96.5801	ppb	1.0171	1.1	301.180
Na 330.237	4415.00	ppb	54.5566	1.2	186.841
Ni 231.604	99.5603	ppb	0.9775	1.0	137.090
Pb 220.353	477.301	ppb	3.5425	0.7	359.823
Sb 206.834	48.2449	ppb	7.1077	14.7	26.9965
Se 196.026	93.6236	ppb	1.5100	1.6	28.5568
Si 288.158	-6.5797	ppb	0.6683	10.2	411.915
Sn 189.925	95.5235	ppb	3.5532	3.7	39.8674
Sr 216.596	95.5519	ppb	0.1879	0.2	540.821
Ti 334.941	338.017	ppb	0.5907	0.2	49711.3
Tl 190.794	38.7543	ppb	1.7332	4.5	16.8064
V 292.401	96.5263	ppb	0.6362	0.7	1270.63
Zn 206.200	96.2884	ppb	0.4146	0.4	63.0742

660-112361-c-1-d (Samp) **7/26/2021, 3:09:09 PM** **Rack 1, Tube 20**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2148u	0.0148	-0.2091u
Al 308.215	-28.6238u	-27.9167u	-28.6575u
As 188.980	1.3062	-9.0519u	2.7545
B 249.678	20.0233	19.6727	17.9235
Ba 389.178	16.9114	15.5443	15.2773
Be 313.042	0.0367	0.0357	0.0463
Ca 370.602	28033	28210	28123
Cd 226.502	0.2675	0.2752	0.4856
Co 228.615	0.3262	0.6370	-0.4759u
Cr 267.716	0.2086	0.5037	0.1448
Cu 324.754	0.4414	0.6068	0.6212
Fe 271.441	-0.2959u	0.0372	6.3027
K 766.491	2246.88	2266.85	2256.69
Mg 279.078	4159.69	4182.51	4168.85
Mn 257.610	0.1613	0.1591	0.1909
Mo 202.032	1.7587	0.7506	1.8225
Na 330.237	15628.0	15693.9	15591.2
Ni 231.604	4.6726	2.9367	2.3647
Pb 220.353	-1.1256u	-1.3212u	1.3514
Sb 206.834	-1.3620u	-5.5526u	-1.9602u
Se 196.026	0.4836	7.6463	-8.8432u
Si 288.158	16522.7	16650.8	16574.6
Sn 189.925	-1.9892u	-1.4120u	-0.9850u
Sr 216.596	81.6116	83.0369	82.2462
Ti 334.941	0.1911	0.1441	0.1715
Tl 190.794	-4.6660u	1.1956	6.0365
V 292.401	2.4681	2.1153	2.3039
Zn 206.200	5.3453	7.5504	3.0889

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1364	ppb	0.1310	96.0	4.6814
Al 308.215	-28.3993	ppb	0.4183	1.5	642.644
As 188.980	-1.6637	ppb	6.4392	387.0	-3.8254
B 249.678	19.2065	ppb	1.1249	5.9	92.5864
Ba 389.178	15.9110	ppb	0.8766	5.5	152.540
Be 313.042	0.0396	ppb	0.0058	14.8	-273.694
Ca 370.602	28122	ppb	88.82	0.3	61149
Cd 226.502	0.3428	ppb	0.1237	36.1	-11.9519
Co 228.615	0.1624	ppb	0.5743	353.6	-30.1031
Cr 267.716	0.2857	ppb	0.1915	67.0	23.1627
Cu 324.754	0.5565	ppb	0.0999	18.0	236.956
Fe 271.441	2.0147	ppb	3.7173	184.5	47.5596
K 766.491	2256.81	ppb	9.9876	0.4	57814.0
Mg 279.078	4170.35	ppb	11.4815	0.3	6273.67
Mn 257.610	0.1705	ppb	0.0178	10.4	73.4861
Mo 202.032	1.4439	ppb	0.6013	41.6	2.0901
Na 330.237	15637.7	ppb	52.0352	0.3	588.602
Ni 231.604	3.3247	ppb	1.2018	36.1	-9.1171
Pb 220.353	-0.3651	ppb	1.4898	408.0	9.2992
Sb 206.834	-2.9583	ppb	2.2666	76.6	-3.8543
Se 196.026	-0.2377	ppb	8.2684	3478.0	0.5612
Si 288.158	16582.7	ppb	64.4607	0.4	98642.8

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-1.4620	ppb	0.5040	34.5	-0.1000
Sr 216.596	82.2982	ppb	0.7141	0.9	470.608
Ti 334.941	0.1689	ppb	0.0236	14.0	48.3583
Tl 190.794	0.8554	ppb	5.3594	626.6	-5.7772
V 292.401	2.2958	ppb	0.1765	7.7	39.7062
Zn 206.200	5.3282	ppb	2.2308	41.9	1.4077

Cont Calib Verif (CCV) **7/26/2021, 3:13:41 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	482.112	482.852	480.359
Al 308.215	9553.36	9621.28	9557.97
As 188.980	479.661	494.407	479.325
B 249.678	480.985	485.448	487.019
Ba 389.178	489.185	491.292	490.870
Be 313.042	488.793	491.756	489.767
Ca 370.602	9677	9735	9697
Cd 226.502	479.352	482.278	480.529
Co 228.615	485.716	491.681	483.367
Cr 267.716	481.641	484.821	482.718
Cu 324.754	486.004	484.812	486.931
Fe 271.441	9628.72	9689.91	9649.61
K 766.491	9957.57	10030.6	9984.16
Mg 279.078	9531.20	9584.99	9525.93
Mn 257.610	488.909	492.181	489.590
Mo 202.032	486.724	490.292	487.701
Na 330.237	9527.92	9546.58	9819.93
Ni 231.604	485.091	487.035	485.051
Pb 220.353	482.593	490.536	491.679
Sb 206.834	490.759	492.625	491.251
Se 196.026	484.228	479.177	477.479
Si 288.158	4795.70	4829.72	4782.21
Sn 189.925	482.541	483.645	482.447
Sr 216.596	484.561	488.306	484.241
Ti 334.941	487.583	490.780	488.455
Tl 190.794	488.306	491.371	492.556
V 292.401	486.374	488.758	487.166
Zn 206.200	954.657	970.644	964.146

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	481.775	ppb	1.2807	0.3	20397.4	96.35491
Al 308.215	9577.54	ppb	37.9530	0.4	31765.0	95.77536
As 188.980	484.465	ppb	8.6124	1.8	199.878	96.89291
B 249.678	484.484	ppb	3.1303	0.6	3639.42	96.89685
Ba 389.178	490.449	ppb	1.1147	0.2	5643.15	98.08973
Be 313.042	490.105	ppb	1.5101	0.3	466045	98.02109
Ca 370.602	9703	ppb	29.53	0.3	21124	97.03156
Cd 226.502	480.720	ppb	1.4723	0.3	9965.66	96.14392
Co 228.615	486.921	ppb	4.2861	0.9	2605.25	97.38428
Cr 267.716	483.060	ppb	1.6174	0.3	12024.1	96.61200
Cu 324.754	485.915	ppb	1.0622	0.2	20516.3	97.18310
Fe 271.441	9656.08	ppb	31.1031	0.3	8041.53	96.51250
K 766.491	9990.79	ppb	36.9862	0.4	255048	99.90792

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Mg 279.078	9547.37	ppb	32.6801	0.3	14331.5	95.47372
Mn 257.610	490.227	ppb	1.7264	0.4	50939.9	98.04530
Mo 202.032	488.239	ppb	1.8436	0.4	1532.81	97.64778
Na 330.237	9631.47	ppb	163.472	1.7	354.535	96.31474
Ni 231.604	485.726	ppb	1.1340	0.2	723.482	97.14515
Pb 220.353	488.269	ppb	4.9490	1.0	367.614	97.65385
Sb 206.834	491.545	ppb	0.9670	0.2	296.909	98.30904
Se 196.026	480.295	ppb	3.5106	0.7	143.534	96.05897
Si 288.158	4802.54	ppb	24.4832	0.5	29019.4	96.05085
Sn 189.925	482.878	ppb	0.6663	0.1	199.503	96.57554
Sr 216.596	485.703	ppb	2.2604	0.5	2707.23	97.14057
Ti 334.941	488.939	ppb	1.6526	0.3	71896.1	97.78783
Tl 190.794	490.744	ppb	2.1934	0.4	290.725	98.14889
V 292.401	487.433	ppb	1.2142	0.2	6367.62	97.48657
Zn 206.200	963.149	ppb	8.0397	0.8	650.772	96.31490

Cont Calib Blank (CCB) **7/26/2021, 3:18:13 PM** **Rack S, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.1734	-0.0923u	-0.1049u
Al 308.215	-35.4110u	-37.5153u	-36.8476u
As 188.980	3.0380	3.8757	2.7973
B 249.678	13.4173	12.2032	11.7032
Ba 389.178	1.2742	0.9860	1.4733
Be 313.042	0.0504	0.0429	0.0608
Ca 370.602	-1.638u	-5.418u	-3.818u
Cd 226.502	0.3313	0.4110	0.1265
Co 228.615	0.8046	0.5252	1.9947
Cr 267.716	-0.3267u	0.0567	-0.3868u
Cu 324.754	0.4439	-0.2388u	0.1726
Fe 271.441	-5.9003u	-0.3042u	-9.8080u
K 766.491	-0.0142u	0.5125	0.3528
Mg 279.078	-4.1115u	0.0138	-2.4487u
Mn 257.610	-0.0075u	-0.0195u	-0.0598u
Mo 202.032	0.4860	0.5500	-0.4817u
Na 330.237	-76.8947u	-90.8101u	-39.7558u
Ni 231.604	6.3798	1.2436	1.1078
Pb 220.353	-0.3966u	1.3954	2.5338
Sb 206.834	-0.2492u	2.7892	0.5846
Se 196.026	0.8027	-3.5293u	-9.6264u
Si 288.158	2.4390	0.5402	0.7351
Sn 189.925	-4.6810u	2.0214	-2.8915u
Sr 216.596	-0.1412u	0.4147	0.1550
Ti 334.941	0.0286	0.0529	0.0501
Tl 190.794	2.6471	1.3195	0.1518
V 292.401	-0.0256u	0.3952	0.0220
Zn 206.200	-0.1806u	0.8853	1.4787

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.0079	ppb	0.1572	1982.8	10.5240	-0.00793
Al 308.215	-36.5913	ppb	1.0753	2.9	615.982	-36.59130
As 188.980	3.2370	ppb	0.5661	17.5	-1.7715	3.23701
B 249.678	12.4412	ppb	0.8815	7.1	40.7649	12.44123

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	1.2445	ppb	0.2450	19.7	-22.5270	1.24451
Be 313.042	0.0514	ppb	0.0090	17.5	-266.510	0.05136
Ca 370.602	-3.625	ppb	1.898	52.3	23.95	-3.62469
Cd 226.502	0.2896	ppb	0.1468	50.7	-13.0528	0.28959
Co 228.615	1.1081	ppb	0.7804	70.4	-24.9874	1.10813
Cr 267.716	-0.2189	ppb	0.2406	109.9	10.4823	-0.21892
Cu 324.754	0.1259	ppb	0.3438	273.1	218.946	0.12589
Fe 271.441	-5.3375	ppb	4.7769	89.5	41.5526	-5.33750
K 766.491	0.2837	ppb	0.2700	95.2	267.473	0.28371
Mg 279.078	-2.1821	ppb	2.0755	95.1	15.5063	-2.18212
Mn 257.610	-0.0289	ppb	0.0274	94.8	52.6673	-0.02892
Mo 202.032	0.1848	ppb	0.5781	312.9	-1.8694	0.18478
Na 330.237	-69.1536	ppb	26.3928	38.2	35.3291	-69.15356
Ni 231.604	2.9104	ppb	3.0053	103.3	-9.7481	2.91040
Pb 220.353	1.1775	ppb	1.4773	125.5	10.4318	1.17754
Sb 206.834	1.0415	ppb	1.5699	150.7	-1.3767	1.04154
Se 196.026	-4.1177	ppb	5.2394	127.2	-0.5920	-4.11765
Si 288.158	1.2381	ppb	1.0445	84.4	411.371	1.23811
Sn 189.925	-1.8504	ppb	3.4704	187.6	-0.2627	-1.85037
Sr 216.596	0.1429	ppb	0.2782	194.7	9.9659	0.14288
Ti 334.941	0.0439	ppb	0.0133	30.3	30.5959	0.04386
Tl 190.794	1.3728	ppb	1.2485	90.9	-5.4622	1.37278
V 292.401	0.1305	ppb	0.2305	176.6	11.5030	0.13051
Zn 206.200	0.7278	ppb	0.8408	115.5	-1.7120	0.72780

660-112361-c-1-e ms (Samp) **7/26/2021, 3:22:43 PM** **Rack 1, Tube 21**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	49.3543	49.5494	49.6559
Al 308.215	4949.57	4928.92	4933.76
As 188.980	96.8716	91.5769	101.090
B 249.678	218.367	219.147	221.183
Ba 389.178	121.573	121.423	119.053
Be 313.042	50.0326	49.8124	49.9454
Ca 370.602	34023	33877	33895
Cd 226.502	50.0407	50.1789	49.9911
Co 228.615	51.0389	50.5524	50.4869
Cr 267.716	101.134	100.522	100.657
Cu 324.754	100.979	100.003	100.345
Fe 271.441	5037.32	4998.65	5022.36
K 766.491	9689.43	9645.05	9654.70
Mg 279.078	9152.13	9167.87	9140.21
Mn 257.610	400.165	398.048	398.141
Mo 202.032	102.012	103.297	101.221
Na 330.237	21113.0	20974.0	21217.8
Ni 231.604	102.511	101.585	102.738
Pb 220.353	499.830	502.468	501.940
Sb 206.834	60.4451	54.1784	62.1303
Se 196.026	97.1650	95.5397	94.2476
Si 288.158	17172.3	17100.8	17109.7
Sn 189.925	101.188	98.7292	94.8027
Sr 216.596	183.645	182.641	183.146
Ti 334.941	352.696	351.601	351.586

Label	Replicates Concentration		
Tl 190.794	42.8968	45.8980	43.5279
V 292.401	102.339	101.691	102.163
Zn 206.200	107.007	106.089	103.812

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	49.5199	ppb	0.1530	0.3	2107.16
Al 308.215	4937.42	ppb	10.7974	0.2	16719.4
As 188.980	96.5128	ppb	4.7666	4.9	37.3262
B 249.678	219.566	ppb	1.4542	0.7	1618.35
Ba 389.178	120.683	ppb	1.4134	1.2	1369.54
Be 313.042	49.9301	ppb	0.1109	0.2	47200.4
Ca 370.602	33931	ppb	79.42	0.2	73781
Cd 226.502	50.0702	ppb	0.0973	0.2	1026.02
Co 228.615	50.6928	ppb	0.3016	0.6	246.574
Cr 267.716	100.771	ppb	0.3212	0.3	2522.03
Cu 324.754	100.443	ppb	0.4953	0.5	4411.18
Fe 271.441	5019.44	ppb	19.4989	0.4	4188.85
K 766.491	9663.06	ppb	23.3392	0.2	246690
Mg 279.078	9153.40	ppb	13.8761	0.2	13742.5
Mn 257.610	398.785	ppb	1.1961	0.3	41450.0
Mo 202.032	102.177	ppb	1.0480	1.0	318.777
Na 330.237	21101.6	ppb	122.267	0.6	774.356
Ni 231.604	102.278	ppb	0.6109	0.6	141.219
Pb 220.353	501.413	ppb	1.3961	0.3	377.514
Sb 206.834	58.9179	ppb	4.1901	7.1	33.5203
Se 196.026	95.6508	ppb	1.4618	1.5	29.1631
Si 288.158	17127.6	ppb	38.9411	0.2	101919
Sn 189.925	98.2399	ppb	3.2206	3.3	40.9896
Sr 216.596	183.144	ppb	0.5020	0.3	1031.83
Ti 334.941	351.961	ppb	0.6361	0.2	51760.3
Tl 190.794	44.1076	ppb	1.5823	3.6	20.0351
V 292.401	102.064	ppb	0.3354	0.3	1342.90
Zn 206.200	105.636	ppb	1.6446	1.6	69.4126

660-112361-c-1-f msd (Samp) **7/26/2021, 3:27:14 PM** **Rack 1, Tube 22**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	46.7225	47.1958	47.2617
Al 308.215	4708.16	4726.56	4701.53
As 188.980	92.3993	91.3287	93.9751
B 249.678	211.211	212.312	210.356
Ba 389.178	115.339	116.123	116.124
Be 313.042	47.7652	47.7425	47.6544
Ca 370.602	32140	32250	32178
Cd 226.502	47.8617	47.6259	47.6373
Co 228.615	48.1743	47.3895	46.5115
Cr 267.716	96.6841	96.1612	96.4521
Cu 324.754	96.0914	96.1547	95.8198
Fe 271.441	4806.43	4785.40	4778.36
K 766.491	9233.89	9245.40	9222.35
Mg 279.078	8700.70	8729.76	8720.83
Mn 257.610	381.466	381.575	380.408
Mo 202.032	97.6120	96.1653	98.0659

Label	Replicates Concentration		
Na 330.237	20145.7	20096.8	19826.1
Ni 231.604	98.1891	99.2472	98.0064
Pb 220.353	470.402	474.781	470.778
Sb 206.834	45.0845	53.1653	39.2031
Se 196.026	95.7913	98.1850	94.9192
Si 288.158	16283.2	16287.1	16242.7
Sn 189.925	97.0997	97.2270	89.0766
Sr 216.596	176.099	174.407	173.250
Ti 334.941	336.138	337.082	336.263
Tl 190.794	43.8911	42.9069	39.2531
V 292.401	97.9277	97.7079	97.6315
Zn 206.200	101.245	100.289	99.7509

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.0600	ppb	0.2941	0.6	2003.03
Al 308.215	4712.08	ppb	12.9708	0.3	15989.9
As 188.980	92.5677	ppb	1.3312	1.4	35.6725
B 249.678	211.293	ppb	0.9808	0.5	1555.40
Ba 389.178	115.862	ppb	0.4527	0.4	1313.26
Be 313.042	47.7207	ppb	0.0585	0.1	45097.9
Ca 370.602	32189	ppb	55.57	0.2	69995
Cd 226.502	47.7083	ppb	0.1329	0.3	976.733
Co 228.615	47.3584	ppb	0.8318	1.8	228.397
Cr 267.716	96.4324	ppb	0.2620	0.3	2414.13
Cu 324.754	96.0220	ppb	0.1779	0.2	4226.41
Fe 271.441	4790.06	ppb	14.6029	0.3	3999.52
K 766.491	9233.88	ppb	11.5220	0.1	235745
Mg 279.078	8717.10	ppb	14.8867	0.2	13088.3
Mn 257.610	381.150	ppb	0.6448	0.2	39619.5
Mo 202.032	97.2811	ppb	0.9926	1.0	303.385
Na 330.237	20022.9	ppb	172.143	0.9	736.655
Ni 231.604	98.4809	ppb	0.6699	0.7	135.450
Pb 220.353	471.987	ppb	2.4269	0.5	355.921
Sb 206.834	45.8176	ppb	7.0100	15.3	25.5013
Se 196.026	96.2985	ppb	1.6910	1.8	29.3510
Si 288.158	16271.0	ppb	24.5556	0.2	96842.5
Sn 189.925	94.4678	ppb	4.6693	4.9	39.4349
Sr 216.596	174.585	ppb	1.4328	0.8	984.027
Ti 334.941	336.494	ppb	0.5128	0.2	49486.8
Tl 190.794	42.0171	ppb	2.4437	5.8	18.7860
V 292.401	97.7557	ppb	0.1538	0.2	1286.62
Zn 206.200	100.428	ppb	0.7566	0.8	65.8815

680-201839-b-2-b (Samp) **7/26/2021, 3:31:45 PM** **Rack 1, Tube 23**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.3186	-0.2237u	-0.1612u
Al 308.215	583.415	582.716	581.449
As 188.980	1.4629	0.5570	4.1077
B 249.678	45.6573	45.2157	45.5015
Ba 389.178	14.8028	16.5503	16.1335
Be 313.042	0.0635	0.0811	0.0609
Ca 370.602	31292	31369	31279

Label	Replicates Concentration		
Cd 226.502	0.1062	0.2762	0.2148
Co 228.615	1.6835	2.2778	2.1265
Cr 267.716	2.5428	2.7543	2.5158
Cu 324.754	10.2888	10.6104	9.8632
Fe 271.441	785.807	786.615	779.302
K 766.491	3664.83	3682.19	3669.57
Mg 279.078	1134.46	1139.89	1130.41
Mn 257.610	40.3440	40.6841	40.3216
Mo 202.032	1.9983	1.9154	2.5941
Na 330.237	7688.74	7586.64	7790.17
Ni 231.604	5.0180	2.8924	4.2891
Pb 220.353	1.8065	-2.9020u	-1.3077u
Sb 206.834	4.3424	-1.7147u	7.8610
Se 196.026	-0.9875u	4.0034	5.8848
Si 288.158	8300.57	8328.90	8301.42
Sn 189.925	1.4183	-10.5713u	3.9327
Sr 216.596	124.604	124.590	125.421
Ti 334.941	19.7122	19.7800	19.5987
Tl 190.794	0.5870	1.8333	5.4811
V 292.401	3.0465	3.8606	3.3583
Zn 206.200	17.6058	16.1126	14.4481

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0221	ppb	0.2967	1342.2	9.4981
Al 308.215	582.527	ppb	0.9966	0.2	2619.57
As 188.980	2.0425	ppb	1.8450	90.3	-2.2695
B 249.678	45.4582	ppb	0.2239	0.5	292.255
Ba 389.178	15.8288	ppb	0.9127	5.8	149.158
Be 313.042	0.0685	ppb	0.0110	16.0	-245.088
Ca 370.602	31314	ppb	48.78	0.2	68085
Cd 226.502	0.1991	ppb	0.0861	43.2	-13.9276
Co 228.615	2.0293	ppb	0.3088	15.2	-19.7842
Cr 267.716	2.6043	ppb	0.1306	5.0	80.8328
Cu 324.754	10.2541	ppb	0.3748	3.7	642.155
Fe 271.441	783.908	ppb	4.0097	0.5	692.491
K 766.491	3672.20	ppb	8.9751	0.2	93909.7
Mg 279.078	1134.92	ppb	4.7568	0.4	1720.45
Mn 257.610	40.4499	ppb	0.2031	0.5	4254.00
Mo 202.032	2.1693	ppb	0.3702	17.1	4.3539
Na 330.237	7688.52	ppb	101.767	1.3	308.089
Ni 231.604	4.0665	ppb	1.0801	26.6	-7.9924
Pb 220.353	-0.8011	ppb	2.3948	299.0	9.0042
Sb 206.834	3.4962	ppb	4.8436	138.5	0.1285
Se 196.026	2.9669	ppb	3.5514	119.7	1.5266
Si 288.158	8310.30	ppb	16.1155	0.2	49637.3
Sn 189.925	-1.7401	ppb	7.7507	445.4	-0.2159
Sr 216.596	124.872	ppb	0.4756	0.4	708.475
Ti 334.941	19.6970	ppb	0.0916	0.5	2919.23
Tl 190.794	2.6338	ppb	2.5434	96.6	-4.7267
V 292.401	3.4218	ppb	0.4108	12.0	54.5784
Zn 206.200	16.0555	ppb	1.5796	9.8	8.6866

mb 680-677807/1-a (Samp) **7/26/2021, 3:36:16 PM** **Rack 1, Tube 24**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1290u	0.3398	0.0858
Al 308.215	-31.7269u	-33.4454u	-30.7908u
As 188.980	-2.1037u	-2.4055u	-0.0481u
B 249.678	6.3145	6.1107	6.2105
Ba 389.178	2.6339	1.0827	1.5634
Be 313.042	0.0349	0.0312	0.0316
Ca 370.602	4.193	-0.5153u	4.340
Cd 226.502	0.2655	0.5368	0.2450
Co 228.615	0.2668	0.6987	0.6901
Cr 267.716	-0.1381u	-0.0146u	0.3299
Cu 324.754	0.2738	0.0328	0.2190
Fe 271.441	-6.5675u	-12.0200u	-16.5741u
K 766.491	0.2758	0.7768	0.7345
Mg 279.078	2.9987	-1.3874u	-2.9956u
Mn 257.610	0.1749	0.1918	0.2431
Mo 202.032	0.4711	-0.1923u	0.1318
Na 330.237	-216.933u	-257.453u	-208.054u
Ni 231.604	1.9901	2.6707	4.5387
Pb 220.353	-3.3560u	-2.0098u	1.3060
Sb 206.834	-3.1201u	2.9443	0.4227
Se 196.026	3.6415	-0.6434u	-5.3132u
Si 288.158	-0.9619u	-1.8576u	-3.7547u
Sn 189.925	1.4207	-1.6366u	-1.1359u
Sr 216.596	0.0720	-0.5609u	-0.4953u
Ti 334.941	0.0226	-0.0171u	0.0834
Tl 190.794	-2.0490u	3.0499	2.4868
V 292.401	0.3054	-0.5013u	0.1403
Zn 206.200	0.0057	-0.3167u	0.2213

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.0989	ppb	0.2347	237.3	15.0436
Al 308.215	-31.9877	ppb	1.3464	4.2	630.885
As 188.980	-1.5191	ppb	1.2828	84.4	-3.7647
B 249.678	6.2119	ppb	0.1019	1.6	-6.9653
Ba 389.178	1.7600	ppb	0.7941	45.1	-16.5692
Be 313.042	0.0326	ppb	0.0020	6.3	-284.406
Ca 370.602	2.672	ppb	2.762	103.3	37.65
Cd 226.502	0.3491	ppb	0.1629	46.7	-11.8201
Co 228.615	0.5519	ppb	0.2469	44.7	-27.9975
Cr 267.716	0.0591	ppb	0.2425	410.5	17.3914
Cu 324.754	0.1752	ppb	0.1263	72.1	221.018
Fe 271.441	-11.7205	ppb	5.0100	42.7	36.2877
K 766.491	0.5957	ppb	0.2778	46.6	275.429
Mg 279.078	-0.4614	ppb	3.1026	672.4	18.0832
Mn 257.610	0.2033	ppb	0.0355	17.5	76.7666
Mo 202.032	0.1369	ppb	0.3317	242.4	-2.0200
Na 330.237	-227.480	ppb	26.3345	11.6	29.7593
Ni 231.604	3.0665	ppb	1.3196	43.0	-9.5108
Pb 220.353	-1.3533	ppb	2.3993	177.3	8.5742
Sb 206.834	0.0823	ppb	3.0465	3701.6	-1.9721
Se 196.026	-0.7717	ppb	4.4787	580.4	0.4024
Si 288.158	-2.1914uv	ppb	1.4260	65.1	391.455

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-0.4506	ppb	1.6398	363.9	0.3141
Sr 216.596	-0.3281	ppb	0.3480	106.1	7.3319
Ti 334.941	0.0297	ppb	0.0506	170.8	28.5151
Tl 190.794	1.1626	ppb	2.7955	240.5	-5.5898
V 292.401	-0.0185	ppb	0.4261	2297.8	9.5579
Zn 206.200	-0.0299	ppb	0.2708	905.8	-2.2258

lcs 680-677807/2-a (Samp) **7/26/2021, 3:40:46 PM** **Rack 1, Tube 25**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	17.9492	18.2604	18.0595
Al 308.215	4637.39	4630.22	4654.96
As 188.980	100.887	93.0938	89.0419
B 249.678	192.519	193.617	196.030
Ba 389.178	99.5877	98.5968	101.100
Be 313.042	46.4077	46.2542	46.4488
Ca 370.602	4749	4725	4748
Cd 226.502	47.7500	47.9694	47.8966
Co 228.615	48.3866	48.8286	47.6936
Cr 267.716	94.9447	95.0012	95.5897
Cu 324.754	92.9587	93.6452	93.0355
Fe 271.441	4772.89	4746.80	4778.34
K 766.491	7077.72	7041.54	7087.17
Mg 279.078	4663.37	4631.69	4653.08
Mn 257.610	379.493	378.321	381.164
Mo 202.032	94.5801	94.6601	95.7751
Na 330.237	4424.74	4223.46	4386.17
Ni 231.604	96.3517	95.3773	99.0926
Pb 220.353	483.655	482.593	475.886
Sb 206.834	55.6443	48.4269	53.0015
Se 196.026	96.6328	93.8799	91.1896
Si 288.158	-10.9575u	-8.7633u	-10.5970u
Sn 189.925	92.7204	85.8002	96.3464
Sr 216.596	95.3035	94.1151	95.0860
Ti 334.941	333.965	332.755	334.714
Tl 190.794	39.0876	42.0350	42.0168
V 292.401	95.9333	94.6181	95.5861
Zn 206.200	93.4833	97.1095	95.1080

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	18.0897	ppb	0.1577	0.9	777.574
Al 308.215	4640.85	ppb	12.7299	0.3	15759.3
As 188.980	94.3410	ppb	6.0204	6.4	36.4156
B 249.678	194.055	ppb	1.7963	0.9	1423.35
Ba 389.178	99.7615	ppb	1.2606	1.3	1121.77
Be 313.042	46.3703	ppb	0.1026	0.2	43808.9
Ca 370.602	4741	ppb	13.78	0.3	10341
Cd 226.502	47.8720	ppb	0.1118	0.2	980.115
Co 228.615	48.3030	ppb	0.5721	1.2	233.481
Cr 267.716	95.1786	ppb	0.3572	0.4	2382.83
Cu 324.754	93.2131	ppb	0.3761	0.4	4109.09
Fe 271.441	4766.01	ppb	16.8600	0.4	3979.70
K 766.491	7068.81	ppb	24.0855	0.3	180531

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	4649.38	ppb	16.1610	0.3	6987.39
Mn 257.610	379.659	ppb	1.4287	0.4	39464.6
Mo 202.032	95.0051	ppb	0.6680	0.7	296.228
Na 330.237	4344.79	ppb	106.829	2.5	184.419
Ni 231.604	96.9405	ppb	1.9263	2.0	133.108
Pb 220.353	480.711	ppb	4.2123	0.9	362.324
Sb 206.834	52.3576	ppb	3.6515	7.0	29.5359
Se 196.026	93.9007	ppb	2.7216	2.9	28.6380
Si 288.158	-10.1060uv	ppb	1.1766	11.6	390.528
Sn 189.925	91.6223	ppb	5.3581	5.8	38.2596
Sr 216.596	94.8349	ppb	0.6328	0.7	536.842
Ti 334.941	333.811	ppb	0.9887	0.3	49093.0
Tl 190.794	41.0465	ppb	1.6964	4.1	18.2009
V 292.401	95.3792	ppb	0.6815	0.7	1255.65
Zn 206.200	95.2336	ppb	1.8164	1.9	62.3591

llcs 680-677807/4-a (Samp) **7/26/2021, 3:45:15 PM** **Rack 1, Tube 26**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.7043	0.8516	0.4307
Al 308.215	-25.2658u	-24.8200u	-28.3908u
As 188.980	4.0081	0.6877	3.7553
B 249.678	25.6503	24.7348	24.3492
Ba 389.178	3.6492	2.7891	3.3763
Be 313.042	0.4022	0.3993	0.4011
Ca 370.602	248.9	244.7	250.2
Cd 226.502	0.4541	0.2556	0.3918
Co 228.615	1.3354	1.0783	1.1339
Cr 267.716	0.8123	1.1300	1.1549
Cu 324.754	1.3735	1.5940	1.5349
Fe 271.441	34.5882	43.1997	37.5185
K 766.491	54.5485	55.3735	54.3387
Mg 279.078	44.6394	47.9155	45.9552
Mn 257.610	20.1272	20.2309	20.0497
Mo 202.032	1.0345	2.2665	0.6508
Na 330.237	-11.0179u	-110.111u	-262.431u
Ni 231.604	3.0175	4.3290	2.4460
Pb 220.353	-2.8060u	-1.9678u	0.3012
Sb 206.834	8.0692	-0.8422u	-0.8982u
Se 196.026	-8.7059u	3.4414	3.7633
Si 288.158	-4.0030u	-4.1149u	-5.5557u
Sn 189.925	-3.3886u	-0.8757u	0.6474
Sr 216.596	-0.1535u	-0.2298u	0.5887
Ti 334.941	1.0358	1.0750	1.0917
Tl 190.794	3.0454	1.0010	5.8632
V 292.401	0.7391	1.0862	0.6886
Zn 206.200	20.5611	20.8886	19.7137

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.6622	ppb	0.2136	32.3	38.9329
Al 308.215	-26.1589	ppb	1.9457	7.4	649.840
As 188.980	2.8170	ppb	1.8484	65.6	-1.9476
B 249.678	24.9114	ppb	0.6683	2.7	136.218

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	3.2715	ppb	0.4395	13.4	0.9729
Be 313.042	0.4009	ppb	0.0015	0.4	66.0492
Ca 370.602	247.9	ppb	2.887	1.2	570.9
Cd 226.502	0.3671	ppb	0.1015	27.7	-11.3748
Co 228.615	1.1826	ppb	0.1353	11.4	-24.5779
Cr 267.716	1.0324	ppb	0.1910	18.5	41.6306
Cu 324.754	1.5008	ppb	0.1142	7.6	276.410
Fe 271.441	38.4355	ppb	4.3783	11.4	77.6442
K 766.491	54.7536	ppb	0.5470	1.0	1656.58
Mg 279.078	46.1700	ppb	1.6486	3.6	87.8242
Mn 257.610	20.1360	ppb	0.0909	0.5	2145.61
Mo 202.032	1.3173	ppb	0.8441	64.1	1.6911
Na 330.237	-127.853	ppb	126.642	99.1	32.9251
Ni 231.604	3.2642	ppb	0.9654	29.6	-9.2102
Pb 220.353	-1.4909	ppb	1.6076	107.8	8.4764
Sb 206.834	2.1096	ppb	5.1612	244.7	-0.7339
Se 196.026	-0.5004	ppb	7.1080	1420.5	0.4865
Si 288.158	-4.5579uv	ppb	0.8660	19.0	377.630
Sn 189.925	-1.2056	ppb	2.0381	169.1	0.0030
Sr 216.596	0.0685	ppb	0.4522	660.5	9.5530
Ti 334.941	1.0675	ppb	0.0287	2.7	181.067
Tl 190.794	3.3032	ppb	2.4413	73.9	-4.2977
V 292.401	0.8380	ppb	0.2164	25.8	20.7318
Zn 206.200	20.3878	ppb	0.6063	3.0	11.6206

680-201861-f-1-a (Samp) **7/26/2021, 3:49:44 PM** **Rack 1, Tube 27**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0882u	-0.2328u	-0.2064u
Al 308.215	-30.4843u	-30.8736u	-28.7071u
As 188.980	5.9068	-2.0751u	-2.3766u
B 249.678	11.1748	11.3346	10.0740
Ba 389.178	0.1637	1.8555	0.6047
Be 313.042	0.0211	0.0174	0.0295
Ca 370.602	17594	17569	17647
Cd 226.502	0.1021	0.0179	0.2217
Co 228.615	0.0319	1.1763	-0.3095u
Cr 267.716	0.0542	0.0667	-0.1875u
Cu 324.754	41.3890	41.1900	42.0097
Fe 271.441	-7.9776u	-7.8998u	-0.8411u
K 766.491	2465.09	2458.98	2467.87
Mg 279.078	1574.33	1568.65	1582.18
Mn 257.610	0.2355	0.2041	0.2433
Mo 202.032	0.6009	-0.2765u	-0.2672u
Na 330.237	6091.47	6084.10	6020.58
Ni 231.604	3.4820	3.7098	2.0840
Pb 220.353	-6.0482u	-0.6103u	-3.1904u
Sb 206.834	-1.8490u	-0.6162u	-3.4891u
Se 196.026	-3.1084u	2.3535	3.2272
Si 288.158	4588.87	4582.16	4590.41
Sn 189.925	-4.1480u	-0.9862u	-3.5734u
Sr 216.596	1.0099	0.9825	1.2518
Ti 334.941	0.1204	0.0913	0.2317

Label	Replicates Concentration		
Tl 190.794	2.5020	5.8812	5.0706
V 292.401	0.2441	0.8724	0.4628
Zn 206.200	1.8378	1.8315	-0.7404u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1758	ppb	0.0770	43.8	3.3849
Al 308.215	-30.0217	ppb	1.1549	3.8	637.264
As 188.980	0.4851	ppb	4.6978	968.5	-2.9248
B 249.678	10.8611	ppb	0.6863	6.3	28.6561
Ba 389.178	0.8746	ppb	0.8776	100.3	-24.2489
Be 313.042	0.0227	ppb	0.0062	27.3	-291.152
Ca 370.602	17604	ppb	39.94	0.2	38289
Cd 226.502	0.1139	ppb	0.1024	89.9	-16.7012
Co 228.615	0.2996	ppb	0.7782	259.8	-29.3583
Cr 267.716	-0.0222	ppb	0.1433	645.2	15.4267
Cu 324.754	41.5296	ppb	0.4275	1.0	1948.08
Fe 271.441	-5.5728	ppb	4.0980	73.5	41.3141
K 766.491	2463.98	ppb	4.5468	0.2	63097.5
Mg 279.078	1575.06	ppb	6.7944	0.4	2381.12
Mn 257.610	0.2276	ppb	0.0208	9.1	79.3835
Mo 202.032	0.0191	ppb	0.5039	2644.0	-2.3907
Na 330.237	6065.38	ppb	38.9708	0.6	251.455
Ni 231.604	3.0919	ppb	0.8803	28.5	-9.4713
Pb 220.353	-3.2830	ppb	2.7201	82.9	7.1584
Sb 206.834	-1.9848	ppb	1.4412	72.6	-3.2445
Se 196.026	0.8241	ppb	3.4336	416.7	0.8767
Si 288.158	4587.15	ppb	4.3845	0.1	27579.0
Sn 189.925	-2.9025	ppb	1.6843	58.0	-0.6953
Sr 216.596	1.0814	ppb	0.1482	13.7	16.7693
Ti 334.941	0.1478	ppb	0.0741	50.1	45.6323
Tl 190.794	4.4846	ppb	1.7642	39.3	-3.5768
V 292.401	0.5264	ppb	0.3189	60.6	16.6521
Zn 206.200	0.9763	ppb	1.4867	152.3	-1.5435

680-201861-f-1-b ms (Samp) **7/26/2021, 3:54:13 PM** **Rack 1, Tube 28**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	16.5763	17.9247	18.8468
Al 308.215	4544.19	4779.01	4769.47
As 188.980	93.8576	99.5048	90.0085
B 249.678	192.779	204.834	206.254
Ba 389.178	97.4797	102.249	102.648
Be 313.042	45.3578	47.5446	47.5755
Ca 370.602	21686	22648	22681
Cd 226.502	46.9884	48.9533	49.1475
Co 228.615	47.3820	50.3760	48.7959
Cr 267.716	92.9903	97.7061	98.0058
Cu 324.754	129.317	137.626	137.934
Fe 271.441	4639.82	4877.18	4879.76
K 766.491	9352.45	9779.35	9785.93
Mg 279.078	6033.55	6327.19	6337.32
Mn 257.610	370.866	389.396	388.880
Mo 202.032	91.7261	98.4364	98.5831

Label	Replicates Concentration		
Na 330.237	10725.6	10994.3	11218.0
Ni 231.604	94.4203	99.7298	100.587
Pb 220.353	467.137	484.185	489.225
Sb 206.834	52.4467	54.9359	55.4386
Se 196.026	92.6797	101.319	90.7555
Si 288.158	4491.66	4700.97	4727.10
Sn 189.925	87.9061	89.3575	86.7752
Sr 216.596	93.4591	98.4419	98.1336
Ti 334.941	325.577	341.360	342.115
Tl 190.794	35.8689	42.5622	34.4380
V 292.401	93.1119	97.2304	98.0309
Zn 206.200	97.9527	98.0624	103.001

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	17.7826	ppb	1.1419	6.4	764.554
Al 308.215	4697.55	ppb	132.904	2.8	15942.8
As 188.980	94.4570	ppb	4.7764	5.1	36.4643
B 249.678	201.289	ppb	7.4040	3.7	1478.70
Ba 389.178	100.792	ppb	2.8758	2.9	1136.24
Be 313.042	46.8259	ppb	1.2715	2.7	44245.2
Ca 370.602	22338	ppb	565.2	2.5	48585
Cd 226.502	48.3631	ppb	1.1944	2.5	990.346
Co 228.615	48.8513	ppb	1.4978	3.1	236.473
Cr 267.716	96.2340	ppb	2.8132	2.9	2409.13
Cu 324.754	134.959	ppb	4.8886	3.6	5852.54
Fe 271.441	4798.92	ppb	137.792	2.9	4006.90
K 766.491	9639.24	ppb	248.393	2.6	246083
Mg 279.078	6232.69	ppb	172.534	2.8	9362.07
Mn 257.610	383.047	ppb	10.5526	2.8	39816.4
Mo 202.032	96.2486	ppb	3.9172	4.1	300.138
Na 330.237	10979.3	ppb	246.562	2.2	418.026
Ni 231.604	98.2456	ppb	3.3405	3.4	135.091
Pb 220.353	480.182	ppb	11.5755	2.4	361.935
Sb 206.834	54.2737	ppb	1.6021	3.0	30.7051
Se 196.026	94.9182	ppb	5.6264	5.9	28.9411
Si 288.158	4639.91	ppb	129.050	2.8	27937.9
Sn 189.925	88.0129	ppb	1.2945	1.5	36.7732
Sr 216.596	96.6782	ppb	2.7921	2.9	548.684
Ti 334.941	336.351	ppb	9.3381	2.8	49466.0
Tl 190.794	37.6230	ppb	4.3369	11.5	16.1230
V 292.401	96.1244	ppb	2.6394	2.7	1265.37
Zn 206.200	99.6721	ppb	2.8835	2.9	65.3690

680-201861-f-1-c msd (Samp) **7/26/2021, 3:58:42 PM** **Rack 1, Tube 29**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	18.6369	18.3577	17.8951
Al 308.215	4712.70	4700.67	4714.90
As 188.980	99.2951	92.1914	91.5357
B 249.678	206.045	205.197	206.391
Ba 389.178	102.235	101.477	102.123
Be 313.042	47.0545	46.8461	47.0654
Ca 370.602	22285	22196	22288

Label	Replicates Concentration		
Cd 226.502	48.1318	47.9968	48.6497
Co 228.615	50.0056	47.7945	48.8801
Cr 267.716	96.4199	95.7644	96.3154
Cu 324.754	135.059	133.662	134.909
Fe 271.441	4816.05	4806.54	4815.77
K 766.491	9620.47	9613.69	9647.17
Mg 279.078	6241.29	6222.62	6253.73
Mn 257.610	384.737	383.341	384.729
Mo 202.032	97.0219	97.4385	96.8889
Na 330.237	10723.2	10808.1	10788.1
Ni 231.604	99.5206	98.8742	99.2956
Pb 220.353	474.281	474.526	481.062
Sb 206.834	46.1860	43.5941	49.3058
Se 196.026	80.4574	103.267	93.8474
Si 288.158	4634.72	4617.34	4632.42
Sn 189.925	89.8404	91.2081	94.4965
Sr 216.596	96.0827	95.5258	97.5194
Ti 334.941	337.311	336.867	338.172
Tl 190.794	40.7380	48.0574	39.5292
V 292.401	96.7228	96.0797	96.1600
Zn 206.200	98.7047	97.0856	94.2814

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	18.2966	ppb	0.3747	2.0	786.306
Al 308.215	4709.42	ppb	7.6586	0.2	15981.2
As 188.980	94.3407	ppb	4.3031	4.6	36.4156
B 249.678	205.878	ppb	0.6140	0.3	1513.84
Ba 389.178	101.945	ppb	0.4093	0.4	1149.56
Be 313.042	46.9887	ppb	0.1236	0.3	44400.0
Ca 370.602	22256	ppb	52.44	0.2	48407
Cd 226.502	48.2595	ppb	0.3447	0.7	988.214
Co 228.615	48.8934	ppb	1.1056	2.3	236.712
Cr 267.716	96.1666	ppb	0.3522	0.4	2407.45
Cu 324.754	134.543	ppb	0.7670	0.6	5835.18
Fe 271.441	4812.79	ppb	5.4137	0.1	4018.30
K 766.491	9627.11	ppb	17.6991	0.2	245774
Mg 279.078	6239.21	ppb	15.6596	0.3	9371.84
Mn 257.610	384.269	ppb	0.8037	0.2	39943.2
Mo 202.032	97.1165	ppb	0.2867	0.3	302.867
Na 330.237	10773.1	ppb	44.3757	0.4	410.835
Ni 231.604	99.2301	ppb	0.3281	0.3	136.588
Pb 220.353	476.623	ppb	3.8463	0.8	359.324
Sb 206.834	46.3620	ppb	2.8599	6.2	25.8381
Se 196.026	92.5241	ppb	11.4624	12.4	28.2299
Si 288.158	4628.16	ppb	9.4365	0.2	27868.6
Sn 189.925	91.8483	ppb	2.3931	2.6	38.3538
Sr 216.596	96.3760	ppb	1.0287	1.1	546.980
Ti 334.941	337.450	ppb	0.6636	0.2	49627.6
Tl 190.794	42.7749	ppb	4.6145	10.8	19.2438
V 292.401	96.3208	ppb	0.3504	0.4	1267.94
Zn 206.200	96.6905	ppb	2.2379	2.3	63.3469

680-201861-f-2-a (Samp) **7/26/2021, 4:03:12 PM** **Rack 1, Tube 30**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2263u	-0.2280u	-0.1417u
Al 308.215	-21.1672u	-21.5154u	-19.5857u
As 188.980	-7.0207u	0.8997	-1.2973u
B 249.678	16.5297	17.2448	16.1144
Ba 389.178	0.6200	1.8679	1.7204
Be 313.042	0.0421	0.0183	0.0191
Ca 370.602	18438	18467	18462
Cd 226.502	0.2778	0.3699	0.1099
Co 228.615	0.1128	1.5036	-0.0784u
Cr 267.716	-0.2708u	0.1455	0.0820
Cu 324.754	84.9724	84.1367	83.1467
Fe 271.441	-11.4506u	-8.0038u	-11.5635u
K 766.491	2022.23	2028.54	2021.44
Mg 279.078	1376.34	1377.98	1379.21
Mn 257.610	0.3061	0.2373	0.3163
Mo 202.032	-0.4867u	0.2597	-0.2228u
Na 330.237	5981.68	5968.63	5968.97
Ni 231.604	3.9653	3.0220	3.4448
Pb 220.353	-0.7677u	-3.4230u	-2.4144u
Sb 206.834	4.2390	2.6919	-3.3694u
Se 196.026	-5.8170u	1.5723	-1.6697u
Si 288.158	4284.24	4287.80	4291.04
Sn 189.925	0.8235	-5.2074u	0.3084
Sr 216.596	26.7330	26.2391	26.9344
Ti 334.941	0.0893	0.1850	0.1126
Tl 190.794	2.2640	5.1553	1.0191
V 292.401	0.4603	-0.0573u	0.7984
Zn 206.200	-2.0101u	-0.3012u	-1.8984u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1987	ppb	0.0493	24.8	2.3141
Al 308.215	-20.7561	ppb	1.0285	5.0	667.229
As 188.980	-2.4728	ppb	4.0890	165.4	-4.1643
B 249.678	16.6296	ppb	0.5718	3.4	72.8633
Ba 389.178	1.4028	ppb	0.6819	48.6	-18.2804
Be 313.042	0.0265	ppb	0.0135	51.1	-287.308
Ca 370.602	18456	ppb	15.15	0.1	40141
Cd 226.502	0.2525	ppb	0.1318	52.2	-13.8293
Co 228.615	0.5127	ppb	0.8635	168.4	-28.2066
Cr 267.716	-0.0144	ppb	0.2243	1553.8	15.6194
Cu 324.754	84.0853	ppb	0.9139	1.1	3725.30
Fe 271.441	-10.3393	ppb	2.0234	19.6	37.4258
K 766.491	2024.07	ppb	3.8955	0.2	51878.6
Mg 279.078	1377.84	ppb	1.4417	0.1	2085.33
Mn 257.610	0.2866	ppb	0.0430	15.0	85.5104
Mo 202.032	-0.1499	ppb	0.3785	252.4	-2.9221
Na 330.237	5973.10	ppb	7.4407	0.1	248.209
Ni 231.604	3.4773	ppb	0.4725	13.6	-8.8863
Pb 220.353	-2.2017	ppb	1.3403	60.9	7.9517
Sb 206.834	1.1872	ppb	4.0212	338.7	-1.2904
Se 196.026	-1.9715	ppb	3.7039	187.9	0.0459
Si 288.158	4287.70	ppb	3.4002	0.1	25805.3

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-1.3585	ppb	3.3432	246.1	-0.0590
Sr 216.596	26.6355	ppb	0.3577	1.3	159.363
Ti 334.941	0.1289	ppb	0.0499	38.7	42.8659
Tl 190.794	2.8128	ppb	2.1220	75.4	-4.5896
V 292.401	0.4004	ppb	0.4310	107.6	15.0104
Zn 206.200	-1.4032	ppb	0.9560	68.1	-3.1571

Cont Calib Verif (CCV) **7/26/2021, 4:07:44 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	480.540	474.545	478.936
Al 308.215	9420.79	9416.25	9465.24
As 188.980	483.011	482.869	481.188
B 249.678	477.340	481.756	486.120
Ba 389.178	487.621	485.329	488.874
Be 313.042	488.531	488.829	490.257
Ca 370.602	9664	9654	9690
Cd 226.502	477.329	477.303	480.341
Co 228.615	484.226	484.059	479.566
Cr 267.716	480.673	479.748	481.785
Cu 324.754	484.905	479.723	484.692
Fe 271.441	9602.00	9611.79	9625.79
K 766.491	9935.44	9937.58	9962.64
Mg 279.078	9515.67	9518.68	9527.48
Mn 257.610	485.312	485.490	486.858
Mo 202.032	481.821	478.158	484.177
Na 330.237	9556.93	9578.24	9660.99
Ni 231.604	480.567	483.940	486.044
Pb 220.353	475.797	477.467	478.284
Sb 206.834	502.623	490.877	499.913
Se 196.026	477.608	481.314	476.714
Si 288.158	4769.80	4752.32	4761.12
Sn 189.925	481.922	487.133	478.550
Sr 216.596	482.359	483.882	484.764
Ti 334.941	486.467	486.481	488.183
Tl 190.794	490.331	481.799	486.263
V 292.401	483.448	483.588	484.241
Zn 206.200	956.131	945.723	952.335

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	478.007	ppb	3.1034	0.6	20238.0	95.60138
Al 308.215	9434.10	ppb	27.0705	0.3	31300.6	94.34096
As 188.980	482.356	ppb	1.0142	0.2	198.995	96.47118
B 249.678	481.738	ppb	4.3900	0.9	3618.51	96.34769
Ba 389.178	487.274	ppb	1.7978	0.4	5606.43	97.45489
Be 313.042	489.206	ppb	0.9226	0.2	465188	97.84113
Ca 370.602	9669	ppb	18.70	0.2	21050	96.69085
Cd 226.502	478.325	ppb	1.7466	0.4	9915.89	95.66491
Co 228.615	482.617	ppb	2.6436	0.5	2581.96	96.52339
Cr 267.716	480.735	ppb	1.0199	0.2	11966.3	96.14703
Cu 324.754	483.107	ppb	2.9325	0.6	20398.9	96.62135
Fe 271.441	9613.19	ppb	11.9577	0.1	8006.00	96.08389
K 766.491	9945.22	ppb	15.1275	0.2	253886	99.45219

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Mg 279.078	9520.61	ppb	6.1335	0.1	14291.4	95.20612
Mn 257.610	485.887	ppb	0.8463	0.2	50489.4	97.17731
Mo 202.032	481.385	ppb	3.0329	0.6	1511.25	96.27705
Na 330.237	9598.72	ppb	54.9701	0.6	353.537	95.98717
Ni 231.604	483.517	ppb	2.7629	0.6	720.127	96.70333
Pb 220.353	477.183	ppb	1.2677	0.3	359.480	95.43654
Sb 206.834	497.805	ppb	6.1502	1.2	300.788	99.56092
Se 196.026	478.545	ppb	2.4389	0.5	143.014	95.70903
Si 288.158	4761.08	ppb	8.7408	0.2	28772.6	95.22157
Sn 189.925	482.535	ppb	4.3240	0.9	199.362	96.50696
Sr 216.596	483.668	ppb	1.2169	0.3	2695.97	96.73368
Ti 334.941	487.044	ppb	0.9869	0.2	71617.5	97.40876
Tl 190.794	486.131	ppb	4.2678	0.9	287.931	97.22618
V 292.401	483.759	ppb	0.4233	0.1	6319.71	96.75178
Zn 206.200	951.396	ppb	5.2673	0.6	642.804	95.13960

Cont Calib Blank (CCB) **7/26/2021, 4:12:16 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0797u	-0.1831u	-0.2010u
Al 308.215	-38.9924u	-37.8175u	-36.3910u
As 188.980	2.0152	-0.4043u	-4.2783u
B 249.678	13.1352	12.8217	11.9386
Ba 389.178	0.3506	1.0996	1.0472
Be 313.042	0.0649	0.0645	0.0659
Ca 370.602	-3.420u	-5.247u	-1.493u
Cd 226.502	0.1083	0.0084	0.3446
Co 228.615	0.3884	-0.1240u	-0.7468u
Cr 267.716	-0.1702u	-0.1521u	0.1996
Cu 324.754	0.0514	0.4200	0.2190
Fe 271.441	-6.2937u	-6.7296u	3.3448
K 766.491	-0.6264u	-0.7256u	-0.4566u
Mg 279.078	1.1230	-2.0030u	-3.8314u
Mn 257.610	-0.0601u	-0.0748u	-0.0489u
Mo 202.032	-0.2218u	0.0398	0.9139
Na 330.237	-460.204u	-134.925u	-256.229u
Ni 231.604	1.6500	1.6969	2.6228
Pb 220.353	0.8731	4.2882	-1.4793u
Sb 206.834	-2.3383u	-0.4201u	-0.1066u
Se 196.026	3.4626	-4.1299u	-3.0025u
Si 288.158	-0.2277u	-0.1604u	1.6486
Sn 189.925	1.4200	4.1951	2.1467
Sr 216.596	-0.1283u	-0.7275u	-0.3475u
Ti 334.941	0.0054	-0.0031u	0.0325
Tl 190.794	-1.2272u	2.8771	0.3353
V 292.401	0.3519	0.0843	-0.0327u
Zn 206.200	-1.0806u	0.7599	-0.0077u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.1546	ppb	0.0655	42.3	4.3185	-0.15461
Al 308.215	-37.7337	ppb	1.3027	3.5	612.292	-37.73367
As 188.980	-0.8891	ppb	3.1746	357.0	-3.5007	-0.88914
B 249.678	12.6318	ppb	0.6205	4.9	42.2094	12.63182

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	0.8325	ppb	0.4182	50.2	-27.2829	0.83248
Be 313.042	0.0651	ppb	0.0008	1.2	-253.464	0.06511
Ca 370.602	-3.387	ppb	1.877	55.4	24.45	-3.38684
Cd 226.502	0.1538	ppb	0.1727	112.3	-15.8591	0.15379
Co 228.615	-0.1608	ppb	0.5685	353.6	-31.8495	-0.16079
Cr 267.716	-0.0409	ppb	0.2085	509.7	14.9063	-0.04090
Cu 324.754	0.2301	ppb	0.1846	80.2	223.314	0.23014
Fe 271.441	-3.2262	ppb	5.6948	176.5	43.2681	-3.22618
K 766.491	-0.6029	ppb	0.1360	22.6	244.863	-0.60286
Mg 279.078	-1.5704	ppb	2.5053	159.5	16.4235	-1.57045
Mn 257.610	-0.0613	ppb	0.0129	21.1	49.3009	-0.06128
Mo 202.032	0.2440	ppb	0.5947	243.8	-1.6833	0.24398
Na 330.237	-283.786	ppb	164.381	57.9	27.7714	-283.78601
Ni 231.604	1.9899	ppb	0.5486	27.6	-11.1466	1.98989
Pb 220.353	1.2273	ppb	2.9000	236.3	10.4684	1.22732
Sb 206.834	-0.9550	ppb	1.2082	126.5	-2.6095	-0.95500
Se 196.026	-1.2233	ppb	4.0970	334.9	0.2683	-1.22326
Si 288.158	0.4202uv	ppb	1.0644	253.3	407.004	0.42018
Sn 189.925	2.5873	ppb	1.4391	55.6	1.5661	2.58730
Sr 216.596	-0.4011	ppb	0.3032	75.6	6.9317	-0.40112
Ti 334.941	0.0116	ppb	0.0186	160.1	25.8590	0.01160
Tl 190.794	0.6617	ppb	2.0715	313.0	-5.8936	0.66175
V 292.401	0.1345	ppb	0.1972	146.6	11.5542	0.13450
Zn 206.200	-0.1095	ppb	0.9244	844.4	-2.2798	-0.10947

680-201861-f-2-b ms (Samp) **7/26/2021, 4:16:46 PM** **Rack 1, Tube 31**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	17.6299	17.9161	17.6280
Al 308.215	4737.16	4744.18	4741.83
As 188.980	90.1685	101.761	101.259
B 249.678	206.942	209.502	209.751
Ba 389.178	100.819	102.419	102.402
Be 313.042	47.1823	47.1366	47.2730
Ca 370.602	23025	23067	23136
Cd 226.502	48.3393	48.9540	48.3318
Co 228.615	48.2218	49.3901	48.9255
Cr 267.716	96.4351	96.9676	96.7264
Cu 324.754	176.621	176.352	176.632
Fe 271.441	4839.77	4838.01	4864.70
K 766.491	9246.26	9262.88	9276.62
Mg 279.078	6047.89	6046.79	6048.58
Mn 257.610	386.221	386.299	386.450
Mo 202.032	97.4102	96.0097	97.1254
Na 330.237	10760.1	10698.0	10779.3
Ni 231.604	98.6159	99.1790	98.9251
Pb 220.353	479.264	477.166	483.962
Sb 206.834	53.4837	48.9871	51.7572
Se 196.026	89.5624	94.4191	86.7040
Si 288.158	4313.07	4307.55	4315.67
Sn 189.925	92.8012	95.0608	96.6140
Sr 216.596	121.788	122.284	121.864
Ti 334.941	338.706	338.074	338.979

Label	Replicates Concentration		
Tl 190.794	42.6987	43.4011	38.0455
V 292.401	97.3834	96.5899	96.5667
Zn 206.200	96.1588	98.7471	98.7329

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	17.7247	ppb	0.1658	0.9	762.009
Al 308.215	4741.06	ppb	3.5759	0.1	16083.6
As 188.980	97.7296	ppb	6.5529	6.7	37.8358
B 249.678	208.732	ppb	1.5550	0.7	1535.65
Ba 389.178	101.880	ppb	0.9188	0.9	1148.70
Be 313.042	47.1973	ppb	0.0695	0.1	44598.7
Ca 370.602	23076	ppb	55.86	0.2	50189
Cd 226.502	48.5417	ppb	0.3571	0.7	994.104
Co 228.615	48.8458	ppb	0.5882	1.2	236.472
Cr 267.716	96.7097	ppb	0.2667	0.3	2420.96
Cu 324.754	176.535	ppb	0.1588	0.1	7588.87
Fe 271.441	4847.49	ppb	14.9301	0.3	4046.93
K 766.491	9261.92	ppb	15.2060	0.2	236460
Mg 279.078	6047.75	ppb	0.9037	0.0	9084.66
Mn 257.610	386.323	ppb	0.1167	0.0	40156.4
Mo 202.032	96.8484	ppb	0.7402	0.8	302.023
Na 330.237	10745.8	ppb	42.5118	0.4	409.815
Ni 231.604	98.9067	ppb	0.2820	0.3	136.096
Pb 220.353	480.131	ppb	3.4802	0.7	361.898
Sb 206.834	51.4094	ppb	2.2684	4.4	28.9402
Se 196.026	90.2285	ppb	3.9005	4.3	27.5482
Si 288.158	4312.10	ppb	4.1486	0.1	25996.6
Sn 189.925	94.8253	ppb	1.9173	2.0	39.5807
Sr 216.596	121.979	ppb	0.2673	0.2	689.846
Ti 334.941	338.586	ppb	0.4643	0.1	49794.6
Tl 190.794	41.3818	ppb	2.9105	7.0	18.3973
V 292.401	96.8467	ppb	0.4650	0.5	1274.80
Zn 206.200	97.8796	ppb	1.4903	1.5	64.1533

680-201861-f-2-c msd (Samp) **7/26/2021, 4:21:16 PM** **Rack 1, Tube 32**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	17.9037	17.8892	18.3283
Al 308.215	4697.20	4710.01	4721.09
As 188.980	104.608	96.6254	95.7904
B 249.678	208.522	211.505	210.578
Ba 389.178	101.356	99.9673	102.123
Be 313.042	47.0008	47.1055	47.1226
Ca 370.602	22744	22836	22838
Cd 226.502	48.4694	48.5396	48.3857
Co 228.615	48.6979	48.2523	48.9549
Cr 267.716	96.7029	96.8586	96.7960
Cu 324.754	175.442	173.733	175.553
Fe 271.441	4825.68	4832.93	4820.90
K 766.491	9168.91	9205.38	9223.39
Mg 279.078	6031.58	6029.70	6029.14
Mn 257.610	383.947	385.190	385.706
Mo 202.032	96.1507	96.4359	96.5027

Label	Replicates Concentration		
Na 330.237	10540.6	10485.4	10453.4
Ni 231.604	98.6237	97.9237	100.240
Pb 220.353	478.216	482.945	471.550
Sb 206.834	46.8109	51.4348	49.0398
Se 196.026	93.4358	96.3426	91.8700
Si 288.158	4233.08	4248.59	4252.55
Sn 189.925	93.0069	94.4812	95.1519
Sr 216.596	120.595	121.775	122.227
Ti 334.941	336.809	338.265	338.535
Tl 190.794	39.5992	44.6442	34.6879
V 292.401	96.6660	96.9950	97.2308
Zn 206.200	98.6355	100.102	96.1721

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	18.0404	ppb	0.2494	1.4	775.367
Al 308.215	4709.43	ppb	11.9560	0.3	15981.3
As 188.980	99.0078	ppb	4.8675	4.9	38.3715
B 249.678	210.202	ppb	1.5268	0.7	1546.96
Ba 389.178	101.149	ppb	1.0928	1.1	1140.21
Be 313.042	47.0763	ppb	0.0659	0.1	44483.6
Ca 370.602	22806	ppb	53.66	0.2	49603
Cd 226.502	48.4649	ppb	0.0770	0.2	992.489
Co 228.615	48.6350	ppb	0.3555	0.7	235.320
Cr 267.716	96.7858	ppb	0.0784	0.1	2422.84
Cu 324.754	174.909	ppb	1.0200	0.6	7520.95
Fe 271.441	4826.50	ppb	6.0589	0.1	4029.61
K 766.491	9199.23	ppb	27.7560	0.3	234862
Mg 279.078	6030.14	ppb	1.2752	0.0	9058.25
Mn 257.610	384.948	ppb	0.9045	0.2	40013.7
Mo 202.032	96.3631	ppb	0.1869	0.2	300.497
Na 330.237	10493.1	ppb	44.1249	0.4	400.946
Ni 231.604	98.9291	ppb	1.1879	1.2	136.130
Pb 220.353	477.570	ppb	5.7245	1.2	360.019
Sb 206.834	49.0951	ppb	2.3124	4.7	27.5230
Se 196.026	93.8828	ppb	2.2696	2.4	28.6339
Si 288.158	4244.74	ppb	10.2918	0.2	25597.3
Sn 189.925	94.2134	ppb	1.0973	1.2	39.3284
Sr 216.596	121.532	ppb	0.8424	0.7	687.333
Ti 334.941	337.870	ppb	0.9286	0.3	49689.3
Tl 190.794	39.6438	ppb	4.9783	12.6	17.3455
V 292.401	96.9639	ppb	0.2837	0.3	1276.33
Zn 206.200	98.3033	ppb	1.9861	2.0	64.4405

680-201870-a-6-a (Samp) **7/26/2021, 4:25:47 PM** **Rack 1, Tube 33**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2841u	-0.3516u	0.2241
Al 308.215	2300.56	2327.84	2312.54
As 188.980	-3.7501u	-7.0029u	1.1273
B 249.678	18.0804	16.6730	17.1367
Ba 389.178	70.4465	69.0250	68.6051
Be 313.042	0.0463	0.0483	0.0508
Ca 370.602	4594	4631	4603

Label	Replicates Concentration		
Cd 226.502	0.3755	0.0445	0.2307
Co 228.615	1.8850	1.2058	0.9256
Cr 267.716	-0.0103	-0.3175u	-0.2595u
Cu 324.754	0.1835	0.3293	0.2800
Fe 271.441	527.771	531.668	521.516
K 766.491	2015.19	2033.32	2022.67
Mg 279.078	1409.48	1416.36	1405.21
Mn 257.610	2163.21	2183.06	2166.79
Mo 202.032	-0.6494u	0.7840	0.7639
Na 330.237	11967.4	11931.4	11894.7
Ni 231.604	1.8312	5.0816	2.4829
Pb 220.353	-0.0986	-4.1269u	-3.7599u
Sb 206.834	-4.2149u	-1.9222u	-4.5631u
Se 196.026	6.6882	1.0986	-5.3837u
Si 288.158	1832.82	1853.18	1839.02
Sn 189.925	-1.1701u	-5.1948u	-3.5725u
Sr 216.596	29.5378	29.7262	29.9773
Ti 334.941	0.1328	0.2078	0.1461
Tl 190.794	0.0186u	-0.5345u	3.3813
V 292.401	0.4158	-0.2708u	0.9146
Zn 206.200	2.8250	2.1024	2.3911

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1372	ppb	0.3147	229.3	10.5223
Al 308.215	2313.65	ppb	13.6752	0.6	8220.87
As 188.980	-3.2085	ppb	4.0921	127.5	-4.4667
B 249.678	17.2967	ppb	0.7172	4.1	76.9500
Ba 389.178	69.3589	ppb	0.9650	1.4	766.175
Be 313.042	0.0485	ppb	0.0023	4.7	-269.451
Ca 370.602	4609	ppb	19.62	0.4	10090
Cd 226.502	0.2169	ppb	0.1659	76.5	-13.7758
Co 228.615	1.3388	ppb	0.4933	36.8	-23.7244
Cr 267.716	-0.1958	ppb	0.1632	83.4	16.0220
Cu 324.754	0.2643	ppb	0.0742	28.1	224.877
Fe 271.441	526.985	ppb	5.1215	1.0	480.567
K 766.491	2023.73	ppb	9.1098	0.5	51869.9
Mg 279.078	1410.35	ppb	5.6255	0.4	2112.10
Mn 257.610	2171.02	ppb	10.5780	0.5	225392
Mo 202.032	0.2995	ppb	0.8218	274.4	-1.5204
Na 330.237	11931.1	ppb	36.3682	0.3	458.073
Ni 231.604	3.1319	ppb	1.7197	54.9	-9.4117
Pb 220.353	-2.6618	ppb	2.2274	83.7	7.8187
Sb 206.834	-3.5667	ppb	1.4348	40.2	-4.2119
Se 196.026	0.8010	ppb	6.0414	754.2	1.1973
Si 288.158	1841.67	ppb	10.4398	0.6	11314.6
Sn 189.925	-3.3125	ppb	2.0249	61.1	-0.8632
Sr 216.596	29.7471	ppb	0.2205	0.7	175.575
Ti 334.941	0.1623	ppb	0.0400	24.7	47.5914
Tl 190.794	0.9551	ppb	2.1193	221.9	-6.1135
V 292.401	0.3532	ppb	0.5952	168.5	14.4037
Zn 206.200	2.4395	ppb	0.3637	14.9	-0.5476

mb 680-678012/1-a (Samp) **7/26/2021, 4:30:18 PM** **Rack 1, Tube 34**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1582u	-0.1840u	0.4013
Al 308.215	-35.9385u	-32.7878u	-34.0484u
As 188.980	0.8312	-0.4021u	0.4833
B 249.678	5.2065	4.5577	4.4167
Ba 389.178	1.3592	1.4312	0.4362
Be 313.042	0.0406	0.0338	0.0283
Ca 370.602	-3.713u	-0.3297u	-1.282u
Cd 226.502	0.3477	0.2698	0.2655
Co 228.615	0.7016	1.1992	0.6998
Cr 267.716	-0.1964u	-0.0848u	0.1173
Cu 324.754	0.3379	0.3044	0.5039
Fe 271.441	1.9330	-2.0699u	-15.5233u
K 766.491	-0.3237u	-0.3051u	-0.6496u
Mg 279.078	1.8060	-2.9236u	1.1282
Mn 257.610	-0.0744u	-0.0307u	-0.0460u
Mo 202.032	-0.4660u	0.1163	0.0273
Na 330.237	-194.919u	-199.689u	-123.360u
Ni 231.604	0.5629	1.7270	2.1037
Pb 220.353	1.9051	-2.8331u	-2.2415u
Sb 206.834	-0.0384u	0.4348	2.3862
Se 196.026	-1.5521u	4.3923	-12.7838u
Si 288.158	-0.5787u	-1.4117u	-0.1378u
Sn 189.925	-7.3830u	-0.6457u	0.2578
Sr 216.596	-0.0783u	0.2697	0.1496
Ti 334.941	0.1028	0.1158	0.0363
Tl 190.794	6.2960	1.0032	2.3133
V 292.401	0.3645	0.4080	0.3645
Zn 206.200	3.0361	2.5200	1.3150

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.0197	ppb	0.3307	1678.9	11.6954
Al 308.215	-34.2582	ppb	1.5858	4.6	623.537
As 188.980	0.3041	ppb	0.6359	209.1	-3.0006
B 249.678	4.7270	ppb	0.4212	8.9	-18.3552
Ba 389.178	1.0755	ppb	0.5548	51.6	-24.4756
Be 313.042	0.0342	ppb	0.0062	18.0	-282.786
Ca 370.602	-1.775	ppb	1.744	98.3	27.97
Cd 226.502	0.2943	ppb	0.0463	15.7	-12.9500
Co 228.615	0.8669	ppb	0.2878	33.2	-26.2915
Cr 267.716	-0.0547	ppb	0.1590	290.9	14.5641
Cu 324.754	0.3821	ppb	0.1068	28.0	229.644
Fe 271.441	-5.2201	ppb	9.1446	175.2	41.6628
K 766.491	-0.4261	ppb	0.1938	45.5	249.370
Mg 279.078	0.0035	ppb	2.5575	72073.0	18.7847
Mn 257.610	-0.0504	ppb	0.0222	44.1	50.4387
Mo 202.032	-0.1075	ppb	0.3137	291.8	-2.7888
Na 330.237	-172.656	ppb	42.7585	24.8	31.6771
Ni 231.604	1.4645	ppb	0.8032	54.8	-11.9458
Pb 220.353	-1.0565	ppb	2.5818	244.4	8.7925
Sb 206.834	0.9275	ppb	1.2852	138.6	-1.4465
Se 196.026	-3.3145	ppb	8.7226	263.2	-0.3533
Si 288.158	-0.7094uv	ppb	0.6469	91.2	399.882

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-2.5903	ppb	4.1751	161.2	-0.5677
Sr 216.596	0.1137	ppb	0.1768	155.5	9.8157
Ti 334.941	0.0850	ppb	0.0427	50.2	36.6462
Tl 190.794	3.2042	ppb	2.7565	86.0	-4.3521
V 292.401	0.3790	ppb	0.0251	6.6	14.7448
Zn 206.200	2.2904	ppb	0.8832	38.6	-0.6522

lcs 680-678012/2-a (Samp) **7/26/2021, 4:34:49 PM** **Rack 1, Tube 35**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	476.192	482.709	478.673
Al 308.215	9378.29	9462.65	9449.33
As 188.980	473.511	476.708	478.734
B 249.678	474.448	478.158	480.856
Ba 389.178	483.378	487.242	486.763
Be 313.042	486.091	488.340	488.311
Ca 370.602	9588	9635	9638
Cd 226.502	474.215	477.255	476.676
Co 228.615	480.175	484.741	480.919
Cr 267.716	476.373	480.327	479.976
Cu 324.754	483.281	487.808	484.798
Fe 271.441	9544.67	9600.15	9580.79
K 766.491	9908.42	9944.74	9942.28
Mg 279.078	9435.09	9491.19	9497.90
Mn 257.610	482.885	485.868	485.810
Mo 202.032	481.170	482.776	484.436
Na 330.237	9202.91	9415.74	9697.41
Ni 231.604	472.843	479.944	480.240
Pb 220.353	476.459	475.889	470.639
Sb 206.834	493.242	486.322	491.666
Se 196.026	466.966	463.757	475.912
Si 288.158	4722.43	4747.10	4760.33
Sn 189.925	478.524	482.874	486.049
Sr 216.596	480.697	481.756	484.530
Ti 334.941	483.886	487.202	486.468
Tl 190.794	483.807	488.838	484.883
V 292.401	480.430	483.931	482.828
Zn 206.200	952.770	966.428	949.671

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	479.191	ppb	3.2889	0.7	20288.1
Al 308.215	9430.09	ppb	45.3484	0.5	31287.6
As 188.980	476.318	ppb	2.6336	0.6	196.464
B 249.678	477.821	ppb	3.2174	0.7	3588.55
Ba 389.178	485.794	ppb	2.1064	0.4	5589.27
Be 313.042	487.581	ppb	1.2904	0.3	463642
Ca 370.602	9620	ppb	27.84	0.3	20944
Cd 226.502	476.049	ppb	1.6143	0.3	9868.64
Co 228.615	481.945	ppb	2.4498	0.5	2578.31
Cr 267.716	478.892	ppb	2.1886	0.5	11920.5
Cu 324.754	485.296	ppb	2.3041	0.5	20490.3
Fe 271.441	9575.20	ppb	28.1598	0.3	7974.70
K 766.491	9931.81	ppb	20.2976	0.2	253544

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	9474.73	ppb	34.4879	0.4	14222.6
Mn 257.610	484.855	ppb	1.7057	0.4	50382.3
Mo 202.032	482.794	ppb	1.6333	0.3	1515.69
Na 330.237	9438.69	ppb	248.046	2.6	347.896
Ni 231.604	477.676	ppb	4.1878	0.9	711.249
Pb 220.353	474.329	ppb	3.2089	0.7	357.385
Sb 206.834	490.410	ppb	3.6266	0.7	296.228
Se 196.026	468.878	ppb	6.2991	1.3	140.140
Si 288.158	4743.28	ppb	19.2353	0.4	28667.2
Sn 189.925	482.482	ppb	3.7776	0.8	199.340
Sr 216.596	482.328	ppb	1.9793	0.4	2688.49
Ti 334.941	485.852	ppb	1.7417	0.4	71442.3
Tl 190.794	485.843	ppb	2.6493	0.5	287.759
V 292.401	482.396	ppb	1.7901	0.4	6301.93
Zn 206.200	956.290	ppb	8.9158	0.9	646.123

lcsd 680-678012/3-a (Samp) **7/26/2021, 4:39:20 PM** **Rack 1, Tube 36**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	476.610	470.468	478.506
Al 308.215	9449.22	9438.88	9488.53
As 188.980	486.409	484.514	487.452
B 249.678	486.278	488.292	492.982
Ba 389.178	486.767	485.865	488.857
Be 313.042	487.100	486.248	490.100
Ca 370.602	9614	9614	9655
Cd 226.502	474.610	475.030	478.443
Co 228.615	482.108	482.707	481.227
Cr 267.716	477.907	477.407	480.353
Cu 324.754	484.414	475.497	483.993
Fe 271.441	9562.36	9572.44	9614.67
K 766.491	9903.20	9900.22	9980.55
Mg 279.078	9440.78	9428.11	9505.20
Mn 257.610	483.453	483.507	486.511
Mo 202.032	477.985	479.335	482.449
Na 330.237	9358.36	9494.27	9363.54
Ni 231.604	473.822	479.629	480.236
Pb 220.353	472.393	474.899	470.129
Sb 206.834	482.712	486.167	496.175
Se 196.026	471.510	462.382	478.665
Si 288.158	4719.74	4731.04	4757.84
Sn 189.925	475.358	483.017	483.497
Sr 216.596	480.976	479.492	482.712
Ti 334.941	484.504	483.985	486.732
Tl 190.794	485.984	483.790	494.673
V 292.401	480.845	481.551	482.862
Zn 206.200	945.181	953.286	950.483

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	475.195	ppb	4.2014	0.9	20119.0
Al 308.215	9458.88	ppb	26.1988	0.3	31380.6
As 188.980	486.125	ppb	1.4897	0.3	200.575
B 249.678	489.184	ppb	3.4399	0.7	3675.59

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	487.163	ppb	1.5351	0.3	5605.07
Be 313.042	487.816	ppb	2.0231	0.4	463866
Ca 370.602	9628	ppb	23.46	0.2	20960
Cd 226.502	476.028	ppb	2.1026	0.4	9868.22
Co 228.615	482.014	ppb	0.7445	0.2	2578.70
Cr 267.716	478.556	ppb	1.5763	0.3	11912.2
Cu 324.754	481.301	ppb	5.0311	1.0	20323.5
Fe 271.441	9583.15	ppb	27.7522	0.3	7981.23
K 766.491	9927.99	ppb	45.5428	0.5	253447
Mg 279.078	9458.03	ppb	41.3404	0.4	14197.6
Mn 257.610	484.490	ppb	1.7502	0.4	50344.5
Mo 202.032	479.923	ppb	2.2892	0.5	1506.66
Na 330.237	9405.39	ppb	77.0151	0.8	346.803
Ni 231.604	477.895	ppb	3.5407	0.7	711.583
Pb 220.353	472.474	ppb	2.3864	0.5	356.026
Sb 206.834	488.351	ppb	6.9921	1.4	294.999
Se 196.026	470.852	ppb	8.1618	1.7	140.727
Si 288.158	4736.21	ppb	19.5696	0.4	28624.8
Sn 189.925	480.624	ppb	4.5671	1.0	198.574
Sr 216.596	481.060	ppb	1.6113	0.3	2681.49
Ti 334.941	485.074	ppb	1.4594	0.3	71327.9
Tl 190.794	488.149	ppb	5.7553	1.2	289.157
V 292.401	481.753	ppb	1.0235	0.2	6293.55
Zn 206.200	949.651	ppb	4.1162	0.4	641.621

llcs 680-678012/4-a (Samp) **7/26/2021, 4:43:51 PM** **Rack 1, Tube 37**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1320u	-0.0815u	-0.1617u
Al 308.215	-34.4789u	-34.0860u	-35.1352u
As 188.980	7.4817	-1.5760u	1.5614
B 249.678	16.0573	15.0527	14.4865
Ba 389.178	0.6558	0.6134	0.3351
Be 313.042	0.0239	0.0417	0.0371
Ca 370.602	-8.271u	-4.422u	-2.431u
Cd 226.502	0.0953	0.2459	0.3308
Co 228.615	0.2652	0.5184	0.0009
Cr 267.716	0.0509	0.0665	-0.2451u
Cu 324.754	0.0153	-0.1199u	0.2023
Fe 271.441	-5.0563u	-7.0261u	-12.6693u
K 766.491	-1.5123u	-0.5671u	-0.2413u
Mg 279.078	-2.6534u	-5.1327u	-1.9150u
Mn 257.610	-0.0389u	-0.1226u	-0.0956u
Mo 202.032	-0.2978u	0.2975	-0.6241u
Na 330.237	-62.1746u	-223.732u	-164.694u
Ni 231.604	2.7229	1.8755	3.8332
Pb 220.353	1.2307	-0.6371u	0.9927
Sb 206.834	6.5212	0.7207	-2.3531u
Se 196.026	-3.3219u	-3.4041u	-0.4983u
Si 288.158	-0.3561u	1.6135	1.4302
Sn 189.925	3.1242	-2.1214u	0.3946
Sr 216.596	-0.0476u	0.0249	0.0887
Ti 334.941	0.0169	0.0542	0.0243

Label	Replicates Concentration		
Tl 190.794	-1.1038u	0.5249	-0.4157u
V 292.401	0.3879	0.0329	-0.3105u
Zn 206.200	0.4557	0.2817	0.2100

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1251	ppb	0.0406	32.4	5.5699
Al 308.215	-34.5667	ppb	0.5301	1.5	622.537
As 188.980	2.4890	ppb	4.5995	184.8	-2.0850
B 249.678	15.1988	ppb	0.7955	5.2	61.9006
Ba 389.178	0.5347	ppb	0.1742	32.6	-30.7281
Be 313.042	0.0342	ppb	0.0092	26.9	-282.797
Ca 370.602	-5.041	ppb	2.969	58.9	20.88
Cd 226.502	0.2240	ppb	0.1193	53.2	-14.4163
Co 228.615	0.2615	ppb	0.2588	98.9	-29.5655
Cr 267.716	-0.0426	ppb	0.1756	412.3	14.8646
Cu 324.754	0.0326	ppb	0.1618	496.8	215.051
Fe 271.441	-8.2506	ppb	3.9514	47.9	39.1210
K 766.491	-0.7736	ppb	0.6602	85.3	240.510
Mg 279.078	-3.2337	ppb	1.6855	52.1	13.9292
Mn 257.610	-0.0857	ppb	0.0427	49.8	46.7775
Mo 202.032	-0.2081	ppb	0.4673	224.5	-3.1051
Na 330.237	-150.200	ppb	81.7481	54.4	32.4735
Ni 231.604	2.8106	ppb	0.9818	34.9	-9.8992
Pb 220.353	0.5288	ppb	1.0167	192.3	9.9556
Sb 206.834	1.6296	ppb	4.5064	276.5	-1.0162
Se 196.026	-2.4081	ppb	1.6544	68.7	-0.0840
Si 288.158	0.8959uv	ppb	1.0881	121.5	409.692
Sn 189.925	0.4658	ppb	2.6235	563.3	0.6918
Sr 216.596	0.0220	ppb	0.0682	310.1	9.2929
Ti 334.941	0.0318	ppb	0.0198	62.2	28.8234
Tl 190.794	-0.3316	ppb	0.8176	246.6	-6.4955
V 292.401	0.0368	ppb	0.3492	949.9	10.2801
Zn 206.200	0.3158	ppb	0.1264	40.0	-1.9914

680-201916-a-1-b (Samp) **7/26/2021, 4:48:20 PM** **Rack 1, Tube 38**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1984u	-0.2023u	-0.1651u
Al 308.215	-20.3162u	-18.8070u	-20.0695u
As 188.980	4.4990	-1.5534u	0.8774
B 249.678	22.9034	24.1511	21.9635
Ba 389.178	41.8535	41.4572	42.3928
Be 313.042	0.0076	0.0062	0.0264
Ca 370.602	35594	35715	36188
Cd 226.502	0.3184	-0.0156u	0.3879
Co 228.615	-0.0219u	0.8162	0.6114
Cr 267.716	0.0358	0.1401	-0.0419u
Cu 324.754	20.0759	16.6805	16.3295
Fe 271.441	-5.1061u	-12.0420u	-7.3381u
K 766.491	2910.22	2907.27	2923.37
Mg 279.078	8177.59	8191.47	8278.52
Mn 257.610	0.7835	0.7213	0.7785
Mo 202.032	0.4613	-0.2934u	0.4325

Label	Replicates Concentration		
Na 330.237	28184.9	28254.9	28488.6
Ni 231.604	2.6553	3.6865	1.2667
Pb 220.353	-2.4154u	-1.4180u	-0.6042u
Sb 206.834	2.0003	-6.1356u	-1.6499u
Se 196.026	-2.4972u	8.0910	15.2228
Si 288.158	3084.71	3094.25	3108.84
Sn 189.925	-5.5486u	-4.8927u	0.1053
Sr 216.596	179.629	178.561	180.941
Ti 334.941	0.0608	0.0671	0.0150
Tl 190.794	2.8156	-1.4963u	2.6893
V 292.401	0.6493	1.1579	0.7482
Zn 206.200	8492.33	8213.62	8570.37

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1886	ppb	0.0204	10.8	2.0175
Al 308.215	-19.7309	ppb	0.8096	4.1	670.578
As 188.980	1.2743	ppb	3.0456	239.0	-2.5940
B 249.678	23.0060	ppb	1.0974	4.8	121.727
Ba 389.178	41.9012	ppb	0.4696	1.1	457.046
Be 313.042	0.0134	ppb	0.0113	84.6	-297.594
Ca 370.602	35832	ppb	313.9	0.9	77906
Cd 226.502	0.2302	ppb	0.2157	93.7	-14.3006
Co 228.615	0.4686	ppb	0.4369	93.2	-28.4460
Cr 267.716	0.0447	ppb	0.0913	204.4	17.1783
Cu 324.754	17.6953	ppb	2.0691	11.7	952.696
Fe 271.441	-8.1621	ppb	3.5406	43.4	39.2228
K 766.491	2913.62	ppb	8.5726	0.3	74564.3
Mg 279.078	8215.86	ppb	54.7069	0.7	12341.3
Mn 257.610	0.7611	ppb	0.0346	4.5	134.821
Mo 202.032	0.2001	ppb	0.4276	213.7	-1.8212
Na 330.237	28309.5	ppb	159.040	0.6	901.287
Ni 231.604	2.5362	ppb	1.2143	47.9	-10.3122
Pb 220.353	-1.4792	ppb	0.9071	61.3	8.4819
Sb 206.834	-1.9284	ppb	4.0751	211.3	-3.2085
Se 196.026	6.9389	ppb	8.9160	128.5	2.6941
Si 288.158	3095.94	ppb	12.1550	0.4	18745.2
Sn 189.925	-3.4454	ppb	3.0924	89.8	-0.9158
Sr 216.596	179.711	ppb	1.1920	0.7	1014.58
Ti 334.941	0.0476	ppb	0.0284	59.7	30.1847
Tl 190.794	1.3362	ppb	2.4538	183.6	-5.4847
V 292.401	0.8518	ppb	0.2697	31.7	20.8682
Zn 206.200	8425.44	ppb	187.546	2.2	5711.64

680-201916-a-2-b (Samp) **7/26/2021, 4:52:49 PM** **Rack 1, Tube 39**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0534	-0.0746u	-0.1496u
Al 308.215	-22.5787u	-23.2728u	-23.5353u
As 188.980	1.7720	1.5137	1.1565
B 249.678	21.0197	22.1635	21.6463
Ba 389.178	43.2335	42.3802	43.0417
Be 313.042	0.0248	0.0153	0.0119
Ca 370.602	35935	35479	35722

Label	Replicates Concentration		
Cd 226.502	0.3406	0.3015	0.2018
Co 228.615	0.6612	-0.3470u	1.2479
Cr 267.716	0.1538	-0.1453u	0.0606
Cu 324.754	98.7717	100.515	94.7582
Fe 271.441	-9.4161u	-5.2478u	6.6494
K 766.491	3004.83	2959.78	2987.41
Mg 279.078	8264.84	8168.06	8235.83
Mn 257.610	0.8405	0.8813	0.8180
Mo 202.032	0.2119	-0.3673u	-0.3301u
Na 330.237	34443.9	34499.7	34944.2
Ni 231.604	4.5472	2.3137	4.6972
Pb 220.353	-1.4492u	1.4687	-2.3769u
Sb 206.834	-0.1060u	-0.3570u	2.5907
Se 196.026	5.5127	4.5262	7.6460
Si 288.158	3100.30	3104.95	3102.04
Sn 189.925	-1.4992u	1.3072	0.0795
Sr 216.596	182.418	179.970	182.281
Ti 334.941	0.1302	0.1633	0.1034
Tl 190.794	0.6701	5.2132	1.1971
V 292.401	0.8945	1.2640	0.7739
Zn 206.200	8828.68	8514.58	8738.37

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0570	ppb	0.1026	180.2	7.5778
Al 308.215	-23.1289	ppb	0.4942	2.1	659.575
As 188.980	1.4807	ppb	0.3091	20.9	-2.5075
B 249.678	21.6099	ppb	0.5728	2.7	111.023
Ba 389.178	42.8851	ppb	0.4477	1.0	468.411
Be 313.042	0.0173	ppb	0.0067	38.4	-294.206
Ca 370.602	35712	ppb	228.2	0.6	77644
Cd 226.502	0.2813	ppb	0.0716	25.4	-13.2558
Co 228.615	0.5207	ppb	0.8067	154.9	-28.1636
Cr 267.716	0.0230	ppb	0.1530	664.6	16.6927
Cu 324.754	98.0149	ppb	2.9520	3.0	4307.04
Fe 271.441	-2.6715	ppb	8.3368	312.1	43.7633
K 766.491	2984.01	ppb	22.7172	0.8	76359.2
Mg 279.078	8222.91	ppb	49.6682	0.6	12351.9
Mn 257.610	0.8466	ppb	0.0321	3.8	143.681
Mo 202.032	-0.1619	ppb	0.3242	200.3	-2.9598
Na 330.237	34629.3	ppb	274.168	0.8	1119.74
Ni 231.604	3.8527	ppb	1.3349	34.6	-8.3113
Pb 220.353	-0.7858	ppb	2.0068	255.4	8.9907
Sb 206.834	0.7092	ppb	1.6342	230.4	-1.5860
Se 196.026	5.8950	ppb	1.5947	27.1	2.3839
Si 288.158	3102.43	ppb	2.3531	0.1	18783.7
Sn 189.925	-0.0375	ppb	1.4068	3751.8	0.4896
Sr 216.596	181.556	ppb	1.3755	0.8	1024.85
Ti 334.941	0.1323	ppb	0.0300	22.7	42.3879
Tl 190.794	2.3601	ppb	2.4849	105.3	-4.8640
V 292.401	0.9775	ppb	0.2554	26.1	22.4844
Zn 206.200	8693.88	ppb	161.710	1.9	5893.69

680-201916-a-3-b (Samp) **7/26/2021, 4:57:18 PM** **Rack 1, Tube 40**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0766u	-0.1030u	-0.1593u
Al 308.215	142.246	145.698	141.911
As 188.980	2.8338	2.6765	5.8689
B 249.678	21.7831	21.0079	21.3201
Ba 389.178	53.8404	54.0537	53.0216
Be 313.042	0.0222	0.0170	0.0226
Ca 370.602	41240	41077	40532
Cd 226.502	0.0243	0.3960	0.2869
Co 228.615	0.6916	1.0020	0.4310
Cr 267.716	1.5049	0.4654	0.1384
Cu 324.754	119.500	117.254	116.541
Fe 271.441	6.9778	6.5203	0.3425
K 766.491	3203.04	3181.79	3134.22
Mg 279.078	10570.4	10542.1	10417.2
Mn 257.610	1.3614	1.3678	1.2207
Mo 202.032	-0.4073u	0.4151	0.6156
Na 330.237	35733.4	35929.9	35343.3
Ni 231.604	3.7440	3.6399	5.6369
Pb 220.353	2.6015	-2.4976u	1.9239
Sb 206.834	6.8975	3.2855	-2.1594u
Se 196.026	-4.6358u	13.5443	-4.4071u
Si 288.158	2856.66	2868.32	2862.64
Sn 189.925	7.9949	2.5619	2.2457
Sr 216.596	225.594	225.345	222.390
Ti 334.941	0.2108	0.1810	0.0819
Tl 190.794	1.0091	-0.9556u	7.3409
V 292.401	1.2901	1.4814	1.1250
Zn 206.200	10958.3	11007.2	10857.4

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1130	ppb	0.0422	37.4	5.0030
Al 308.215	143.285	ppb	2.0969	1.5	1198.07
As 188.980	3.7931	ppb	1.7994	47.4	-1.5382
B 249.678	21.3704	ppb	0.3900	1.8	109.163
Ba 389.178	53.6386	ppb	0.5449	1.0	595.103
Be 313.042	0.0206	ppb	0.0031	15.2	-290.104
Ca 370.602	40950	ppb	370.7	0.9	89027
Cd 226.502	0.2357	ppb	0.1911	81.1	-14.1590
Co 228.615	0.7082	ppb	0.2858	40.4	-27.1495
Cr 267.716	0.7029	ppb	0.7135	101.5	33.5740
Cu 324.754	117.765	ppb	1.5447	1.3	5131.86
Fe 271.441	4.6135	ppb	3.7059	80.3	49.7624
K 766.491	3173.02	ppb	35.2422	1.1	81179.4
Mg 279.078	10509.9	ppb	81.5521	0.8	15782.0
Mn 257.610	1.3166	ppb	0.0832	6.3	192.488
Mo 202.032	0.2078	ppb	0.5420	260.8	-1.7975
Na 330.237	35668.9	ppb	298.544	0.8	1120.66
Ni 231.604	4.3403	ppb	1.1241	25.9	-7.5688
Pb 220.353	0.6759	ppb	2.7692	409.7	10.0621
Sb 206.834	2.6745	ppb	4.5593	170.5	-0.3755
Se 196.026	1.5005	ppb	10.4309	695.2	1.0780
Si 288.158	2862.54	ppb	5.8331	0.2	17362.7

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	4.2675	ppb	3.2319	75.7	2.2638
Sr 216.596	224.443	ppb	1.7822	0.8	1264.48
Ti 334.941	0.1579	ppb	0.0675	42.7	46.1473
Tl 190.794	2.4648	ppb	4.3356	175.9	-4.8009
V 292.401	1.2988	ppb	0.1784	13.7	26.6863
Zn 206.200	10941.0	ppb	76.4285	0.7	7417.59

Cont Calib Verif (CCV) **7/26/2021, 5:01:50 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	478.409	475.290	477.035
Al 308.215	9509.08	9517.31	9517.85
As 188.980	481.500	476.987	480.379
B 249.678	479.232	483.070	486.404
Ba 389.178	489.355	488.269	489.462
Be 313.042	490.009	489.318	489.102
Ca 370.602	9656	9649	9674
Cd 226.502	478.843	478.763	478.970
Co 228.615	479.906	480.474	487.317
Cr 267.716	481.146	479.754	480.496
Cu 324.754	485.382	482.276	483.932
Fe 271.441	9625.24	9608.29	9620.07
K 766.491	10006.8	10004.1	9989.59
Mg 279.078	9507.27	9482.23	9504.96
Mn 257.610	487.295	486.837	488.168
Mo 202.032	483.880	484.195	485.555
Na 330.237	9818.41	9430.83	9558.03
Ni 231.604	481.050	482.896	486.230
Pb 220.353	476.727	476.634	484.946
Sb 206.834	478.296	489.452	484.844
Se 196.026	470.507	473.121	465.681
Si 288.158	4764.99	4777.96	4781.42
Sn 189.925	483.929	479.855	475.197
Sr 216.596	482.497	484.551	484.472
Ti 334.941	487.481	487.457	487.099
Tl 190.794	496.833	489.448	493.781
V 292.401	483.702	484.975	485.293
Zn 206.200	960.141	953.266	953.258

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	476.912	ppb	1.5632	0.3	20191.6	95.38234
Al 308.215	9514.75	ppb	4.9163	0.1	31561.7	95.14746
As 188.980	479.622	ppb	2.3495	0.5	197.849	95.92439
B 249.678	482.902	ppb	3.5891	0.7	3627.40	96.58041
Ba 389.178	489.029	ppb	0.6597	0.1	5626.69	97.80574
Be 313.042	489.476	ppb	0.4736	0.1	465446	97.89528
Ca 370.602	9659	ppb	12.72	0.1	21029	96.59425
Cd 226.502	478.859	ppb	0.1043	0.0	9926.99	95.77177
Co 228.615	482.566	ppb	4.1245	0.9	2581.70	96.51317
Cr 267.716	480.466	ppb	0.6966	0.1	11959.6	96.09313
Cu 324.754	483.863	ppb	1.5542	0.3	20430.5	96.77269
Fe 271.441	9617.87	ppb	8.6892	0.1	8009.85	96.13058
K 766.491	10000.2	ppb	9.2606	0.1	255287	100.00169

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Mg 279.078	9498.15	ppb	13.8383	0.1	14257.7	94.98154
Mn 257.610	487.433	ppb	0.6759	0.1	50650.0	97.48666
Mo 202.032	484.544	ppb	0.8903	0.2	1521.19	96.90871
Na 330.237	9602.42	ppb	197.566	2.1	353.590	96.02425
Ni 231.604	483.392	ppb	2.6254	0.5	719.938	96.67844
Pb 220.353	479.436	ppb	4.7720	1.0	361.133	95.88712
Sb 206.834	484.197	ppb	5.6060	1.2	292.417	96.83948
Se 196.026	469.770	ppb	3.7740	0.8	140.406	93.95393
Si 288.158	4774.79	ppb	8.6605	0.2	28853.7	95.49584
Sn 189.925	479.660	ppb	4.3694	0.9	198.177	95.93205
Sr 216.596	483.840	ppb	1.1638	0.2	2696.92	96.76793
Ti 334.941	487.346	ppb	0.2139	0.0	71661.8	97.46913
Tl 190.794	493.354	ppb	3.7110	0.8	292.308	98.67085
V 292.401	484.657	ppb	0.8420	0.2	6331.43	96.93132
Zn 206.200	955.555	ppb	3.9718	0.4	645.624	95.55549

Cont Calib Blank (CCB) **7/26/2021, 5:06:22 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1489u	-0.1840u	-0.2512u
Al 308.215	-37.6639u	-32.8455u	-38.9069u
As 188.980	0.0925	-5.2680u	2.7299
B 249.678	13.5443	11.9579	11.9580
Ba 389.178	0.4232	1.8650	0.6770
Be 313.042	0.0507	0.0586	0.0503
Ca 370.602	-6.965u	-1.969u	1.351
Cd 226.502	0.0984	0.3390	0.1113
Co 228.615	1.4506	0.3556	1.4683
Cr 267.716	-0.1893u	-0.0096u	-0.1949u
Cu 324.754	0.2465	0.3663	0.3402
Fe 271.441	-14.2361u	-6.2997u	-8.8920u
K 766.491	-0.2846u	-0.5798u	-0.7324u
Mg 279.078	-4.3591u	-1.3620u	-1.0006u
Mn 257.610	0.0140	-0.0574u	-0.0386u
Mo 202.032	1.5168	2.0753	1.2136
Na 330.237	-136.517u	111.674	-245.264u
Ni 231.604	2.9279	2.9153	0.5822
Pb 220.353	-1.2045u	-2.1813u	1.0334
Sb 206.834	1.4233	1.7785	-5.5378u
Se 196.026	-2.2293u	-2.9762u	5.5563
Si 288.158	1.7881	2.4237	1.2045
Sn 189.925	2.2334	-5.5543u	0.1208
Sr 216.596	0.0790	0.4547	-0.3041u
Ti 334.941	0.1187	0.0607	0.0388
Tl 190.794	-0.2627u	-0.7018u	3.2158
V 292.401	-0.0919u	0.2384	0.5818
Zn 206.200	-0.1322u	-1.3786u	-1.7947u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.1947	ppb	0.0520	26.7	2.6188	-0.19472
Al 308.215	-36.4721	ppb	3.2016	8.8	616.397	-36.47211
As 188.980	-0.8152	ppb	4.0755	499.9	-3.4698	-0.81521
B 249.678	12.4867	ppb	0.9159	7.3	41.1108	12.48674

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	0.9884	ppb	0.7697	77.9	-25.4790	0.98844
Be 313.042	0.0532	ppb	0.0046	8.7	-264.834	0.05320
Ca 370.602	-2.527	ppb	4.186	165.6	26.34	-2.52746
Cd 226.502	0.1829	ppb	0.1354	74.0	-15.2643	0.18289
Co 228.615	1.0915	ppb	0.6374	58.4	-25.0810	1.09150
Cr 267.716	-0.1313	ppb	0.1054	80.3	12.6609	-0.13127
Cu 324.754	0.3177	ppb	0.0630	19.8	226.978	0.31765
Fe 271.441	-9.8093	ppb	4.0469	41.3	37.8803	-9.80927
K 766.491	-0.5323	ppb	0.2277	42.8	246.664	-0.53226
Mg 279.078	-2.2406	ppb	1.8436	82.3	15.4183	-2.24059
Mn 257.610	-0.0273	ppb	0.0370	135.2	52.8291	-0.02735
Mo 202.032	1.6019	ppb	0.4371	27.3	2.5877	1.60190
Na 330.237	-90.0357	ppb	182.952	203.2	34.6136	-90.03574
Ni 231.604	2.1418	ppb	1.3507	63.1	-10.9165	2.14182
Pb 220.353	-0.7841	ppb	1.6481	210.2	8.9916	-0.78413
Sb 206.834	-0.7787	ppb	4.1253	529.8	-2.5079	-0.77869
Se 196.026	0.1169	ppb	4.7254	4041.1	0.6665	0.11693
Si 288.158	1.8054	ppb	0.6098	33.8	415.096	1.80544
Sn 189.925	-1.0667	ppb	4.0274	377.6	0.0603	-1.06669
Sr 216.596	0.0765	ppb	0.3794	495.7	9.5837	0.07654
Ti 334.941	0.0727	ppb	0.0413	56.8	34.8411	0.07274
Tl 190.794	0.7504	ppb	2.1463	286.0	-5.8397	0.75044
V 292.401	0.2427	ppb	0.3369	138.8	12.9646	0.24275
Zn 206.200	-1.1018	ppb	0.8651	78.5	-2.9527	-1.10184

680-201916-a-4-b (Samp) **7/26/2021, 5:10:52 PM** **Rack 1, Tube 41**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1186u	-0.1860u	-0.1624u
Al 308.215	-16.4106u	-13.6996u	-17.8117u
As 188.980	1.1362	4.3628	1.3271
B 249.678	23.4207	24.1832	24.8044
Ba 389.178	49.1720	49.7878	47.0288
Be 313.042	0.0349	0.0227	0.0174
Ca 370.602	40769	41291	40836
Cd 226.502	0.2384	0.2099	0.0141
Co 228.615	1.2807	0.2000	0.8294
Cr 267.716	0.2281	-0.1045u	0.1444
Cu 324.754	146.211	174.572	149.706
Fe 271.441	-10.6061u	-3.2326u	-8.3087u
K 766.491	3213.58	3275.75	3246.58
Mg 279.078	10596.9	10725.5	10614.8
Mn 257.610	0.7246	0.7266	0.6823
Mo 202.032	0.1894	0.9771	1.1888
Na 330.237	41210.5	41377.8	41369.5
Ni 231.604	2.9876	5.7526	2.3301
Pb 220.353	-5.6967u	-3.2838u	-3.6458u
Sb 206.834	5.5780	-3.2105u	5.4285
Se 196.026	8.7427	-6.6572u	4.5110
Si 288.158	2884.03	2876.10	2878.75
Sn 189.925	-1.3461u	3.5787	-1.7150u
Sr 216.596	226.105	229.880	225.574
Ti 334.941	0.0866	0.0479	0.0954

Label	Replicates Concentration		
Tl 190.794	-1.6990u	1.4217	0.1676
V 292.401	0.5228	1.1705	1.0492
Zn 206.200	9348.97	9719.18	8794.10

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1557	ppb	0.0342	22.0	3.1767
Al 308.215	-15.9740	ppb	2.0905	13.1	682.745
As 188.980	2.2753	ppb	1.8103	79.6	-2.1746
B 249.678	24.1361	ppb	0.6930	2.9	130.377
Ba 389.178	48.6629	ppb	1.4483	3.0	537.731
Be 313.042	0.0250	ppb	0.0090	35.9	-286.378
Ca 370.602	40965	ppb	284.4	0.7	89061
Cd 226.502	0.1541	ppb	0.1221	79.2	-15.8925
Co 228.615	0.7700	ppb	0.5428	70.5	-26.8179
Cr 267.716	0.0893	ppb	0.1730	193.7	18.3913
Cu 324.754	156.830	ppb	15.4647	9.9	6763.31
Fe 271.441	-7.3824	ppb	3.7730	51.1	39.8432
K 766.491	3245.30	ppb	31.1068	1.0	83022.9
Mg 279.078	10645.7	ppb	69.6827	0.7	15985.8
Mn 257.610	0.7112	ppb	0.0250	3.5	129.636
Mo 202.032	0.7851	ppb	0.5266	67.1	0.0185
Na 330.237	41319.3	ppb	94.3031	0.2	1346.22
Ni 231.604	3.6901	ppb	1.8162	49.2	-8.5574
Pb 220.353	-4.2088	ppb	1.3012	30.9	6.4787
Sb 206.834	2.5987	ppb	5.0314	193.6	-0.4301
Se 196.026	2.1988	ppb	7.9561	361.8	1.2854
Si 288.158	2879.63	ppb	4.0374	0.1	17463.9
Sn 189.925	0.1725	ppb	2.9556	1713.0	0.5773
Sr 216.596	227.186	ppb	2.3478	1.0	1279.78
Ti 334.941	0.0766	ppb	0.0253	33.0	33.9509
Tl 190.794	-0.0366	ppb	1.5703	4295.8	-6.3172
V 292.401	0.9142	ppb	0.3443	37.7	21.6472
Zn 206.200	9287.41	ppb	465.599	5.0	6296.20

680-201916-a-5-b (Samp) **7/26/2021, 5:15:22 PM** **Rack 1, Tube 42**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1749u	-0.1506u	-0.1646u
Al 308.215	-26.5246u	-28.6270u	-30.8646u
As 188.980	-3.2114u	-7.8791u	-0.6216u
B 249.678	21.3207	19.8535	19.9662
Ba 389.178	43.0909	40.0470	41.6859
Be 313.042	0.0284	0.0171	0.0347
Ca 370.602	35828	35404	35694
Cd 226.502	0.2745	-0.0147u	0.5504
Co 228.615	1.1653	0.7697	0.2649
Cr 267.716	0.3073	0.0572	0.1863
Cu 324.754	13.9176	11.3500	10.1991
Fe 271.441	-12.7832u	-20.3224u	-9.5375u
K 766.491	2949.18	2947.15	2939.95
Mg 279.078	8232.61	8186.23	8212.72
Mn 257.610	0.7359	0.7217	0.7034
Mo 202.032	0.3570	0.8013	0.1323

Label	Replicates Concentration		
Na 330.237	27113.4	27090.7	27057.9
Ni 231.604	4.2299	3.8551	3.3018
Pb 220.353	-5.1622u	-3.3228u	-0.5171u
Sb 206.834	5.6674	-0.5936u	1.0492
Se 196.026	-2.1649u	0.1616	2.3608
Si 288.158	2512.73	2506.39	2502.51
Sn 189.925	-0.2231u	-1.9753u	-2.2807u
Sr 216.596	179.207	178.431	179.951
Ti 334.941	0.0268	0.1121	0.0699
Tl 190.794	-0.3179u	4.3670	0.7247
V 292.401	0.7582	0.9962	0.4460
Zn 206.200	4035.61	3747.00	3774.40

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1634	ppb	0.0122	7.5	3.0805
Al 308.215	-28.6721	ppb	2.1704	7.6	641.639
As 188.980	-3.9040	ppb	3.6780	94.2	-4.7642
B 249.678	20.3801	ppb	0.8165	4.0	101.612
Ba 389.178	41.6079	ppb	1.5234	3.7	453.633
Be 313.042	0.0267	ppb	0.0089	33.4	-285.182
Ca 370.602	35642	ppb	216.7	0.6	77491
Cd 226.502	0.2701	ppb	0.2826	104.6	-13.4810
Co 228.615	0.7333	ppb	0.4513	61.5	-27.0166
Cr 267.716	0.1836	ppb	0.1251	68.1	20.6789
Cu 324.754	11.8223	ppb	1.9037	16.1	707.433
Fe 271.441	-14.2144	ppb	5.5330	38.9	34.2314
K 766.491	2945.43	ppb	4.8475	0.2	75375.4
Mg 279.078	8210.52	ppb	23.2709	0.3	12333.3
Mn 257.610	0.7203	ppb	0.0163	2.3	130.590
Mo 202.032	0.4302	ppb	0.3404	79.1	-1.0974
Na 330.237	27087.3	ppb	27.9103	0.1	931.035
Ni 231.604	3.7956	ppb	0.4669	12.3	-8.4005
Pb 220.353	-3.0007	ppb	2.3392	78.0	7.3650
Sb 206.834	2.0410	ppb	3.2462	159.1	-0.7707
Se 196.026	0.1192	ppb	2.2632	1898.6	0.6672
Si 288.158	2507.21	ppb	5.1601	0.2	15257.7
Sn 189.925	-1.4931	ppb	1.1104	74.4	-0.1112
Sr 216.596	179.196	ppb	0.7599	0.4	1011.67
Ti 334.941	0.0696	ppb	0.0426	61.2	33.3861
Tl 190.794	1.5913	ppb	2.4597	154.6	-5.3302
V 292.401	0.7334	ppb	0.2760	37.6	19.3183
Zn 206.200	3852.33	ppb	159.309	4.1	2610.32

680-201916-a-6-b (Samp) **7/26/2021, 5:19:51 PM** **Rack 1, Tube 43**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1258u	-0.1438u	-0.0531u
Al 308.215	-34.8994u	-32.6436u	-32.2517u
As 188.980	-0.4100u	-0.1674u	2.9777
B 249.678	19.8847	19.0125	19.4600
Ba 389.178	43.3107	42.2417	40.1892
Be 313.042	0.0193	0.0254	0.0291
Ca 370.602	35345	35342	35094

Label	Replicates Concentration		
Cd 226.502	0.2702	0.4930	0.3937
Co 228.615	1.2609	0.8951	0.3671
Cr 267.716	0.1924	-0.0373u	0.2872
Cu 324.754	45.1313	56.6610	33.7856
Fe 271.441	-6.8134u	-1.1724u	-10.4776u
K 766.491	3000.84	3048.06	3000.44
Mg 279.078	8262.53	8304.81	8240.24
Mn 257.610	0.7875	0.7375	0.8230
Mo 202.032	0.7795	0.5333	-0.0074u
Na 330.237	32449.4	33104.1	32552.7
Ni 231.604	3.0115	5.7405	2.3283
Pb 220.353	-1.1656u	-2.1813u	-2.0720u
Sb 206.834	-0.7350u	1.3301	1.1001
Se 196.026	14.7458	18.4817	-9.0819u
Si 288.158	2556.88	2576.90	2569.41
Sn 189.925	-3.0270u	-4.3522u	-1.7319u
Sr 216.596	179.503	178.698	179.361
Ti 334.941	0.0615	0.0811	0.0139
Tl 190.794	3.0183	6.9277	2.6833
V 292.401	0.7135	0.5599	1.2775
Zn 206.200	3062.07	2992.93	2698.73

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1076	ppb	0.0480	44.6	5.4469
Al 308.215	-33.2649	ppb	1.4290	4.3	626.778
As 188.980	0.8001	ppb	1.8898	236.2	-2.7928
B 249.678	19.4524	ppb	0.4361	2.2	94.4982
Ba 389.178	41.9139	ppb	1.5864	3.8	457.202
Be 313.042	0.0246	ppb	0.0050	20.1	-287.577
Ca 370.602	35260	ppb	143.8	0.4	76663
Cd 226.502	0.3856	ppb	0.1117	29.0	-11.0985
Co 228.615	0.8410	ppb	0.4493	53.4	-26.4331
Cr 267.716	0.1474	ppb	0.1668	113.2	19.8414
Cu 324.754	45.1926	ppb	11.4378	25.3	2101.06
Fe 271.441	-6.1545	ppb	4.6875	76.2	40.8719
K 766.491	3016.45	ppb	27.3807	0.9	77186.5
Mg 279.078	8269.20	ppb	32.7992	0.4	12421.3
Mn 257.610	0.7827	ppb	0.0430	5.5	137.042
Mo 202.032	0.4352	ppb	0.4025	92.5	-1.0819
Na 330.237	32702.0	ppb	351.973	1.1	1143.56
Ni 231.604	3.6934	ppb	1.8054	48.9	-8.5562
Pb 220.353	-1.8063	ppb	0.5575	30.9	8.2418
Sb 206.834	0.5651	ppb	1.1318	200.3	-1.6756
Se 196.026	8.0485	ppb	14.9525	185.8	3.0239
Si 288.158	2567.73	ppb	10.1173	0.4	15616.0
Sn 189.925	-3.0370	ppb	1.3102	43.1	-0.7464
Sr 216.596	179.187	ppb	0.4296	0.2	1011.60
Ti 334.941	0.0522	ppb	0.0346	66.3	30.5865
Tl 190.794	4.2098	ppb	2.3597	56.1	-3.7431
V 292.401	0.8503	ppb	0.3779	44.4	20.8225
Zn 206.200	2917.91	ppb	192.938	6.6	1976.62

680-201916-a-7-b (Samp) **7/26/2021, 5:24:22 PM** **Rack 1, Tube 44**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0017	-0.2132u	-0.0496u
Al 308.215	-21.0723u	-17.8304u	-20.2579u
As 188.980	3.8020	-4.8969u	-8.8150u
B 249.678	4.5277	5.3373	5.1714
Ba 389.178	3.9702	2.8897	4.3026
Be 313.042	0.0050	-0.0000	0.0154
Ca 370.602	2378	2360	2374
Cd 226.502	-0.7092u	-1.0375u	-1.1803u
Co 228.615	2.0663	0.2158	1.0705
Cr 267.716	0.4815	0.7009	0.7073
Cu 324.754	550759x	542339x	543243x
Fe 271.441	-14.3725u	-13.4515u	-15.7599u
K 766.491	1138.92	1126.54	1133.96
Mg 279.078	477.132	474.166	477.083
Mn 257.610	0.5442	0.5455	0.5247
Mo 202.032	-0.2401u	0.6960	-0.4272u
Na 330.237	13359.9	13414.5	13459.0
Ni 231.604	1.8377	2.9016	4.5261
Pb 220.353	0.9393	-5.5678u	-2.2121u
Sb 206.834	14.7338	3.9475	9.5721
Se 196.026	12.8139	1.2106	7.3194
Si 288.158	193.228	187.428	189.750
Sn 189.925	1.0134	0.5730	-2.0068u
Sr 216.596	-6.9612u	-8.5965u	-8.4251u
Ti 334.941	-5.4838u	-5.5699u	-5.6044u
Tl 190.794	3.1297	9.5148	2.0102
V 292.401	15.7143	16.1642	16.2560
Zn 206.200	18685.6	18511.2	18584.5

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0882b	ppb	0.1109	125.7	7.2130
Al 308.215	-19.7202b	ppb	1.6865	8.6	670.165
As 188.980	-3.3033b	ppb	6.4577	195.5	-4.5125
B 249.678	5.0121b	ppb	0.4277	8.5	-16.1612
Ba 389.178	3.7208b	ppb	0.7387	19.9	6.6691
Be 313.042	0.0068b	ppb	0.0078	115.6	-273.494
Ca 370.602	2371b	ppb	9.383	0.4	5184
Cd 226.502	-0.9757b	ppb	0.2415	24.8	-39.3093
Co 228.615	1.1176b	ppb	0.9261	82.9	-25.0414
Cr 267.716	0.6299b	ppb	0.1286	20.4	31.4624
Cu 324.754	545447xb	ppb	4622.36	0.8	22779454
Fe 271.441	-14.5280b	ppb	1.1620	8.0	33.9659
K 766.491	1133.14b	ppb	6.2337	0.6	29157.9
Mg 279.078	476.127b	ppb	1.6985	0.4	732.892
Mn 257.610	0.5381b	ppb	0.0116	2.2	107.458
Mo 202.032	0.0096b	ppb	0.6018	6291.4	-2.4183
Na 330.237	13411.1b	ppb	49.6489	0.4	214.762
Ni 231.604	3.0885b	ppb	1.3539	43.8	-9.4676
Pb 220.353	-2.2802b	ppb	3.2541	142.7	7.8971
Sb 206.834	9.4178b	ppb	5.3948	57.3	3.7751
Se 196.026	7.1147b	ppb	5.8044	81.6	2.7463
Si 288.158	190.135b	ppb	2.9193	1.5	1530.10

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-0.1401b	ppb	1.6315	1164.4	0.4431
Sr 216.596	-7.9943b	ppb	0.8988	11.2	-35.2161
Ti 334.941	-5.5527b	ppb	0.0621	1.1	-792.298
Tl 190.794	4.8849b	ppb	4.0485	82.9	-3.3246
V 292.401	16.0448b	ppb	0.2899	1.8	218.988
Zn 206.200	18593.8b	ppb	87.5954	0.5	12607.5

mb 680-677671/1-a (Samp) **7/26/2021, 5:28:52 PM** **Rack 1, Tube 45**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2297u	-0.2529u	-0.0245u
Al 308.215	-41.6262u	-45.3414u	-44.4518u
As 188.980	0.2777	-0.3042u	2.2352
B 249.678	2.5032	2.1928	2.6160
Ba 389.178	1.0841	2.0357	1.9384
Be 313.042	0.0286	0.0341	0.0316
Ca 370.602	-0.1986u	-0.0028	-1.375u
Cd 226.502	0.4862	0.3909	0.1609
Co 228.615	0.8103	0.3035	0.5441
Cr 267.716	-0.0713u	0.0289	-0.2775u
Cu 324.754	3.5575	2.7189	2.6461
Fe 271.441	-5.0005u	-19.5133u	-7.1515u
K 766.491	-1.1202u	-0.7936u	-1.1203u
Mg 279.078	-2.3465u	-1.1842u	-0.3736u
Mn 257.610	-0.1126u	-0.0803u	-0.0726u
Mo 202.032	-0.4087u	-0.2659u	-0.1956u
Na 330.237	-298.604u	-60.5023u	-158.446u
Ni 231.604	2.2445	1.9161	3.5968
Pb 220.353	-0.5046u	-0.4199u	-1.4934u
Sb 206.834	-1.9263u	1.8683	3.6663
Se 196.026	-4.9349u	-0.1126u	-11.7571u
Si 288.158	-2.2385u	-3.6351u	-3.7824u
Sn 189.925	-0.8633u	-0.0106u	0.4437
Sr 216.596	0.8002	1.3151	-0.4596u
Ti 334.941	0.0797	-0.0013u	0.0916
Tl 190.794	2.6422	3.2157	-0.2751u
V 292.401	0.5338	-0.1391u	0.6727
Zn 206.200	-1.3181u	0.7319	0.9538

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1690	ppb	0.1257	74.4	3.7062
Al 308.215	-43.8064	ppb	1.9398	4.4	592.637
As 188.980	0.7362	ppb	1.3304	180.7	-2.8195
B 249.678	2.4373	ppb	0.2192	9.0	-35.8980
Ba 389.178	1.6861	ppb	0.5236	31.1	-17.4213
Be 313.042	0.0314	ppb	0.0027	8.7	-285.498
Ca 370.602	-0.5256	ppb	0.7424	141.2	30.68
Cd 226.502	0.3460	ppb	0.1672	48.3	-11.8797
Co 228.615	0.5526	ppb	0.2535	45.9	-27.9914
Cr 267.716	-0.1066	ppb	0.1562	146.5	13.2730
Cu 324.754	2.9742	ppb	0.5065	17.0	337.900
Fe 271.441	-10.5551	ppb	7.8322	74.2	37.2357
K 766.491	-1.0114	ppb	0.1886	18.7	234.446

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	-1.3014	ppb	0.9917	76.2	16.8278
Mn 257.610	-0.0885	ppb	0.0212	24.0	46.4804
Mo 202.032	-0.2901	ppb	0.1086	37.4	-3.3629
Na 330.237	-172.517	ppb	119.673	69.4	31.6901
Ni 231.604	2.5858	ppb	0.8908	34.5	-10.2412
Pb 220.353	-0.8060	ppb	0.5969	74.1	8.9764
Sb 206.834	1.2028	ppb	2.8551	237.4	-1.2784
Se 196.026	-5.6016	ppb	5.8508	104.4	-1.0330
Si 288.158	-3.2186uv	ppb	0.8520	26.5	385.206
Sn 189.925	-0.1434	ppb	0.6635	462.7	0.4408
Sr 216.596	0.5519	ppb	0.9130	165.4	12.2523
Ti 334.941	0.0567	ppb	0.0505	89.2	32.4808
Tl 190.794	1.8610	ppb	1.8720	100.6	-5.1665
V 292.401	0.3558	ppb	0.4342	122.0	14.4419
Zn 206.200	0.1226	ppb	1.2525	1022.0	-2.1224

lcs 680-677671/2-a (Samp) **7/26/2021, 5:33:23 PM** **Rack 1, Tube 46**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	474.715	476.102	475.847
Al 308.215	9398.00	9344.31	9431.86
As 188.980	484.003	479.306	473.847
B 249.678	473.406	472.169	479.038
Ba 389.178	491.223	489.418	491.047
Be 313.042	488.711	486.890	490.430
Ca 370.602	9712	9688	9748
Cd 226.502	479.921	478.320	482.048
Co 228.615	477.890	482.350	484.833
Cr 267.716	481.817	480.834	484.191
Cu 324.754	481.595	483.979	483.672
Fe 271.441	9633.17	9588.95	9693.14
K 766.491	9916.45	9872.40	9941.13
Mg 279.078	9471.44	9449.77	9516.30
Mn 257.610	487.508	485.181	488.821
Mo 202.032	484.738	483.719	488.129
Na 330.237	9585.48	9393.39	9430.46
Ni 231.604	481.851	476.607	485.133
Pb 220.353	472.998	477.213	483.136
Sb 206.834	494.967	491.134	489.098
Se 196.026	475.242	483.261	468.722
Si 288.158	4754.49	4708.63	4758.27
Sn 189.925	486.475	484.438	485.113
Sr 216.596	488.767	487.954	489.430
Ti 334.941	486.903	485.563	489.111
Tl 190.794	496.358	485.033	493.985
V 292.401	484.463	481.692	485.845
Zn 206.200	961.817	961.760	970.331

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	475.555	ppb	0.7383	0.2	20134.2
Al 308.215	9391.39	ppb	44.1462	0.5	31162.5
As 188.980	479.052	ppb	5.0829	1.1	197.610
B 249.678	474.871	ppb	3.6613	0.8	3565.83

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	490.563	ppb	0.9949	0.2	5644.41
Be 313.042	488.677	ppb	1.7702	0.4	464685
Ca 370.602	9716	ppb	30.04	0.3	21151
Cd 226.502	480.096	ppb	1.8703	0.4	9952.67
Co 228.615	481.691	ppb	3.5183	0.7	2576.95
Cr 267.716	482.281	ppb	1.7255	0.4	12004.8
Cu 324.754	483.082	ppb	1.2971	0.3	20398.0
Fe 271.441	9638.42	ppb	52.2946	0.5	8026.79
K 766.491	9909.99	ppb	34.8192	0.4	252988
Mg 279.078	9479.17	ppb	33.9341	0.4	14229.3
Mn 257.610	487.170	ppb	1.8437	0.4	50622.6
Mo 202.032	485.529	ppb	2.3090	0.5	1524.29
Na 330.237	9469.78	ppb	101.903	1.1	348.872
Ni 231.604	481.197	ppb	4.3006	0.9	716.602
Pb 220.353	477.782	ppb	5.0927	1.1	359.919
Sb 206.834	491.733	ppb	2.9800	0.6	297.021
Se 196.026	475.741	ppb	7.2823	1.5	142.181
Si 288.158	4740.46	ppb	27.6305	0.6	28651.5
Sn 189.925	485.342	ppb	1.0379	0.2	200.518
Sr 216.596	488.717	ppb	0.7395	0.2	2724.06
Ti 334.941	487.193	ppb	1.7916	0.4	71639.4
Tl 190.794	491.792	ppb	5.9727	1.2	291.361
V 292.401	484.000	ppb	2.1150	0.4	6322.84
Zn 206.200	964.636	ppb	4.9323	0.5	651.782

llcs 680-677671/4-a (Samp) **7/26/2021, 5:37:54 PM** **Rack 1, Tube 47**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1497u	-0.0828u	-0.0718u
Al 308.215	-33.9398u	-36.7388u	-35.9333u
As 188.980	-3.8448u	1.0148	3.1988
B 249.678	11.3649	10.3571	10.4311
Ba 389.178	1.3708	1.0754	-0.0941u
Be 313.042	0.0243	0.0250	0.0297
Ca 370.602	-3.774u	-1.117u	0.1897
Cd 226.502	0.2221	0.3453	0.1725
Co 228.615	0.7505	0.3195	1.0996
Cr 267.716	0.1341	-0.4156u	-0.4131u
Cu 324.754	0.3088	0.5170	0.3547
Fe 271.441	-12.0245u	-9.1219u	-3.1532u
K 766.491	-0.7089u	-1.9917u	-0.5553u
Mg 279.078	-1.2157u	-0.5382u	-2.4442u
Mn 257.610	-0.1026u	-0.0560u	-0.1552u
Mo 202.032	0.3013	0.3776	-0.2889u
Na 330.237	-62.6001u	-350.629u	-131.530u
Ni 231.604	0.8792	2.6554	2.4359
Pb 220.353	0.6073	-1.6680u	-4.7727u
Sb 206.834	0.1245	0.8237	-0.3435u
Se 196.026	-13.2871u	10.6040	-1.4606u
Si 288.158	-2.0264u	-3.0784u	-2.8383u
Sn 189.925	-0.8626u	-2.9720u	-0.0978u
Sr 216.596	-0.6727u	-0.3320u	-0.6552u
Ti 334.941	0.0214	0.0903	0.0719

Label	Replicates Concentration		
Tl 190.794	1.9746	4.5398	4.5447
V 292.401	0.2582	0.3760	0.0628
Zn 206.200	-1.9731u	0.1122	2.5939

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1014	ppb	0.0421	41.5	6.5662
Al 308.215	-35.5373	ppb	1.4409	4.1	619.398
As 188.980	0.1229	ppb	3.6055	2932.7	-3.0765
B 249.678	10.7177	ppb	0.5617	5.2	27.5623
Ba 389.178	0.7840	ppb	0.7747	98.8	-27.8473
Be 313.042	0.0263	ppb	0.0030	11.3	-290.315
Ca 370.602	-1.567	ppb	2.020	128.9	28.43
Cd 226.502	0.2466	ppb	0.0889	36.1	-13.9468
Co 228.615	0.7232	ppb	0.3908	54.0	-27.0686
Cr 267.716	-0.2315	ppb	0.3166	136.8	10.1691
Cu 324.754	0.3935	ppb	0.1094	27.8	230.122
Fe 271.441	-8.0999	ppb	4.5231	55.8	39.2580
K 766.491	-1.0853	ppb	0.7887	72.7	232.561
Mg 279.078	-1.3994	ppb	0.9662	69.0	16.6800
Mn 257.610	-0.1046	ppb	0.0497	47.5	44.8136
Mo 202.032	0.1300	ppb	0.3648	280.7	-2.0417
Na 330.237	-181.586	ppb	150.397	82.8	31.3708
Ni 231.604	1.9901	ppb	0.9683	48.7	-11.1464
Pb 220.353	-1.9444	ppb	2.7006	138.9	8.1408
Sb 206.834	0.2015	ppb	0.5874	291.5	-1.8947
Se 196.026	-1.3812	ppb	11.9457	864.9	0.2212
Si 288.158	-2.6477uv	ppb	0.5513	20.8	388.384
Sn 189.925	-1.3108	ppb	1.4886	113.6	-0.0403
Sr 216.596	-0.5533	ppb	0.1918	34.7	6.0941
Ti 334.941	0.0612	ppb	0.0357	58.4	33.1455
Tl 190.794	3.6863	ppb	1.4824	40.2	-4.0601
V 292.401	0.2323	ppb	0.1582	68.1	12.8325
Zn 206.200	0.2443	ppb	2.2863	935.7	-2.0397

680-201777-d-3-b (Samp) **7/26/2021, 5:42:26 PM** **Rack 1, Tube 48**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2457u	-0.1583u	-0.1695u
Al 308.215	-39.3734u	-38.1030u	-41.1465u
As 188.980	2.4884	-2.4175u	-1.3130u
B 249.678	713.552	716.893	710.863
Ba 389.178	0.9191	1.6138	1.1361
Be 313.042	0.0270	0.0197	0.0334
Ca 370.602	175.4	168.6	160.9
Cd 226.502	0.1980	0.1284	0.2218
Co 228.615	-0.4696u	0.5060	0.2706
Cr 267.716	-0.0052	0.1398	0.0592
Cu 324.754	1.6360	0.6141	1.8463
Fe 271.441	-7.8149u	-9.8607u	-11.0095u
K 766.491	1553.17	1551.16	1527.74
Mg 279.078	495.265	501.237	489.139
Mn 257.610	-0.0825u	-0.0585u	-0.1404u
Mo 202.032	1.3968	0.4288	-0.6169u

Label	Replicates Concentration		
Na 330.237	34270.1	34400.0	33879.4
Ni 231.604	1.9196	4.8436	1.3858
Pb 220.353	1.3907	-0.7693u	-1.2160u
Sb 206.834	-3.9847u	0.7212	-2.9066u
Se 196.026	1.9427	-0.8067u	-4.2130u
Si 288.158	-2.5862u	-4.9657u	-4.7606u
Sn 189.925	-0.6746u	-0.1324u	3.9270
Sr 216.596	2.6743	2.9544	3.3403
Ti 334.941	-0.0441u	-0.0280u	-0.0171u
Tl 190.794	5.0093	2.2436	-0.0168u
V 292.401	-0.5392u	-0.2943u	0.3940
Zn 206.200	7.9216	12.3297	13.5139

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1912	ppb	0.0475	24.9	2.7547
Al 308.215	-39.5410	ppb	1.5287	3.9	606.435
As 188.980	-0.4140	ppb	2.5735	621.6	-3.3016
B 249.678	713.769	ppb	3.0212	0.4	5415.00
Ba 389.178	1.2230	ppb	0.3554	29.1	-22.3052
Be 313.042	0.0267	ppb	0.0068	25.6	-291.965
Ca 370.602	168.3	ppb	7.281	4.3	397.6
Cd 226.502	0.1827	ppb	0.0485	26.5	-15.3739
Co 228.615	0.1023	ppb	0.5091	497.4	-30.4264
Cr 267.716	0.0646	ppb	0.0727	112.5	17.8312
Cu 324.754	1.3655	ppb	0.6592	48.3	270.722
Fe 271.441	-9.5617	ppb	1.6181	16.9	38.0530
K 766.491	1544.02	ppb	14.1333	0.9	39636.4
Mg 279.078	495.214	ppb	6.0492	1.2	761.525
Mn 257.610	-0.0938	ppb	0.0421	44.9	45.8586
Mo 202.032	0.4029	ppb	1.0071	250.0	-1.1831
Na 330.237	34183.2	ppb	270.983	0.8	1241.88
Ni 231.604	2.7163	ppb	1.8615	68.5	-10.0427
Pb 220.353	-0.1982	ppb	1.3941	703.4	9.4219
Sb 206.834	-2.0567	ppb	2.4654	119.9	-3.2859
Se 196.026	-1.0257	ppb	3.0837	300.7	0.3269
Si 288.158	-4.1042uv	ppb	1.3186	32.1	380.019
Sn 189.925	1.0400	ppb	2.5148	241.8	0.9342
Sr 216.596	2.9897	ppb	0.3344	11.2	25.8519
Ti 334.941	-0.0297	ppb	0.0136	45.7	18.4427
Tl 190.794	2.4120	ppb	2.5173	104.4	-4.8325
V 292.401	-0.1465	ppb	0.4839	330.3	7.7674
Zn 206.200	11.2551	ppb	2.9469	26.2	5.4272

680-201777-d-3-c ms (Samp) **7/26/2021, 5:46:56 PM** **Rack 1, Tube 49**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0769	-0.2147u	-0.2139u
Al 308.215	4842.05	4871.50	4864.80
As 188.980	96.7539	98.2829	97.5157
B 249.678	920.760	928.928	925.750
Ba 389.178	106.219	105.392	104.212
Be 313.042	48.6040	48.9425	48.7764
Ca 370.602	5171	5196	5172

Label	Replicates Concentration		
Cd 226.502	50.4532	50.5588	50.0681
Co 228.615	50.3717	49.8431	49.6225
Cr 267.716	100.126	101.418	100.323
Cu 324.754	99.6685	100.593	100.020
Fe 271.441	4989.72	5031.14	5016.66
K 766.491	9207.38	9286.74	9248.61
Mg 279.078	5309.02	5343.90	5327.61
Mn 257.610	399.447	402.247	400.483
Mo 202.032	100.009	101.317	101.112
Na 330.237	39693.6	40001.8	40064.0
Ni 231.604	102.383	101.647	103.457
Pb 220.353	497.959	500.067	496.628
Sb 206.834	47.3997	52.2368	53.5780
Se 196.026	100.897	92.5264	95.5010
Si 288.158	-10.0944u	-12.2358u	-10.6773u
Sn 189.925	99.9009	102.636	98.4175
Sr 216.596	103.198	103.131	103.487
Ti 334.941	350.040	352.762	351.473
Tl 190.794	39.2109	42.2920	40.4068
V 292.401	99.6869	101.175	100.847
Zn 206.200	112.427	114.841	115.066

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1172	ppb	0.1681	143.4	7.2186
Al 308.215	4859.45	ppb	15.4397	0.3	16467.1
As 188.980	97.5175	ppb	0.7645	0.8	37.7472
B 249.678	925.146	ppb	4.1175	0.4	7025.16
Ba 389.178	105.275	ppb	1.0086	1.0	1186.20
Be 313.042	48.7743	ppb	0.1693	0.3	46094.5
Ca 370.602	5179	ppb	14.43	0.3	11295
Cd 226.502	50.3600	ppb	0.2582	0.5	1031.95
Co 228.615	49.9458	ppb	0.3850	0.8	242.543
Cr 267.716	100.622	ppb	0.6963	0.7	2518.51
Cu 324.754	100.094	ppb	0.4666	0.5	4396.60
Fe 271.441	5012.51	ppb	21.0215	0.4	4183.13
K 766.491	9247.58	ppb	39.6874	0.4	236095
Mg 279.078	5326.84	ppb	17.4561	0.3	8003.23
Mn 257.610	400.725	ppb	1.4159	0.4	41651.2
Mo 202.032	100.813	ppb	0.7035	0.7	314.487
Na 330.237	39919.8	ppb	198.396	0.5	1437.19
Ni 231.604	102.496	ppb	0.9105	0.9	141.549
Pb 220.353	498.218	ppb	1.7340	0.3	375.170
Sb 206.834	51.0715	ppb	3.2498	6.4	28.7042
Se 196.026	96.3082	ppb	4.2433	4.4	29.3588
Si 288.158	-11.0025uv	ppb	1.1071	10.1	387.960
Sn 189.925	100.318	ppb	2.1399	2.1	41.8492
Sr 216.596	103.272	ppb	0.1890	0.2	583.831
Ti 334.941	351.425	ppb	1.3613	0.4	51680.7
Tl 190.794	40.6366	ppb	1.5533	3.8	17.9309
V 292.401	100.570	ppb	0.7817	0.8	1323.32
Zn 206.200	114.112	ppb	1.4630	1.3	75.1602

680-201777-d-3-d msd (Samp) **7/26/2021, 5:51:25 PM** **Rack 1, Tube 50**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1144u	-0.2839u	0.0183
Al 308.215	4705.87	4708.20	4707.94
As 188.980	99.1831	95.8509	98.2917
B 249.678	918.275	924.710	924.228
Ba 389.178	100.878	102.185	101.146
Be 313.042	46.7898	47.0331	46.8467
Ca 370.602	4968	5001	4982
Cd 226.502	48.2747	48.5505	48.5589
Co 228.615	49.3970	49.5312	48.7504
Cr 267.716	96.9944	96.6646	96.9225
Cu 324.754	95.9334	96.7018	95.9895
Fe 271.441	4807.93	4842.69	4821.90
K 766.491	8963.55	9033.62	8970.40
Mg 279.078	5143.54	5157.17	5147.53
Mn 257.610	386.084	387.080	386.060
Mo 202.032	96.9620	96.6513	95.6079
Na 330.237	39763.8	40083.3	39617.4
Ni 231.604	100.251	100.373	97.9309
Pb 220.353	483.032	475.364	479.376
Sb 206.834	55.4134	56.4351	51.7704
Se 196.026	93.4762	92.3026	92.9497
Si 288.158	-10.8497u	-10.7169u	-9.6511u
Sn 189.925	91.1794	94.4834	99.7131
Sr 216.596	99.8565	100.551	100.104
Ti 334.941	337.320	339.013	337.159
Tl 190.794	42.9715	43.3158	38.2417
V 292.401	96.6751	96.6078	96.3504
Zn 206.200	106.284	107.491	108.639

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1267	ppb	0.1515	119.6	6.7654
Al 308.215	4707.34	ppb	1.2752	0.0	15974.5
As 188.980	97.7752	ppb	1.7251	1.8	37.8549
B 249.678	922.404	ppb	3.5842	0.4	7004.51
Ba 389.178	101.403	ppb	0.6903	0.7	1141.23
Be 313.042	46.8898	ppb	0.1272	0.3	44301.3
Ca 370.602	4984	ppb	16.35	0.3	10870
Cd 226.502	48.4614	ppb	0.1617	0.3	992.318
Co 228.615	49.2262	ppb	0.4175	0.8	238.520
Cr 267.716	96.8605	ppb	0.1734	0.2	2424.96
Cu 324.754	96.2082	ppb	0.4283	0.4	4234.21
Fe 271.441	4824.17	ppb	17.4912	0.4	4027.74
K 766.491	8989.19	ppb	38.6289	0.4	229505
Mg 279.078	5149.41	ppb	7.0055	0.1	7737.29
Mn 257.610	386.408	ppb	0.5823	0.2	40165.0
Mo 202.032	96.4071	ppb	0.7093	0.7	300.636
Na 330.237	39821.5	ppb	238.265	0.6	1434.02
Ni 231.604	99.5185	ppb	1.3763	1.4	137.025
Pb 220.353	479.258	ppb	3.8351	0.8	361.257
Sb 206.834	54.5396	ppb	2.4520	4.5	30.8698
Se 196.026	92.9095	ppb	0.5878	0.6	28.3448
Si 288.158	-10.4059uv	ppb	0.6571	6.3	389.484

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	95.1253	ppb	4.3029	4.5	39.7092
Sr 216.596	100.170	ppb	0.3520	0.4	566.599
Ti 334.941	337.831	ppb	1.0270	0.3	49682.5
Tl 190.794	41.5097	ppb	2.8354	6.8	18.4762
V 292.401	96.5444	ppb	0.1714	0.2	1270.75
Zn 206.200	107.471	ppb	1.1775	1.1	70.6577

Cont Calib Verif (CCV) **7/26/2021, 5:55:57 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	476.604	473.685	471.063
Al 308.215	9479.79	9450.62	9428.81
As 188.980	474.666	484.803	479.753
B 249.678	502.746	502.621	505.010
Ba 389.178	489.265	489.053	487.588
Be 313.042	489.415	487.056	486.104
Ca 370.602	9720	9683	9650
Cd 226.502	479.865	479.824	477.495
Co 228.615	486.499	483.877	478.090
Cr 267.716	482.384	480.766	479.253
Cu 324.754	483.049	482.751	477.144
Fe 271.441	9635.60	9627.29	9569.58
K 766.491	9949.73	9897.73	9898.02
Mg 279.078	9477.85	9456.97	9435.70
Mn 257.610	488.638	487.737	485.570
Mo 202.032	486.125	486.189	486.667
Na 330.237	9546.53	9769.33	9613.21
Ni 231.604	485.457	483.589	477.455
Pb 220.353	478.147	477.315	473.426
Sb 206.834	484.729	490.087	479.006
Se 196.026	474.566	475.268	462.253
Si 288.158	4740.15	4715.88	4723.89
Sn 189.925	487.540	489.991	482.771
Sr 216.596	489.119	488.004	483.964
Ti 334.941	487.457	485.754	484.461
Tl 190.794	484.445	490.066	487.678
V 292.401	485.925	481.918	482.334
Zn 206.200	963.286	963.839	953.391

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	473.784	ppb	2.7719	0.6	20059.3	94.75684
Al 308.215	9453.07	ppb	25.5778	0.3	31362.1	94.53072
As 188.980	479.741	ppb	5.0686	1.1	197.899	95.94816
B 249.678	503.459	ppb	1.3450	0.3	3784.92	100.69182
Ba 389.178	488.635	ppb	0.9135	0.2	5622.11	97.72707
Be 313.042	487.525	ppb	1.7043	0.3	463589	97.50498
Ca 370.602	9685	ppb	35.07	0.4	21084	96.84637
Cd 226.502	479.061	ppb	1.3563	0.3	9931.19	95.81229
Co 228.615	482.822	ppb	4.3028	0.9	2583.06	96.56435
Cr 267.716	480.801	ppb	1.5657	0.3	11968.0	96.16026
Cu 324.754	480.981	ppb	3.3264	0.7	20310.2	96.19630
Fe 271.441	9610.82	ppb	35.9554	0.4	8004.04	96.06020
K 766.491	9915.16	ppb	29.9400	0.3	253120	99.15164

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Mg 279.078	9456.84	ppb	21.0789	0.2	14195.8	94.56842
Mn 257.610	487.315	ppb	1.5767	0.3	50637.6	97.46297
Mo 202.032	486.327	ppb	0.2964	0.1	1526.80	97.26536
Na 330.237	9643.03	ppb	114.356	1.2	355.036	96.43025
Ni 231.604	482.167	ppb	4.1863	0.9	718.076	96.43346
Pb 220.353	476.296	ppb	2.5198	0.5	358.829	95.25920
Sb 206.834	484.608	ppb	5.5413	1.1	292.654	96.92152
Se 196.026	470.695	ppb	7.3199	1.6	140.681	94.13908
Si 288.158	4726.64	ppb	12.3660	0.3	28569.5	94.53279
Sn 189.925	486.767	ppb	3.6713	0.8	201.106	97.35342
Sr 216.596	487.029	ppb	2.7126	0.6	2714.69	97.40582
Ti 334.941	485.891	ppb	1.5024	0.3	71448.0	97.17820
Tl 190.794	487.397	ppb	2.8214	0.6	288.698	97.47932
V 292.401	483.392	ppb	2.2035	0.5	6314.91	96.67842
Zn 206.200	960.172	ppb	5.8789	0.6	648.755	96.01722

Cont Calib Blank (CCB) **7/26/2021, 6:00:28 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2033u	-0.2213u	-0.2440u
Al 308.215	-39.0039u	-38.2388u	-40.7746u
As 188.980	-0.7290u	2.7188	4.2250
B 249.678	23.5826	23.2524	21.1771
Ba 389.178	1.1974	0.4449	1.3913
Be 313.042	0.0529	0.0464	0.0483
Ca 370.602	-4.620u	-2.078u	-4.923u
Cd 226.502	0.1979	0.3235	0.0899
Co 228.615	-0.2008u	0.6451	-0.0525u
Cr 267.716	-0.0205u	0.0125	-0.2186u
Cu 324.754	0.6521	0.6436	0.6928
Fe 271.441	-6.3921u	-2.6407u	-1.8183u
K 766.491	-0.6577u	-0.0245u	-0.0108u
Mg 279.078	-0.0589u	0.5211	-7.7687u
Mn 257.610	-0.0904u	-0.0358u	-0.0267u
Mo 202.032	1.1080	0.3416	0.5048
Na 330.237	-47.9713u	-42.2468u	15.9513
Ni 231.604	2.5938	2.3204	2.1328
Pb 220.353	-1.2916u	0.2913	0.2996
Sb 206.834	-1.0292u	-0.9984u	-1.3266u
Se 196.026	-1.1164u	-4.3440u	3.4832
Si 288.158	-2.7294u	-2.7224u	-1.5628u
Sn 189.925	-5.0357u	-4.0544u	3.8700
Sr 216.596	-0.3103u	0.0921	0.3891
Ti 334.941	0.0323	0.0734	0.0519
Tl 190.794	2.0051	-0.6335u	5.1977
V 292.401	-0.0463u	0.0491	-0.1033u
Zn 206.200	-1.0443u	0.5189	1.3236

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.2229	ppb	0.0204	9.2	1.4294	-0.22287
Al 308.215	-39.3391	ppb	1.3007	3.3	607.103	-39.33911
As 188.980	2.0716	ppb	2.5396	122.6	-2.2600	2.07159
B 249.678	22.6707	ppb	1.3040	5.8	119.136	22.67069

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	1.0112	ppb	0.4999	49.4	-25.2165	1.01120
Be 313.042	0.0492	ppb	0.0034	6.8	-268.624	0.04922
Ca 370.602	-3.874	ppb	1.562	40.3	23.39	-3.87378
Cd 226.502	0.2037	ppb	0.1169	57.4	-14.8232	0.20375
Co 228.615	0.1306	ppb	0.4517	345.9	-30.2748	0.13061
Cr 267.716	-0.0755	ppb	0.1250	165.5	14.0474	-0.07552
Cu 324.754	0.6628	ppb	0.0263	4.0	241.393	0.66285
Fe 271.441	-3.6170	ppb	2.4382	67.4	42.9371	-3.61705
K 766.491	-0.2310	ppb	0.3696	160.0	254.347	-0.23100
Mg 279.078	-2.4355	ppb	4.6278	190.0	15.1268	-2.43549
Mn 257.610	-0.0510	ppb	0.0345	67.6	50.3709	-0.05097
Mo 202.032	0.6515	ppb	0.4037	62.0	-0.4016	0.65149
Na 330.237	-24.7556	ppb	35.3692	142.9	36.8978	-24.75558
Ni 231.604	2.3490	ppb	0.2318	9.9	-10.6006	2.34900
Pb 220.353	-0.2336	ppb	0.9163	392.3	9.3962	-0.23357
Sb 206.834	-1.1180	ppb	0.1812	16.2	-2.7132	-1.11804
Se 196.026	-0.6591	ppb	3.9336	596.8	0.4359	-0.65909
Si 288.158	-2.3382uv	ppb	0.6715	28.7	390.665	-2.33819
Sn 189.925	-1.7400	ppb	4.8831	280.6	-0.2172	-1.74004
Sr 216.596	0.0570	ppb	0.3511	616.2	9.4761	0.05697
Ti 334.941	0.0525	ppb	0.0206	39.2	31.8629	0.05250
Tl 190.794	2.1898	ppb	2.9200	133.3	-4.9677	2.18977
V 292.401	-0.0335	ppb	0.0770	229.8	9.3611	-0.03351
Zn 206.200	0.2661	ppb	1.2040	452.5	-2.0251	0.26608

680-201777-c-4-b (Samp) **7/26/2021, 6:04:58 PM** **Rack 1, Tube 51**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.7542u	0.6954u	0.8640u
Al 308.215	34.0867	38.3473	34.6778
As 188.980	-4.5200u	-1.0176u	-6.8909u
B 249.678	5259.20	5284.72	5309.67
Ba 389.178	24.6030	23.9148	27.9328
Be 313.042	0.8757	0.9017	0.8749
Ca 370.602	389124	387195	390858
Cd 226.502	2.0365	1.4493u	1.7323u
Co 228.615	-3.2405u	-2.9141u	-1.7646u
Cr 267.716	-5.4168u	-5.4034u	-5.7054u
Cu 324.754	7.7321	7.5408	7.3655
Fe 271.441	57.2476	58.4836	50.5599
K 766.491	535209x	534658x	535203x
Mg 279.078	1178385x	1178260x	1182203x
Mn 257.610	8.3552	8.3186	8.1474
Mo 202.032	7.5032	7.2719	6.7746
Na 330.237	15107976x	15209454x	15128250x
Ni 231.604	0.2888	3.0792	3.1879
Pb 220.353	-1.4392u	1.0046	6.4076
Sb 206.834	-6.7499u	-3.0007u	-7.8965u
Se 196.026	9.3575	3.2218	3.3152
Si 288.158	311.398	308.585	310.085
Sn 189.925	-3.5621	-12.6926u	-13.4490u
Sr 216.596	7057.76x	7028.85x	7050.68x
Ti 334.941	4.4004	4.6249	4.4775

Label	Replicates Concentration		
Tl 190.794	-3.2994u	0.5301	0.6211
V 292.401	10.9500	11.4674	12.5312
Zn 206.200	0.9379	-6.0765u	-0.1109u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.7712b	ppb	0.0856	11.1	3.4513
Al 308.215	35.7039b	ppb	2.3082	6.5	850.198
As 188.980	-4.1429b	ppb	2.9548	71.3	-4.8643
B 249.678	5284.53b	ppb	25.2368	0.5	40441.0
Ba 389.178	25.4835b	ppb	2.1488	8.4	1373.18
Be 313.042	0.8841b	ppb	0.0152	1.7	-286.636
Ca 370.602	389059b	ppb	1832	0.5	845568
Cd 226.502	1.7394b	ppb	0.2936	16.9	-19.6507
Co 228.615	-2.6397b	ppb	0.7753	29.4	-45.0869
Cr 267.716	-5.5085b	ppb	0.1706	3.1	12.3433
Cu 324.754	7.5461b	ppb	0.1834	2.4	529.027
Fe 271.441	55.4304b	ppb	4.2630	7.7	91.5607
K 766.491	535023xb	ppb	316.531	0.1	13644572
Mg 279.078	1179616xb	ppb	2240.99	0.2	1769265
Mn 257.610	8.2737b	ppb	0.1109	1.3	881.342
Mo 202.032	7.1832b	ppb	0.3723	5.2	20.1405
Na 330.237	15148559xb	ppb	53701.2	0.4	533730
Ni 231.604	2.1853b	ppb	1.6433	75.2	-10.8477
Pb 220.353	1.9910b	ppb	4.0153	201.7	11.0261
Sb 206.834	-5.8823b	ppb	2.5606	43.5	-5.7298
Se 196.026	5.2982b	ppb	3.5158	66.4	2.2081
Si 288.158	310.023b	ppb	1.4075	0.5	2241.79
Sn 189.925	-9.9012b	ppb	5.5029	55.6	-1.0341
Sr 216.596	7045.76xb	ppb	15.0707	0.2	39336.2
Ti 334.941	4.5009b	ppb	0.1141	2.5	94.2727
Tl 190.794	-0.7160b	ppb	2.2377	312.5	-6.7342
V 292.401	11.6496b	ppb	0.8062	6.9	114.036
Zn 206.200	-1.7498b	ppb	3.7836	216.2	-3.3914

680-201777-c-5-b (Samp) **7/26/2021, 6:09:27 PM** **Rack 1, Tube 52**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.8347u	0.7879u	0.7140u
Al 308.215	44.0774	43.5827	51.2462
As 188.980	-4.6038u	9.6832	0.5747
B 249.678	5351.89	5367.11	5418.86
Ba 389.178	24.4421	23.8381	26.6299
Be 313.042	0.9078	0.9138	0.9028
Ca 370.602	398092	397005	399244
Cd 226.502	1.3661u	1.7504u	2.0636
Co 228.615	-1.7513u	-2.3108u	-1.9567u
Cr 267.716	-5.9703u	-5.7057u	-5.9704u
Cu 324.754	6.5068	6.9061	6.6407
Fe 271.441	57.7981	44.6503	50.1767
K 766.491	545399x	543385x	548486x
Mg 279.078	1193090x	1191872x	1196696x
Mn 257.610	7.8921	7.8669	7.9540
Mo 202.032	5.5274	5.3896	4.8673

Label	Replicates Concentration		
Na 330.237	15492704x	15520453x	15578901x
Ni 231.604	2.2122	1.2162	0.7915
Pb 220.353	-5.7863u	-0.5543u	2.5672
Sb 206.834	4.9466	8.1296	6.7777
Se 196.026	31.4908	17.0420	15.4514
Si 288.158	341.306	342.506	346.391
Sn 189.925	-2.1509	-10.1700u	-10.0237u
Sr 216.596	7078.27x	7077.15x	7096.66x
Ti 334.941	4.7132	4.5348	4.6433
Tl 190.794	0.6303	-0.8775u	-9.8163u
V 292.401	11.8690	11.6936	11.2051
Zn 206.200	0.9166	-6.1637u	0.4030

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.7789b	ppb	0.0609	7.8	3.5048
Al 308.215	46.3021b	ppb	4.2889	9.3	884.376
As 188.980	1.8847b	ppb	7.2330	383.8	-2.3382
B 249.678	5379.29b	ppb	35.1057	0.7	41167.1
Ba 389.178	24.9701b	ppb	1.4688	5.9	1381.54
Be 313.042	0.9081b	ppb	0.0055	0.6	-283.106
Ca 370.602	398114b	ppb	1120	0.3	865248
Cd 226.502	1.7267b	ppb	0.3493	20.2	-20.8998
Co 228.615	-2.0063b	ppb	0.2830	14.1	-41.6512
Cr 267.716	-5.8821b	ppb	0.1528	2.6	6.2784
Cu 324.754	6.6845b	ppb	0.2032	3.0	492.994
Fe 271.441	50.8750b	ppb	6.6017	13.0	87.8023
K 766.491	545757xb	ppb	2569.33	0.5	13918312
Mg 279.078	1193886xb	ppb	2508.37	0.2	1790667
Mn 257.610	7.9043b	ppb	0.0448	0.6	842.205
Mo 202.032	5.2614b	ppb	0.3483	6.6	14.0964
Na 330.237	15530686xb	ppb	44000.2	0.3	547193
Ni 231.604	1.4066b	ppb	0.7292	51.8	-12.0313
Pb 220.353	-1.2578b	ppb	4.2209	335.6	8.6438
Sb 206.834	6.6180b	ppb	1.5975	24.1	1.9878
Se 196.026	21.3281b	ppb	8.8370	41.4	6.9721
Si 288.158	343.401b	ppb	2.6581	0.8	2439.35
Sn 189.925	-7.4482b	ppb	4.5882	61.6	0.0384
Sr 216.596	7084.03xb	ppb	10.9562	0.2	39550.5
Ti 334.941	4.6305b	ppb	0.0899	1.9	99.0232
Tl 190.794	-3.3545b	ppb	5.6466	168.3	-8.3325
V 292.401	11.5892b	ppb	0.3440	3.0	112.025
Zn 206.200	-1.6147b	ppb	3.9479	244.5	-3.2998

680-201777-d-2-b (Samp) **7/26/2021, 6:13:56 PM** **Rack 1, Tube 53**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0797u	0.2311	0.4996
Al 308.215	-29.2175u	-32.2135u	-28.3279u
As 188.980	-3.0081u	5.1944	2.7536
B 249.678	1127.84	1116.61	1113.67
Ba 389.178	1.5024	1.2595	1.0428
Be 313.042	0.0130	0.0109	0.0173
Ca 370.602	115.4	117.2	113.9

Label	Replicates Concentration		
Cd 226.502	0.1088	-0.0018u	0.0135
Co 228.615	-0.9966u	0.2815	0.0501
Cr 267.716	-0.0520u	-0.1721u	-0.1610u
Cu 324.754	1.6844	1.1082	1.1554
Fe 271.441	-9.0164u	-7.6149u	-0.3290u
K 766.491	2416.51	2391.45	2385.01
Mg 279.078	355.650	352.215	356.018
Mn 257.610	0.0225	-0.0654u	-0.0476u
Mo 202.032	0.1694	1.0564	-0.4110u
Na 330.237	53685.6	53112.4	53187.4
Ni 231.604	1.9217	3.2794	2.4553
Pb 220.353	-2.1283u	-4.3833u	-4.2487u
Sb 206.834	0.4795	2.1538	-0.3563u
Se 196.026	-6.6395u	-0.6206u	-0.2418u
Si 288.158	-0.9970u	-2.0245u	-1.5468u
Sn 189.925	-2.3432u	-1.8803u	-6.1238u
Sr 216.596	3.0044	1.8910	2.1050
Ti 334.941	0.0004u	0.0465	0.0493
Tl 190.794	-0.4557u	4.1615	1.5619
V 292.401	0.1909	0.1316	0.6991
Zn 206.200	12.8000	11.8641	6.6899

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.2170	ppb	0.2899	133.6	20.0333
Al 308.215	-29.9196	ppb	2.0357	6.8	637.590
As 188.980	1.6466	ppb	4.2118	255.8	-2.4381
B 249.678	1119.38	ppb	7.4762	0.7	8523.13
Ba 389.178	1.2682	ppb	0.2299	18.1	-21.9135
Be 313.042	0.0137	ppb	0.0032	23.6	-305.390
Ca 370.602	115.5	ppb	1.613	1.4	282.9
Cd 226.502	0.0402	ppb	0.0599	149.2	-18.3804
Co 228.615	-0.2217	ppb	0.6810	307.2	-32.1781
Cr 267.716	-0.1284	ppb	0.0663	51.7	13.2022
Cu 324.754	1.3160	ppb	0.3199	24.3	268.666
Fe 271.441	-5.6534	ppb	4.6641	82.5	41.2708
K 766.491	2397.66	ppb	16.6448	0.7	61406.0
Mg 279.078	354.628	ppb	2.0979	0.6	550.666
Mn 257.610	-0.0302	ppb	0.0465	154.0	52.4113
Mo 202.032	0.2716	ppb	0.7390	272.1	-1.5965
Na 330.237	53328.4	ppb	311.572	0.6	1916.42
Ni 231.604	2.5521	ppb	0.6841	26.8	-10.2922
Pb 220.353	-3.5868	ppb	1.2648	35.3	6.9353
Sb 206.834	0.7590	ppb	1.2781	168.4	-1.5586
Se 196.026	-2.5007	ppb	3.5894	143.5	-0.1114
Si 288.158	-1.5228uv	ppb	0.5142	33.8	395.229
Sn 189.925	-3.4491	ppb	2.3279	67.5	-0.9126
Sr 216.596	2.3335	ppb	0.5908	25.3	22.1843
Ti 334.941	0.0321	ppb	0.0274	85.5	26.7812
Tl 190.794	1.7559	ppb	2.3147	131.8	-5.2304
V 292.401	0.3405	ppb	0.3119	91.6	14.0495
Zn 206.200	10.4513	ppb	3.2909	31.5	4.8821

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680-201777-e-1-b (Samp) **7/26/2021, 6:18:26 PM** **Rack 1, Tube 54**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0510u	-0.1520u	-0.0646u
Al 308.215	-30.4979u	-29.2884u	-30.9983u
As 188.980	-5.3256u	-2.6588u	5.6644
B 249.678	893.851	899.378	885.518
Ba 389.178	1.9636	0.4820	0.9556
Be 313.042	0.0019u	0.0236	0.0262
Ca 370.602	463.3	462.2	452.7
Cd 226.502	0.0660	0.1783	0.1904
Co 228.615	0.7296	0.5580	0.0375
Cr 267.716	0.1258	0.3676	0.0669
Cu 324.754	0.4512	1.0247	0.6801
Fe 271.441	3.9082	-5.3565u	-1.5737u
K 766.491	1868.49	1868.93	1840.07
Mg 279.078	483.840	480.687	474.887
Mn 257.610	0.0411	-0.0124u	-0.0268u
Mo 202.032	-0.3785u	0.7991	-0.0038u
Na 330.237	42284.0	42504.1	42036.6
Ni 231.604	2.6390	1.5663	0.8960
Pb 220.353	1.6362	-0.4033u	-0.7823u
Sb 206.834	2.9657	-0.1584u	-1.4893u
Se 196.026	-1.1026u	-3.9457u	1.6307
Si 288.158	1.2051	1.0032	-0.8727u
Sn 189.925	-1.6267u	-0.7072u	-2.5151u
Sr 216.596	2.9502	3.0411	3.3831
Ti 334.941	-0.0328u	-0.0050u	-0.0680u
Tl 190.794	1.4219	7.9882	4.0889
V 292.401	-0.0740u	-0.0234u	-0.1116u
Zn 206.200	520.428	519.718	515.194

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0892	ppb	0.0548	61.4	7.0648
Al 308.215	-30.2616	ppb	0.8791	2.9	636.478
As 188.980	-0.7733	ppb	5.7325	741.3	-3.4522
B 249.678	892.916	ppb	6.9769	0.8	6787.76
Ba 389.178	1.1337	ppb	0.7567	66.7	-23.3268
Be 313.042	0.0172	ppb	0.0133	77.2	-301.355
Ca 370.602	459.4	ppb	5.809	1.3	1030
Cd 226.502	0.1449	ppb	0.0686	47.3	-16.1656
Co 228.615	0.4417	ppb	0.3604	81.6	-28.5929
Cr 267.716	0.1868	ppb	0.1594	85.3	20.9318
Cu 324.754	0.7187	ppb	0.2887	40.2	243.724
Fe 271.441	-1.0073	ppb	4.6583	462.4	45.1269
K 766.491	1859.16	ppb	16.5385	0.9	47673.1
Mg 279.078	479.805	ppb	4.5417	0.9	738.413
Mn 257.610	0.0006	ppb	0.0357	5667.9	55.6301
Mo 202.032	0.1390	ppb	0.6017	433.0	-2.0136
Na 330.237	42274.9	ppb	233.890	0.6	1518.88
Ni 231.604	1.7004	ppb	0.8792	51.7	-11.5868
Pb 220.353	0.1502	ppb	1.3008	865.9	9.6776
Sb 206.834	0.4393	ppb	2.2869	520.5	-1.7560
Se 196.026	-1.1392	ppb	2.7884	244.8	0.2933
Si 288.158	0.4452uv	ppb	1.1458	257.4	406.823

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-1.6163	ppb	0.9040	55.9	-0.1592
Sr 216.596	3.1248	ppb	0.2283	7.3	26.6291
Ti 334.941	-0.0353	ppb	0.0316	89.6	17.3232
Tl 190.794	4.4997	ppb	3.3023	73.4	-3.5671
V 292.401	-0.0697	ppb	0.0443	63.5	8.7397
Zn 206.200	518.446	ppb	2.8392	0.5	349.387

680-201916-a-7-b (Samp) **7/26/2021, 6:22:56 PM** **Rack 1, Tube 55**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2202u	-0.0766u	-0.0405u
Al 308.215	-37.0894u	-33.3103u	-36.0115u
As 188.980	1.1404	5.5556	-1.8618u
B 249.678	44.8453	40.7931	39.6731
Ba 389.178	0.4774	1.0345	1.4975
Be 313.042	0.0126	-0.0020u	0.0196
Ca 370.602	20.42	14.33	12.62
Cd 226.502	0.3854	0.3053	0.2363
Co 228.615	0.9643	-0.1584u	1.2644
Cr 267.716	-0.1350u	-0.0575u	-0.1196u
Cu 324.754	8445.85	8373.65	8469.90
Fe 271.441	-12.1432u	-0.7654u	-16.4707u
K 766.491	12.5375	11.9315	11.5816
Mg 279.078	3.8823	8.3840	5.6085
Mn 257.610	-0.0831u	-0.1609u	-0.0869u
Mo 202.032	0.5358	-0.6202u	-0.2855u
Na 330.237	32.3320u	103.738	1.6190u
Ni 231.604	2.9501	1.5523	3.0090
Pb 220.353	-2.0491u	-0.9338u	-5.1615u
Sb 206.834	-1.9664u	3.9893	-4.3629u
Se 196.026	-2.8260u	-1.6345u	5.1886
Si 288.158	-1.4991u	-1.8837u	-2.1420u
Sn 189.925	-2.6951u	-1.9824u	-2.8957u
Sr 216.596	-0.1109u	0.0601	0.3884
Ti 334.941	-0.0852u	-0.1156u	-0.0946u
Tl 190.794	1.3406	-0.2911u	1.3757
V 292.401	-0.1283u	-0.3745u	0.2829
Zn 206.200	178.407	180.784	176.293

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1124	ppb	0.0951	84.6	6.1038
Al 308.215	-35.4704	ppb	1.9468	5.5	619.609
As 188.980	1.6114	ppb	3.7311	231.5	-2.4528
B 249.678	41.7705	ppb	2.7211	6.5	265.518
Ba 389.178	1.0031	ppb	0.5108	50.9	-25.3049
Be 313.042	0.0101	ppb	0.0110	109.5	-305.310
Ca 370.602	15.79	ppb	4.102	26.0	66.15
Cd 226.502	0.3090	ppb	0.0746	24.1	-12.6529
Co 228.615	0.6901	ppb	0.7500	108.7	-27.2505
Cr 267.716	-0.1041	ppb	0.0410	39.4	13.3358
Cu 324.754	8429.80	ppb	50.0892	0.6	352263
Fe 271.441	-9.7931	ppb	8.1122	82.8	37.8677
K 766.491	12.0169	ppb	0.4836	4.0	566.695

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	5.9583	ppb	2.2711	38.1	27.7158
Mn 257.610	-0.1103	ppb	0.0439	39.8	44.1597
Mo 202.032	-0.1233	ppb	0.5948	482.3	-2.8383
Na 330.237	45.8964	ppb	52.3936	114.2	36.5926
Ni 231.604	2.5038	ppb	0.8246	32.9	-10.3657
Pb 220.353	-2.7148	ppb	2.1911	80.7	7.5752
Sb 206.834	-0.7800	ppb	4.3006	551.4	-2.5041
Se 196.026	0.2427	ppb	4.3245	1781.8	0.7039
Si 288.158	-1.8416uv	ppb	0.3235	17.6	393.078
Sn 189.925	-2.5244	ppb	0.4800	19.0	-0.5405
Sr 216.596	0.1125	ppb	0.2537	225.5	9.7915
Ti 334.941	-0.0985	ppb	0.0156	15.8	9.6733
Tl 190.794	0.8084	ppb	0.9524	117.8	-5.8044
V 292.401	-0.0733	ppb	0.3321	453.2	8.8422
Zn 206.200	178.495	ppb	2.2468	1.3	118.844

680-201777-c-4-b (Samp) **7/26/2021, 6:27:27 PM** **Rack 1, Tube 56**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0993u	-0.1805u	-0.0870u
Al 308.215	-33.3659u	-34.3230u	-33.4598u
As 188.980	1.1972	1.0320	1.9490
B 249.678	70.9644	69.0764	67.6402
Ba 389.178	-0.2698	-0.7016	0.7774
Be 313.042	0.0292	0.0085	0.0117
Ca 370.602	4450	4393	4326
Cd 226.502	0.3065	0.5092	0.2549
Co 228.615	0.5459	0.3687	0.2470
Cr 267.716	-0.1499u	-0.0170	-0.1316u
Cu 324.754	185.112	184.305	181.130
Fe 271.441	-10.7917u	-11.2198u	-3.0889u
K 766.491	4803.82	4739.48	4654.24
Mg 279.078	13050.4	12855.6	12674.9
Mn 257.610	-0.0135u	0.0884	0.1132
Mo 202.032	0.2238	-0.3315u	-0.0790u
Na 330.237	117949x	116830x	114673x
Ni 231.604	2.7711	2.3305	1.6894
Pb 220.353	0.6467	1.3823	1.5032
Sb 206.834	-4.4027u	5.5777	2.2022
Se 196.026	-0.8046u	12.7020	11.0033
Si 288.158	-0.6801u	0.9260	1.9617
Sn 189.925	0.2456	-3.1397u	1.7727
Sr 216.596	83.0931	82.6058	81.0211
Ti 334.941	-0.0558u	0.0088u	-0.0489u
Tl 190.794	2.7165	-0.7798u	1.5560
V 292.401	0.9126	0.2825	0.3629
Zn 206.200	3.6954	1.8525	4.2287

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1223b	ppb	0.0508	41.6	5.2231
Al 308.215	-33.7162b	ppb	0.5276	1.6	625.299
As 188.980	1.3927b	ppb	0.4888	35.1	-2.5444
B 249.678	69.2270b	ppb	1.6672	2.4	475.913

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	-0.0646b	ppb	0.7606	1176.6	-25.4657
Be 313.042	0.0165b	ppb	0.0111	67.8	-305.790
Ca 370.602	4390b	ppb	61.90	1.4	9572
Cd 226.502	0.3569b	ppb	0.1344	37.7	-11.9098
Co 228.615	0.3872b	ppb	0.1503	38.8	-28.8851
Cr 267.716	-0.0995b	ppb	0.0720	72.4	14.4744
Cu 324.754	183.516b	ppb	2.1052	1.1	7877.78
Fe 271.441	-8.3668b	ppb	4.5758	54.7	39.0336
K 766.491	4732.51b	ppb	75.0301	1.6	120950
Mg 279.078	12860.3b	ppb	187.792	1.5	19307.3
Mn 257.610	0.0627b	ppb	0.0671	107.1	61.9252
Mo 202.032	-0.0622b	ppb	0.2780	446.7	-2.6464
Na 330.237	116484xb	ppb	1665.18	1.4	4141.52
Ni 231.604	2.2637b	ppb	0.5439	24.0	-10.7306
Pb 220.353	1.1774b	ppb	0.4635	39.4	10.4317
Sb 206.834	1.1257b	ppb	5.0765	451.0	-1.3267
Se 196.026	7.6336b	ppb	7.3568	96.4	2.9005
Si 288.158	0.7359uvb	ppb	1.3311	180.9	408.581
Sn 189.925	-0.3738b	ppb	2.5141	672.6	0.3654
Sr 216.596	82.2400b	ppb	1.0834	1.3	468.195
Ti 334.941	-0.0319b	ppb	0.0355	111.1	14.9142
Tl 190.794	1.1642b	ppb	1.7807	153.0	-5.5888
V 292.401	0.5193b	ppb	0.3429	66.0	16.2276
Zn 206.200	3.2588b	ppb	1.2468	38.3	0.0045

680-201777-c-5-b (Samp) **7/26/2021, 6:31:57 PM** **Rack 1, Tube 57**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0944u	-0.2354u	-0.1027u
Al 308.215	-29.6523u	-31.1341u	-32.0094u
As 188.980	-1.0680u	5.3364	-3.3802u
B 249.678	62.6735	61.7213	60.5288
Ba 389.178	0.9202	-0.2915	0.9125
Be 313.042	0.0110	0.0196	0.0300
Ca 370.602	4420	4366	4366
Cd 226.502	0.2778	0.0988	0.3556
Co 228.615	-0.8412u	-0.0438u	0.4501
Cr 267.716	0.0377	-0.1670u	0.2757
Cu 324.754	4.8846	4.7673	4.5791
Fe 271.441	-6.8216u	-16.5015u	-0.4685u
K 766.491	4752.03	4704.76	4685.95
Mg 279.078	12750.6	12583.7	12545.7
Mn 257.610	0.0660	0.0529	0.0729
Mo 202.032	0.5065	0.6827	-0.8341u
Na 330.237	115450x	114627x	114035x
Ni 231.604	2.6741	1.7403	2.0779
Pb 220.353	1.5538	5.9125	0.5678
Sb 206.834	-0.4606u	0.2854	1.8344
Se 196.026	-1.2262u	-0.0612u	-1.8594u
Si 288.158	1.7439	1.3493	0.6304
Sn 189.925	-7.1671u	0.7002	-3.8238u
Sr 216.596	82.2932	80.5574	80.0345
Ti 334.941	-0.0426u	0.0099u	-0.0214u

Label	Replicates Concentration		
Tl 190.794	3.7409	1.0549	0.3726
V 292.401	-0.1564u	0.2203	0.7691
Zn 206.200	-0.9196u	-0.7950u	-1.5661u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1442b	ppb	0.0791	54.9	4.3084
Al 308.215	-30.9319b	ppb	1.1915	3.9	634.292
As 188.980	0.2961b	ppb	4.5156	1525.2	-3.0040
B 249.678	61.6412b	ppb	1.0746	1.7	417.780
Ba 389.178	0.5137b	ppb	0.6974	135.7	-19.0014
Be 313.042	0.0202b	ppb	0.0095	47.0	-302.127
Ca 370.602	4384b	ppb	31.00	0.7	9559
Cd 226.502	0.2441b	ppb	0.1317	54.0	-14.2442
Co 228.615	-0.1450b	ppb	0.6515	449.4	-31.7611
Cr 267.716	0.0488b	ppb	0.2216	454.0	18.1449
Cu 324.754	4.7436b	ppb	0.1541	3.2	411.794
Fe 271.441	-7.9305b	ppb	8.0738	101.8	39.3984
K 766.491	4714.24b	ppb	34.0441	0.7	120484
Mg 279.078	12626.7b	ppb	108.991	0.9	18956.9
Mn 257.610	0.0639b	ppb	0.0102	15.9	62.0578
Mo 202.032	0.1184b	ppb	0.8295	700.7	-2.0783
Na 330.237	114704xb	ppb	710.801	0.6	4078.87
Ni 231.604	2.1641b	ppb	0.4729	21.8	-10.8820
Pb 220.353	2.6780b	ppb	2.8442	106.2	11.5331
Sb 206.834	0.5531b	ppb	1.1707	211.7	-1.6754
Se 196.026	-1.0489b	ppb	0.9121	87.0	0.3201
Si 288.158	1.2412b	ppb	0.5646	45.5	411.765
Sn 189.925	-3.4302b	ppb	3.9484	115.1	-0.8945
Sr 216.596	80.9617b	ppb	1.1824	1.5	461.070
Ti 334.941	-0.0180b	ppb	0.0264	146.5	17.0288
Tl 190.794	1.7228b	ppb	1.7807	103.4	-5.2502
V 292.401	0.2776b	ppb	0.4654	167.6	13.0821
Zn 206.200	-1.0936b	ppb	0.4140	37.9	-2.9472

Cont Calib Verif (CCV) **7/26/2021, 6:38:36 PM** **Rack S, Tube 10**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	488.339	491.774	494.719
Al 308.215	9697.52	9705.49	9737.71
As 188.980	488.108	480.031	504.194
B 249.678	491.185	495.034	498.349
Ba 389.178	497.059	498.476	498.501
Be 313.042	500.565	501.113	502.457
Ca 370.602	9881	9874	9912
Cd 226.502	487.367	486.894	489.832
Co 228.615	491.932	490.452	493.626
Cr 267.716	488.973	487.912	490.528
Cu 324.754	490.012	490.823	497.035
Fe 271.441	9840.30	9825.92	9834.54
K 766.491	10152.2	10170.6	10202.8
Mg 279.078	9689.00	9679.24	9703.51
Mn 257.610	497.703	497.429	498.867
Mo 202.032	494.258	494.049	492.739

Label	Replicates Concentration		
Na 330.237	10009.0	10088.6	9662.93
Ni 231.604	491.902	490.572	492.720
Pb 220.353	487.704	483.140	486.472
Sb 206.834	487.090	490.847	492.672
Se 196.026	470.055	484.640	491.311
Si 288.158	4883.60	4876.21	4896.12
Sn 189.925	492.193	494.329	496.222
Sr 216.596	494.362	492.809	495.367
Ti 334.941	491.921	492.260	494.143
Tl 190.794	507.796	504.382	502.680
V 292.401	494.044	492.569	494.953
Zn 206.200	977.308	987.043	978.203

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	491.610	ppb	3.1934	0.6	20813.6	98.32210
Al 308.215	9713.57	ppb	21.2821	0.2	32205.8	97.13571
As 188.980	490.778	ppb	12.3004	2.5	202.524	98.15558
B 249.678	494.856	ppb	3.5850	0.7	3718.52	98.97120
Ba 389.178	498.012	ppb	0.8254	0.2	5730.77	99.60246
Be 313.042	501.378	ppb	0.9735	0.2	476771	100.27565
Ca 370.602	9889	ppb	20.22	0.2	21528	98.89021
Cd 226.502	488.031	ppb	1.5776	0.3	10117.6	97.60617
Co 228.615	492.003	ppb	1.5883	0.3	2632.78	98.40062
Cr 267.716	489.137	ppb	1.3157	0.3	12175.2	97.82750
Cu 324.754	492.623	ppb	3.8421	0.8	20796.5	98.52460
Fe 271.441	9833.59	ppb	7.2373	0.1	8188.42	98.28676
K 766.491	10175.2	ppb	25.6074	0.3	259752	101.75230
Mg 279.078	9690.58	ppb	12.2091	0.1	14546.2	96.90583
Mn 257.610	498.000	ppb	0.7632	0.2	51746.7	99.59996
Mo 202.032	493.682	ppb	0.8231	0.2	1549.92	98.73640
Na 330.237	9920.17	ppb	226.299	2.3	364.264	99.20169
Ni 231.604	491.731	ppb	1.0841	0.2	732.600	98.34625
Pb 220.353	485.772	ppb	2.3613	0.5	365.781	97.15439
Sb 206.834	490.203	ppb	2.8465	0.6	296.056	98.04060
Se 196.026	482.002	ppb	10.8705	2.3	144.045	96.40041
Si 288.158	4885.31	ppb	10.0629	0.2	29512.1	97.70627
Sn 189.925	494.248	ppb	2.0157	0.4	204.189	98.84956
Sr 216.596	494.179	ppb	1.2887	0.3	2754.40	98.83582
Ti 334.941	492.775	ppb	1.1972	0.2	72459.9	98.55491
Tl 190.794	504.953	ppb	2.6051	0.5	299.331	100.99055
V 292.401	493.855	ppb	1.2030	0.2	6451.40	98.77105
Zn 206.200	980.851	ppb	5.3808	0.5	662.775	98.08514

Cont Calib Blank (CCB) **7/26/2021, 6:43:08 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2487u	-0.1791u	-0.1657u
Al 308.215	-31.7774u	-32.5651u	-32.4212u
As 188.980	0.8582	2.1140	-0.6764u
B 249.678	19.0918	17.5070	16.5952
Ba 389.178	1.2224	1.8912	0.3928
Be 313.042	0.0370	0.0331	0.0376
Ca 370.602	-1.512u	1.943	1.309

Label	Replicates Concentration		
Cd 226.502	0.1830	0.3695	-0.0541u
Co 228.615	0.5647	-1.2460u	1.1188
Cr 267.716	-0.1435u	-0.0372u	-0.0424u
Cu 324.754	0.4746	0.1127	0.3277
Fe 271.441	-4.8862u	-9.0276u	-9.8485u
K 766.491	0.0961	0.8415	0.3988
Mg 279.078	-2.9411u	-1.5097u	-1.0697u
Mn 257.610	-0.0512u	-0.0148u	0.0612
Mo 202.032	0.4013	0.0162	0.9076
Na 330.237	-70.8811u	-184.447u	-136.993u
Ni 231.604	3.0329	2.6579	1.8936
Pb 220.353	-1.6137u	2.1058	4.0670
Sb 206.834	-3.7677u	5.9166	2.0488
Se 196.026	4.1833	-0.5100u	-2.6812u
Si 288.158	0.9276	1.3388	0.9800
Sn 189.925	-5.2155u	-2.6450u	2.8138
Sr 216.596	0.1463	0.1719	0.3141
Ti 334.941	0.0635	0.0591	0.1009
Tl 190.794	1.7650	8.5166	2.1043
V 292.401	0.3423	0.1106	-0.0647u
Zn 206.200	0.0550	-1.6187u	0.4616

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.1978	ppb	0.0445	22.5	2.4898	-0.19783
Al 308.215	-32.2546	ppb	0.4195	1.3	630.034	-32.25455
As 188.980	0.7653	ppb	1.3975	182.6	-2.8074	0.76528
B 249.678	17.7313	ppb	1.2634	7.1	81.3035	17.73135
Ba 389.178	1.1688	ppb	0.7507	64.2	-23.3979	1.16879
Be 313.042	0.0359	ppb	0.0025	6.8	-281.242	0.03591
Ca 370.602	0.5799	ppb	1.839	317.1	33.10	0.57989
Cd 226.502	0.1661	ppb	0.2123	127.8	-15.6150	0.16610
Co 228.615	0.1458	ppb	1.2368	848.2	-30.1908	0.14582
Cr 267.716	-0.0743	ppb	0.0599	80.6	14.0764	-0.07435
Cu 324.754	0.3050	ppb	0.1820	59.7	226.437	0.30500
Fe 271.441	-7.9208	ppb	2.6599	33.6	39.4077	-7.92077
K 766.491	0.4454	ppb	0.3749	84.2	271.597	0.44543
Mg 279.078	-1.8402	ppb	0.9785	53.2	16.0177	-1.84016
Mn 257.610	-0.0016	ppb	0.0574	3555.0	55.5016	-0.00161
Mo 202.032	0.4417	ppb	0.4471	101.2	-1.0612	0.44173
Na 330.237	-130.774	ppb	57.0378	43.6	33.1711	-130.77364
Ni 231.604	2.5282	ppb	0.5806	23.0	-10.3287	2.52817
Pb 220.353	1.5197	ppb	2.8854	189.9	10.6824	1.51969
Sb 206.834	1.3992	ppb	4.8747	348.4	-1.1625	1.39924
Se 196.026	0.3307	ppb	3.5086	1061.0	0.7300	0.33069
Si 288.158	1.0821	ppb	0.2238	20.7	410.562	1.08212
Sn 189.925	-1.6822	ppb	4.1003	243.7	-0.1934	-1.68224
Sr 216.596	0.2108	ppb	0.0904	42.9	10.3347	0.21076
Ti 334.941	0.0745	ppb	0.0230	30.8	35.1008	0.07452
Tl 190.794	4.1286	ppb	3.8039	92.1	-3.7922	4.12863
V 292.401	0.1294	ppb	0.2041	157.8	11.4861	0.12938
Zn 206.200	-0.3674	ppb	1.1026	300.1	-2.4547	-0.36739

mb 680-677953/1-a (Samp) **7/26/2021, 6:47:38 PM** **Rack 2, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0862u	-0.1093u	-0.1350u
Al 308.215	-33.0097u	-28.6588u	-36.7545u
As 188.980	-2.2797u	0.0690	5.0083
B 249.678	8.9337	9.0923	11.0212
Ba 389.178	1.2931	1.1949	2.2048
Be 313.042	0.0191	0.0213	0.0202
Ca 370.602	-1.090u	-4.518u	3.975
Cd 226.502	0.4467	0.0726	0.1453
Co 228.615	1.1491	-0.3493u	0.6536
Cr 267.716	-0.1969u	-0.0125u	0.0250
Cu 324.754	0.6547	0.6764	0.4701
Fe 271.441	-0.5688u	1.4441	3.5901
K 766.491	4.2066	3.6045	3.0775
Mg 279.078	3.0568	7.6785	-0.9769u
Mn 257.610	-0.0253u	-0.0062u	-0.0002u
Mo 202.032	0.1963	0.7731	-0.2087u
Na 330.237	26.9388	97.2667	77.4482
Ni 231.604	1.8653	0.7601	1.3595
Pb 220.353	1.9963	0.2456	1.4310
Sb 206.834	-2.1469u	1.6833	2.9062
Se 196.026	6.2468	5.3775	-8.7255u
Si 288.158	-0.4696u	2.0460	-0.1496u
Sn 189.925	1.6435	1.0756	-3.2168u
Sr 216.596	-0.0565u	-0.2407u	0.6272
Ti 334.941	0.0745	0.0384	0.1241
Tl 190.794	1.9777	4.8072	1.9100
V 292.401	-0.1394u	0.0240	0.1134
Zn 206.200	0.2550	1.6116	-0.2898u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1102	ppb	0.0244	22.1	6.1970
Al 308.215	-32.8077	ppb	4.0516	12.3	628.235
As 188.980	0.9326	ppb	3.7199	398.9	-2.7373
B 249.678	9.6824	ppb	1.1621	12.0	19.6166
Ba 389.178	1.5643	ppb	0.5568	35.6	-18.8245
Be 313.042	0.0202	ppb	0.0011	5.4	-296.229
Ca 370.602	-0.5445	ppb	4.273	784.7	30.64
Cd 226.502	0.2215	ppb	0.1984	89.5	-14.4595
Co 228.615	0.4845	ppb	0.7634	157.6	-28.3606
Cr 267.716	-0.0615	ppb	0.1188	193.2	14.3969
Cu 324.754	0.6004	ppb	0.1133	18.9	238.777
Fe 271.441	1.4884	ppb	2.0798	139.7	47.1797
K 766.491	3.6295	ppb	0.5649	15.6	352.799
Mg 279.078	3.2528	ppb	4.3310	133.1	23.6570
Mn 257.610	-0.0106	ppb	0.0131	123.7	54.5649
Mo 202.032	0.2536	ppb	0.4934	194.6	-1.6530
Na 330.237	67.2179	ppb	36.2629	53.9	40.1334
Ni 231.604	1.3283	ppb	0.5533	41.7	-12.1526
Pb 220.353	1.2243	ppb	0.8934	73.0	10.4658
Sb 206.834	0.8142	ppb	2.6363	323.8	-1.5219
Se 196.026	0.9663	ppb	8.4046	869.8	0.9190
Si 288.158	0.4756uv	ppb	1.3694	287.9	407.141

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-0.1659	ppb	2.6574	1602.0	0.4315
Sr 216.596	0.1100	ppb	0.4573	415.7	9.7800
Ti 334.941	0.0790	ppb	0.0430	54.5	35.7602
Tl 190.794	2.8983	ppb	1.6535	57.0	-4.5378
V 292.401	-0.0007	ppb	0.1282	19452.7	9.7901
Zn 206.200	0.5256	ppb	0.9791	186.3	-1.8491

lcs 680-677953/2-a (Samp) **7/26/2021, 6:52:08 PM** **Rack 2, Tube 2**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	96.2384	95.9651	96.3118
Al 308.215	9708.86	9667.28	9732.49
As 188.980	195.433	191.150	191.225
B 249.678	402.104	402.404	408.246
Ba 389.178	206.834	206.775	206.198
Be 313.042	96.4765	96.2055	96.5512
Ca 370.602	10127	10083	10116
Cd 226.502	96.4392	95.6120	96.7771
Co 228.615	96.7683	96.6158	97.7260
Cr 267.716	194.032	193.620	194.092
Cu 324.754	193.202	191.928	192.104
Fe 271.441	9617.68	9583.47	9632.33
K 766.491	16139.1	16029.1	16159.1
Mg 279.078	9404.95	9376.67	9406.54
Mn 257.610	765.866	762.290	765.654
Mo 202.032	195.655	193.188	193.928
Na 330.237	158034x	157160x	157439x
Ni 231.604	195.117	192.488	193.917
Pb 220.353	964.076	956.039	965.745
Sb 206.834	105.581	107.820	98.3387
Se 196.026	181.772	197.560	187.596
Si 288.158	21.5311	20.0846	20.6721
Sn 189.925	201.504	197.787	197.326
Sr 216.596	193.183	192.243	192.450
Ti 334.941	675.025	672.819	676.389
Tl 190.794	78.2908	77.2515	80.1426
V 292.401	193.824	192.874	194.261
Zn 206.200	202.224	204.209	202.220

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	96.1718b	ppb	0.1827	0.2	4082.82
Al 308.215	9702.88b	ppb	33.0136	0.3	32147.2
As 188.980	192.603b	ppb	2.4511	1.3	77.6030
B 249.678	404.252b	ppb	3.4627	0.9	3024.77
Ba 389.178	206.602b	ppb	0.3516	0.2	2362.40
Be 313.042	96.4111b	ppb	0.1819	0.2	91417.8
Ca 370.602	10109b	ppb	22.79	0.2	22014
Cd 226.502	96.2761b	ppb	0.5994	0.6	1990.02
Co 228.615	97.0367b	ppb	0.6018	0.6	500.368
Cr 267.716	193.915b	ppb	0.2570	0.1	4839.49
Cu 324.754	192.411b	ppb	0.6902	0.4	8254.50
Fe 271.441	9611.16b	ppb	25.0742	0.3	7978.82
K 766.491	16109.1b	ppb	70.0181	0.4	411080

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	9396.05b	ppb	16.8089	0.2	14101.8
Mn 257.610	764.604b	ppb	2.0063	0.3	79421.9
Mo 202.032	194.257b	ppb	1.2658	0.7	608.260
Na 330.237	157544xb	ppb	446.417	0.3	5574.97
Ni 231.604	193.840b	ppb	1.3162	0.7	280.325
Pb 220.353	961.953b	ppb	5.1896	0.5	715.464
Sb 206.834	103.913b	ppb	4.9557	4.8	60.5808
Se 196.026	188.976b	ppb	7.9836	4.2	56.9949
Si 288.158	20.7626b	ppb	0.7275	3.5	621.275
Sn 189.925	198.872b	ppb	2.2907	1.2	82.4846
Sr 216.596	192.625b	ppb	0.4939	0.3	1081.00
Ti 334.941	674.744b	ppb	1.8015	0.3	99202.9
Tl 190.794	78.5617b	ppb	1.4644	1.9	40.5454
V 292.401	193.653b	ppb	0.7093	0.4	2538.76
Zn 206.200	202.884b	ppb	1.1473	0.6	135.343

lb 680-677654/1-e (Samp) **7/26/2021, 6:56:38 PM** **Rack 2, Tube 3**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1504u	-0.0224u	-0.0338u
Al 308.215	-33.0788u	-28.3101u	-31.7921u
As 188.980	4.1871	3.3243	-2.7987u
B 249.678	24.0561	23.3699	22.0727
Ba 389.178	7.4543	7.3483	7.3595
Be 313.042	0.0367	0.0365	0.0361
Ca 370.602	430.6	430.2	436.0
Cd 226.502	0.1756	0.1842	0.3236
Co 228.615	-0.4345u	0.5101	1.0449
Cr 267.716	0.2734	-0.1273u	-0.2869u
Cu 324.754	1.0206	0.8709	0.6335
Fe 271.441	-3.3880u	-6.9250u	-2.1885u
K 766.491	131.077	130.943	131.905
Mg 279.078	36.7747	39.1730	36.0097
Mn 257.610	0.0680	0.0709	0.0721
Mo 202.032	0.1974	0.3010	0.9468
Na 330.237	147996x	148008x	148056x
Ni 231.604	2.9674	1.3811	2.2999
Pb 220.353	-1.5297u	2.4963	-2.1349u
Sb 206.834	0.2825	1.3540	3.2857
Se 196.026	-2.6425u	7.0059	5.1418
Si 288.158	31.8323	30.8265	31.5153
Sn 189.925	-1.5381u	-0.7061u	-3.7909u
Sr 216.596	0.8595	1.1293	0.5392
Ti 334.941	0.1144	0.1128	0.0742
Tl 190.794	4.0693	-5.1764u	3.8656
V 292.401	0.1633	0.0566	0.4977
Zn 206.200	10.6475	11.0134	6.9968

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0689b	ppb	0.0708	102.8	7.9412
Al 308.215	-31.0603b	ppb	2.4671	7.9	633.884
As 188.980	1.5709b	ppb	3.8087	242.5	-2.4698
B 249.678	23.1662b	ppb	1.0073	4.3	122.940

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	7.3874b	ppb	0.0583	0.8	48.5144
Be 313.042	0.0364b	ppb	0.0003	0.8	-288.900
Ca 370.602	432.3b	ppb	3.229	0.7	971.2
Cd 226.502	0.2278b	ppb	0.0831	36.5	-14.7653
Co 228.615	0.3735b	ppb	0.7491	200.6	-28.9588
Cr 267.716	-0.0469b	ppb	0.2887	615.5	16.0569
Cu 324.754	0.8417b	ppb	0.1952	23.2	248.847
Fe 271.441	-4.1672b	ppb	2.4625	59.1	42.4919
K 766.491	131.308b	ppb	0.5211	0.4	3608.90
Mg 279.078	37.3191b	ppb	1.6504	4.4	74.7507
Mn 257.610	0.0703b	ppb	0.0021	3.0	62.6189
Mo 202.032	0.4817b	ppb	0.4061	84.3	-0.9354
Na 330.237	148020xb	ppb	32.0301	0.0	5252.45
Ni 231.604	2.2161b	ppb	0.7965	35.9	-10.8028
Pb 220.353	-0.3894b	ppb	2.5174	646.4	9.2820
Sb 206.834	1.6407b	ppb	1.5220	92.8	-1.0110
Se 196.026	3.1684b	ppb	5.1180	161.5	1.5735
Si 288.158	31.3913b	ppb	0.5142	1.6	590.066
Sn 189.925	-2.0117b	ppb	1.5960	79.3	-0.3044
Sr 216.596	0.8427b	ppb	0.2954	35.1	13.9075
Ti 334.941	0.1004b	ppb	0.0228	22.7	33.1524
Tl 190.794	0.9195b	ppb	5.2801	574.2	-5.7374
V 292.401	0.2392b	ppb	0.2301	96.2	12.3891
Zn 206.200	9.5526b	ppb	2.2209	23.2	4.2726

680-201574-a-1-k (Samp) **7/26/2021, 7:01:08 PM** **Rack 2, Tube 4**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2212u	-0.2313u	-0.1628u
Al 308.215	-18.5905u	-14.6445u	-11.4271u
As 188.980	3.6291	0.7038	3.1598
B 249.678	14.4754	15.9578	14.1237
Ba 389.178	194.760	196.030	196.651
Be 313.042	0.0556	0.0438	0.0403
Ca 370.602	8955	8971	9026
Cd 226.502	1.3374	1.1669	1.4824
Co 228.615	1.7303	2.2190	1.1959
Cr 267.716	0.1680	0.1130	-0.0101
Cu 324.754	75.6044	75.4108	75.9542
Fe 271.441	-1.3050u	-12.0183u	-12.5406u
K 766.491	1074.92	1077.54	1082.24
Mg 279.078	242.990	238.813	245.919
Mn 257.610	89.1890	89.4803	89.9964
Mo 202.032	-0.8052u	-0.6330u	-0.8940u
Na 330.237	130977x	131376x	132195x
Ni 231.604	6.4413	4.5928	6.4913
Pb 220.353	184.579	185.872	193.734
Sb 206.834	-4.5579u	1.9390	1.3212
Se 196.026	1.2518	0.4131	-3.4609u
Si 288.158	301.652	302.004	304.223
Sn 189.925	-3.7580u	-9.0225u	-4.8024u
Sr 216.596	29.3150	29.1371	29.8861
Ti 334.941	0.0225u	0.1294	0.1136

Label	Replicates Concentration		
Tl 190.794	4.1426	-2.1170u	0.5357
V 292.401	0.4680	-0.2376u	0.4438
Zn 206.200	236.694	236.518	237.397

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2051b	ppb	0.0370	18.0	2.2735
Al 308.215	-14.8873b	ppb	3.5879	24.1	686.215
As 188.980	2.4976b	ppb	1.5711	62.9	-2.0814
B 249.678	14.8523b	ppb	0.9734	6.6	59.2382
Ba 389.178	195.813b	ppb	0.9638	0.5	2226.32
Be 313.042	0.0466b	ppb	0.0080	17.1	-276.859
Ca 370.602	8984b	ppb	36.94	0.4	19558
Cd 226.502	1.3289b	ppb	0.1579	11.9	8.1255
Co 228.615	1.7151b	ppb	0.5117	29.8	-21.7054
Cr 267.716	0.0903b	ppb	0.0912	101.0	19.5213
Cu 324.754	75.6565b	ppb	0.2754	0.4	3373.29
Fe 271.441	-8.6213b	ppb	6.3415	73.6	38.9049
K 766.491	1078.24b	ppb	3.7123	0.3	27757.7
Mg 279.078	242.574b	ppb	3.5712	1.5	381.714
Mn 257.610	89.5553b	ppb	0.4088	0.5	9350.61
Mo 202.032	-0.7774b	ppb	0.1327	17.1	-4.8957
Na 330.237	131516xb	ppb	620.857	0.5	4667.41
Ni 231.604	5.8418b	ppb	1.0820	18.5	-5.2938
Pb 220.353	188.062b	ppb	4.9546	2.6	147.573
Sb 206.834	-0.4326b	ppb	3.5860	829.0	-2.2821
Se 196.026	-0.5987b	ppb	2.5140	419.9	0.4671
Si 288.158	302.627b	ppb	1.3940	0.5	2196.74
Sn 189.925	-5.8610b	ppb	2.7873	47.6	-1.8935
Sr 216.596	29.4461b	ppb	0.3914	1.3	174.167
Ti 334.941	0.0885b	ppb	0.0577	65.2	32.0350
Tl 190.794	0.8538b	ppb	3.1419	368.0	-5.7925
V 292.401	0.2247b	ppb	0.4006	178.3	12.2603
Zn 206.200	236.870b	ppb	0.4646	0.2	158.431

680-201574-a-1-l ms (Samp) **7/26/2021, 7:05:38 PM** **Rack 2, Tube 5**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	64.8464	64.4729	64.7280
Al 308.215	-24.7413u	-24.0863u	-22.9644u
As 188.980	332.844	330.848	320.381
B 249.678	336.449	339.234	339.624
Ba 389.178	462.850	465.314	464.014
Be 313.042	163.821	164.327	163.996
Ca 370.602	6161	6182	6154
Cd 226.502	162.701	163.075	163.029
Co 228.615	165.163	165.045	166.311
Cr 267.716	162.898	162.880	162.952
Cu 324.754	213.724	214.185	216.161
Fe 271.441	316.425	314.289	311.046
K 766.491	725.568	728.227	728.151
Mg 279.078	163.965	172.310	166.686
Mn 257.610	227.261	227.915	227.647
Mo 202.032	165.243	167.280	167.514

Label	Replicates Concentration		
Na 330.237	87454.5	87179.7	87393.0
Ni 231.604	164.385	162.959	167.018
Pb 220.353	291.292	286.991	290.100
Sb 206.834	169.857	171.644	172.117
Se 196.026	320.307	319.829	310.812
Si 288.158	523.323	525.133	521.578
Sn 189.925	322.335	319.443	330.872
Sr 216.596	180.863	184.351	185.130
Ti 334.941	162.960	163.527	163.063
Tl 190.794	329.888	330.195	328.856
V 292.401	164.762	165.855	165.399
Zn 206.200	323.021	325.050	328.494

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	64.6824	ppb	0.1909	0.3	2748.17
Al 308.215	-23.9307	ppb	0.8986	3.8	670.320
As 188.980	328.024	ppb	6.6942	2.0	134.319
B 249.678	338.436	ppb	1.7315	0.5	2538.18
Ba 389.178	464.059	ppb	1.2323	0.3	5326.07
Be 313.042	164.048	ppb	0.2569	0.2	155780
Ca 370.602	6166	ppb	14.22	0.2	13440
Cd 226.502	162.935	ppb	0.2041	0.1	3361.02
Co 228.615	165.506	ppb	0.6992	0.4	864.915
Cr 267.716	162.910	ppb	0.0374	0.0	4066.51
Cu 324.754	214.690	ppb	1.2945	0.6	9182.18
Fe 271.441	313.920	ppb	2.7086	0.9	315.936
K 766.491	727.315	ppb	1.5139	0.2	18808.4
Mg 279.078	167.654	ppb	4.2557	2.5	267.983
Mn 257.610	227.608	ppb	0.3284	0.1	23682.7
Mo 202.032	166.679	ppb	1.2492	0.7	521.734
Na 330.237	87342.4	ppb	144.185	0.2	3107.41
Ni 231.604	164.788	ppb	2.0592	1.2	236.085
Pb 220.353	289.461	ppb	2.2207	0.8	221.801
Sb 206.834	171.206	ppb	1.1919	0.7	102.100
Se 196.026	316.983	ppb	5.3495	1.7	94.8757
Si 288.158	523.345	ppb	1.7777	0.3	3577.37
Sn 189.925	324.217	ppb	5.9422	1.8	134.129
Sr 216.596	183.448	ppb	2.2721	1.2	1028.25
Ti 334.941	163.184	ppb	0.3024	0.2	24008.1
Tl 190.794	329.646	ppb	0.7014	0.2	193.372
V 292.401	165.339	ppb	0.5490	0.3	2165.84
Zn 206.200	325.521	ppb	2.7671	0.9	218.465

680-201574-a-1-m msd (Samp) **7/26/2021, 7:10:08 PM** **Rack 2, Tube 6**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	60.6740	60.5082	60.4913
Al 308.215	-19.1396u	-27.3275u	-20.8099u
As 188.980	356.011	356.574	351.858
B 249.678	367.512	370.417	369.822
Ba 389.178	504.886	507.473	506.387
Be 313.042	176.962	177.129	176.835
Ca 370.602	6930	6941	6914

Label	Replicates Concentration		
Cd 226.502	175.521	175.800	175.527
Co 228.615	177.882	179.304	177.802
Cr 267.716	175.699	176.095	175.128
Cu 324.754	234.119	236.135	234.102
Fe 271.441	343.064	344.094	338.162
K 766.491	820.838	824.816	822.566
Mg 279.078	189.358	187.774	187.398
Mn 257.610	247.482	247.577	247.279
Mo 202.032	179.208	178.193	177.288
Na 330.237	99518.3x	99292.8x	99233.6x
Ni 231.604	177.387	178.718	177.877
Pb 220.353	321.204	320.259	315.888
Sb 206.834	188.126	178.888	182.629
Se 196.026	334.173	346.307	349.102
Si 288.158	571.122	574.989	571.374
Sn 189.925	355.407	355.568	352.897
Sr 216.596	199.306	199.020	199.630
Ti 334.941	175.890	175.917	175.782
Tl 190.794	345.053	357.376	353.816
V 292.401	177.700	178.584	177.173
Zn 206.200	363.277	365.178	358.615

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	60.5578b	ppb	0.1009	0.2	2573.67
Al 308.215	-22.4257b	ppb	4.3264	19.3	676.207
As 188.980	354.814b	ppb	2.5755	0.7	145.544
B 249.678	369.250b	ppb	1.5348	0.4	2774.24
Ba 389.178	506.249b	ppb	1.2988	0.3	5813.65
Be 313.042	176.975b	ppb	0.1477	0.1	168081
Ca 370.602	6928b	ppb	13.39	0.2	15099
Cd 226.502	175.616b	ppb	0.1595	0.1	3624.08
Co 228.615	178.329b	ppb	0.8453	0.5	934.330
Cr 267.716	175.641b	ppb	0.4861	0.3	4383.11
Cu 324.754	234.786b	ppb	1.1690	0.5	10021.6
Fe 271.441	341.773b	ppb	3.1695	0.9	339.814
K 766.491	822.740b	ppb	1.9944	0.2	21242.0
Mg 279.078	188.177b	ppb	1.0401	0.6	298.563
Mn 257.610	247.446b	ppb	0.1523	0.1	25742.0
Mo 202.032	178.230b	ppb	0.9608	0.5	558.059
Na 330.237	99348.2xb	ppb	150.246	0.2	3529.62
Ni 231.604	177.994b	ppb	0.6735	0.4	256.140
Pb 220.353	319.117b	ppb	2.8362	0.9	243.550
Sb 206.834	183.214b	ppb	4.6468	2.5	109.404
Se 196.026	343.194b	ppb	7.9363	2.3	102.669
Si 288.158	572.495b	ppb	2.1636	0.4	3874.11
Sn 189.925	354.624b	ppb	1.4980	0.4	146.663
Sr 216.596	199.319b	ppb	0.3054	0.2	1116.48
Ti 334.941	175.863b	ppb	0.0717	0.0	25871.4
Tl 190.794	352.082b	ppb	6.3418	1.8	206.960
V 292.401	177.819b	ppb	0.7129	0.4	2328.57
Zn 206.200	362.357b	ppb	3.3769	0.9	243.439

680-201574-a-2-g (Samp) **7/26/2021, 7:14:38 PM** **Rack 2, Tube 7**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2435u	-0.1629u	-0.1260u
Al 308.215	-26.8458u	-22.3789u	-20.7146u
As 188.980	-0.5664u	-2.2914u	3.2863
B 249.678	26.3455	25.8898	23.9415
Ba 389.178	175.368	176.479	175.607
Be 313.042	0.0397	0.0419	0.0373
Ca 370.602	35267	35396	35376
Cd 226.502	2.7632	2.6323	2.7320
Co 228.615	4.0447	4.9512	4.5985
Cr 267.716	-0.0813u	0.0767	0.1980
Cu 324.754	224.450	225.555	224.510
Fe 271.441	-1.4553u	-9.2747u	-7.8759u
K 766.491	567.903	568.064	567.815
Mg 279.078	530.727	528.600	529.847
Mn 257.610	210.524	211.196	211.223
Mo 202.032	0.4745	0.4538	0.5624
Na 330.237	147413x	146200x	146847x
Ni 231.604	33.3597	32.2766	33.1105
Pb 220.353	608.819	605.721	607.333
Sb 206.834	2.8912	-1.4852u	2.5198
Se 196.026	4.1033	0.4877	2.3477
Si 288.158	532.184	535.954	536.991
Sn 189.925	-6.6853u	-3.3330u	-1.7750u
Sr 216.596	83.2306	82.0959	80.8161
Ti 334.941	0.2220	0.1886	0.1695
Tl 190.794	2.8167	0.4892	1.7077
V 292.401	0.7977	0.5522	0.8850
Zn 206.200	558.529	557.257	555.136

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1774b	ppb	0.0601	33.9	3.5047
Al 308.215	-23.3131b	ppb	3.1705	13.6	658.920
As 188.980	0.1429b	ppb	2.8557	1999.0	-3.0682
B 249.678	25.3923b	ppb	1.2769	5.0	140.005
Ba 389.178	175.818b	ppb	0.5847	0.3	1997.18
Be 313.042	0.0396b	ppb	0.0023	5.8	-279.670
Ca 370.602	35346b	ppb	69.47	0.2	76854
Cd 226.502	2.7092b	ppb	0.0683	2.5	36.7170
Co 228.615	4.5315b	ppb	0.4570	10.1	-6.4800
Cr 267.716	0.0644b	ppb	0.1400	217.3	19.2814
Cu 324.754	224.838b	ppb	0.6214	0.3	9603.50
Fe 271.441	-6.2019b	ppb	4.1698	67.2	41.0969
K 766.491	567.927b	ppb	0.1264	0.0	14743.7
Mg 279.078	529.725b	ppb	1.0687	0.2	811.195
Mn 257.610	210.981b	ppb	0.3962	0.2	21953.9
Mo 202.032	0.4969b	ppb	0.0577	11.6	-0.8877
Na 330.237	146820xb	ppb	607.079	0.4	5201.49
Ni 231.604	32.9156b	ppb	0.5672	1.7	35.8512
Pb 220.353	607.291b	ppb	1.5495	0.3	455.210
Sb 206.834	1.3086b	ppb	2.4266	185.4	-1.2095
Se 196.026	2.3129b	ppb	1.8080	78.2	1.3505
Si 288.158	535.043b	ppb	2.5294	0.5	3573.68

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-3.9311b	ppb	2.5092	63.8	-1.0956
Sr 216.596	82.0475b	ppb	1.2080	1.5	469.646
Ti 334.941	0.1934b	ppb	0.0266	13.7	46.8586
Tl 190.794	1.6712b	ppb	1.1642	69.7	-5.3172
V 292.401	0.7450b	ppb	0.1725	23.2	18.9949
Zn 206.200	556.974b	ppb	1.7138	0.3	375.515

680-201574-a-3-g (Samp) **7/26/2021, 7:19:08 PM** **Rack 2, Tube 8**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1844u	-0.2078u	-0.1019u
Al 308.215	2.9355	6.0534	1.8418
As 188.980	-0.5998u	3.0010	-5.4262u
B 249.678	18.7967	18.9448	18.9135
Ba 389.178	191.880	192.436	191.811
Be 313.042	0.0624	0.0573	0.0677
Ca 370.602	15643	15641	15668
Cd 226.502	1.9625	1.9277	1.6738
Co 228.615	1.5568	1.7195	2.8310
Cr 267.716	0.5608	0.3644	0.2088
Cu 324.754	85.3516	85.4564	85.3889
Fe 271.441	0.3728	-6.3893u	7.8705
K 766.491	909.008	909.220	911.902
Mg 279.078	307.980	311.022	306.153
Mn 257.610	112.302	112.442	112.572
Mo 202.032	0.5307	-0.8542u	-1.3953u
Na 330.237	120626x	120503x	120683x
Ni 231.604	8.7141	10.1979	6.4622
Pb 220.353	296.203	297.684	301.163
Sb 206.834	-5.2056u	7.5216	0.9587
Se 196.026	5.7787	-4.9299u	-0.0516
Si 288.158	395.635	396.316	397.717
Sn 189.925	-3.6538u	-6.1695u	-4.1823u
Sr 216.596	47.9013	47.3913	48.4703
Ti 334.941	0.1118	0.1216	0.1237
Tl 190.794	3.0995	0.8502	2.8284
V 292.401	0.6552	0.7756	-0.2892u
Zn 206.200	336.049	337.274	338.925

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1647b	ppb	0.0556	33.8	3.9583
Al 308.215	3.6102b	ppb	2.1854	60.5	746.061
As 188.980	-1.0083b	ppb	4.2285	419.4	-3.5506
B 249.678	18.8850b	ppb	0.0780	0.4	90.1395
Ba 389.178	192.042b	ppb	0.3427	0.2	2183.22
Be 313.042	0.0625b	ppb	0.0052	8.4	-259.978
Ca 370.602	15651b	ppb	15.09	0.1	34048
Cd 226.502	1.8546b	ppb	0.1576	8.5	19.0664
Co 228.615	2.0358b	ppb	0.6935	34.1	-19.9737
Cr 267.716	0.3780b	ppb	0.1764	46.7	26.6270
Cu 324.754	85.3990b	ppb	0.0531	0.1	3780.17
Fe 271.441	0.6180b	ppb	7.1331	1154.2	46.5622
K 766.491	910.043b	ppb	1.6129	0.2	23468.4

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	308.385b	ppb	2.4595	0.8	480.193
Mn 257.610	112.439b	ppb	0.1352	0.1	11725.8
Mo 202.032	-0.5729b	ppb	0.9933	173.4	-4.2525
Na 330.237	120604xb	ppb	91.5665	0.1	4281.37
Ni 231.604	8.4581b	ppb	1.8810	22.2	-1.3181
Pb 220.353	298.350b	ppb	2.5463	0.9	228.503
Sb 206.834	1.0916b	ppb	6.3646	583.1	-1.3473
Se 196.026	0.2657b	ppb	5.3613	2017.5	0.7274
Si 288.158	396.556b	ppb	1.0613	0.3	2753.68
Sn 189.925	-4.6686b	ppb	1.3264	28.4	-1.4039
Sr 216.596	47.9210b	ppb	0.5398	1.1	277.766
Ti 334.941	0.1190b	ppb	0.0064	5.4	36.9468
Tl 190.794	2.2594b	ppb	1.2279	54.3	-4.9444
V 292.401	0.3805b	ppb	0.5831	153.2	14.3289
Zn 206.200	337.416b	ppb	1.4432	0.4	226.618

lb2 680-677654/7-f (Samp) **7/26/2021, 7:23:39 PM** **Rack 2, Tube 9**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2035u	-0.1711u	-0.1560u
Al 308.215	-32.9303u	-26.6787u	-31.4199u
As 188.980	-1.9927u	1.4425	4.7423
B 249.678	7.8875	7.8227	6.7470
Ba 389.178	1.2168	2.7041	1.0736
Be 313.042	0.0346	0.0279	0.0322
Ca 370.602	69.94	73.31	68.97
Cd 226.502	0.2905	0.0079u	0.1409
Co 228.615	1.7044	-0.0767u	-0.7338u
Cr 267.716	-0.0302	0.1538	0.1388
Cu 324.754	0.7369	1.0788	0.6841
Fe 271.441	-6.0221u	8.5993	-6.4969u
K 766.491	28.2516	27.9085	28.2819
Mg 279.078	4.7488	7.4442	4.8365
Mn 257.610	0.0229	0.0398	0.0218
Mo 202.032	-0.5955u	-0.0131u	-0.2800u
Na 330.237	115657x	116807x	116674x
Ni 231.604	3.5541	2.8941	4.1312
Pb 220.353	1.6424	-2.1273u	-2.3578u
Sb 206.834	-6.6473u	-1.8474u	3.8329
Se 196.026	12.3135	-1.8478u	12.2960
Si 288.158	2.1329	3.4728	3.9192
Sn 189.925	-2.1494u	-0.5022u	0.7562
Sr 216.596	0.2049	0.4836	-0.0907u
Ti 334.941	-0.0225u	0.0226u	0.0280u
Tl 190.794	0.1957	0.1717	3.3227
V 292.401	0.3559	-0.5189u	0.0457
Zn 206.200	7.3641	7.4999	6.1217

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1769b	ppb	0.0243	13.7	3.3735
Al 308.215	-30.3430b	ppb	3.2619	10.8	636.207
As 188.980	1.3974b	ppb	3.3677	241.0	-2.5425
B 249.678	7.4857b	ppb	0.6406	8.6	2.7816

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	1.6648b	ppb	0.9029	54.2	-17.6546
Be 313.042	0.0315b	ppb	0.0034	10.8	-291.850
Ca 370.602	70.74b	ppb	2.276	3.2	185.6
Cd 226.502	0.1464b	ppb	0.1414	96.6	-16.3601
Co 228.615	0.2980b	ppb	1.2616	423.4	-29.3694
Cr 267.716	0.0875b	ppb	0.1022	116.8	19.1194
Cu 324.754	0.8333b	ppb	0.2143	25.7	248.497
Fe 271.441	-1.3066b	ppb	8.5820	656.8	44.8371
K 766.491	28.1473b	ppb	0.2074	0.7	978.060
Mg 279.078	5.6765b	ppb	1.5315	27.0	27.2917
Mn 257.610	0.0282b	ppb	0.0101	36.0	58.3156
Mo 202.032	-0.2962b	ppb	0.2915	98.4	-3.3822
Na 330.237	116379xb	ppb	629.231	0.5	4137.79
Ni 231.604	3.5265b	ppb	0.6190	17.6	-8.8109
Pb 220.353	-0.9475b	ppb	2.2459	237.0	8.8725
Sb 206.834	-1.5539b	ppb	5.2462	337.6	-2.9763
Se 196.026	7.5872b	ppb	8.1710	107.7	2.8867
Si 288.158	3.1750b	ppb	0.9296	29.3	423.211
Sn 189.925	-0.6318b	ppb	1.4571	230.6	0.2590
Sr 216.596	0.1993b	ppb	0.2872	144.1	10.2719
Ti 334.941	0.0094b	ppb	0.0277	296.0	20.9928
Tl 190.794	1.2300b	ppb	1.8123	147.3	-5.5492
V 292.401	-0.0391b	ppb	0.4435	1134.5	8.8727
Zn 206.200	6.9952b	ppb	0.7596	10.9	2.5384

680-201788-b-1-f (Samp) **7/26/2021, 7:28:10 PM** **Rack 2, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2102u	-0.1686u	-0.1579u
Al 308.215	-32.5539u	-33.2337u	-31.6891u
As 188.980	-3.2560u	8.1836	-3.6398u
B 249.678	7.0265	7.4064	6.7525
Ba 389.178	16.4768	14.6755	15.3012
Be 313.042	0.0250	0.0128	0.0157
Ca 370.602	58104	58111	58078
Cd 226.502	0.3065	0.2454	0.3151
Co 228.615	1.6294	1.3361	1.1728
Cr 267.716	-0.0612u	0.0229	0.2010
Cu 324.754	0.8250	0.7024	0.5858
Fe 271.441	-7.0274u	-12.2312u	0.0714
K 766.491	198.770	199.028	198.775
Mg 279.078	550.279	550.252	559.348
Mn 257.610	23.4849	23.5052	23.4654
Mo 202.032	-0.5627u	0.4638	-0.0171u
Na 330.237	113181x	112921x	112585x
Ni 231.604	2.9346	2.3170	1.7556
Pb 220.353	3.7108	0.2939	-3.7121u
Sb 206.834	0.3991	1.3815	-4.4556u
Se 196.026	-3.1054u	3.8176	3.0523
Si 288.158	192.571	191.435	191.429
Sn 189.925	-2.8990u	-4.0388u	-5.7825u
Sr 216.596	270.916	269.330	270.365
Ti 334.941	0.2511	0.2544	0.2244

Label	Replicates Concentration		
Tl 190.794	-0.7362u	2.4010	-1.2030u
V 292.401	1.6597	1.1024	1.4029
Zn 206.200	13.2716	16.9471	12.0736

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1789b	ppb	0.0276	15.4	2.1379
Al 308.215	-32.4922b	ppb	0.7741	2.4	629.291
As 188.980	0.4293b	ppb	6.7182	1565.1	-2.9482
B 249.678	7.0618b	ppb	0.3284	4.7	-0.4617
Ba 389.178	15.4845b	ppb	0.9145	5.9	146.112
Be 313.042	0.0178b	ppb	0.0064	35.7	-294.322
Ca 370.602	58098b	ppb	17.27	0.0	126296
Cd 226.502	0.2890b	ppb	0.0380	13.1	-13.3921
Co 228.615	1.3794b	ppb	0.2314	16.8	-23.5208
Cr 267.716	0.0542b	ppb	0.1339	246.9	18.3148
Cu 324.754	0.7044b	ppb	0.1196	17.0	243.111
Fe 271.441	-6.3957b	ppb	6.1756	96.6	40.7048
K 766.491	198.858b	ppb	0.1478	0.1	5331.57
Mg 279.078	553.293b	ppb	5.2441	0.9	848.403
Mn 257.610	23.4852b	ppb	0.0199	0.1	2493.35
Mo 202.032	-0.0387b	ppb	0.5136	1328.2	-2.5724
Na 330.237	112896xb	ppb	298.531	0.3	4014.94
Ni 231.604	2.3357b	ppb	0.5897	25.2	-10.6219
Pb 220.353	0.0975b	ppb	3.7153	3808.9	9.6412
Sb 206.834	-0.8917b	ppb	3.1253	350.5	-2.5700
Se 196.026	1.2548b	ppb	3.7954	302.5	1.0082
Si 288.158	191.812b	ppb	0.6574	0.3	1540.51
Sn 189.925	-4.2401b	ppb	1.4523	34.3	-1.2286
Sr 216.596	270.204b	ppb	0.8055	0.3	1521.22
Ti 334.941	0.2433b	ppb	0.0164	6.8	55.5141
Tl 190.794	0.1540b	ppb	1.9599	1273.0	-6.2053
V 292.401	1.3883b	ppb	0.2789	20.1	27.5075
Zn 206.200	14.0974b	ppb	2.5396	18.0	7.3549

Cont Calib Verif (CCV) **7/26/2021, 7:32:42 PM** **Rack S, Tube 10**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	493.640	495.158	492.976
Al 308.215	9854.73	9857.04	9810.34
As 188.980	492.579	495.206	481.108
B 249.678	488.761	492.496	495.498
Ba 389.178	502.271	502.819	501.294
Be 313.042	502.878	503.477	502.355
Ca 370.602	9930	9946	9919
Cd 226.502	491.939	492.642	488.781
Co 228.615	500.578	493.918	494.667
Cr 267.716	492.342	492.358	492.033
Cu 324.754	494.159	498.235	498.866
Fe 271.441	9891.27	9880.20	9851.18
K 766.491	10222.6	10222.4	10209.4
Mg 279.078	9750.74	9745.39	9741.15
Mn 257.610	503.689	503.671	501.644
Mo 202.032	498.042	498.754	494.477

Label	Replicates Concentration		
Na 330.237	9838.49	9742.56	9925.36
Ni 231.604	496.400	495.301	494.441
Pb 220.353	488.597	499.659	487.754
Sb 206.834	490.365	504.451	499.128
Se 196.026	489.963	474.536	467.288
Si 288.158	4906.85	4924.93	4906.67
Sn 189.925	490.067	501.930	500.957
Sr 216.596	496.496	496.930	494.740
Ti 334.941	496.535	496.618	495.216
Tl 190.794	505.798	500.458	492.787
V 292.401	498.141	499.132	497.150
Zn 206.200	990.781	986.676	975.768

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	493.925	ppb	1.1187	0.2	20911.5	98.78490
Al 308.215	9840.71	ppb	26.3190	0.3	32617.3	98.40707
As 188.980	489.631	ppb	7.4973	1.5	202.043	97.92616
B 249.678	492.252	ppb	3.3753	0.7	3698.48	98.45036
Ba 389.178	502.128	ppb	0.7723	0.2	5778.39	100.42557
Be 313.042	502.903	ppb	0.5613	0.1	478223	100.58062
Ca 370.602	9932	ppb	13.39	0.1	21620	99.31596
Cd 226.502	491.121	ppb	2.0568	0.4	10181.7	98.22414
Co 228.615	496.388	ppb	3.6483	0.7	2656.52	99.27758
Cr 267.716	492.244	ppb	0.1832	0.0	12252.4	98.44886
Cu 324.754	497.087	ppb	2.5548	0.5	20983.0	99.41734
Fe 271.441	9874.21	ppb	20.7044	0.2	8222.16	98.69279
K 766.491	10218.1	ppb	7.5619	0.1	260846	102.18143
Mg 279.078	9745.76	ppb	4.8037	0.0	14628.9	97.45762
Mn 257.610	503.002	ppb	1.1758	0.2	52265.8	100.60030
Mo 202.032	497.091	ppb	2.2916	0.5	1560.64	99.41817
Na 330.237	9835.47	ppb	91.4349	0.9	361.186	98.35471
Ni 231.604	495.380	ppb	0.9818	0.2	738.142	99.07609
Pb 220.353	492.003	ppb	6.6431	1.4	370.353	98.40068
Sb 206.834	497.981	ppb	7.1124	1.4	300.843	99.59628
Se 196.026	477.262	ppb	11.5806	2.4	142.637	95.45245
Si 288.158	4912.82	ppb	10.4905	0.2	29676.0	98.25638
Sn 189.925	497.651	ppb	6.5863	1.3	205.591	99.53027
Sr 216.596	496.055	ppb	1.1593	0.2	2764.83	99.21106
Ti 334.941	496.123	ppb	0.7867	0.2	72952.1	99.22459
Tl 190.794	499.681	ppb	6.5405	1.3	296.133	99.93623
V 292.401	498.141	ppb	0.9907	0.2	6507.30	99.62820
Zn 206.200	984.408	ppb	7.7590	0.8	665.185	98.44084

Cont Calib Blank (CCB) **7/26/2021, 7:37:14 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1908u	-0.0940u	-0.2088u
Al 308.215	-32.8057u	-38.5446u	-38.5344u
As 188.980	-0.8489u	0.7016	-3.4611u
B 249.678	14.5411	12.8014	12.6706
Ba 389.178	2.9651	2.3730	2.7920
Be 313.042	0.0453	0.0477	0.0496
Ca 370.602	3.436	-2.609u	1.185

Label	Replicates Concentration		
Cd 226.502	0.2438	0.2128	0.4610
Co 228.615	-0.0263u	1.4403	1.0499
Cr 267.716	0.0609	0.1256	0.0752
Cu 324.754	0.8195	-0.0034u	0.7877
Fe 271.441	-12.9950u	-2.7028u	-10.1886u
K 766.491	-0.1312u	-1.2250u	-0.3191u
Mg 279.078	-2.8384u	1.8001	-1.7926u
Mn 257.610	-0.0308u	0.0155	-0.0347u
Mo 202.032	-0.8725u	0.4811	0.2896
Na 330.237	-87.3016u	-152.705u	153.090
Ni 231.604	1.7106	2.6596	1.2719
Pb 220.353	-2.1319u	-3.2218u	-0.4636u
Sb 206.834	-0.0258u	3.2475	-6.5027u
Se 196.026	-10.0112u	-6.0129u	-10.4271u
Si 288.158	0.6654	0.1690	0.7873
Sn 189.925	-0.1580u	2.2036	0.0893
Sr 216.596	0.1438	0.2883	-0.5067u
Ti 334.941	0.1202	0.0768	0.0631
Tl 190.794	3.6090	0.2175	2.6227
V 292.401	0.4360	-0.1993u	0.5979
Zn 206.200	0.5851	-0.3023u	-1.0106u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.1645	ppb	0.0618	37.5	3.8999	-0.16453
Al 308.215	-36.6282	ppb	3.3104	9.0	615.875	-36.62822
As 188.980	-1.2028	ppb	2.1038	174.9	-3.6322	-1.20281
B 249.678	13.3377	ppb	1.0443	7.8	47.6396	13.33768
Ba 389.178	2.7100	ppb	0.3044	11.2	-5.5904	2.70999
Be 313.042	0.0476	ppb	0.0022	4.5	-270.163	0.04756
Ca 370.602	0.6708	ppb	3.055	455.5	33.30	0.67081
Cd 226.502	0.3059	ppb	0.1352	44.2	-12.7189	0.30585
Co 228.615	0.8213	ppb	0.7596	92.5	-26.5400	0.82132
Cr 267.716	0.0872	ppb	0.0340	39.0	18.0923	0.08723
Cu 324.754	0.5346	ppb	0.4662	87.2	236.027	0.53461
Fe 271.441	-8.6288	ppb	5.3205	61.7	38.8487	-8.62880
K 766.491	-0.5584	ppb	0.5848	104.7	245.996	-0.55844
Mg 279.078	-0.9436	ppb	2.4330	257.8	17.3636	-0.94361
Mn 257.610	-0.0167	ppb	0.0279	167.3	53.9411	-0.01667
Mo 202.032	-0.0339	ppb	0.7325	2159.3	-2.5572	-0.03392
Na 330.237	-28.9723	ppb	161.026	555.8	36.7623	-28.97227
Ni 231.604	1.8807	ppb	0.7093	37.7	-11.3132	1.88074
Pb 220.353	-1.9391	ppb	1.3892	71.6	8.1442	-1.93911
Sb 206.834	-1.0937	ppb	4.9621	453.7	-2.6955	-1.09367
Se 196.026	-8.8170	ppb	2.4374	27.6	-1.9887	-8.81705
Si 288.158	0.5405	ppb	0.3275	60.6	407.559	0.54055
Sn 189.925	0.7116	ppb	1.2980	182.4	0.7932	0.71164
Sr 216.596	-0.0249	ppb	0.4235	1703.7	9.0266	-0.02486
Ti 334.941	0.0867	ppb	0.0298	34.4	36.8921	0.08670
Tl 190.794	2.1497	ppb	1.7445	81.2	-4.9914	2.14971
V 292.401	0.2782	ppb	0.4214	151.4	13.4272	0.27822
Zn 206.200	-0.2426	ppb	0.7995	329.6	-2.3701	-0.24261

680-201789-b-1-e (Samp) **7/26/2021, 7:41:45 PM** **Rack 2, Tube 11**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1662u	-0.1401u	-0.1080u
Al 308.215	72.2741	75.2618	70.7415
As 188.980	3.1964	-0.1540u	-3.5229u
B 249.678	9.8643	9.5689	9.1513
Ba 389.178	8.2085	7.2349	8.1466
Be 313.042	0.0402	0.0430	0.0481
Ca 370.602	448.8	441.0	443.2
Cd 226.502	0.3522	0.4339	0.0891
Co 228.615	0.3098	1.5564	0.0780
Cr 267.716	0.2420	0.2729	0.0693
Cu 324.754	0.3719	0.6930	0.4393
Fe 271.441	-5.6394u	-6.3606u	-0.8401u
K 766.491	156.186	155.813	153.206
Mg 279.078	90.0132	87.3925	88.3182
Mn 257.610	0.8843	0.8577	0.8739
Mo 202.032	-0.4553u	-0.0844u	0.4657
Na 330.237	162442x	160449x	159297x
Ni 231.604	1.4113	3.9573	2.1140
Pb 220.353	-1.1266u	4.2799	2.1979
Sb 206.834	1.4880	-0.6009u	-0.8194u
Se 196.026	1.0835	1.6889	4.5956
Si 288.158	48.9382	51.0125	47.3384
Sn 189.925	-2.0091u	3.0092	1.7169
Sr 216.596	2.4896	1.7058	2.5760
Ti 334.941	0.0530	0.0689	0.1608
Tl 190.794	0.3869	6.1873	0.9114
V 292.401	0.2713	-0.4980u	-0.0273u
Zn 206.200	9.6558	10.8262	6.9972

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1381b	ppb	0.0292	21.1	5.0102
Al 308.215	72.7591b	ppb	2.2989	3.2	969.809
As 188.980	-0.1602b	ppb	3.3596	2097.5	-3.1950
B 249.678	9.5282b	ppb	0.3582	3.8	18.4267
Ba 389.178	7.8633b	ppb	0.5451	6.9	54.0627
Be 313.042	0.0438b	ppb	0.0040	9.2	-282.642
Ca 370.602	444.3b	ppb	4.044	0.9	997.5
Cd 226.502	0.2918b	ppb	0.1802	61.8	-13.4664
Co 228.615	0.6481b	ppb	0.7952	122.7	-27.4753
Cr 267.716	0.1947b	ppb	0.1097	56.3	22.1798
Cu 324.754	0.5014b	ppb	0.1693	33.8	234.637
Fe 271.441	-4.2801b	ppb	3.0008	70.1	42.4280
K 766.491	155.068b	ppb	1.6234	1.0	4214.84
Mg 279.078	88.5746b	ppb	1.3291	1.5	151.596
Mn 257.610	0.8720b	ppb	0.0134	1.5	145.794
Mo 202.032	-0.0247b	ppb	0.4634	1879.5	-2.5282
Na 330.237	160730xb	ppb	1591.23	1.0	5700.24
Ni 231.604	2.4942b	ppb	1.3149	52.7	-10.3807
Pb 220.353	1.7837b	ppb	2.7270	152.9	10.8757
Sb 206.834	0.0226b	ppb	1.2738	5646.3	-2.0045
Se 196.026	2.4560b	ppb	1.8775	76.4	1.3619
Si 288.158	49.0964b	ppb	1.8422	3.8	695.209

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	0.9057b	ppb	2.6057	287.7	0.9001
Sr 216.596	2.2571b	ppb	0.4794	21.2	21.7952
Ti 334.941	0.0943b	ppb	0.0582	61.7	31.7381
Tl 190.794	2.4952b	ppb	3.2081	128.6	-4.7821
V 292.401	-0.0846b	ppb	0.3878	458.2	8.1191
Zn 206.200	9.1597b	ppb	1.9621	21.4	4.0062

680-201790-a-1-e (Samp) **7/26/2021, 7:46:16 PM** **Rack 2, Tube 12**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0481	-0.1390u	-0.2121u
Al 308.215	42.1295	40.8604	45.1903
As 188.980	0.9521	0.3749	-0.9864u
B 249.678	7.9229	6.5085	7.7753
Ba 389.178	6.2562	6.7429	6.9237
Be 313.042	0.0376	0.0449	0.0400
Ca 370.602	149.4	146.4	149.1
Cd 226.502	0.0958	0.0527	0.3909
Co 228.615	0.5532	0.7828	0.0525
Cr 267.716	0.0167	0.0166	0.0542
Cu 324.754	0.7087	0.8796	0.8174
Fe 271.441	-16.8714u	-11.0104u	0.7628
K 766.491	60.2369	59.5107	60.5955
Mg 279.078	82.3413	88.1476	88.0283
Mn 257.610	0.3663	0.3609	0.4443
Mo 202.032	0.7060	-0.7903u	0.5888
Na 330.237	118284x	117622x	118833x
Ni 231.604	3.7558	3.3083	3.0676
Pb 220.353	-2.0300u	4.0313	3.6380
Sb 206.834	-5.0036u	-4.7024u	2.5948
Se 196.026	0.1786	-5.3167u	-0.1475u
Si 288.158	31.9628	29.7083	29.8581
Sn 189.925	-5.0246u	-2.0480u	-4.5513u
Sr 216.596	1.4101	1.4284	2.2430
Ti 334.941	0.1769	0.0447	0.1151
Tl 190.794	6.4282	4.6694	3.4214
V 292.401	0.4334	0.6465	0.1082
Zn 206.200	3.4569	6.3503	6.9108

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1010b	ppb	0.1342	132.9	6.5836
Al 308.215	42.7268b	ppb	2.2259	5.2	872.656
As 188.980	0.1136b	ppb	0.9953	876.4	-3.0804
B 249.678	7.4022b	ppb	0.7775	10.5	2.1468
Ba 389.178	6.6409b	ppb	0.3452	5.2	39.9185
Be 313.042	0.0409b	ppb	0.0037	9.0	-283.104
Ca 370.602	148.3b	ppb	1.669	1.1	354.1
Cd 226.502	0.1798b	ppb	0.1841	102.4	-15.6729
Co 228.615	0.4628b	ppb	0.3735	80.7	-28.4771
Cr 267.716	0.0292b	ppb	0.0217	74.4	17.6906
Cu 324.754	0.8019b	ppb	0.0865	10.8	247.189
Fe 271.441	-9.0397b	ppb	8.9807	99.3	38.5043
K 766.491	60.1144b	ppb	0.5527	0.9	1793.29

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	86.1724b	ppb	3.3184	3.9	148.005
Mn 257.610	0.3905b	ppb	0.0467	12.0	95.9245
Mo 202.032	0.1681b	ppb	0.8321	494.9	-1.9218
Na 330.237	118246xb	ppb	606.383	0.5	4203.55
Ni 231.604	3.3772b	ppb	0.3492	10.3	-9.0386
Pb 220.353	1.8798b	ppb	3.3917	180.4	10.9460
Sb 206.834	-2.3704b	ppb	4.3026	181.5	-3.4804
Se 196.026	-1.7619b	ppb	3.0829	175.0	0.1082
Si 288.158	30.5097b	ppb	1.2606	4.1	585.046
Sn 189.925	-3.8746b	ppb	1.5995	41.3	-1.0771
Sr 216.596	1.6938b	ppb	0.4757	28.1	18.6156
Ti 334.941	0.1122b	ppb	0.0662	59.0	36.0264
Tl 190.794	4.8397b	ppb	1.5106	31.2	-3.3611
V 292.401	0.3960b	ppb	0.2711	68.5	14.5400
Zn 206.200	5.5727b	ppb	1.8536	33.3	1.5736

680-201792-b-1-e (Samp) **7/26/2021, 7:50:47 PM** **Rack 2, Tube 13**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.1253	-0.1601u	0.0618
Al 308.215	-2.1114u	-4.5732u	0.5571
As 188.980	-0.4237u	1.5718	1.2570
B 249.678	5.4729	6.4397	6.5224
Ba 389.178	18.2282	19.0134	18.6067
Be 313.042	0.0503	0.0433	0.0457
Ca 370.602	3498	3496	3528
Cd 226.502	-0.1654u	0.8083	0.3073
Co 228.615	0.9925	-0.1812u	0.8921
Cr 267.716	-0.0768u	-0.0328	-0.0468
Cu 324.754	0.5260	0.1575	0.5271
Fe 271.441	-0.5955u	-3.1343u	-3.3897u
K 766.491	223.686	221.970	224.842
Mg 279.078	95.1564	92.0561	94.6556
Mn 257.610	2.2523	2.1730	2.2194
Mo 202.032	-0.8881u	0.3701	-1.2266u
Na 330.237	142906x	142216x	143071x
Ni 231.604	3.0432	4.1854	1.8879
Pb 220.353	2.8339	-2.0398u	-2.0004u
Sb 206.834	0.5632	-0.6550u	-2.7367u
Se 196.026	0.2554	-3.7670u	2.0054
Si 288.158	124.732	123.199	127.105
Sn 189.925	0.8441	0.9068	1.5727
Sr 216.596	10.8544	10.2711	10.1346
Ti 334.941	0.3620	0.3565	0.3499
Tl 190.794	0.8792	-4.2681u	0.9898
V 292.401	-0.1724u	-0.0917u	0.4068
Zn 206.200	5.1750	7.8862	4.6963

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.0090b	ppb	0.1498	1671.6	11.1943
Al 308.215	-2.0425b	ppb	2.5658	125.6	727.769
As 188.980	0.8017b	ppb	1.0728	133.8	-2.7920
B 249.678	6.1450b	ppb	0.5835	9.5	-7.4903

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	18.6161b	ppb	0.3927	2.1	178.493
Be 313.042	0.0464b	ppb	0.0036	7.7	-278.533
Ca 370.602	3507b	ppb	17.84	0.5	7654
Cd 226.502	0.3167b	ppb	0.4869	153.7	-12.9052
Co 228.615	0.5678b	ppb	0.6506	114.6	-27.9058
Cr 267.716	-0.0522b	ppb	0.0225	43.1	15.8874
Cu 324.754	0.4035b	ppb	0.2131	52.8	230.543
Fe 271.441	-2.3732b	ppb	1.5448	65.1	43.9806
K 766.491	223.499b	ppb	1.4455	0.6	5959.98
Mg 279.078	93.9560b	ppb	1.6643	1.8	159.670
Mn 257.610	2.2149b	ppb	0.0398	1.8	285.248
Mo 202.032	-0.5815b	ppb	0.8413	144.7	-4.2797
Na 330.237	142731xb	ppb	453.700	0.3	5066.15
Ni 231.604	3.0388b	ppb	1.1487	37.8	-9.5526
Pb 220.353	-0.4021b	ppb	2.8025	697.0	9.2727
Sb 206.834	-0.9428b	ppb	1.6687	177.0	-2.5958
Se 196.026	-0.5021b	ppb	2.9598	589.5	0.4829
Si 288.158	125.012b	ppb	1.9676	1.6	1144.98
Sn 189.925	1.1079b	ppb	0.4038	36.4	0.9804
Sr 216.596	10.4200b	ppb	0.3823	3.7	67.5983
Ti 334.941	0.3561b	ppb	0.0060	1.7	70.9341
Tl 190.794	-0.7997b	ppb	3.0042	375.7	-6.7798
V 292.401	0.0476b	ppb	0.3137	659.7	9.9099
Zn 206.200	5.9192b	ppb	1.7202	29.1	1.8085

680-201822-a-2-f (Samp) **7/26/2021, 7:55:17 PM** **Rack 2, Tube 14**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1943u	-0.1920u	-0.1966u
Al 308.215	-28.6416u	-27.9700u	-25.6071u
As 188.980	4.2685	2.4943	-2.9702u
B 249.678	18.0094	17.9802	17.2616
Ba 389.178	16.0934	17.6019	16.5752
Be 313.042	0.0488	0.0468	0.0488
Ca 370.602	6773	6766	6789
Cd 226.502	0.2232	0.1035	0.0879
Co 228.615	0.6497	0.3248	0.3063
Cr 267.716	0.0876	0.3251	0.2306
Cu 324.754	0.7176	0.4198	0.6103
Fe 271.441	1547.66	1527.97	1548.99
K 766.491	1192.96	1192.83	1188.45
Mg 279.078	857.749	847.843	860.465
Mn 257.610	28.2064	27.9922	28.0000
Mo 202.032	-0.5458u	-0.2069u	-1.0742u
Na 330.237	107255x	106776x	107739x
Ni 231.604	3.5271	6.1231	3.4697
Pb 220.353	-0.5813u	0.9992	-0.1504u
Sb 206.834	-3.4138u	3.4828	-5.9693u
Se 196.026	-7.2732u	-6.6850u	-3.2489u
Si 288.158	108.717	107.460	109.116
Sn 189.925	4.0326	1.5084	2.3438
Sr 216.596	36.4015	36.4392	35.8958
Ti 334.941	0.0893	0.1649	0.1612

Label	Replicates Concentration		
Tl 190.794	-1.3213u	0.1391	0.1594
V 292.401	-0.0788u	0.9803	0.0583
Zn 206.200	16.9017	18.2317	16.0300

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1943b	ppb	0.0023	1.2	2.5452
Al 308.215	-27.4062b	ppb	1.5938	5.8	645.772
As 188.980	1.2642b	ppb	3.7729	298.4	-2.5950
B 249.678	17.7504b	ppb	0.4236	2.4	78.4802
Ba 389.178	16.7568b	ppb	0.7705	4.6	158.267
Be 313.042	0.0482b	ppb	0.0011	2.4	-274.388
Ca 370.602	6776b	ppb	11.46	0.2	14755
Cd 226.502	0.1382b	ppb	0.0740	53.6	-14.5754
Co 228.615	0.4269b	ppb	0.1932	45.2	-28.6182
Cr 267.716	0.2144b	ppb	0.1196	55.8	22.2592
Cu 324.754	0.5826b	ppb	0.1508	25.9	238.403
Fe 271.441	1541.54b	ppb	11.7718	0.8	1317.16
K 766.491	1191.41b	ppb	2.5645	0.2	30644.0
Mg 279.078	855.352b	ppb	6.6434	0.8	1301.40
Mn 257.610	28.0662b	ppb	0.1215	0.4	2967.24
Mo 202.032	-0.6090b	ppb	0.4371	71.8	-4.4000
Na 330.237	107257xb	ppb	481.686	0.4	3816.16
Ni 231.604	4.3733b	ppb	1.5156	34.7	-7.5246
Pb 220.353	0.0892b	ppb	0.8170	916.2	9.7041
Sb 206.834	-1.9668b	ppb	4.8894	248.6	-3.2001
Se 196.026	-5.7357b	ppb	2.1736	37.9	-1.0549
Si 288.158	108.431b	ppb	0.8640	0.8	1046.62
Sn 189.925	2.6282b	ppb	1.2859	48.9	1.6010
Sr 216.596	36.2455b	ppb	0.3035	0.8	212.233
Ti 334.941	0.1385b	ppb	0.0426	30.8	40.3212
Tl 190.794	-0.3409b	ppb	0.8491	249.1	-6.5154
V 292.401	0.3199b	ppb	0.5760	180.0	13.7139
Zn 206.200	17.0545b	ppb	1.1088	6.5	9.3706

mb 680-677958/1-a (Samp) **7/26/2021, 7:59:47 PM** **Rack 2, Tube 15**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0935u	-0.1212u	-0.1777u
Al 308.215	-38.2644u	-33.0020u	-36.4659u
As 188.980	-4.4880u	-2.2704u	0.7139
B 249.678	2.7625	3.3088	3.1759
Ba 389.178	0.9204	1.6788	-0.7374u
Be 313.042	0.0208	0.0189	0.0427
Ca 370.602	0.5841	-0.9132u	-0.0144u
Cd 226.502	0.1848	0.1633	0.0096
Co 228.615	0.2009	0.5472	0.2644
Cr 267.716	0.0632	0.3336	0.1026
Cu 324.754	0.1548	0.8724	0.4565
Fe 271.441	-7.7541u	10.6213	4.0789
K 766.491	-0.0013u	-0.8286u	0.5250
Mg 279.078	-2.4597u	1.4150	-6.4865u
Mn 257.610	-0.0782u	-0.0188u	-0.0926u
Mo 202.032	0.9074	-0.7393u	0.1539

Label	Replicates Concentration		
Na 330.237	-71.6935u	-61.3795u	-30.6627u
Ni 231.604	3.7594	1.6562	1.1348
Pb 220.353	0.8535	-1.8602u	0.5882
Sb 206.834	4.4854	-0.0147u	-0.2832u
Se 196.026	-11.2302u	-0.4714u	-13.9206u
Si 288.158	-2.0343u	-0.4939u	-0.7675u
Sn 189.925	-1.0488u	-6.1261u	1.1253
Sr 216.596	0.5725	-0.6046u	0.8220
Ti 334.941	0.0028	0.0955	0.1055
Tl 190.794	-1.9650u	3.8134	2.3831
V 292.401	0.5925	0.2661	-0.1270u
Zn 206.200	2.4719	-0.4958u	0.3861

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1308	ppb	0.0429	32.8	5.3263
Al 308.215	-35.9107	ppb	2.6748	7.4	618.183
As 188.980	-2.0148	ppb	2.6103	129.6	-3.9725
B 249.678	3.0824	ppb	0.2849	9.2	-30.9658
Ba 389.178	0.6206	ppb	1.2357	199.1	-29.7327
Be 313.042	0.0274	ppb	0.0132	48.2	-289.288
Ca 370.602	-0.1145	ppb	0.7537	658.4	31.57
Cd 226.502	0.1192	ppb	0.0955	80.1	-16.5775
Co 228.615	0.3375	ppb	0.1844	54.6	-29.1526
Cr 267.716	0.1665	ppb	0.1460	87.7	20.0622
Cu 324.754	0.4946	ppb	0.3603	72.9	234.346
Fe 271.441	2.3154	ppb	9.3138	402.3	47.8360
K 766.491	-0.1016	ppb	0.6824	671.4	257.646
Mg 279.078	-2.5104	ppb	3.9510	157.4	15.0138
Mn 257.610	-0.0632	ppb	0.0391	61.8	49.1032
Mo 202.032	0.1073	ppb	0.8243	768.0	-2.1131
Na 330.237	-54.5786	ppb	21.3441	39.1	35.8485
Ni 231.604	2.1835	ppb	1.3895	63.6	-10.8524
Pb 220.353	-0.1395	ppb	1.4961	1072.6	9.4657
Sb 206.834	1.3958	ppb	2.6790	191.9	-1.1582
Se 196.026	-8.5407	ppb	7.1166	83.3	-1.9065
Si 288.158	-1.0986uv	ppb	0.8218	74.8	397.631
Sn 189.925	-2.0165	ppb	3.7213	184.5	-0.3312
Sr 216.596	0.2633	ppb	0.7619	289.4	10.6452
Ti 334.941	0.0679	ppb	0.0566	83.4	34.1333
Tl 190.794	1.4105	ppb	3.0095	213.4	-5.4397
V 292.401	0.2439	ppb	0.3602	147.7	12.9799
Zn 206.200	0.7874	ppb	1.5240	193.5	-1.6717

lcs 680-677958/2-a (Samp) **7/26/2021, 8:04:17 PM** **Rack 2, Tube 16**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.8777	48.8222	48.5337
Al 308.215	4846.59	4848.08	4881.76
As 188.980	94.9780	98.8339	97.9917
B 249.678	199.831	200.918	201.055
Ba 389.178	102.932	104.087	103.921
Be 313.042	48.9803	48.9676	48.9787
Ca 370.602	4914	4931	4935

Label	Replicates Concentration		
Cd 226.502	49.1359	49.2745	49.6071
Co 228.615	48.8211	50.0496	49.5568
Cr 267.716	98.7114	98.8425	98.8869
Cu 324.754	97.9021	98.2581	99.0686
Fe 271.441	4946.42	4945.54	4937.38
K 766.491	7083.88	7094.48	7094.00
Mg 279.078	4808.52	4808.15	4817.55
Mn 257.610	397.054	397.585	397.954
Mo 202.032	97.2883	96.5025	99.5860
Na 330.237	4604.77	4788.84	4734.05
Ni 231.604	101.423	100.700	101.524
Pb 220.353	490.808	491.404	485.652
Sb 206.834	44.1453	48.9827	50.5919
Se 196.026	88.5276	98.8583	92.9809
Si 288.158	-6.5121	-6.7878	-6.7225
Sn 189.925	99.2339	97.2819	97.8911
Sr 216.596	96.9511	99.9215	96.8244
Ti 334.941	345.929	346.391	346.334
Tl 190.794	47.9845	44.6866	39.0435
V 292.401	100.266	98.6532	99.4811
Zn 206.200	98.5748	101.207	98.0028

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.7445	ppb	0.1847	0.4	2074.75
Al 308.215	4858.81	ppb	19.8878	0.4	16464.8
As 188.980	97.2679	ppb	2.0273	2.1	37.6425
B 249.678	200.601	ppb	0.6703	0.3	1473.12
Ba 389.178	103.647	ppb	0.6246	0.6	1166.87
Be 313.042	48.9756	ppb	0.0069	0.0	46288.1
Ca 370.602	4927	ppb	11.25	0.2	10746
Cd 226.502	49.3392	ppb	0.2422	0.5	1010.80
Co 228.615	49.4759	ppb	0.6182	1.2	239.971
Cr 267.716	98.8136	ppb	0.0912	0.1	2473.23
Cu 324.754	98.4096	ppb	0.5978	0.6	4326.19
Fe 271.441	4943.11	ppb	4.9822	0.1	4125.87
K 766.491	7090.79	ppb	5.9854	0.1	181092
Mg 279.078	4811.41	ppb	5.3226	0.1	7230.21
Mn 257.610	397.531	ppb	0.4526	0.1	41319.7
Mo 202.032	97.7923	ppb	1.6023	1.6	304.989
Na 330.237	4709.22	ppb	94.5124	2.0	196.977
Ni 231.604	101.216	ppb	0.4492	0.4	139.604
Pb 220.353	489.288	ppb	3.1629	0.6	368.619
Sb 206.834	47.9066	ppb	3.3553	7.0	26.7878
Se 196.026	93.4556	ppb	5.1817	5.5	28.5099
Si 288.158	-6.6741	ppb	0.1441	2.2	413.004
Sn 189.925	98.1356	ppb	0.9988	1.0	40.9439
Sr 216.596	97.8990	ppb	1.7527	1.8	553.914
Ti 334.941	346.218	ppb	0.2520	0.1	50916.7
Tl 190.794	43.9049	ppb	4.5215	10.3	19.9169
V 292.401	99.4667	ppb	0.8064	0.8	1309.04
Zn 206.200	99.2616	ppb	1.7090	1.7	65.0898

680-201884-a-1-e (Samp) **7/26/2021, 8:08:47 PM** **Rack 2, Tube 17**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.4899u	-0.5189u	-0.7218u
Al 308.215	82166.0	82265.4	82275.0
As 188.980	-5.1261u	-2.9667u	6.7411
B 249.678	33.3454	33.6676	34.2958
Ba 389.178	8.8179	8.8498	10.6083
Be 313.042	0.0865	0.1012	0.1049
Ca 370.602	46167	46167	46177
Cd 226.502	2.0363	1.7757	1.5771
Co 228.615	26.1602	25.1644	25.1252
Cr 267.716	2979.75	2982.60	2985.21
Cu 324.754	48.8819	48.8425	48.5642
Fe 271.441	11784.2	11778.1	11794.8
K 766.491	720380x	721727x	725483x
Mg 279.078	3810.18	3821.27	3825.78
Mn 257.610	225.018	224.867	224.988
Mo 202.032	16.0651	16.9189	15.7442
Na 330.237	52697.8	52540.9	52778.4
Ni 231.604	1271.40	1266.39	1269.29
Pb 220.353	3.1279u	5.9740	3.3227u
Sb 206.834	26.3506	27.5455	29.8651
Se 196.026	6.2315	0.3196	-9.4463u
Si 288.158	24469.6	24510.5	24526.7
Sn 189.925	1.9772	3.1879	6.6857
Sr 216.596	158.795	159.286	159.835
Ti 334.941	11775.6	11796.8	11800.6
Tl 190.794	16.0165u	6.8763u	11.1699u
V 292.401	29.3065	30.1912	28.9507
Zn 206.200	70.0439	65.2884	66.4827

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.5769b	ppb	0.1264	21.9	6.6386
Al 308.215	82235.5b	ppb	60.3495	0.1	266833
As 188.980	-0.4506b	ppb	6.3211	1402.8	-3.3724
B 249.678	33.7696b	ppb	0.4834	1.4	182.637
Ba 389.178	9.4253b	ppb	1.0246	10.9	81.1261
Be 313.042	0.0975b	ppb	0.0097	10.0	-231.005
Ca 370.602	46170b	ppb	5.753	0.0	100661
Cd 226.502	1.7964b	ppb	0.2303	12.8	32.9259
Co 228.615	25.4833b	ppb	0.5866	2.3	232.281
Cr 267.716	2982.52b	ppb	2.7270	0.1	74163.5
Cu 324.754	48.7629b	ppb	0.1731	0.4	2253.23
Fe 271.441	11785.7b	ppb	8.4736	0.1	9768.11
K 766.491	722530xb	ppb	2644.37	0.4	18426426
Mg 279.078	3819.08b	ppb	8.0297	0.2	5727.09
Mn 257.610	224.958b	ppb	0.0800	0.0	23641.0
Mo 202.032	16.2427b	ppb	0.6071	3.7	48.3679
Na 330.237	52672.4b	ppb	120.761	0.2	1725.05
Ni 231.604	1269.03b	ppb	2.5132	0.2	1914.54
Pb 220.353	4.1416b	ppb	1.5900	38.4	8.7435
Sb 206.834	27.9204b	ppb	1.7870	6.4	24.3791
Se 196.026	-0.9651b	ppb	7.9174	820.4	0.4839
Si 288.158	24502.3b	ppb	29.4418	0.1	146264

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	3.9503b	ppb	2.4451	61.9	2.1367
Sr 216.596	159.306b	ppb	0.5203	0.3	893.363
Ti 334.941	11791.0b	ppb	13.4465	0.1	1733253
Tl 190.794	11.3542b	ppb	4.5729	40.3	-9.5550
V 292.401	29.4828b	ppb	0.6388	2.2	456.409
Zn 206.200	67.2717b	ppb	2.4739	3.7	41.8687

680-201884-a-1-f ms (Samp) **7/26/2021, 8:13:17 PM** **Rack 2, Tube 18**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	51.7383	51.8225	52.3910
Al 308.215	91185.2	91306.5	91113.0
As 188.980	102.673	108.126	106.893
B 249.678	238.877	242.223	241.562
Ba 389.178	112.833	115.190	114.421
Be 313.042	49.7493	49.8432	49.7881
Ca 370.602	52946	53001	52987
Cd 226.502	51.3579	51.2469	51.3601
Co 228.615	76.5422	77.8390	75.6668
Cr 267.716	3080.21	3086.58	3084.37
Cu 324.754	153.893	153.218	153.074
Fe 271.441	17093.7	17119.8	17143.0
K 766.491	748115x	751078x	752816x
Mg 279.078	8634.73	8636.07	8629.36
Mn 257.610	631.354	632.199	631.558
Mo 202.032	115.414	116.364	117.575
Na 330.237	61542.2	60863.5	61346.0
Ni 231.604	1421.75	1422.86	1427.64
Pb 220.353	490.746	495.353	494.978
Sb 206.834	83.4720	91.1351	90.0239
Se 196.026	102.312	106.293	107.446
Si 288.158	25349.5	25398.0	25361.3
Sn 189.925	94.5190	104.691	105.129
Sr 216.596	263.681	262.952	262.867
Ti 334.941	11968.5	12001.5	11981.2
Tl 190.794	53.9822	45.0863	44.8718
V 292.401	129.324	129.884	130.064
Zn 206.200	173.600	164.357	177.561

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	51.9839b	ppb	0.3551	0.7	2231.78
Al 308.215	91201.5b	ppb	97.7999	0.1	295853
As 188.980	105.897b	ppb	2.8593	2.7	41.2106
B 249.678	240.887b	ppb	1.7720	0.7	1759.55
Ba 389.178	114.148b	ppb	1.2020	1.1	1297.55
Be 313.042	49.7935b	ppb	0.0472	0.1	47057.8
Ca 370.602	52978b	ppb	28.56	0.1	115460
Cd 226.502	51.3216b	ppb	0.0647	0.1	1067.39
Co 228.615	76.6827b	ppb	1.0929	1.4	511.161
Cr 267.716	3083.72b	ppb	3.2333	0.1	76680.1
Cu 324.754	153.395b	ppb	0.4373	0.3	6625.71
Fe 271.441	17118.9b	ppb	24.6808	0.1	14169.8
K 766.491	750670xb	ppb	2376.58	0.3	19144056

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	8633.39b	ppb	3.5502	0.0	12942.1
Mn 257.610	631.704b	ppb	0.4408	0.1	65858.3
Mo 202.032	116.451b	ppb	1.0832	0.9	363.398
Na 330.237	61250.6b	ppb	349.263	0.6	2022.42
Ni 231.604	1424.08b	ppb	3.1338	0.2	2150.15
Pb 220.353	493.692b	ppb	2.5588	0.5	368.006
Sb 206.834	88.2103b	ppb	4.1410	4.7	60.8185
Se 196.026	105.350b	ppb	2.6936	2.6	32.1886
Si 288.158	25369.6b	ppb	25.2933	0.1	151442
Sn 189.925	101.446b	ppb	6.0031	5.9	42.3177
Sr 216.596	263.167b	ppb	0.4474	0.2	1471.18
Ti 334.941	11983.7b	ppb	16.6354	0.1	1761582
Tl 190.794	47.9801b	ppb	5.1991	10.8	12.3573
V 292.401	129.757b	ppb	0.3863	0.3	1765.24
Zn 206.200	171.839b	ppb	6.7757	3.9	112.760

680-201884-a-1-g msd (Samp) **7/26/2021, 8:17:47 PM** **Rack 2, Tube 19**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	51.8067	52.2030	51.4181
Al 308.215	91026.0	90826.1	90714.6
As 188.980	99.7545	101.250	107.057
B 249.678	247.193	247.238	247.744
Ba 389.178	115.766	114.124	114.543
Be 313.042	50.8050	50.7744	50.7661
Ca 370.602	52872	52751	52764
Cd 226.502	52.1569	52.3274	52.2208
Co 228.615	78.1604	76.9571	76.7706
Cr 267.716	3042.61	3037.93	3037.83
Cu 324.754	154.202	154.076	155.220
Fe 271.441	17180.3	17144.2	17123.5
K 766.491	749742x	745742x	745779x
Mg 279.078	8720.98	8701.50	8695.43
Mn 257.610	639.159	638.688	638.111
Mo 202.032	116.367	118.046	118.709
Na 330.237	61088.1	61449.3	61504.5
Ni 231.604	1419.20	1412.75	1419.28
Pb 220.353	495.631	503.635	501.985
Sb 206.834	94.3060	86.3239	87.2252
Se 196.026	111.289	103.872	115.083
Si 288.158	25165.8	25118.9	25101.2
Sn 189.925	100.616	104.047	103.410
Sr 216.596	263.096	263.686	262.953
Ti 334.941	11778.9	11775.0	11760.7
Tl 190.794	42.6280	47.9914	51.5955
V 292.401	130.965	130.742	131.641
Zn 206.200	172.784	171.512	175.376

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	51.8093b	ppb	0.3925	0.8	2224.04
Al 308.215	90855.5b	ppb	157.754	0.2	294734
As 188.980	102.687b	ppb	3.8574	3.8	39.8685
B 249.678	247.392b	ppb	0.3056	0.1	1809.33

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	114.811b	ppb	0.8530	0.7	1305.28
Be 313.042	50.7818b	ppb	0.0205	0.0	47998.2
Ca 370.602	52796b	ppb	66.41	0.1	115057
Cd 226.502	52.2350b	ppb	0.0862	0.2	1086.44
Co 228.615	77.2960b	ppb	0.7544	1.0	512.256
Cr 267.716	3039.46b	ppb	2.7278	0.1	75579.6
Cu 324.754	154.499b	ppb	0.6273	0.4	6671.86
Fe 271.441	17149.4b	ppb	28.7616	0.2	14195.0
K 766.491	747087xb	ppb	2298.71	0.3	19052698
Mg 279.078	8705.97b	ppb	13.3458	0.2	13051.0
Mn 257.610	638.653b	ppb	0.5251	0.1	66575.2
Mo 202.032	117.707b	ppb	1.2070	1.0	367.346
Na 330.237	61347.3b	ppb	226.129	0.4	2028.72
Ni 231.604	1417.07b	ppb	3.7483	0.3	2139.49
Pb 220.353	500.417b	ppb	4.2259	0.8	373.009
Sb 206.834	89.2850b	ppb	4.3715	4.9	61.3177
Se 196.026	110.081b	ppb	5.7024	5.2	33.5959
Si 288.158	25128.6b	ppb	33.3746	0.1	150003
Sn 189.925	102.691b	ppb	1.8251	1.8	42.8307
Sr 216.596	263.245b	ppb	0.3884	0.1	1471.63
Ti 334.941	11771.6b	ppb	9.5950	0.1	1730396
Tl 190.794	47.4050b	ppb	4.5125	9.5	12.1859
V 292.401	131.116b	ppb	0.4681	0.4	1781.85
Zn 206.200	173.224b	ppb	1.9693	1.1	113.726

680-201884-a-2-c (Samp) **7/26/2021, 8:22:17 PM** **Rack 2, Tube 20**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0263u	-0.1568u	-0.2329u
Al 308.215	2231.45	2225.66	2227.73
As 188.980	5.4447	3.4573	-0.6778u
B 249.678	21.8893	21.1537	22.0764
Ba 389.178	10.1406	11.4507	11.8589
Be 313.042	0.0156	0.0069	0.0237
Ca 370.602	52720	52699	52742
Cd 226.502	0.4656	0.7219	0.3564
Co 228.615	0.4148	0.9021	-0.2441u
Cr 267.716	2.7232	2.2280	2.4336
Cu 324.754	247.921	248.805	249.195
Fe 271.441	466.420	472.508	473.772
K 766.491	2832.97	2835.34	2832.74
Mg 279.078	3729.21	3730.70	3731.49
Mn 257.610	33.2017	33.1006	33.1339
Mo 202.032	0.1199	0.2453	1.1995
Na 330.237	7391.58	7417.48	7307.75
Ni 231.604	73.6053	72.6283	72.8792
Pb 220.353	25.6928	28.3486	25.3505
Sb 206.834	0.4595	-0.8296u	-1.6944u
Se 196.026	-3.0347u	-1.1479u	-9.0141u
Si 288.158	21063.3	21063.5	21059.1
Sn 189.925	0.3585	3.0093	-0.4065u
Sr 216.596	211.157	209.968	211.089
Ti 334.941	3.1218	3.2092	3.2067

Label	Replicates Concentration		
Tl 190.794	-0.9546u	4.1011	1.7466
V 292.401	1.0759	1.4254	1.6630
Zn 206.200	661.990	662.068	666.499

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1387	ppb	0.1045	75.3	4.1084
Al 308.215	2228.28	ppb	2.9317	0.1	7944.67
As 188.980	2.7414	ppb	3.1234	113.9	-1.9738
B 249.678	21.7065	ppb	0.4878	2.2	110.841
Ba 389.178	11.1501	ppb	0.8977	8.1	98.7487
Be 313.042	0.0154	ppb	0.0084	54.4	-291.673
Ca 370.602	52720	ppb	21.79	0.0	114607
Cd 226.502	0.5146	ppb	0.1876	36.5	-7.6392
Co 228.615	0.3576	ppb	0.5752	160.9	-28.9947
Cr 267.716	2.4616	ppb	0.2488	10.1	77.2434
Cu 324.754	248.640	ppb	0.6527	0.3	10597.6
Fe 271.441	470.900	ppb	3.9309	0.8	434.244
K 766.491	2833.68	ppb	1.4382	0.1	72525.6
Mg 279.078	3730.46	ppb	1.1582	0.0	5613.11
Mn 257.610	33.1454	ppb	0.0515	0.2	3495.89
Mo 202.032	0.5216	ppb	0.5904	113.2	-0.8209
Na 330.237	7372.27	ppb	57.3571	0.8	286.939
Ni 231.604	73.0376	ppb	0.5074	0.7	96.8377
Pb 220.353	26.4640	ppb	1.6411	6.2	28.9853
Sb 206.834	-0.6882	ppb	1.0839	157.5	-2.4297
Se 196.026	-4.3989	ppb	4.1067	93.4	-0.6664
Si 288.158	21062.0	ppb	2.4747	0.0	125179
Sn 189.925	0.9871	ppb	1.7926	181.6	0.9079
Sr 216.596	210.738	ppb	0.6680	0.3	1188.63
Ti 334.941	3.1792	ppb	0.0497	1.6	491.262
Tl 190.794	1.6310	ppb	2.5298	155.1	-5.3178
V 292.401	1.3881	ppb	0.2953	21.3	27.9377
Zn 206.200	663.519	ppb	2.5810	0.4	447.773

Cont Calib Verif (CCV) **7/26/2021, 8:26:49 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	489.857	493.025	488.226
Al 308.215	9737.44	9778.74	9726.60
As 188.980	493.424	494.138	478.372
B 249.678	488.187	488.916	489.171
Ba 389.178	498.614	499.349	495.571
Be 313.042	499.962	500.335	496.838
Ca 370.602	9880	9886	9803
Cd 226.502	489.847	489.681	487.175
Co 228.615	496.951	499.402	492.945
Cr 267.716	490.693	491.824	488.998
Cu 324.754	492.181	496.365	490.819
Fe 271.441	9840.45	9856.81	9771.67
K 766.491	10223.0	10233.1	10173.9
Mg 279.078	9704.41	9708.78	9661.84
Mn 257.610	499.390	499.700	497.067
Mo 202.032	496.845	499.241	493.486

Label	Replicates Concentration		
Na 330.237	9755.36	9820.89	9553.88
Ni 231.604	486.740	491.383	491.782
Pb 220.353	485.923	489.720	489.973
Sb 206.834	497.671	499.001	482.077
Se 196.026	490.240	495.324	479.611
Si 288.158	4847.45	4856.98	4803.77
Sn 189.925	491.347	502.203	494.393
Sr 216.596	495.801	492.434	493.767
Ti 334.941	496.085	496.429	493.328
Tl 190.794	494.087	505.682	499.092
V 292.401	494.685	494.237	492.406
Zn 206.200	976.643	980.046	977.766

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	490.370	ppb	2.4403	0.5	20761.1	98.07394
Al 308.215	9747.59	ppb	27.5159	0.3	32315.8	97.47594
As 188.980	488.645	ppb	8.9035	1.8	201.630	97.72893
B 249.678	488.758	ppb	0.5106	0.1	3671.84	97.75154
Ba 389.178	497.844	ppb	2.0030	0.4	5728.82	99.56889
Be 313.042	499.045	ppb	1.9205	0.4	474551	99.80894
Ca 370.602	9857	ppb	46.12	0.5	21457	98.56588
Cd 226.502	488.901	ppb	1.4973	0.3	10135.6	97.78018
Co 228.615	496.433	ppb	3.2593	0.7	2656.73	99.28658
Cr 267.716	490.505	ppb	1.4225	0.3	12209.2	98.10107
Cu 324.754	493.121	ppb	2.8904	0.6	20817.4	98.62428
Fe 271.441	9822.98	ppb	45.1765	0.5	8179.85	98.18067
K 766.491	10210.0	ppb	31.6513	0.3	260639	102.10023
Mg 279.078	9691.68	ppb	25.9321	0.3	14547.8	96.91678
Mn 257.610	498.719	ppb	1.4392	0.3	51821.4	99.74386
Mo 202.032	496.524	ppb	2.8908	0.6	1558.86	99.30480
Na 330.237	9710.04	ppb	139.155	1.4	356.892	97.10043
Ni 231.604	489.968	ppb	2.8027	0.6	729.917	97.99361
Pb 220.353	488.539	ppb	2.2689	0.5	367.808	97.70778
Sb 206.834	492.916	ppb	9.4104	1.9	297.700	98.58328
Se 196.026	488.392	ppb	8.0178	1.6	145.944	97.67830
Si 288.158	4836.07	ppb	28.3726	0.6	29220.8	96.72141
Sn 189.925	495.981	ppb	5.5995	1.1	204.903	99.19624
Sr 216.596	494.001	ppb	1.6958	0.3	2753.36	98.80013
Ti 334.941	495.281	ppb	1.6998	0.3	72828.3	99.05617
Tl 190.794	499.620	ppb	5.8155	1.2	296.099	99.92403
V 292.401	493.776	ppb	1.2072	0.2	6450.36	98.75520
Zn 206.200	978.152	ppb	1.7340	0.2	660.944	97.81519

Cont Calib Blank (CCB) **7/26/2021, 8:31:21 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1242u	-0.0759u	-0.1897u
Al 308.215	-33.5345u	-32.4035u	-34.4829u
As 188.980	-5.4217u	1.0247	-0.6727u
B 249.678	14.2727	13.2870	12.8162
Ba 389.178	1.6128	0.2467	1.8498
Be 313.042	0.0481	0.0354	0.0538
Ca 370.602	-1.309u	-2.594u	0.1856

Label	Replicates Concentration		
Cd 226.502	0.0483	0.3619	0.4083
Co 228.615	0.3928	0.6281	1.1137
Cr 267.716	0.0197	-0.3252u	-0.2051u
Cu 324.754	0.4356	0.3289	0.1647
Fe 271.441	-3.6919u	-0.4338u	-5.2737u
K 766.491	15.1578	16.2395	16.1154
Mg 279.078	-2.9313u	1.3129	-1.7067u
Mn 257.610	-0.0224u	0.0069	0.0104
Mo 202.032	-0.0446u	-1.2009u	-0.8261u
Na 330.237	50.2036	-16.6376u	-185.942u
Ni 231.604	0.1003	2.3318	3.2239
Pb 220.353	-0.8634u	0.6665	-1.5732u
Sb 206.834	3.1552	2.2943	-4.8774u
Se 196.026	3.6277	-10.5632u	-4.7043u
Si 288.158	5.7293	4.6463	1.6281
Sn 189.925	-3.2333u	0.1599	-2.7733u
Sr 216.596	-0.8066u	0.3562	0.5903
Ti 334.941	0.1366	0.1686	0.1835
Tl 190.794	3.9318	-1.3810u	1.6890
V 292.401	0.2318	0.1287	0.4699
Zn 206.200	0.7969	1.1742	-0.1949u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.1300	ppb	0.0571	43.9	5.3613	-0.12997
Al 308.215	-33.4736	ppb	1.0410	3.1	626.068	-33.47361
As 188.980	-1.6899	ppb	3.3414	197.7	-3.8363	-1.68992
B 249.678	13.4586	ppb	0.7433	5.5	48.5511	13.45862
Ba 389.178	1.2365	ppb	0.8653	70.0	-22.6171	1.23646
Be 313.042	0.0458	ppb	0.0094	20.6	-271.836	0.04576
Ca 370.602	-1.239	ppb	1.391	112.3	29.13	-1.23933
Cd 226.502	0.2728	ppb	0.1958	71.8	-13.3939	0.27284
Co 228.615	0.7115	ppb	0.3676	51.7	-27.1302	0.71154
Cr 267.716	-0.1702	ppb	0.1751	102.9	11.6940	-0.17019
Cu 324.754	0.3097	ppb	0.1365	44.1	226.623	0.30973
Fe 271.441	-3.1331	ppb	2.4678	78.8	43.3812	-3.13315
K 766.491	15.8376	ppb	0.5920	3.7	664.132	15.83758
Mg 279.078	-1.1084	ppb	2.1844	197.1	17.1160	-1.10839
Mn 257.610	-0.0017	ppb	0.0180	1066.1	55.4911	-0.00169
Mo 202.032	-0.6905	ppb	0.5899	85.4	-4.6225	-0.69053
Na 330.237	-50.7919	ppb	121.721	239.6	35.9870	-50.79190
Ni 231.604	1.8853	ppb	1.6089	85.3	-11.3063	1.88532
Pb 220.353	-0.5900	ppb	1.1446	194.0	9.1349	-0.59003
Sb 206.834	0.1907	ppb	4.4102	2312.5	-1.8990	0.19071
Se 196.026	-3.8800	ppb	7.1313	183.8	-0.5213	-3.87995
Si 288.158	4.0013	ppb	2.1253	53.1	427.902	4.00126
Sn 189.925	-1.9489	ppb	1.8407	94.4	-0.3033	-1.94889
Sr 216.596	0.0466	ppb	0.7481	1604.7	9.4387	0.04662
Ti 334.941	0.1629	ppb	0.0240	14.7	48.0927	0.16290
Tl 190.794	1.4133	ppb	2.6671	188.7	-5.4377	1.41328
V 292.401	0.2768	ppb	0.1750	63.2	13.4126	0.27683
Zn 206.200	0.5921	ppb	0.7072	119.4	-1.8040	0.59206

680-201909-b-1-d (Samp) **7/26/2021, 8:35:51 PM** **Rack 2, Tube 21**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1848u	-0.1493u	-0.0571u
Al 308.215	337.479	341.196	339.934
As 188.980	0.0003	-3.8158u	4.9886
B 249.678	26.3938	27.1312	25.6532
Ba 389.178	20.7246	20.3769	20.0632
Be 313.042	0.0357	0.0553	0.0489
Ca 370.602	2639	2664	2637
Cd 226.502	2.0023	2.2549	2.0150
Co 228.615	0.5247	0.6801	0.7634
Cr 267.716	1.5504	1.9278	1.3961
Cu 324.754	22.0572	23.3340	23.0919
Fe 271.441	414.364	419.745	416.871
K 766.491	1039.07	1057.23	1039.05
Mg 279.078	244.201	244.100	236.204
Mn 257.610	10.1626	10.2661	10.1108
Mo 202.032	1.2845	0.7120	1.0346
Na 330.237	303.858	440.089	284.363
Ni 231.604	5.5869	4.9391	3.4873
Pb 220.353	7.4385	5.7514	10.0719
Sb 206.834	11.3346	5.8997	2.5025
Se 196.026	-11.4185u	-7.3167u	-1.1559u
Si 288.158	1014.68	1040.18	1013.41
Sn 189.925	-1.0308u	0.1308	-1.4338u
Sr 216.596	12.0398	13.3950	13.2433
Ti 334.941	17.9211	18.5901	17.9573
Tl 190.794	-3.1136u	3.0770	2.2691
V 292.401	2.2264	1.8794	2.7983
Zn 206.200	152.156	153.451	153.728

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1304	ppb	0.0659	50.6	5.3447
Al 308.215	339.536	ppb	1.8902	0.6	1833.23
As 188.980	0.3910	ppb	4.4152	1129.1	-2.9627
B 249.678	26.3928	ppb	0.7390	2.8	146.857
Ba 389.178	20.3882	ppb	0.3309	1.6	199.155
Be 313.042	0.0466	ppb	0.0100	21.4	-270.465
Ca 370.602	2647	ppb	15.16	0.6	5784
Cd 226.502	2.0907	ppb	0.1423	6.8	24.8585
Co 228.615	0.6560	ppb	0.1212	18.5	-27.2326
Cr 267.716	1.6248	ppb	0.2735	16.8	56.3506
Cu 324.754	22.8277	ppb	0.6782	3.0	1167.14
Fe 271.441	416.994	ppb	2.6925	0.6	389.819
K 766.491	1045.11	ppb	10.4901	1.0	26913.0
Mg 279.078	241.501	ppb	4.5882	1.9	380.815
Mn 257.610	10.1798	ppb	0.0791	0.8	1112.30
Mo 202.032	1.0103	ppb	0.2870	28.4	0.7171
Na 330.237	342.770	ppb	84.8427	24.8	47.1491
Ni 231.604	4.6711	ppb	1.0752	23.0	-7.0716
Pb 220.353	7.7539	ppb	2.1774	28.1	15.2670
Sb 206.834	6.5789	ppb	4.4551	67.7	2.0293
Se 196.026	-6.6304	ppb	5.1656	77.9	-1.3335
Si 288.158	1022.76	ppb	15.1032	1.5	6464.52

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-0.7779	ppb	0.8124	104.4	0.1793
Sr 216.596	12.8927	ppb	0.7425	5.8	81.3668
Ti 334.941	18.1562	ppb	0.3762	2.1	2693.03
Tl 190.794	0.7442	ppb	3.3653	452.2	-5.8636
V 292.401	2.3014	ppb	0.4640	20.2	39.9559
Zn 206.200	153.111	ppb	0.8393	0.5	101.631

680-201930-l-2-d (Samp) **7/26/2021, 8:40:22 PM** **Rack 2, Tube 22**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2369u	-0.1460u	-0.1825u
Al 308.215	10566.3	10532.5	10545.4
As 188.980	-0.2667	-2.0528u	11.3975
B 249.678	228.851	229.592	230.668
Ba 389.178	1144.29	1142.58	1139.27
Be 313.042	0.4048	0.4026	0.4010
Ca 370.602	26201	26124	26210
Cd 226.502	4.5654	4.5526	4.5152
Co 228.615	12.7731	11.3333	11.7424
Cr 267.716	112.774	112.671	112.700
Cu 324.754	501.377	505.036	501.058
Fe 271.441	52168.9	52078.7	52163.2
K 766.491	81927.3x	81835.8x	81867.2x
Mg 279.078	4440.02	4430.83	4430.87
Mn 257.610	409.882	408.711	409.407
Mo 202.032	169.515	168.756	171.134
Na 330.237	133986x	133299x	134536x
Ni 231.604	72.6397	70.8393	72.5864
Pb 220.353	94.6676	91.2418	98.4915
Sb 206.834	14.3751	18.6194	14.8076
Se 196.026	13.4293	-3.2026u	3.6362
Si 288.158	44728.3	44619.7	44681.8
Sn 189.925	33.4786	30.4932	31.1124
Sr 216.596	106.358	106.480	108.134
Ti 334.941	323.462	323.424	322.818
Tl 190.794	-0.2605u	-1.3839u	1.1591u
V 292.401	38.2654	38.1071	38.4357
Zn 206.200	4485.43	4471.37	4488.95

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1885b	ppb	0.0458	24.3	4.0354
Al 308.215	10548.1b	ppb	17.0502	0.2	34874.4
As 188.980	3.0260b	ppb	7.3047	241.4	-1.7455
B 249.678	229.704b	ppb	0.9138	0.4	1606.00
Ba 389.178	1142.05b	ppb	2.5493	0.2	13176.4
Be 313.042	0.4028b	ppb	0.0019	0.5	52.7606
Ca 370.602	26178b	ppb	47.52	0.2	56828
Cd 226.502	4.5444b	ppb	0.0261	0.6	140.174
Co 228.615	11.9496b	ppb	0.7419	6.2	38.2380
Cr 267.716	112.715b	ppb	0.0529	0.0	2819.93
Cu 324.754	502.490b	ppb	2.2102	0.4	21215.5
Fe 271.441	52136.9b	ppb	50.5322	0.1	43041.1
K 766.491	81876.8xb	ppb	46.5076	0.1	2088306

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	4433.90b	ppb	5.2944	0.1	6662.67
Mn 257.610	409.334b	ppb	0.5887	0.1	42504.9
Mo 202.032	169.802b	ppb	1.2143	0.7	530.458
Na 330.237	133940xb	ppb	619.879	0.5	4678.62
Ni 231.604	72.0218b	ppb	1.0244	1.4	95.2836
Pb 220.353	94.8003b	ppb	3.6267	3.8	81.1248
Sb 206.834	15.9341b	ppb	2.3356	14.7	7.0642
Se 196.026	4.6210b	ppb	8.3596	180.9	2.5302
Si 288.158	44676.6b	ppb	54.4932	0.1	265127
Sn 189.925	31.6948b	ppb	1.5756	5.0	13.5839
Sr 216.596	106.991b	ppb	0.9920	0.9	615.588
Ti 334.941	323.235b	ppb	0.3616	0.1	47533.4
Tl 190.794	-0.1618b	ppb	1.2744	787.8	-7.1042
V 292.401	38.2694b	ppb	0.1643	0.4	513.636
Zn 206.200	4481.92b	ppb	9.3026	0.2	3037.57

680-201930-d-1-d (Samp) **7/26/2021, 8:44:53 PM** **Rack 2, Tube 23**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0827u	-0.2275u	-0.2495u
Al 308.215	503.840	503.322	502.133
As 188.980	3.2123	1.0717	-0.6567u
B 249.678	238.683	240.990	241.929
Ba 389.178	329.200	329.931	328.702
Be 313.042	0.0606	0.0655	0.0676
Ca 370.602	21458	21384	21436
Cd 226.502	1.4380	1.4890	1.4583
Co 228.615	5.6062	5.1516	6.4747
Cr 267.716	10.0369	10.1185	9.7619
Cu 324.754	102.922	102.340	102.726
Fe 271.441	16128.9	16067.2	16114.7
K 766.491	67960.1x	67901.4x	67963.6x
Mg 279.078	2486.24	2482.07	2487.18
Mn 257.610	244.098	243.566	243.709
Mo 202.032	85.4611	85.5197	87.1496
Na 330.237	101486x	101622x	101340x
Ni 231.604	20.7658	22.4757	22.3314
Pb 220.353	12.6238	13.7278	17.1439
Sb 206.834	9.4589	-0.1821u	2.4514
Se 196.026	-8.2046u	1.7538	-10.4719u
Si 288.158	24494.0	24451.2	24494.8
Sn 189.925	5.8164	1.1691	-1.4086u
Sr 216.596	83.1043	81.5295	81.2216
Ti 334.941	19.2749	18.7438	19.2359
Tl 190.794	5.1501	-1.5289u	-9.7423u
V 292.401	4.9920	5.0378	4.4950
Zn 206.200	1087.73	1074.65	1073.26

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1866b	ppb	0.0906	48.6	3.2323
Al 308.215	503.099b	ppb	0.8755	0.2	2365.35
As 188.980	1.2091b	ppb	1.9381	160.3	-2.5910
B 249.678	240.534b	ppb	1.6705	0.7	1757.84

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	329.278b	ppb	0.6184	0.2	3775.09
Be 313.042	0.0645b	ppb	0.0036	5.5	-264.108
Ca 370.602	21426b	ppb	37.97	0.2	46567
Cd 226.502	1.4618b	ppb	0.0257	1.8	31.0633
Co 228.615	5.7442b	ppb	0.6722	11.7	0.5455
Cr 267.716	9.9724b	ppb	0.1868	1.9	265.239
Cu 324.754	102.662b	ppb	0.2961	0.3	4507.10
Fe 271.441	16103.6b	ppb	32.3001	0.2	13326.0
K 766.491	67941.7xb	ppb	34.9608	0.1	1732930
Mg 279.078	2485.16b	ppb	2.7192	0.1	3743.62
Mn 257.610	243.791b	ppb	0.2753	0.1	25346.3
Mo 202.032	86.0434b	ppb	0.9584	1.1	267.820
Na 330.237	101482xb	ppb	140.718	0.1	3594.99
Ni 231.604	21.8577b	ppb	0.9483	4.3	19.0448
Pb 220.353	14.4985b	ppb	2.3565	16.3	20.8637
Sb 206.834	3.9094b	ppb	4.9831	127.5	-0.2846
Se 196.026	-5.6409b	ppb	6.5036	115.3	-0.8649
Si 288.158	24480.0b	ppb	24.9442	0.1	145444
Sn 189.925	1.8590b	ppb	3.6616	197.0	1.2829
Sr 216.596	81.9518b	ppb	1.0099	1.2	469.780
Ti 334.941	19.0849b	ppb	0.2960	1.6	2825.62
Tl 190.794	-2.0403b	ppb	7.4594	365.6	-7.7128
V 292.401	4.8416b	ppb	0.3010	6.2	73.7072
Zn 206.200	1078.55b	ppb	7.9859	0.7	729.333

680-201921-b-1-e (Samp) **7/26/2021, 8:49:25 PM** **Rack 2, Tube 24**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	1.0173	1.1772	0.9996
Al 308.215	2228.14	2240.34	2244.42
As 188.980	9.7268	13.0705	10.6507
B 249.678	176580x	177568x	178584x
Ba 389.178	63.5280	62.6610	62.7760
Be 313.042	0.2656	0.2601	0.2739
Ca 370.602	63146	63171	63196
Cd 226.502	1.8429	2.2861	2.0575
Co 228.615	421.054	418.576	417.850
Cr 267.716	4040.42	4043.80	4042.47
Cu 324.754	5592.77	5597.88	5586.74
Fe 271.441	19395.9	19428.0	19384.7
K 766.491	1115066x	1121766x	1115706o
Mg 279.078	4051.25	4078.83	4062.38
Mn 257.610	168.492	168.877	168.820
Mo 202.032	525.019	525.067	524.381
Na 330.237	2923630x	2942564x	2934112x
Ni 231.604	126.278	126.940	127.015
Pb 220.353	15.2366	14.2182	13.7581
Sb 206.834	45.8466	39.2975	46.7312
Se 196.026	12.5559	-4.6481u	-6.4140u
Si 288.158	3858.16	3864.16	3867.58
Sn 189.925	10.5281	2.2220	1.0270
Sr 216.596	103.283	103.304	102.790
Ti 334.941	20.2374	19.3366	19.5449

Label	Replicates Concentration		
Tl 190.794	-0.4293u	2.2496	-1.8935u
V 292.401	141.790	140.946	141.037
Zn 206.200	23254.1	23267.5	23217.0

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	1.0647b	ppb	0.0978	9.2	56.0468
Al 308.215	2237.63b	ppb	8.4682	0.4	7994.53
As 188.980	11.1493b	ppb	1.7267	15.5	1.2261
B 249.678	177577xb	ppb	1001.95	0.6	1360669
Ba 389.178	62.9883b	ppb	0.4709	0.7	704.401
Be 313.042	0.2666b	ppb	0.0070	2.6	-272.032
Ca 370.602	63171b	ppb	25.05	0.0	137283
Cd 226.502	2.0622b	ppb	0.2217	10.7	39.4121
Co 228.615	419.160b	ppb	1.6800	0.4	2238.76
Cr 267.716	4042.23b	ppb	1.7022	0.0	100517
Cu 324.754	5592.47b	ppb	5.5735	0.1	233785
Fe 271.441	19402.9b	ppb	22.4948	0.1	16073.6
K 766.491	1117513oxb	ppb	3697.49	0.3	28499390
Mg 279.078	4064.15b	ppb	13.8768	0.3	6112.25
Mn 257.610	168.730b	ppb	0.2077	0.1	17546.3
Mo 202.032	524.822b	ppb	0.3827	0.1	1647.77
Na 330.237	2933435xb	ppb	9484.85	0.3	103015
Ni 231.604	126.744b	ppb	0.4058	0.3	177.969
Pb 220.353	14.4043b	ppb	0.7567	5.3	20.5060
Sb 206.834	43.9584b	ppb	4.0607	9.2	32.0997
Se 196.026	0.4979b	ppb	10.4798	2104.7	0.9784
Si 288.158	3863.30b	ppb	4.7707	0.1	23382.1
Sn 189.925	4.5924b	ppb	5.1751	112.7	2.8852
Sr 216.596	103.126b	ppb	0.2910	0.3	582.933
Ti 334.941	19.7063b	ppb	0.4716	2.4	2806.50
Tl 190.794	-0.0244b	ppb	2.1010	8602.2	-6.3811
V 292.401	141.258b	ppb	0.4631	0.3	1820.74
Zn 206.200	23246.2b	ppb	26.1592	0.1	15760.5

mb 680-677691/1-a (Samp) **7/26/2021, 8:53:56 PM** **Rack 2, Tube 25**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1140u	-0.0018u	-0.1391u
Al 308.215	-30.0428u	-28.5917u	-31.8184u
As 188.980	-0.6853u	0.8455	-1.7124u
B 249.678	2630.79	2422.84	2159.95
Ba 389.178	1.0178	0.5976	1.0904
Be 313.042	0.0344	0.0310	0.0362
Ca 370.602	0.9710	0.8127	-2.919u
Cd 226.502	0.2811	0.0472	0.2802
Co 228.615	-0.8432u	0.4444	0.7356
Cr 267.716	0.4452	0.1056	0.3902
Cu 324.754	0.5338	0.5366	0.8801
Fe 271.441	-4.8190u	2.8464	1.2904
K 766.491	61.0325	57.3037	52.6106
Mg 279.078	-1.2843u	-2.7965u	0.3696
Mn 257.610	0.1279	0.1528	0.1636
Mo 202.032	-0.1677u	-0.1044u	-0.5146u

Label	Replicates Concentration		
Na 330.237	-155.362u	-85.4977u	-189.879u
Ni 231.604	1.0040	0.9026	1.2405
Pb 220.353	-1.6614u	-0.3931u	-0.8154u
Sb 206.834	-0.9164u	4.1528	2.6395
Se 196.026	-6.9593u	-5.9530u	-7.0699u
Si 288.158	1.9003	4.0428	2.9965
Sn 189.925	0.8543	-1.2905u	-1.0956u
Sr 216.596	1.0750	0.5528	0.1669
Ti 334.941	0.0005	0.1515	0.1673
Tl 190.794	2.3455	-1.9187u	-1.7375u
V 292.401	0.7601	-0.0679u	-0.4201u
Zn 206.200	-0.0153u	2.2088	0.2864

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0850	ppb	0.0731	86.0	7.2655
Al 308.215	-30.1510	ppb	1.6161	5.4	636.812
As 188.980	-0.5174	ppb	1.2872	248.8	-3.3449
B 249.678	2404.53	ppb	235.955	9.8	18371.1
Ba 389.178	0.9019	ppb	0.2661	29.5	-26.4835
Be 313.042	0.0339	ppb	0.0026	7.8	-283.140
Ca 370.602	-0.3783	ppb	2.201	581.9	30.99
Cd 226.502	0.2028	ppb	0.1348	66.5	-14.8415
Co 228.615	0.1123	ppb	0.8402	748.3	-30.3694
Cr 267.716	0.3137	ppb	0.1823	58.1	23.7206
Cu 324.754	0.6502	ppb	0.1991	30.6	240.842
Fe 271.441	-0.2274	ppb	4.0518	1781.9	45.7491
K 766.491	56.9823	ppb	4.2201	7.4	1713.42
Mg 279.078	-1.2371	ppb	1.5835	128.0	16.9208
Mn 257.610	0.1481	ppb	0.0183	12.4	71.0341
Mo 202.032	-0.2622	ppb	0.2208	84.2	-3.2755
Na 330.237	-143.580	ppb	53.1786	37.0	32.6955
Ni 231.604	1.0491	ppb	0.1734	16.5	-12.5767
Pb 220.353	-0.9566	ppb	0.6458	67.5	8.8662
Sb 206.834	1.9586	ppb	2.6023	132.9	-0.8096
Se 196.026	-6.6608	ppb	0.6154	9.2	-1.3477
Si 288.158	2.9799	ppb	1.0713	36.0	421.838
Sn 189.925	-0.5106	ppb	1.1860	232.3	0.2894
Sr 216.596	0.5982	ppb	0.4557	76.2	12.5154
Ti 334.941	0.1064	ppb	0.0921	86.5	39.7918
Tl 190.794	-0.4369	ppb	2.4113	552.0	-6.5593
V 292.401	0.0907	ppb	0.6059	668.1	10.9832
Zn 206.200	0.8266	ppb	1.2065	146.0	-1.6451

lcs 680-677691/2-a (Samp) **7/26/2021, 8:58:26 PM** **Rack 2, Tube 26**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.2766	49.1107	48.7096
Al 308.215	4875.84	4896.27	4881.28
As 188.980	98.5671	97.9872	110.621
B 249.678	1113.57	1067.44	1021.41
Ba 389.178	103.464	102.970	103.635
Be 313.042	49.0792	49.0782	49.1024
Ca 370.602	4917	4922	4933

Label	Replicates Concentration		
Cd 226.502	49.2363	49.0731	49.0822
Co 228.615	50.1947	49.6040	49.3194
Cr 267.716	98.5658	99.1956	99.0073
Cu 324.754	98.8709	98.0653	99.0943
Fe 271.441	4932.87	4946.62	4935.52
K 766.491	7102.91	7109.03	7118.39
Mg 279.078	4817.33	4809.85	4819.22
Mn 257.610	397.286	397.269	397.566
Mo 202.032	98.9992	101.381	99.1235
Na 330.237	4754.75	4445.18	4553.60
Ni 231.604	101.666	98.6707	102.017
Pb 220.353	495.737	488.147	496.292
Sb 206.834	54.9038	52.9627	45.4627
Se 196.026	93.5127	93.6736	93.8020
Si 288.158	-3.1640	-3.0391	-3.5859
Sn 189.925	97.3609	95.3096	93.4523
Sr 216.596	99.4686	97.7049	97.9583
Ti 334.941	344.391	344.815	344.943
Tl 190.794	41.8336	41.7620	49.1119
V 292.401	99.3059	99.7799	99.2717
Zn 206.200	97.5236	102.335	99.8579

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.6990	ppb	0.4172	0.9	2072.82
Al 308.215	4884.47	ppb	10.5794	0.2	16547.8
As 188.980	102.392	ppb	7.1329	7.0	39.7898
B 249.678	1067.47	ppb	46.0792	4.3	8115.93
Ba 389.178	103.356	ppb	0.3451	0.3	1163.52
Be 313.042	49.0866	ppb	0.0137	0.0	46393.7
Ca 370.602	4924	ppb	8.257	0.2	10739
Cd 226.502	49.1305	ppb	0.0917	0.2	1006.46
Co 228.615	49.7060	ppb	0.4465	0.9	241.197
Cr 267.716	98.9229	ppb	0.3233	0.3	2475.94
Cu 324.754	98.6768	ppb	0.5412	0.5	4337.37
Fe 271.441	4938.34	ppb	7.2923	0.1	4121.95
K 766.491	7110.11	ppb	7.7990	0.1	181584
Mg 279.078	4815.47	ppb	4.9531	0.1	7236.30
Mn 257.610	397.373	ppb	0.1669	0.0	41303.3
Mo 202.032	99.8346	ppb	1.3408	1.3	311.413
Na 330.237	4584.51	ppb	157.085	3.4	192.607
Ni 231.604	100.785	ppb	1.8393	1.8	138.949
Pb 220.353	493.392	ppb	4.5507	0.9	371.629
Sb 206.834	51.1097	ppb	4.9859	9.8	28.7439
Se 196.026	93.6628	ppb	0.1450	0.2	28.5713
Si 288.158	-3.2630	ppb	0.2865	8.8	432.759
Sn 189.925	95.3743	ppb	1.9551	2.0	39.8059
Sr 216.596	98.3773	ppb	0.9536	1.0	556.560
Ti 334.941	344.716	ppb	0.2889	0.1	50696.0
Tl 190.794	44.2358	ppb	4.2230	9.5	20.1187
V 292.401	99.4525	ppb	0.2840	0.3	1308.84
Zn 206.200	99.9055	ppb	2.4061	2.4	65.5264

680-201857-c-3-a (Samp) **7/26/2021, 9:02:56 PM** **Rack 2, Tube 27**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2340u	-0.1151u	-0.3151u
Al 308.215	22691.6	22639.2	22529.1
As 188.980	15.2927	17.2747	14.5622
B 249.678	489.701	469.821	453.605
Ba 389.178	76.0075	75.9783	76.0250
Be 313.042	0.9886	0.9939	0.9914
Ca 370.602	4957	4963	4947
Cd 226.502	0.8939	0.8584	1.0208
Co 228.615	13.1655	14.0151	12.8098
Cr 267.716	45.3359	45.2919	44.9021
Cu 324.754	34.6913	34.3630	34.1771
Fe 271.441	32715.9	32704.6	32637.7
K 766.491	3458.94	3446.59	3448.90
Mg 279.078	8441.02	8427.56	8414.82
Mn 257.610	363.521	363.298	362.203
Mo 202.032	0.7415	0.6165	1.3190
Na 330.237	303.276u	145.601u	350.988u
Ni 231.604	61.3833	58.2568	59.0227
Pb 220.353	21.7178	16.4349	11.7031
Sb 206.834	-2.2428u	3.8063	-1.8023u
Se 196.026	3.6281	-13.0152u	-6.8924u
Si 288.158	5383.26	5384.43	5368.25
Sn 189.925	3.7849	9.9954	7.4053
Sr 216.596	20.3161	20.0509	19.8925
Ti 334.941	1431.45	1429.12	1425.99
Tl 190.794	0.2868u	3.8265	6.9993
V 292.401	41.3619	42.7908	42.2212
Zn 206.200	71.1309	72.9685	72.1135

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2214	ppb	0.1006	45.4	4.8203
Al 308.215	22620.0	ppb	82.9564	0.4	73931.8
As 188.980	15.7098	ppb	1.4036	8.9	3.5669
B 249.678	471.042	ppb	18.0789	3.8	3492.31
Ba 389.178	76.0036	ppb	0.0236	0.0	856.824
Be 313.042	0.9913	ppb	0.0026	0.3	632.645
Ca 370.602	4956	ppb	8.191	0.2	10776
Cd 226.502	0.9244	ppb	0.0854	9.2	41.6859
Co 228.615	13.3301	ppb	0.6193	4.6	57.0038
Cr 267.716	45.1767	ppb	0.2388	0.5	1141.05
Cu 324.754	34.4105	ppb	0.2604	0.8	1658.62
Fe 271.441	32686.1	ppb	42.2590	0.1	27001.2
K 766.491	3451.48	ppb	6.5623	0.2	88280.8
Mg 279.078	8427.80	ppb	13.1031	0.2	12650.9
Mn 257.610	363.007	ppb	0.7055	0.2	37736.0
Mo 202.032	0.8924	ppb	0.3747	42.0	-0.3775
Na 330.237	266.621	ppb	107.488	40.3	24.3003
Ni 231.604	59.5543	ppb	1.6296	2.7	76.3292
Pb 220.353	16.6186	ppb	5.0099	30.1	22.5643
Sb 206.834	-0.0796	ppb	3.3725	4235.0	-1.4303
Se 196.026	-5.4265	ppb	8.4180	155.1	-0.6354
Si 288.158	5378.65	ppb	9.0210	0.2	32354.7

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	7.0619	ppb	3.1195	44.2	3.4102
Sr 216.596	20.0865	ppb	0.2141	1.1	128.249
Ti 334.941	1428.85	ppb	2.7398	0.2	210060
Tl 190.794	3.7042	ppb	3.3579	90.7	-5.5295
V 292.401	42.1246	ppb	0.7193	1.7	570.939
Zn 206.200	72.0710	ppb	0.9195	1.3	46.8674

680-201857-c-3-a (Samp) **7/26/2021, 9:07:26 PM** **Rack 2, Tube 28**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.1103	0.0784	-0.1010u
Al 308.215	4587.36	4568.56	4498.50
As 188.980	2.9996	11.8644	7.7520
B 249.678	292.166	285.577	278.650
Ba 389.178	13.4268	14.1797	15.0336
Be 313.042	0.2250	0.2283	0.2129
Ca 370.602	1004	1005	987.0
Cd 226.502	0.2761	0.1086	0.5170
Co 228.615	2.6596	3.3918	2.8981
Cr 267.716	9.1067	8.8843	8.9200
Cu 324.754	7.4185	7.3386	7.0977
Fe 271.441	6643.93	6589.59	6519.68
K 766.491	703.449	699.905	688.457
Mg 279.078	1732.50	1715.84	1701.50
Mn 257.610	73.3952	73.0461	71.8839
Mo 202.032	0.0341u	-0.0103u	1.6657
Na 330.237	-28.1972u	-13.9396u	-254.624u
Ni 231.604	14.3392	13.3561	13.5584
Pb 220.353	8.0910	2.1557	7.5832
Sb 206.834	-0.9368u	-4.3764u	6.9679
Se 196.026	0.4988	-0.8360u	5.5782
Si 288.158	1103.38	1097.61	1083.90
Sn 189.925	-2.5242u	-2.9679u	2.6055
Sr 216.596	4.2610	5.1034	3.4877
Ti 334.941	289.936	287.809	284.190
Tl 190.794	4.3357	1.2598	7.4716
V 292.401	8.3164	8.6129	7.9912
Zn 206.200	16.2706	14.1742	17.2793

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.0292	ppb	0.1139	389.8	12.7646
Al 308.215	4551.47	ppb	46.8278	1.0	15462.8
As 188.980	7.5387	ppb	4.4363	58.8	0.0537
B 249.678	285.464	ppb	6.7590	2.4	2120.26
Ba 389.178	14.2134	ppb	0.8039	5.7	130.480
Be 313.042	0.2221	ppb	0.0081	3.6	-103.152
Ca 370.602	998.9	ppb	10.36	1.0	2197
Cd 226.502	0.3006	ppb	0.2053	68.3	-4.4284
Co 228.615	2.9832	ppb	0.3734	12.5	-11.6500
Cr 267.716	8.9703	ppb	0.1194	1.3	239.335
Cu 324.754	7.2850	ppb	0.1670	2.3	519.529
Fe 271.441	6584.40	ppb	62.2875	0.9	5475.95
K 766.491	697.270	ppb	7.8356	1.1	18042.2

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	1716.61	ppb	15.5168	0.9	2591.76
Mn 257.610	72.7750	ppb	0.7913	1.1	7609.74
Mo 202.032	0.5632	ppb	0.9551	169.6	-0.8274
Na 330.237	-98.9204	ppb	135.032	136.5	29.6757
Ni 231.604	13.7512	ppb	0.5191	3.8	6.7254
Pb 220.353	5.9433	ppb	3.2900	55.4	14.0906
Sb 206.834	0.5516	ppb	5.8168	1054.6	-1.5562
Se 196.026	1.7470	ppb	3.3844	193.7	1.2207
Si 288.158	1094.96	ppb	10.0099	0.9	6908.15
Sn 189.925	-0.9622	ppb	3.0977	321.9	0.1033
Sr 216.596	4.2840	ppb	0.8081	18.9	34.4764
Ti 334.941	287.311	ppb	2.9051	1.0	42257.8
Tl 190.794	4.3557	ppb	3.1060	71.3	-3.9520
V 292.401	8.3068	ppb	0.3110	3.7	120.502
Zn 206.200	15.9080	ppb	1.5840	10.0	8.6225

680-201857-c-3-a (Samp) **7/26/2021, 9:11:56 PM** **Rack 2, Tube 29**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.0060	46.7598	47.6615
Al 308.215	26983.3	27174.7	27087.0
As 188.980	121.668	113.225	113.537
B 249.678	399.958	400.645	394.190
Ba 389.178	175.289	174.711	174.551
Be 313.042	49.1997	49.3752	49.1248
Ca 370.602	9725	9745	9723
Cd 226.502	48.9988	48.9452	49.6358
Co 228.615	61.2794	62.1109	61.9872
Cr 267.716	142.396	142.957	142.122
Cu 324.754	130.381	130.446	129.472
Fe 271.441	36833.8	36818.6	36720.2
K 766.491	10515.9	10543.2	10512.1
Mg 279.078	12953.1	13017.0	12933.5
Mn 257.610	743.183	746.503	745.215
Mo 202.032	98.2321	99.0526	98.0975
Na 330.237	5207.53	4971.19	4879.96
Ni 231.604	154.682	156.338	153.959
Pb 220.353	498.708	506.015	508.827
Sb 206.834	47.8706	50.9933	52.1193
Se 196.026	86.9834	88.5741	95.0912
Si 288.158	5366.26	5390.95	5369.68
Sn 189.925	109.327	103.546	102.550
Sr 216.596	115.000	117.034	116.176
Ti 334.941	1739.91	1748.59	1741.79
Tl 190.794	45.9385	34.3346	41.1351
V 292.401	139.955	139.995	140.354
Zn 206.200	168.304	169.900	170.467

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.1425	ppb	0.4661	1.0	2010.20
Al 308.215	27081.7	ppb	95.8154	0.4	88377.1
As 188.980	116.143	ppb	4.7874	4.1	45.6615
B 249.678	398.264	ppb	3.5452	0.9	2926.81

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	174.850	ppb	0.3885	0.2	2004.67
Be 313.042	49.2332	ppb	0.1285	0.3	46538.0
Ca 370.602	9731	ppb	12.32	0.1	21161
Cd 226.502	49.1933	ppb	0.3842	0.8	1048.24
Co 228.615	61.7925	ppb	0.4486	0.7	322.110
Cr 267.716	142.492	ppb	0.4256	0.3	3561.04
Cu 324.754	130.099	ppb	0.5446	0.4	5657.27
Fe 271.441	36790.9	ppb	61.6739	0.2	30389.8
K 766.491	10523.7	ppb	16.9713	0.2	268640
Mg 279.078	12967.9	ppb	43.6530	0.3	19455.6
Mn 257.610	744.967	ppb	1.6739	0.2	77383.9
Mo 202.032	98.4607	ppb	0.5170	0.5	306.377
Na 330.237	5019.56	ppb	169.060	3.4	185.602
Ni 231.604	154.993	ppb	1.2197	0.8	221.325
Pb 220.353	504.517	ppb	5.2234	1.0	380.571
Sb 206.834	50.3277	ppb	2.2011	4.4	28.9028
Se 196.026	90.2162	ppb	4.2961	4.8	27.8823
Si 288.158	5375.63	ppb	13.3787	0.2	32382.5
Sn 189.925	105.141	ppb	3.6596	3.5	43.8309
Sr 216.596	116.070	ppb	1.0213	0.9	662.156
Ti 334.941	1743.43	ppb	4.5659	0.3	256301
Tl 190.794	40.4694	ppb	5.8306	14.4	16.3906
V 292.401	140.101	ppb	0.2196	0.2	1850.48
Zn 206.200	169.557	ppb	1.1217	0.7	112.954

680-201857-c-3-b ms (Samp) **7/26/2021, 9:16:27 PM** **Rack 2, Tube 30**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	43.6673	43.6022	43.3322
Al 308.215	25389.8	25338.8	25269.7
As 188.980	102.967	111.361	103.327
B 249.678	336.145	332.226	330.320
Ba 389.178	164.991	166.041	165.437
Be 313.042	45.6613	45.5941	45.5342
Ca 370.602	9446	9422	9418
Cd 226.502	45.6607	45.7027	45.4857
Co 228.615	57.5478	57.5448	58.0401
Cr 267.716	131.903	131.379	131.550
Cu 324.754	121.289	119.566	119.512
Fe 271.441	34596.6	34485.6	34440.3
K 766.491	9558.71	9512.49	9518.68
Mg 279.078	12111.2	12108.2	12084.8
Mn 257.610	690.881	688.834	688.025
Mo 202.032	91.0099	91.6648	91.6118
Na 330.237	4607.83	4603.53	4589.39
Ni 231.604	144.948	142.953	144.803
Pb 220.353	464.871	467.420	467.975
Sb 206.834	52.8888	47.8579	48.6547
Se 196.026	86.4573	76.9643	87.1408
Si 288.158	5874.29	5863.36	5846.96
Sn 189.925	97.1504	92.9788	96.7378
Sr 216.596	110.469	109.637	109.266
Ti 334.941	1587.39	1582.50	1579.58

Label	Replicates Concentration		
Tl 190.794	34.6755	37.3025	40.0529
V 292.401	128.897	128.365	128.598
Zn 206.200	158.728	157.059	153.367

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	43.5339	ppb	0.1777	0.4	1857.10
Al 308.215	25332.8	ppb	60.2457	0.2	82717.1
As 188.980	105.885	ppb	4.7456	4.5	41.3556
B 249.678	332.897	ppb	2.9701	0.9	2430.26
Ba 389.178	165.490	ppb	0.5269	0.3	1895.16
Be 313.042	45.5965	ppb	0.0636	0.1	43077.1
Ca 370.602	9429	ppb	15.64	0.2	20504
Cd 226.502	45.6164	ppb	0.1151	0.3	971.169
Co 228.615	57.7109	ppb	0.2851	0.5	298.307
Cr 267.716	131.611	ppb	0.2670	0.2	3290.30
Cu 324.754	120.122	ppb	1.0111	0.8	5239.95
Fe 271.441	34507.5	ppb	80.4090	0.2	28506.5
K 766.491	9529.96	ppb	25.0884	0.3	243296
Mg 279.078	12101.4	ppb	14.4356	0.1	18156.9
Mn 257.610	689.247	ppb	1.4721	0.2	71599.1
Mo 202.032	91.4288	ppb	0.3638	0.4	284.314
Na 330.237	4600.25	ppb	9.6453	0.2	173.430
Ni 231.604	144.235	ppb	1.1122	0.8	204.979
Pb 220.353	466.755	ppb	1.6553	0.4	352.829
Sb 206.834	49.8005	ppb	2.7040	5.4	28.5887
Se 196.026	83.5208	ppb	5.6884	6.8	25.8641
Si 288.158	5861.54	ppb	13.7547	0.2	35249.3
Sn 189.925	95.6223	ppb	2.2986	2.4	39.9080
Sr 216.596	109.791	ppb	0.6160	0.6	626.846
Ti 334.941	1583.16	ppb	3.9467	0.2	232743
Tl 190.794	37.3436	ppb	2.6889	7.2	14.6579
V 292.401	128.620	ppb	0.2664	0.2	1699.56
Zn 206.200	156.385	ppb	2.7434	1.8	104.011

Cont Calib Verif (CCV) **7/26/2021, 9:20:59 PM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	494.771	495.411	494.289
Al 308.215	9859.73	9829.09	9811.23
As 188.980	498.904	499.559	479.195
B 249.678	605.882	604.316	603.435
Ba 389.178	503.322	502.107	502.737
Be 313.042	501.371	500.971	501.030
Ca 370.602	9921	9914	9911
Cd 226.502	492.009	490.160	491.141
Co 228.615	492.811	496.404	496.459
Cr 267.716	492.700	493.190	493.318
Cu 324.754	493.772	494.434	493.687
Fe 271.441	9884.16	9874.92	9881.62
K 766.491	10229.1	10231.3	10208.2
Mg 279.078	9734.46	9716.21	9714.66
Mn 257.610	503.280	501.647	501.928
Mo 202.032	502.628	495.577	500.724

Label	Replicates Concentration		
Na 330.237	9841.34	9783.43	9630.31
Ni 231.604	495.768	493.387	496.801
Pb 220.353	492.476	491.007	491.258
Sb 206.834	488.464	492.025	496.325
Se 196.026	486.318	493.779	476.723
Si 288.158	4914.06	4877.36	4889.20
Sn 189.925	494.588	489.350	487.754
Sr 216.596	495.680	495.046	494.191
Ti 334.941	497.509	497.335	496.814
Tl 190.794	504.961	505.528	494.804
V 292.401	499.056	498.299	496.304
Zn 206.200	991.382	982.263	977.346

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	494.824	ppb	0.5626	0.1	20949.6	98.96471
Al 308.215	9833.35	ppb	24.5299	0.2	32593.5	98.33350
As 188.980	492.553	ppb	11.5730	2.3	203.267	98.51054
B 249.678	604.544	ppb	1.2394	0.2	4558.95	120.90890Q
Ba 389.178	502.722	ppb	0.6073	0.1	5785.23	100.54441
Be 313.042	501.124	ppb	0.2158	0.0	476529	100.22479
Ca 370.602	9915	ppb	5.091	0.1	21585	99.15346
Cd 226.502	491.103	ppb	0.9253	0.2	10181.4	98.22066
Co 228.615	495.224	ppb	2.0904	0.4	2650.24	99.04490
Cr 267.716	493.069	ppb	0.3265	0.1	12272.9	98.61385
Cu 324.754	493.964	ppb	0.4094	0.1	20852.6	98.79283
Fe 271.441	9880.23	ppb	4.7749	0.0	8227.04	98.75294
K 766.491	10222.9	ppb	12.7048	0.1	260967	102.22856
Mg 279.078	9721.78	ppb	11.0166	0.1	14592.9	97.21775
Mn 257.610	502.285	ppb	0.8729	0.2	52191.5	100.45698
Mo 202.032	499.643	ppb	3.6476	0.7	1568.67	99.92862
Na 330.237	9751.69	ppb	109.039	1.1	358.278	97.51694
Ni 231.604	495.319	ppb	1.7509	0.4	738.049	99.06374
Pb 220.353	491.580	ppb	0.7859	0.2	370.042	98.31606
Sb 206.834	492.271	ppb	3.9364	0.8	297.321	98.45425
Se 196.026	485.607	ppb	8.5505	1.8	145.117	97.12135
Si 288.158	4893.54	ppb	18.7288	0.4	29561.7	97.87082
Sn 189.925	490.564	ppb	3.5750	0.7	202.670	98.11275
Sr 216.596	494.972	ppb	0.7471	0.2	2758.80	98.99448
Ti 334.941	497.219	ppb	0.3619	0.1	73113.3	99.44389
Tl 190.794	501.764	ppb	6.0343	1.2	297.395	100.35286
V 292.401	497.886	ppb	1.4219	0.3	6503.97	99.57725
Zn 206.200	983.664	ppb	7.1220	0.7	664.680	98.36641

Cont Calib Blank (CCB) **7/26/2021, 9:25:31 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1218u	-0.1326u	0.2656
Al 308.215	-41.0934u	-40.5657u	-41.8337u
As 188.980	-0.1149u	-4.4930u	2.5957
B 249.678	100.163	98.1565	97.1008
Ba 389.178	1.7089	0.7791	2.5971
Be 313.042	0.0630	0.0618	0.0578
Ca 370.602	1.007	1.903	-4.093u

Label	Replicates Concentration		
Cd 226.502	0.4854	0.5244	0.4018
Co 228.615	1.0768	0.0827	0.0060
Cr 267.716	-0.0260u	0.1472	-0.0087u
Cu 324.754	0.8317	0.9203	0.4806
Fe 271.441	-4.0129u	1.0770	-1.7690u
K 766.491	8.5271	7.7029	8.1651
Mg 279.078	1.9031	0.1173	-4.8349u
Mn 257.610	0.0058	0.0151	-0.0150u
Mo 202.032	-1.2916u	-0.0487u	0.7845
Na 330.237	-224.108u	-122.680u	59.5097
Ni 231.604	2.1482	4.4209	4.8901
Pb 220.353	-4.6977u	1.9804	2.0474
Sb 206.834	-0.1511u	3.8812	-1.5255u
Se 196.026	-3.0112u	-0.5029u	-4.9967u
Si 288.158	1.1687	0.0390	2.0766
Sn 189.925	-6.8814u	0.9888	1.0194
Sr 216.596	-0.7284u	0.5192	0.5835
Ti 334.941	0.0679	0.0523	0.0977
Tl 190.794	1.5399	7.2629	3.7364
V 292.401	0.5654	-0.0461u	0.0511
Zn 206.200	1.7673	1.6997	1.9096

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	0.0038	ppb	0.2268	6039.6	11.0177	0.00376
Al 308.215	-41.1643	ppb	0.6369	1.5	601.189	-41.16427
As 188.980	-0.6708	ppb	3.5769	533.3	-3.4092	-0.67075
B 249.678	98.4735	ppb	1.5557	1.6	700.017	98.47354Z
Ba 389.178	1.6950	ppb	0.9090	53.6	-17.3187	1.69503
Be 313.042	0.0609	ppb	0.0028	4.5	-257.466	0.06088
Ca 370.602	-0.3943	ppb	3.234	820.2	30.97	-0.39431
Cd 226.502	0.4705	ppb	0.0626	13.3	-9.2952	0.47053
Co 228.615	0.3885	ppb	0.5973	153.8	-28.8781	0.38848
Cr 267.716	0.0375	ppb	0.0954	254.2	16.8571	0.03753
Cu 324.754	0.7442	ppb	0.2325	31.2	244.772	0.74419
Fe 271.441	-1.5683	ppb	2.5509	162.7	44.6245	-1.56831
K 766.491	8.1317	ppb	0.4131	5.1	467.615	8.13169
Mg 279.078	-0.9382	ppb	3.4908	372.1	17.3722	-0.93819
Mn 257.610	0.0020	ppb	0.0154	778.9	55.8717	0.00198
Mo 202.032	-0.1853	ppb	1.0448	563.9	-3.0333	-0.18527
Na 330.237	-95.7595	ppb	143.712	150.1	34.3874	-95.75946
Ni 231.604	3.8197	ppb	1.4665	38.4	-8.3653	3.81972
Pb 220.353	-0.2233	ppb	3.8750	1735.3	9.4040	-0.22330
Sb 206.834	0.7348	ppb	2.8102	382.4	-1.5664	0.73485
Se 196.026	-2.8369	ppb	2.2520	79.4	-0.2113	-2.83692
Si 288.158	1.0948	ppb	1.0208	93.2	410.724	1.09477
Sn 189.925	-1.6244	ppb	4.5527	280.3	-0.1696	-1.62440
Sr 216.596	0.1247	ppb	0.7396	592.9	9.8550	0.12474
Ti 334.941	0.0727	ppb	0.0231	31.8	34.8265	0.07265
Tl 190.794	4.1797	ppb	2.8871	69.1	-3.7613	4.17972
V 292.401	0.1901	ppb	0.3286	172.8	12.2799	0.19014
Zn 206.200	1.7922	ppb	0.1071	6.0	-0.9902	1.79220

680-201857-c-3-c msd (Samp) **7/26/2021, 9:30:01 PM** **Rack 2, Tube 31**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	45.5808	46.6637	45.3575
Al 308.215	26466.8	26721.3	26627.8
As 188.980	101.880	120.224	121.951
B 249.678	269.147	272.813	271.118
Ba 389.178	165.513	166.594	168.671
Be 313.042	47.4487	47.8808	47.7976
Ca 370.602	9638	9760	9723
Cd 226.502	47.4174	47.7313	47.5642
Co 228.615	59.7691	61.2650	62.2177
Cr 267.716	138.374	139.813	139.516
Cu 324.754	124.556	126.026	125.419
Fe 271.441	37250.6	37582.0	37467.6
K 766.491	10060.8	10134.7	10093.2
Mg 279.078	12738.4	12876.5	12843.5
Mn 257.610	734.362	741.214	738.334
Mo 202.032	96.1639	95.7149	94.8001
Na 330.237	4671.14	5070.69	4982.72
Ni 231.604	149.346	151.191	150.849
Pb 220.353	484.131	487.370	478.062
Sb 206.834	49.7889	49.0361	56.4573
Se 196.026	92.1909	89.9695	90.6782
Si 288.158	6040.11	6093.19	6074.21
Sn 189.925	104.861	99.7456	103.053
Sr 216.596	112.092	114.502	113.005
Ti 334.941	1725.99	1742.38	1737.81
Tl 190.794	41.1545	40.8080	44.1195
V 292.401	137.372	138.411	138.322
Zn 206.200	167.932	169.777	167.303

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	45.8673	ppb	0.6987	1.5	1956.22
Al 308.215	26605.3	ppb	128.738	0.5	86835.6
As 188.980	114.685	ppb	11.1231	9.7	45.0512
B 249.678	271.026	ppb	1.8347	0.7	1950.65
Ba 389.178	166.926	ppb	1.6049	1.0	1913.10
Be 313.042	47.7090	ppb	0.2293	0.5	45087.7
Ca 370.602	9707	ppb	62.73	0.6	21107
Cd 226.502	47.5710	ppb	0.1571	0.3	1015.30
Co 228.615	61.0840	ppb	1.2343	2.0	318.187
Cr 267.716	139.234	ppb	0.7600	0.5	3480.05
Cu 324.754	125.334	ppb	0.7387	0.6	5458.34
Fe 271.441	37433.4	ppb	168.328	0.4	30919.6
K 766.491	10096.2	ppb	37.0321	0.4	257737
Mg 279.078	12819.5	ppb	72.1048	0.6	19233.2
Mn 257.610	737.970	ppb	3.4404	0.5	76656.9
Mo 202.032	95.5596	ppb	0.6950	0.7	297.240
Na 330.237	4908.19	ppb	209.944	4.3	181.856
Ni 231.604	150.462	ppb	0.9814	0.7	214.440
Pb 220.353	483.188	ppb	4.7250	1.0	364.956
Sb 206.834	51.7608	ppb	4.0847	7.9	29.8133
Se 196.026	90.9462	ppb	1.1347	1.2	28.1037
Si 288.158	6069.17	ppb	26.8942	0.4	36489.3

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	102.553	ppb	2.5941	2.5	42.7645
Sr 216.596	113.200	ppb	1.2164	1.1	646.362
Ti 334.941	1735.39	ppb	8.4597	0.5	255120
Tl 190.794	42.0273	ppb	1.8202	4.3	17.3423
V 292.401	138.035	ppb	0.5755	0.4	1823.53
Zn 206.200	168.337	ppb	1.2854	0.8	112.133

680-201857-c-1-a (Samp) **7/26/2021, 9:34:31 PM** **Rack 2, Tube 32**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2482u	-0.1548u	-0.0532
Al 308.215	43146.6	43342.7	43596.8
As 188.980	159.073	165.800	161.163
B 249.678	83.6059	81.9614	82.9146
Ba 389.178	59.7183	59.7307	62.1067
Be 313.042	3.3545	3.3761	3.3953
Ca 370.602	7522	7577	7601
Cd 226.502	1.7923	1.6279	1.7886
Co 228.615	30.9976	31.3063	31.7525
Cr 267.716	82.2220	82.5278	82.7277
Cu 324.754	111.568	110.462	109.998
Fe 271.441	66001.2	66456.8	66723.7
K 766.491	3763.92	3781.60	3800.04
Mg 279.078	12924.6	12986.3	13028.9
Mn 257.610	441.124	444.007	445.977
Mo 202.032	13.1079	12.4105	12.5192
Na 330.237	176.600u	138.742u	383.589u
Ni 231.604	164.178	162.097	166.434
Pb 220.353	65.4164	63.2983	63.4382
Sb 206.834	6.6513	7.7145	3.6007
Se 196.026	3.4747	6.9434	-3.6457u
Si 288.158	6091.05	6131.37	6157.89
Sn 189.925	9.7710	10.4715	7.5185
Sr 216.596	36.0379	36.7365	36.7312
Ti 334.941	1401.81	1409.72	1413.97
Tl 190.794	-1.3395u	0.2276u	2.5941u
V 292.401	77.8879	78.4282	78.2767
Zn 206.200	178.515	181.623	183.224

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1520	ppb	0.0975	64.1	7.9104
Al 308.215	43362.0	ppb	225.747	0.5	141053
As 188.980	162.012	ppb	3.4429	2.1	64.9884
B 249.678	82.8273	ppb	0.8257	1.0	453.155
Ba 389.178	60.5186	ppb	1.3754	2.3	689.955
Be 313.042	3.3753	ppb	0.0204	0.6	2904.24
Ca 370.602	7567	ppb	40.38	0.5	16379
Cd 226.502	1.7363	ppb	0.0939	5.4	101.630
Co 228.615	31.3521	ppb	0.3795	1.2	155.230
Cr 267.716	82.4925	ppb	0.2547	0.3	2068.70
Cu 324.754	110.676	ppb	0.8068	0.7	4852.05
Fe 271.441	66393.9	ppb	365.334	0.6	54799.2
K 766.491	3781.85	ppb	18.0600	0.5	96706.2

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	12980.0	ppb	52.4479	0.4	19473.2
Mn 257.610	443.703	ppb	2.4405	0.6	46083.2
Mo 202.032	12.6792	ppb	0.3752	3.0	35.9446
Na 330.237	232.977	ppb	131.800	56.6	20.3260
Ni 231.604	164.236	ppb	2.1695	1.3	235.415
Pb 220.353	64.0510	ppb	1.1846	1.8	58.6236
Sb 206.834	5.9888	ppb	2.1354	35.7	2.8043
Se 196.026	2.2575	ppb	5.3985	239.1	1.9597
Si 288.158	6126.77	ppb	33.6570	0.5	36787.5
Sn 189.925	9.2537	ppb	1.5430	16.7	4.3134
Sr 216.596	36.5019	ppb	0.4018	1.1	226.209
Ti 334.941	1408.50	ppb	6.1716	0.4	207069
Tl 190.794	0.4941	ppb	1.9802	400.8	-7.6639
V 292.401	78.1976	ppb	0.2787	0.4	1043.62
Zn 206.200	181.121	ppb	2.3943	1.3	121.029

680-201857-c-2-a (Samp) **7/26/2021, 9:39:02 PM** **Rack 2, Tube 33**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2287u	-0.2851u	-0.3156u
Al 308.215	22820.9	22924.4	22899.6
As 188.980	24.3699	26.8413	29.1639
B 249.678	63.1349	62.3604	62.3751
Ba 389.178	57.7081	58.8096	58.9294
Be 313.042	0.9102	0.9130	0.9161
Ca 370.602	7820	7845	7841
Cd 226.502	0.6459	0.7218	1.0139
Co 228.615	12.0395	11.8071	11.0397
Cr 267.716	49.0421	49.2157	49.1313
Cu 324.754	32.1575	31.6625	31.6594
Fe 271.441	27888.4	27930.0	27887.7
K 766.491	3299.14	3302.07	3295.40
Mg 279.078	7851.42	7872.38	7868.98
Mn 257.610	345.808	346.915	346.407
Mo 202.032	2.9542	2.3791	4.0246
Na 330.237	337.776u	247.540u	181.700u
Ni 231.604	55.7558	59.1856	58.2668
Pb 220.353	16.3794	18.9206	19.9332
Sb 206.834	3.2196	2.7797	1.6007
Se 196.026	-5.7181u	5.3770	4.8289
Si 288.158	5481.35	5488.75	5479.38
Sn 189.925	6.0576	12.4372	10.3487
Sr 216.596	21.1987	20.7790	21.3157
Ti 334.941	1555.44	1559.79	1557.16
Tl 190.794	6.1999	5.4194	3.9394
V 292.401	35.2555	36.1784	36.1010
Zn 206.200	77.6103	75.5573	75.7749

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2765	ppb	0.0441	15.9	2.6477
Al 308.215	22881.6	ppb	54.0431	0.2	74778.0
As 188.980	26.7917	ppb	2.3974	8.9	8.2013
B 249.678	62.6235	ppb	0.4430	0.7	371.902

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	58.4823	ppb	0.6732	1.2	652.940
Be 313.042	0.9131	ppb	0.0029	0.3	558.131
Ca 370.602	7835	ppb	13.62	0.2	17047
Cd 226.502	0.7939	ppb	0.1943	24.5	32.9275
Co 228.615	11.6288	ppb	0.5232	4.5	48.9110
Cr 267.716	49.1297	ppb	0.0868	0.2	1239.40
Cu 324.754	31.8265	ppb	0.2867	0.9	1549.61
Fe 271.441	27902.0	ppb	24.2353	0.1	23056.0
K 766.491	3298.87	ppb	3.3439	0.1	84389.1
Mg 279.078	7864.26	ppb	11.2464	0.1	11805.7
Mn 257.610	346.376	ppb	0.5541	0.2	36016.5
Mo 202.032	3.1193	ppb	0.8351	26.8	6.7350
Na 330.237	255.672	ppb	78.3553	30.6	22.3184
Ni 231.604	57.7361	ppb	1.7754	3.1	73.5677
Pb 220.353	18.4111	ppb	1.8309	9.9	23.6224
Sb 206.834	2.5333	ppb	0.8371	33.0	0.0817
Se 196.026	1.4959	ppb	6.2535	418.0	1.3763
Si 288.158	5483.16	ppb	4.9439	0.1	32981.6
Sn 189.925	9.6145	ppb	3.2526	33.8	4.4622
Sr 216.596	21.0978	ppb	0.2822	1.3	133.052
Ti 334.941	1557.46	ppb	2.1883	0.1	228966
Tl 190.794	5.1862	ppb	1.1482	22.1	-4.7052
V 292.401	35.8450	ppb	0.5120	1.4	489.427
Zn 206.200	76.3142	ppb	1.1278	1.5	49.7102

680-201857-c-4-a (Samp) **7/26/2021, 9:43:33 PM** **Rack 2, Tube 34**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2680u	-0.2243u	-0.2171u
Al 308.215	22504.8	22536.0	22430.0
As 188.980	68.1135	73.7654	69.0077
B 249.678	56.0023	56.3827	55.5159
Ba 389.178	68.8851	68.9527	68.8257
Be 313.042	0.9756	0.9911	0.9693
Ca 370.602	5634	5655	5623
Cd 226.502	1.5092	1.2353	1.1471
Co 228.615	19.2641	20.9400	18.3108
Cr 267.716	47.7768	48.1153	47.9468
Cu 324.754	31.9892	32.2569	32.0968
Fe 271.441	40248.5	40254.2	40081.9
K 766.491	3593.60	3590.30	3571.32
Mg 279.078	8327.44	8331.92	8308.71
Mn 257.610	392.243	392.699	390.444
Mo 202.032	2.4319	2.0180	2.2048
Na 330.237	454.046u	533.847u	517.463u
Ni 231.604	54.9568	56.2662	54.8764
Pb 220.353	15.6068	9.1904	13.3121
Sb 206.834	-5.1200u	10.6721	-1.5049u
Se 196.026	-0.3909	-15.6111u	-4.0244u
Si 288.158	5410.77	5413.35	5389.66
Sn 189.925	8.5789	9.1274	10.8637
Sr 216.596	20.9090	21.1550	20.2534
Ti 334.941	1552.47	1555.57	1546.10

Label	Replicates Concentration		
Tl 190.794	6.8957	-2.1170u	4.3150
V 292.401	42.7015	42.9985	42.2426
Zn 206.200	76.6244	75.3398	79.8506

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2364	ppb	0.0275	11.6	4.4516
Al 308.215	22490.2	ppb	54.4664	0.2	73512.5
As 188.980	70.2955	ppb	3.0381	4.3	26.4577
B 249.678	55.9670	ppb	0.4345	0.8	297.432
Ba 389.178	68.8878	ppb	0.0635	0.1	776.235
Be 313.042	0.9787	ppb	0.0112	1.1	620.612
Ca 370.602	5637	ppb	16.53	0.3	12245
Cd 226.502	1.2972	ppb	0.1888	14.6	58.5910
Co 228.615	19.5050	ppb	1.3310	6.8	91.8109
Cr 267.716	47.9463	ppb	0.1693	0.4	1210.08
Cu 324.754	32.1143	ppb	0.1347	0.4	1564.61
Fe 271.441	40194.8	ppb	97.8625	0.2	33193.6
K 766.491	3585.07	ppb	12.0210	0.3	91687.8
Mg 279.078	8322.69	ppb	12.3096	0.1	12492.9
Mn 257.610	391.795	ppb	1.1923	0.3	40720.3
Mo 202.032	2.2182	ppb	0.2073	9.3	3.6293
Na 330.237	501.785	ppb	42.1473	8.4	30.5561
Ni 231.604	55.3664	ppb	0.7802	1.4	69.9568
Pb 220.353	12.7031	ppb	3.2513	25.6	19.9839
Sb 206.834	1.3491	ppb	8.2738	613.3	-0.4428
Se 196.026	-6.6755	ppb	7.9489	119.1	-0.9362
Si 288.158	5404.59	ppb	12.9974	0.2	32515.4
Sn 189.925	9.5233	ppb	1.1927	12.5	4.4246
Sr 216.596	20.7725	ppb	0.4660	2.2	133.751
Ti 334.941	1551.38	ppb	4.8259	0.3	228071
Tl 190.794	3.0313	ppb	4.6415	153.1	-6.0826
V 292.401	42.6475	ppb	0.3808	0.9	579.076
Zn 206.200	77.2716	ppb	2.3240	3.0	50.4432

680-201857-c-5-a (Samp) **7/26/2021, 9:48:04 PM** **Rack 2, Tube 35**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.3482u	-0.2283u	-0.2991u
Al 308.215	35035.2	35075.6	34818.2
As 188.980	344.617	345.576	347.865
B 249.678	54.6404	53.4029	53.9492
Ba 389.178	150.573	152.648	153.062
Be 313.042	3.0036	3.0174	2.9973
Ca 370.602	12980	13028	12932
Cd 226.502	1.6639	1.4293	1.6534
Co 228.615	22.2030	21.0644	21.4774
Cr 267.716	67.9902	68.0110	67.8103
Cu 324.754	37.9725	38.5242	37.8636
Fe 271.441	59647.6	59830.7	59459.2
K 766.491	8358.96	8396.13	8319.63
Mg 279.078	12809.1	12863.2	12755.8
Mn 257.610	1556.46	1556.68	1546.46
Mo 202.032	3.1490	2.9908	3.7619

Label	Replicates Concentration		
Na 330.237	595.635u	711.709u	709.036u
Ni 231.604	72.1751	69.4833	70.1854
Pb 220.353	45.0182	44.9227	48.9659
Sb 206.834	-1.9663u	0.8653	0.9195
Se 196.026	7.3052	-4.6747u	0.9541
Si 288.158	7086.49	7116.58	7070.47
Sn 189.925	6.7567	12.3330	9.1133
Sr 216.596	72.5171	71.7999	70.6705
Ti 334.941	2926.06	2936.15	2916.99
Tl 190.794	3.4212u	1.8412u	-1.1547u
V 292.401	58.9723	58.3771	58.8502
Zn 206.200	200.762	199.957	195.808

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2919	ppb	0.0603	20.6	7.2225
Al 308.215	34976.4	ppb	138.453	0.4	113917
As 188.980	346.019	ppb	1.6690	0.5	142.072
B 249.678	53.9975	ppb	0.6202	1.1	245.154
Ba 389.178	152.094	ppb	1.3337	0.9	1746.63
Be 313.042	3.0061	ppb	0.0103	0.3	2552.37
Ca 370.602	12980	ppb	48.03	0.4	28219
Cd 226.502	1.5822	ppb	0.1325	8.4	88.8946
Co 228.615	21.5816	ppb	0.5764	2.7	117.878
Cr 267.716	67.9372	ppb	0.1103	0.2	1710.92
Cu 324.754	38.1201	ppb	0.3541	0.9	1820.18
Fe 271.441	59645.9	ppb	185.751	0.3	49234.0
K 766.491	8358.24	ppb	38.2551	0.5	213415
Mg 279.078	12809.4	ppb	53.6856	0.4	19208.2
Mn 257.610	1553.20	ppb	5.8399	0.4	161279
Mo 202.032	3.3005	ppb	0.4073	12.3	6.6010
Na 330.237	672.126	ppb	66.2573	9.9	14.3538
Ni 231.604	70.6146	ppb	1.3963	2.0	93.1289
Pb 220.353	46.3023	ppb	2.3073	5.0	45.0605
Sb 206.834	-0.0605	ppb	1.6507	2729.0	-0.9566
Se 196.026	1.1949	ppb	5.9936	501.6	1.7481
Si 288.158	7091.18	ppb	23.4083	0.3	42589.4
Sn 189.925	9.4010	ppb	2.7992	29.8	4.3742
Sr 216.596	71.6625	ppb	0.9310	1.3	422.288
Ti 334.941	2926.40	ppb	9.5846	0.3	430194
Tl 190.794	1.3692	ppb	2.3242	169.7	-8.5886
V 292.401	58.7332	ppb	0.3144	0.5	799.291
Zn 206.200	198.842	ppb	2.6586	1.3	133.009

680-201857-c-6-a (Samp) **7/26/2021, 9:52:36 PM** **Rack 2, Tube 36**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2220u	-0.2656u	-0.2129u
Al 308.215	24080.6	24217.1	24151.9
As 188.980	39.2831	30.1711	29.8725
B 249.678	44.0346	43.6442	43.2672
Ba 389.178	67.6569	67.3330	67.1853
Be 313.042	0.9530	0.9481	0.9434
Ca 370.602	6902	6966	6949

Label	Replicates Concentration		
Cd 226.502	0.5276	0.8161	0.7969
Co 228.615	11.2412	12.3626	10.8281
Cr 267.716	50.2006	49.9871	50.0038
Cu 324.754	31.5946	31.8983	31.3216
Fe 271.441	27784.5	27922.2	27872.9
K 766.491	3952.54	3969.26	3947.22
Mg 279.078	8164.01	8200.72	8185.41
Mn 257.610	378.488	380.547	379.899
Mo 202.032	1.5582	1.6760	2.3340
Na 330.237	528.510u	519.432u	339.334u
Ni 231.604	55.4064	56.8160	55.4631
Pb 220.353	18.8246	10.3915	14.1108
Sb 206.834	-3.3105u	-2.9406u	4.1662
Se 196.026	-5.4153u	-5.4573u	4.0002
Si 288.158	5892.90	5923.59	5912.22
Sn 189.925	6.3710	6.6025	3.7859
Sr 216.596	21.8558	22.1302	22.8231
Ti 334.941	1573.47	1581.31	1578.41
Tl 190.794	5.1596	1.8461u	1.4521u
V 292.401	36.7851	36.2980	36.8549
Zn 206.200	79.3571	79.8561	80.7493

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2335	ppb	0.0281	12.0	4.5887
Al 308.215	24149.9	ppb	68.2806	0.3	78881.7
As 188.980	33.1089	ppb	5.3491	16.2	10.8513
B 249.678	43.6486	ppb	0.3837	0.9	226.603
Ba 389.178	67.3917	ppb	0.2413	0.4	756.106
Be 313.042	0.9482	ppb	0.0048	0.5	591.590
Ca 370.602	6939	ppb	33.13	0.5	15100
Cd 226.502	0.7136	ppb	0.1613	22.6	31.2661
Co 228.615	11.4773	ppb	0.7941	6.9	48.3039
Cr 267.716	50.0638	ppb	0.1188	0.2	1262.71
Cu 324.754	31.6048	ppb	0.2885	0.9	1540.30
Fe 271.441	27859.8	ppb	69.8068	0.3	23021.3
K 766.491	3956.34	ppb	11.5030	0.3	101156
Mg 279.078	8183.38	ppb	18.4361	0.2	12283.8
Mn 257.610	379.645	ppb	1.0527	0.3	39470.0
Mo 202.032	1.8561	ppb	0.4181	22.5	2.7629
Na 330.237	462.425	ppb	106.697	23.1	29.2802
Ni 231.604	55.8951	ppb	0.7980	1.4	70.7698
Pb 220.353	14.4423	ppb	4.2263	29.3	20.6922
Sb 206.834	-0.6950	ppb	4.2139	606.3	-1.8862
Se 196.026	-2.2908	ppb	5.4482	237.8	0.2554
Si 288.158	5909.57	ppb	15.5176	0.3	35508.6
Sn 189.925	5.5865	ppb	1.5636	28.0	2.8022
Sr 216.596	22.2697	ppb	0.4985	2.2	139.541
Ti 334.941	1577.73	ppb	3.9648	0.3	231945
Tl 190.794	2.8192	ppb	2.0364	72.2	-6.1622
V 292.401	36.6460	ppb	0.3034	0.8	499.999
Zn 206.200	79.9875	ppb	0.7053	0.9	52.2006

680-201844-c-1-a (Samp) **7/26/2021, 9:57:07 PM** **Rack 2, Tube 37**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	3.3506	3.0081	2.5516
Al 308.215	3138469x	3138345x	3127948x
As 188.980	-6.6413	28.6639	26.0955
B 249.678	2307.50	2307.30	2313.67
Ba 389.178	24516.8x	24551.0x	24466.9x
Be 313.042	4.7065	4.7440	4.7356
Ca 370.602	52088	52038	51991
Cd 226.502	1022.89	1025.56	1021.07
Co 228.615	84.7642	87.5256	86.0592
Cr 267.716	9673.65	9677.38	9658.30
Cu 324.754	73228.0x	73747.2x	73616.3x
Fe 271.441	749258	753922	750528
K 766.491	87812.7x	88069.2x	87760.6x
Mg 279.078	114312	114408	114169
Mn 257.610	6539.47	6535.78	6520.48
Mo 202.032	128.280	135.868	130.735
Na 330.237	75494.2u	76404.3u	75590.0u
Ni 231.604	1158.63	1166.94	1158.75
Pb 220.353	5637.79	5646.48	5593.55
Sb 206.834	731.776	746.786	733.799
Se 196.026	205.205	160.428	188.224
Si 288.158	6783.92	6799.58	6796.31
Sn 189.925	1229.53	1247.44	1213.68
Sr 216.596	2938.48x	2940.21x	2941.68x
Ti 334.941	2191.03	2189.39	2186.24
Tl 190.794	12.1319u	6.3664u	-5.3032u
V 292.401	568.390	573.029	569.232
Zn 206.200	242582x	242667x	242324x

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	2.9701b	ppb	0.4009	13.5	153.066
Al 308.215	3134921xb	ppb	6038.54	0.2	10144711
As 188.980	16.0394b	ppb	19.6839	122.7	10.8993
B 249.678	2309.49b	ppb	3.6197	0.2	16204.4
Ba 389.178	24511.5xb	ppb	42.2809	0.2	283449
Be 313.042	4.7287b	ppb	0.0197	0.4	4374.41
Ca 370.602	52039b	ppb	48.78	0.1	111683
Cd 226.502	1023.17b	ppb	2.2616	0.2	22335.3
Co 228.615	86.1163b	ppb	1.3816	1.6	491.215
Cr 267.716	9669.78b	ppb	10.1118	0.1	240386
Cu 324.754	73530.5xb	ppb	270.022	0.4	3071218
Fe 271.441	751236b	ppb	2411.21	0.3	619551
K 766.491	87880.9xb	ppb	165.221	0.2	2241424
Mg 279.078	114296b	ppb	120.552	0.1	170715
Mn 257.610	6531.91b	ppb	10.0696	0.2	677443
Mo 202.032	131.628b	ppb	3.8720	2.9	394.844
Na 330.237	75829.5b	ppb	500.116	0.7	-1227.84
Ni 231.604	1161.44b	ppb	4.7658	0.4	1751.77
Pb 220.353	5625.94b	ppb	28.3865	0.5	4136.31
Sb 206.834	737.454b	ppb	8.1449	1.1	491.726
Se 196.026	184.619b	ppb	22.6050	12.2	63.1658
Si 288.158	6793.27b	ppb	8.2586	0.1	40932.7

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	1230.22b	ppb	16.8931	1.4	507.486
Sr 216.596	2940.12xb	ppb	1.6035	0.1	16559.4
Ti 334.941	2188.89b	ppb	2.4359	0.1	321864
Tl 190.794	4.3984b	ppb	8.8826	202.0	-11.2362
V 292.401	570.217b	ppb	2.4710	0.4	7459.46
Zn 206.200	242524xb	ppb	178.814	0.1	164469

680-201865-a-1-a (Samp) **7/26/2021, 10:01:38 PM** **Rack 2, Tube 38**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1233u	0.1853	-0.2565u
Al 308.215	34945.8	34899.8	34958.5
As 188.980	4.0520	-1.3671u	12.4489
B 249.678	8839.75x	8854.31x	8900.10x
Ba 389.178	461.676	461.326	465.032
Be 313.042	0.0873	0.0849	0.0813
Ca 370.602	18603	18577	18618
Cd 226.502	10.0653	10.2426	10.0687
Co 228.615	7.8337	7.3440	7.3684
Cr 267.716	90.2726	90.5718	90.8387
Cu 324.754	613.885	616.826	625.207
Fe 271.441	7339.10	7331.69	7332.63
K 766.491	10614.9	10583.9	10635.8
Mg 279.078	2815.65	2808.50	2813.32
Mn 257.610	1930.45	1928.60	1930.63
Mo 202.032	2.6934	1.1777	1.1054
Na 330.237	14370.0	14263.9	14325.4
Ni 231.604	23.1578	23.1173	22.0574
Pb 220.353	58.6423	57.7993	55.5113
Sb 206.834	5.7551	10.9389	10.9817
Se 196.026	-0.8521	-1.3181u	2.2987
Si 288.158	332.824	321.963	310.924
Sn 189.925	22.3530	24.2307	20.3379
Sr 216.596	98.7227	99.2808	99.4712
Ti 334.941	24.8368	24.8249	25.1217
Tl 190.794	1.4450	1.9615	5.1968
V 292.401	4.9818	5.3987	4.3716
Zn 206.200	20934.8	20892.5	20922.3

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0648b	ppb	0.2266	349.7	12.7767
Al 308.215	34934.7b	ppb	30.8561	0.1	113776
As 188.980	5.0446b	ppb	6.9613	138.0	-0.9336
B 249.678	8864.72xb	ppb	31.4920	0.4	67861.0
Ba 389.178	462.678b	ppb	2.0463	0.4	5314.32
Be 313.042	0.0845b	ppb	0.0030	3.5	-230.080
Ca 370.602	18600b	ppb	21.08	0.1	40476
Cd 226.502	10.1255b	ppb	0.1014	1.0	202.264
Co 228.615	7.5153b	ppb	0.2759	3.7	10.2279
Cr 267.716	90.5611b	ppb	0.2832	0.3	2271.14
Cu 324.754	618.639b	ppb	5.8751	0.9	26051.5
Fe 271.441	7334.47b	ppb	4.0375	0.1	6094.65
K 766.491	10611.5b	ppb	26.0985	0.2	270878

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	2812.49b	ppb	3.6458	0.1	4210.63
Mn 257.610	1929.89b	ppb	1.1242	0.1	200359
Mo 202.032	1.6588b	ppb	0.8966	54.1	2.6040
Na 330.237	14319.8b	ppb	53.2939	0.4	209.718
Ni 231.604	22.7775b	ppb	0.6240	2.7	20.4587
Pb 220.353	57.3176b	ppb	1.6201	2.8	51.7405
Sb 206.834	9.2252b	ppb	3.0053	32.6	4.0281
Se 196.026	0.0428b	ppb	1.9675	4594.4	0.9961
Si 288.158	321.904b	ppb	10.9499	3.4	2315.64
Sn 189.925	22.3072b	ppb	1.9468	8.7	9.6939
Sr 216.596	99.1582b	ppb	0.3890	0.4	565.193
Ti 334.941	24.9278b	ppb	0.1680	0.7	3689.14
Tl 190.794	2.8678b	ppb	2.0335	70.9	-4.9690
V 292.401	4.9174b	ppb	0.5166	10.5	74.0725
Zn 206.200	20916.5b	ppb	21.7345	0.1	14182.7

680-201890-a-1-a (Samp) **7/26/2021, 10:06:08 PM** **Rack 2, Tube 39**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2593u	-0.2184u	-0.2555u
Al 308.215	60943.8	59935.7	59664.0
As 188.980	21.8869	12.0647	19.0661
B 249.678	477.218	463.042	453.785
Ba 389.178	183.279	184.274	181.535
Be 313.042	1.9037	1.8830	1.8884
Ca 370.602	10387	10266	10175
Cd 226.502	1.9138	1.6136	1.7129
Co 228.615	15.6231	14.3370	15.9232
Cr 267.716	78.4173	76.7954	76.4389
Cu 324.754	58.2153	57.5660	56.6473
Fe 271.441	67058.8	66230.7	65687.3
K 766.491	3710.29	3674.65	3643.18
Mg 279.078	3488.89	3443.28	3426.27
Mn 257.610	358.917	354.312	351.438
Mo 202.032	1.8893	1.8396	1.1424
Na 330.237	656.028u	644.278u	427.026u
Ni 231.604	31.2419	32.7823	28.7985
Pb 220.353	44.9558	39.7694	47.4356
Sb 206.834	6.7066	5.9603	-2.9304u
Se 196.026	0.2564	-0.1999	2.4898
Si 288.158	10515.0	10381.6	10314.4
Sn 189.925	7.1189	16.8245	11.1644
Sr 216.596	68.1188	68.1167	67.1315
Ti 334.941	1092.66	1078.06	1070.84
Tl 190.794	3.4048	7.0029	9.3933
V 292.401	141.887	140.595	139.195
Zn 206.200	904.598	889.008	887.434

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2444	ppb	0.0226	9.2	3.3056
Al 308.215	60181.2	ppb	674.250	1.1	195479
As 188.980	17.6726	ppb	5.0572	28.6	4.5350
B 249.678	464.682	ppb	11.8020	2.5	3379.37

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	183.029	ppb	1.3861	0.8	2096.84
Be 313.042	1.8917	ppb	0.0107	0.6	1500.17
Ca 370.602	10276	ppb	106.1	1.0	22257
Cd 226.502	1.7468	ppb	0.1529	8.8	102.890
Co 228.615	15.2944	ppb	0.8426	5.5	65.0740
Cr 267.716	77.2172	ppb	1.0545	1.4	1936.96
Cu 324.754	57.4762	ppb	0.7878	1.4	2629.50
Fe 271.441	66325.6	ppb	690.669	1.0	54742.1
K 766.491	3676.04	ppb	33.5768	0.9	94007.7
Mg 279.078	3452.81	ppb	32.3777	0.9	5181.28
Mn 257.610	354.889	ppb	3.7728	1.1	36858.2
Mo 202.032	1.6237	ppb	0.4176	25.7	1.1543
Na 330.237	575.777	ppb	128.956	22.4	25.7840
Ni 231.604	30.9409	ppb	2.0089	6.5	32.8479
Pb 220.353	44.0536	ppb	3.9119	8.9	43.8648
Sb 206.834	3.2455	ppb	5.3615	165.2	1.2210
Se 196.026	0.8488	ppb	1.4394	169.6	1.5274
Si 288.158	10403.7	ppb	102.152	1.0	62102.9
Sn 189.925	11.7026	ppb	4.8751	41.7	5.3227
Sr 216.596	67.7890	ppb	0.5694	0.8	402.238
Ti 334.941	1080.52	ppb	11.1196	1.0	158858
Tl 190.794	6.6003	ppb	3.0145	45.7	-3.6751
V 292.401	140.559	ppb	1.3463	1.0	1854.81
Zn 206.200	893.680	ppb	9.4878	1.1	604.265

(Samp) **7/26/2021, 10:10:39 PM** **Rack 2, Tube 40**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	9.9276	9.9402	7.2930
Al 308.215	170.651	164.097	78.7677
As 188.980	20.8332	23.0291	20.5340
B 249.678	175.128	166.948	130.007
Ba 389.178	9.7581	11.7671	9.1944
Be 313.042	4.1197	3.9936	3.1516
Ca 370.602	525.2	512.0	392.8
Cd 226.502	5.2904	5.3005	4.3586
Co 228.615	10.3934	10.3539	9.2401
Cr 267.716	10.3414	9.8429	7.6031
Cu 324.754	21.2806	20.2441	14.0404
Fe 271.441	47.9853	50.3381	20.2086
K 766.491	1069.31	1034.37	791.527
Mg 279.078	503.133	482.788	374.976
Mn 257.610	10.4312	9.9871	7.6113
Mo 202.032	9.6966	10.7993	8.4054
Na 330.237	885.498	838.166	356.087
Ni 231.604	42.6231	40.3795	33.2226
Pb 220.353	9.1530	9.3153	4.2736
Sb 206.834	19.9419	28.9718	18.7656
Se 196.026	10.7023	18.5936	7.9033
Si 288.158	12.3944	9.7151	-8.9288u
Sn 189.925	51.1597	47.9194	39.5989
Sr 216.596	9.9974	10.0127	7.1503
Ti 334.941	10.3229	10.0122	7.7512

Label	Replicates Concentration		
Tl 190.794	28.5387	24.5615	21.6548
V 292.401	10.5901	10.7403	7.6090
Zn 206.200	23.8953	21.5420	17.6371

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	9.0536	ppb	1.5247	16.8	393.967
Al 308.215	137.839	ppb	51.2619	37.2	1181.17
As 188.980	21.4654	ppb	1.3624	6.3	5.8669
B 249.678	157.361	ppb	24.0398	15.3	1151.18
Ba 389.178	10.2399	ppb	1.3524	13.2	81.9033
Be 313.042	3.7550	ppb	0.5264	14.0	3257.69
Ca 370.602	476.7	ppb	72.95	15.3	1068
Cd 226.502	4.9832	ppb	0.5409	10.9	84.3826
Co 228.615	9.9958	ppb	0.6547	6.5	23.1169
Cr 267.716	9.2625	ppb	1.4585	15.7	246.182
Cu 324.754	18.5217	ppb	3.9154	21.1	987.355
Fe 271.441	39.5106	ppb	16.7574	42.4	79.1401
K 766.491	965.070	ppb	151.304	15.7	24871.7
Mg 279.078	453.632	ppb	68.8739	15.2	699.028
Mn 257.610	9.3432	ppb	1.5162	16.2	1025.59
Mo 202.032	9.6338	ppb	1.1981	12.4	27.8459
Na 330.237	693.250	ppb	292.949	42.3	61.7340
Ni 231.604	38.7417	ppb	4.9096	12.7	44.7001
Pb 220.353	7.5806	ppb	2.8651	37.8	15.1196
Sb 206.834	22.5598	ppb	5.5841	24.8	11.7905
Se 196.026	12.3997	ppb	5.5436	44.7	4.3188
Si 288.158	4.3936uv	ppb	11.6150	264.4	437.437
Sn 189.925	46.2260	ppb	5.9635	12.9	19.5505
Sr 216.596	9.0535	ppb	1.6482	18.2	59.2256
Ti 334.941	9.3621	ppb	1.4037	15.0	1400.31
Tl 190.794	24.9183	ppb	3.4558	13.9	8.8014
V 292.401	9.6465	ppb	1.7661	18.3	135.612
Zn 206.200	21.0248	ppb	3.1610	15.0	12.0480

Cont Calib Verif (CCV) **7/26/2021, 10:15:12 PM** **Rack S, Tube 10**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	495.942	499.678	497.155
Al 308.215	9829.39	9853.72	9837.02
As 188.980	487.360	478.847	487.938
B 249.678	532.099	537.684	538.173
Ba 389.178	501.648	503.833	501.907
Be 313.042	499.950	502.287	501.457
Ca 370.602	9931	9968	9927
Cd 226.502	492.241	494.199	493.125
Co 228.615	499.100	498.904	496.290
Cr 267.716	495.064	496.189	494.413
Cu 324.754	495.356	495.972	496.047
Fe 271.441	9876.11	9937.92	9897.93
K 766.491	10193.5	10227.0	10214.8
Mg 279.078	9723.35	9763.89	9716.43
Mn 257.610	503.557	506.060	504.863
Mo 202.032	500.798	502.552	500.984

Label	Replicates Concentration		
Na 330.237	9804.75	9713.96	9759.38
Ni 231.604	492.823	496.655	500.065
Pb 220.353	486.038	499.679	492.467
Sb 206.834	493.090	495.723	493.320
Se 196.026	475.584	466.529	485.070
Si 288.158	4888.75	4917.10	4893.38
Sn 189.925	487.838	486.649	495.594
Sr 216.596	497.210	498.811	497.532
Ti 334.941	497.770	499.803	499.185
Tl 190.794	489.592	504.776	497.927
V 292.401	498.172	501.445	498.563
Zn 206.200	986.287	984.784	988.245

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	497.592	ppb	1.9057	0.4	21066.7	99.51835
Al 308.215	9840.04	ppb	12.4442	0.1	32615.3	98.40044
As 188.980	484.715	ppb	5.0897	1.1	199.983	96.94298
B 249.678	535.985	ppb	3.3748	0.6	4033.56	107.19704
Ba 389.178	502.463	ppb	1.1936	0.2	5782.25	100.49252
Be 313.042	501.231	ppb	1.1848	0.2	476631	100.24622
Ca 370.602	9942	ppb	22.74	0.2	21643	99.42183
Cd 226.502	493.188	ppb	0.9805	0.2	10224.7	98.63769
Co 228.615	498.098	ppb	1.5688	0.3	2665.77	99.61958
Cr 267.716	495.222	ppb	0.8988	0.2	12326.5	99.04439
Cu 324.754	495.792	ppb	0.3788	0.1	20929.0	99.15832
Fe 271.441	9903.99	ppb	31.3477	0.3	8246.81	98.99036
K 766.491	10211.8	ppb	16.9596	0.2	260684	102.11774
Mg 279.078	9734.56	ppb	25.6404	0.3	14612.1	97.34557
Mn 257.610	504.827	ppb	1.2515	0.2	52455.3	100.96535
Mo 202.032	501.445	ppb	0.9636	0.2	1574.33	100.28895
Na 330.237	9759.37	ppb	45.3960	0.5	358.474	97.59366
Ni 231.604	496.514	ppb	3.6229	0.7	739.863	99.30283
Pb 220.353	492.728	ppb	6.8245	1.4	370.881	98.54556
Sb 206.834	494.044	ppb	1.4584	0.3	298.374	98.80888
Se 196.026	475.728	ppb	9.2713	1.9	142.181	95.14552
Si 288.158	4899.74	ppb	15.2068	0.3	29598.9	97.99481
Sn 189.925	490.027	ppb	4.8576	1.0	202.449	98.00537
Sr 216.596	497.851	ppb	0.8472	0.2	2774.77	99.57021
Ti 334.941	498.919	ppb	1.0422	0.2	73363.1	99.78386
Tl 190.794	497.432	ppb	7.6041	1.5	294.768	99.48637
V 292.401	499.393	ppb	1.7872	0.4	6523.62	99.87863
Zn 206.200	986.439	ppb	1.7350	0.2	666.561	98.64386

Cont Calib Blank (CCB) **7/26/2021, 10:19:43 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2008u	-0.1555u	-0.0695u
Al 308.215	-38.7354u	-26.5640u	-34.4659u
As 188.980	-1.2507u	7.9601	0.1425
B 249.678	48.9795	49.2067	46.4819
Ba 389.178	1.5773	0.9401	1.4984
Be 313.042	0.0751	0.0290	0.0559
Ca 370.602	1.557	-0.1442u	3.133

Label	Replicates Concentration		
Cd 226.502	0.3714	0.4128	0.3838
Co 228.615	-0.0344u	1.4222	-0.0301u
Cr 267.716	-0.0819u	-0.1378u	-0.0559u
Cu 324.754	0.4604	0.6529	0.5320
Fe 271.441	-3.1098u	1.4220	-4.1104u
K 766.491	5.8390	6.8470	5.5712
Mg 279.078	-0.7466u	0.2907	5.6241
Mn 257.610	-0.0342u	0.0602	0.0966
Mo 202.032	0.2488	1.2860	-0.3858u
Na 330.237	-143.115u	-153.232u	-95.4972u
Ni 231.604	2.9931	2.1762	2.5368
Pb 220.353	1.2116	5.6248	4.2834
Sb 206.834	-1.8871u	5.8810	6.0848
Se 196.026	-13.7426u	4.1421	0.1021
Si 288.158	0.9335	7.5004	4.3933
Sn 189.925	1.6143	-0.2091u	-1.1725u
Sr 216.596	0.6770	0.3317	0.8456
Ti 334.941	0.1215	0.1700	0.0315
Tl 190.794	0.2288	1.1763	1.8693
V 292.401	0.4012	0.4912	-0.0473u
Zn 206.200	-2.3023u	0.0810	-0.8315u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.1419	ppb	0.0667	47.0	4.8536	-0.14191
Al 308.215	-33.2551	ppb	6.1754	18.6	626.775	-33.25512
As 188.980	2.2840	ppb	4.9648	217.4	-2.1709	2.28397
B 249.678	48.2227	ppb	1.5119	3.1	314.941	48.22270
Ba 389.178	1.3386	ppb	0.3473	25.9	-21.4339	1.33860
Be 313.042	0.0534	ppb	0.0231	43.4	-264.648	0.05337
Ca 370.602	1.515	ppb	1.639	108.2	35.11	1.51522
Cd 226.502	0.3893	ppb	0.0212	5.5	-10.9739	0.38932
Co 228.615	0.4526	ppb	0.8397	185.6	-28.5327	0.45256
Cr 267.716	-0.0919	ppb	0.0418	45.5	13.6402	-0.09186
Cu 324.754	0.5484	ppb	0.0973	17.7	236.606	0.54841
Fe 271.441	-1.9327	ppb	2.9480	152.5	44.3437	-1.93271
K 766.491	6.0857	ppb	0.6727	11.1	415.438	6.08572
Mg 279.078	1.7227	ppb	3.4183	198.4	21.3618	1.72270
Mn 257.610	0.0409	ppb	0.0675	165.2	59.9044	0.04086
Mo 202.032	0.3830	ppb	0.8439	220.3	-1.2460	0.38300
Na 330.237	-130.615	ppb	30.8307	23.6	33.1825	-130.61502
Ni 231.604	2.5687	ppb	0.4094	15.9	-10.2671	2.56872
Pb 220.353	3.7066	ppb	2.2624	61.0	12.2876	3.70659
Sb 206.834	3.3595	ppb	4.5449	135.3	0.0448	3.35954
Se 196.026	-3.1661	ppb	9.3796	296.2	-0.3091	-3.16611
Si 288.158	4.2757	ppb	3.2850	76.8	429.789	4.27575
Sn 189.925	0.0776	ppb	1.4154	1824.1	0.5318	0.07759
Sr 216.596	0.6181	ppb	0.2619	42.4	12.6106	0.61809
Ti 334.941	0.1077	ppb	0.0703	65.2	39.9820	0.10769
Tl 190.794	1.0914	ppb	0.8235	75.5	-5.6332	1.09144
V 292.401	0.2817	ppb	0.2885	102.4	13.4743	0.28170
Zn 206.200	-1.0176	ppb	1.2025	118.2	-2.8957	-1.01762

mb 680-678046/1-a (Samp) **7/26/2021, 10:24:14 PM** **Rack 3, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0016	-0.1197u	-0.2293u
Al 308.215	-39.0869u	-40.8188u	-37.1048u
As 188.980	1.2076	-0.6510u	-5.7291u
B 249.678	34.1188	33.4906	32.6349
Ba 389.178	1.1584	1.0409	1.0033
Be 313.042	0.0396	0.0329	0.0414
Ca 370.602	6.564	0.2270	10.64
Cd 226.502	0.2092	0.2564	0.0903
Co 228.615	0.6796	-0.7200u	0.2658
Cr 267.716	-0.0500u	0.4292	-0.0916u
Cu 324.754	0.3364	-0.2705u	0.2567
Fe 271.441	-2.3929u	-6.5774u	-15.2351u
K 766.491	4.8419	4.2345	4.5699
Mg 279.078	-1.7054u	-4.2493u	2.8113
Mn 257.610	-0.0867u	-0.1437u	-0.0712u
Mo 202.032	0.4396	-0.5282u	-0.4510u
Na 330.237	-304.322u	-50.3195u	-295.337u
Ni 231.604	1.2489	1.4106	1.8493
Pb 220.353	6.3862	4.9458	-0.9282u
Sb 206.834	-4.5970u	-3.5939u	1.4928
Se 196.026	1.7773	-1.9818u	-2.6882u
Si 288.158	-0.0536u	1.2098	0.8071
Sn 189.925	-0.5330u	-3.6402u	-5.1841u
Sr 216.596	0.3423	0.3595	0.2319
Ti 334.941	0.0669	0.0655	0.1311
Tl 190.794	4.5281	1.9441	3.2924
V 292.401	-0.0047u	0.2622	0.3237
Zn 206.200	2.0932	2.1814	-1.6661u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1158	ppb	0.1155	99.7	5.9602
Al 308.215	-39.0035	ppb	1.8584	4.8	608.172
As 188.980	-1.7242	ppb	3.5907	208.3	-3.8507
B 249.678	33.4148	ppb	0.7449	2.2	201.481
Ba 389.178	1.0675	ppb	0.0809	7.6	-24.5675
Be 313.042	0.0380	ppb	0.0045	11.8	-279.303
Ca 370.602	5.810	ppb	5.246	90.3	44.45
Cd 226.502	0.1853	ppb	0.0856	46.2	-15.2147
Co 228.615	0.0751	ppb	0.7190	956.9	-30.5720
Cr 267.716	0.0958	ppb	0.2894	302.0	18.3065
Cu 324.754	0.1076	ppb	0.3298	306.6	218.192
Fe 271.441	-8.0685	ppb	6.5496	81.2	39.2583
K 766.491	4.5487	ppb	0.3042	6.7	376.241
Mg 279.078	-1.0478	ppb	3.5759	341.3	17.2078
Mn 257.610	-0.1005	ppb	0.0381	37.9	45.2339
Mo 202.032	-0.1798	ppb	0.5379	299.1	-3.0161
Na 330.237	-216.660	ppb	144.125	66.5	30.1425
Ni 231.604	1.5029	ppb	0.3106	20.7	-11.8864
Pb 220.353	3.4679	ppb	3.8747	111.7	12.1123
Sb 206.834	-2.2327	ppb	3.2651	146.2	-3.3938
Se 196.026	-0.9642	ppb	2.4004	248.9	0.3452
Si 288.158	0.6545uv	ppb	0.6454	98.6	408.034

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-3.1191	ppb	2.3690	76.0	-0.7856
Sr 216.596	0.3112	ppb	0.0692	22.2	10.9047
Ti 334.941	0.0878	ppb	0.0375	42.7	37.0605
Tl 190.794	3.2549	ppb	1.2925	39.7	-4.3220
V 292.401	0.1937	ppb	0.1746	90.1	12.3254
Zn 206.200	0.8695	ppb	2.1963	252.6	-1.6160

lcs 680-678046/2-a (Samp) **7/26/2021, 10:28:46 PM** **Rack 3, Tube 2**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.8147	41.0343	48.3849
Al 308.215	4747.64	4296.58	4739.78
As 188.980	91.1261	84.4598	100.981
B 249.678	219.459	200.804	220.521
Ba 389.178	102.274	92.7200	102.350
Be 313.042	47.9703	43.5604	47.6149
Ca 370.602	4833	4403	4801
Cd 226.502	49.0590	44.2071	48.1401
Co 228.615	47.6827	44.9762	48.0120
Cr 267.716	97.4969	88.7224	96.9195
Cu 324.754	96.2944	83.1600	96.3708
Fe 271.441	4854.42	4399.68	4825.81
K 766.491	6957.17	6338.53	6923.15
Mg 279.078	4726.48	4280.43	4694.16
Mn 257.610	388.092	352.853	386.675
Mo 202.032	97.5391	88.5974	95.8287
Na 330.237	4576.93	4075.38	4317.66
Ni 231.604	100.295	92.3855	97.7978
Pb 220.353	490.820	439.410	477.130
Sb 206.834	51.3265	46.0553	42.4526
Se 196.026	99.8214	78.0845	85.9765
Si 288.158	-6.1154	-11.1191u	-4.3288
Sn 189.925	94.9025	85.4868	94.4646
Sr 216.596	96.5168	86.5709	93.7600
Ti 334.941	340.206	308.892	338.268
Tl 190.794	42.4705	37.8065	46.5065
V 292.401	97.9292	88.3272	96.8270
Zn 206.200	97.6862	89.5043	94.0116

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	46.0780	ppb	4.3732	9.5	1961.85
Al 308.215	4594.67	ppb	258.180	5.6	15609.7
As 188.980	92.1888	ppb	8.3115	9.0	35.5135
B 249.678	213.595	ppb	11.0897	5.2	1573.17
Ba 389.178	99.1147	ppb	5.5381	5.6	1114.20
Be 313.042	46.3819	ppb	2.4499	5.3	43820.0
Ca 370.602	4679	ppb	239.6	5.1	10207
Cd 226.502	47.1354	ppb	2.5772	5.5	964.768
Co 228.615	46.8903	ppb	1.6658	3.6	225.810
Cr 267.716	94.3796	ppb	4.9078	5.2	2362.95
Cu 324.754	91.9417	ppb	7.6053	8.3	4055.96
Fe 271.441	4693.30	ppb	254.692	5.4	3919.67
K 766.491	6739.62	ppb	347.766	5.2	172136

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	4567.02	ppb	248.724	5.4	6863.94
Mn 257.610	375.873	ppb	19.9484	5.3	39071.6
Mo 202.032	93.9884	ppb	4.7465	5.1	293.032
Na 330.237	4323.33	ppb	250.821	5.8	183.766
Ni 231.604	96.8262	ppb	4.0434	4.2	132.936
Pb 220.353	469.120	ppb	26.6247	5.7	353.819
Sb 206.834	46.6115	ppb	4.4630	9.6	26.0157
Se 196.026	87.9608	ppb	11.0035	12.5	26.8714
Si 288.158	-7.1877uv	ppb	3.5199	49.0	407.356
Sn 189.925	91.6180	ppb	5.3143	5.8	38.2578
Sr 216.596	92.2826	ppb	5.1349	5.6	522.638
Ti 334.941	329.122	ppb	17.5467	5.3	48403.7
Tl 190.794	42.2612	ppb	4.3538	10.3	18.9412
V 292.401	94.3611	ppb	5.2545	5.6	1242.35
Zn 206.200	93.7341	ppb	4.0980	4.4	61.3420

680-201960-m-2-d (Samp) **7/26/2021, 10:33:17 PM** **Rack 3, Tube 3**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1931u	-0.1682u	-0.1993u
Al 308.215	-4.4355u	-3.6341u	-0.9336u
As 188.980	0.4115	5.5669	-2.3819u
B 249.678	44.7756	43.9356	43.1922
Ba 389.178	32.2976	30.7259	31.6322
Be 313.042	0.0446	0.0418	0.0507
Ca 370.602	49919	49938	49960
Cd 226.502	0.2990	0.3159	0.0729
Co 228.615	0.7270	0.4065	-0.4081u
Cr 267.716	0.7714	0.4144	1.0580
Cu 324.754	0.9100	1.1617	0.8959
Fe 271.441	31.1436	38.8803	34.8662
K 766.491	2083.85	2088.58	2082.97
Mg 279.078	12926.6	12902.6	12930.4
Mn 257.610	9.6637	9.6616	9.7402
Mo 202.032	0.6847	0.2717	0.2734
Na 330.237	78053.1	78132.0	78053.2
Ni 231.604	2.5031	3.0024	2.2710
Pb 220.353	0.1800	0.9342	2.4967
Sb 206.834	-3.7230u	5.7139	3.2583
Se 196.026	2.7873	0.6435	9.1936
Si 288.158	7060.60	7058.21	7068.08
Sn 189.925	2.4450	0.6537	-0.9858u
Sr 216.596	195.998	196.554	197.020
Ti 334.941	1.1041	1.0970	1.0805
Tl 190.794	6.4224	-2.2656u	0.2689
V 292.401	1.0736	1.6071	1.0564
Zn 206.200	-1.0877u	0.1030	2.8377

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1869	ppb	0.0164	8.8	1.9652
Al 308.215	-3.0010	ppb	1.8348	61.1	724.725
As 188.980	1.1988	ppb	4.0325	336.4	-2.6256
B 249.678	43.9678	ppb	0.7922	1.8	282.258

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	31.5519	ppb	0.7889	2.5	342.692
Be 313.042	0.0457	ppb	0.0046	10.0	-267.687
Ca 370.602	49939	ppb	20.45	0.0	108564
Cd 226.502	0.2293	ppb	0.1357	59.2	-14.3825
Co 228.615	0.2418	ppb	0.5852	242.1	-29.6612
Cr 267.716	0.7479	ppb	0.3224	43.1	35.2249
Cu 324.754	0.9892	ppb	0.1496	15.1	255.031
Fe 271.441	34.9634	ppb	3.8692	11.1	74.7682
K 766.491	2085.13	ppb	3.0191	0.1	53435.9
Mg 279.078	12919.9	ppb	15.0574	0.1	19396.6
Mn 257.610	9.6885	ppb	0.0448	0.5	1061.36
Mo 202.032	0.4100	ppb	0.2380	58.0	-1.1623
Na 330.237	78079.4	ppb	45.4844	0.1	2788.53
Ni 231.604	2.5921	ppb	0.3737	14.4	-10.2313
Pb 220.353	1.2036	ppb	1.1817	98.2	10.4527
Sb 206.834	1.7497	ppb	4.8960	279.8	-0.9489
Se 196.026	4.2081	ppb	4.4486	105.7	1.8843
Si 288.158	7062.30	ppb	5.1451	0.1	42242.5
Sn 189.925	0.7043	ppb	1.7159	243.6	0.8033
Sr 216.596	196.524	ppb	0.5119	0.3	1109.61
Ti 334.941	1.0939	ppb	0.0121	1.1	181.894
Tl 190.794	1.4752	ppb	4.4679	302.9	-5.4035
V 292.401	1.2457	ppb	0.3131	25.1	25.8455
Zn 206.200	0.6176	ppb	2.0127	325.9	-1.7866

680-201960-m-2-d (Samp) **7/26/2021, 10:37:49 PM** **Rack 3, Tube 4**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1907u	0.0365	-0.1893u
Al 308.215	-36.1198u	-38.8621u	-40.7269u
As 188.980	-8.7953u	-4.1230u	-0.0711u
B 249.678	26.4652	25.7824	26.3221
Ba 389.178	8.3974	7.5173	7.7093
Be 313.042	0.0369	0.0517	0.0526
Ca 370.602	9879	9849	9871
Cd 226.502	0.0952	0.1111	0.2236
Co 228.615	-0.6212u	0.4277	1.2348
Cr 267.716	0.2359	-0.0621u	-0.1605u
Cu 324.754	0.3812	0.2846	0.5245
Fe 271.441	4.4872	0.6497	-7.6413u
K 766.491	372.743	370.909	371.982
Mg 279.078	2561.00	2557.52	2557.37
Mn 257.610	1.9038	1.8230	1.8996
Mo 202.032	0.1577	0.2997	-0.3533u
Na 330.237	14366.0	14440.4	14475.4
Ni 231.604	3.0721	2.5030	2.6215
Pb 220.353	0.9360	-0.6974u	-1.4757u
Sb 206.834	-1.2407u	-2.8602u	5.4621
Se 196.026	-3.1662u	1.5348	-4.9952u
Si 288.158	1379.49	1380.61	1383.73
Sn 189.925	1.4178	1.9157	2.1474
Sr 216.596	40.8170	38.2639	39.1294
Ti 334.941	0.2296	0.1557	0.2401

Label	Replicates Concentration		
Tl 190.794	3.2699	0.2516	3.4128
V 292.401	0.8160	0.6665	0.1101
Zn 206.200	0.8160	-0.5250u	0.0355

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1145	ppb	0.1308	114.2	5.8165
Al 308.215	-38.5696	ppb	2.3174	6.0	609.621
As 188.980	-4.3298	ppb	4.3658	100.8	-4.9426
B 249.678	26.1899	ppb	0.3601	1.4	146.110
Ba 389.178	7.8747	ppb	0.4628	5.9	57.0590
Be 313.042	0.0471	ppb	0.0088	18.8	-269.728
Ca 370.602	9866	ppb	15.80	0.2	21474
Cd 226.502	0.1433	ppb	0.0700	48.8	-16.1046
Co 228.615	0.3471	ppb	0.9307	268.1	-29.1022
Cr 267.716	0.0044	ppb	0.2064	4688.8	16.1647
Cu 324.754	0.3968	ppb	0.1207	30.4	230.273
Fe 271.441	-0.8348	ppb	6.1990	742.6	45.2500
K 766.491	371.878	ppb	0.9215	0.2	9743.98
Mg 279.078	2558.63	ppb	2.0545	0.1	3856.32
Mn 257.610	1.8755	ppb	0.0454	2.4	250.351
Mo 202.032	0.0347	ppb	0.3434	989.7	-2.3416
Na 330.237	14427.3	ppb	55.8736	0.4	546.047
Ni 231.604	2.7322	ppb	0.3003	11.0	-10.0186
Pb 220.353	-0.4123	ppb	1.2308	298.5	9.2650
Sb 206.834	0.4537	ppb	4.4123	972.5	-1.7456
Se 196.026	-2.2089	ppb	3.3686	152.5	-0.0244
Si 288.158	1381.28	ppb	2.1993	0.2	8587.26
Sn 189.925	1.8269	ppb	0.3728	20.4	1.2552
Sr 216.596	39.4034	ppb	1.2984	3.3	229.782
Ti 334.941	0.2085	ppb	0.0460	22.1	54.2275
Tl 190.794	2.3114	ppb	1.7853	77.2	-4.8942
V 292.401	0.5309	ppb	0.3720	70.1	16.6873
Zn 206.200	0.1088	ppb	0.6735	618.9	-2.1317

680-201960-m-2-d (Samp) **7/26/2021, 10:42:21 PM** **Rack 3, Tube 5**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	51.6121	52.1962	51.5454
Al 308.215	5057.53	5054.06	5058.77
As 188.980	98.6139	105.142	101.985
B 249.678	234.757	236.091	237.986
Ba 389.178	135.925	136.299	135.416
Be 313.042	48.9906	48.9690	49.0640
Ca 370.602	53797	53750	53812
Cd 226.502	49.5642	49.7246	49.2244
Co 228.615	50.1567	50.3523	49.2194
Cr 267.716	99.9411	99.7227	100.180
Cu 324.754	100.132	100.440	100.373
Fe 271.441	4996.11	4977.00	4993.90
K 766.491	9928.20	9923.52	9930.45
Mg 279.078	17528.3	17489.4	17511.7
Mn 257.610	408.457	408.880	408.344
Mo 202.032	99.9248	101.891	99.4122

Label	Replicates Concentration		
Na 330.237	82250.3	81769.7	81601.7
Ni 231.604	102.204	101.444	101.583
Pb 220.353	501.981	497.769	492.594
Sb 206.834	42.8085	46.0138	55.2206
Se 196.026	91.3832	82.9199	99.4505
Si 288.158	7016.70	7002.60	7011.47
Sn 189.925	95.7247	92.3496	100.423
Sr 216.596	291.173	291.336	290.467
Ti 334.941	347.206	346.687	347.174
Tl 190.794	37.3738	40.9763	38.6323
V 292.401	101.181	101.617	100.463
Zn 206.200	101.100	100.240	99.4272

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	51.7846	ppb	0.3581	0.7	2202.42
Al 308.215	5056.79	ppb	2.4439	0.0	17105.5
As 188.980	101.914	ppb	3.2644	3.2	39.5897
B 249.678	236.278	ppb	1.6226	0.7	1746.43
Ba 389.178	135.880	ppb	0.4431	0.3	1554.06
Be 313.042	49.0079	ppb	0.0498	0.1	46322.9
Ca 370.602	53786	ppb	32.75	0.1	116932
Cd 226.502	49.5044	ppb	0.2554	0.5	1014.16
Co 228.615	49.9095	ppb	0.6055	1.2	242.323
Cr 267.716	99.9480	ppb	0.2287	0.2	2502.12
Cu 324.754	100.315	ppb	0.1619	0.2	4405.79
Fe 271.441	4989.01	ppb	10.4543	0.2	4163.74
K 766.491	9927.39	ppb	3.5341	0.0	253432
Mg 279.078	17509.8	ppb	19.5028	0.1	26275.7
Mn 257.610	408.560	ppb	0.2826	0.1	42464.6
Mo 202.032	100.409	ppb	1.3086	1.3	313.219
Na 330.237	81873.9	ppb	336.632	0.4	2915.51
Ni 231.604	101.744	ppb	0.4049	0.4	140.406
Pb 220.353	497.448	ppb	4.7014	0.9	374.606
Sb 206.834	48.0143	ppb	6.4434	13.4	26.8414
Se 196.026	91.2512	ppb	8.2661	9.1	27.8564
Si 288.158	7010.26	ppb	7.1257	0.1	41981.9
Sn 189.925	96.1659	ppb	4.0549	4.2	40.1451
Sr 216.596	290.992	ppb	0.4617	0.2	1635.12
Ti 334.941	347.022	ppb	0.2911	0.1	51031.9
Tl 190.794	38.9941	ppb	1.8283	4.7	16.9378
V 292.401	101.087	ppb	0.5828	0.6	1329.97
Zn 206.200	100.256	ppb	0.8365	0.8	65.7637

680-201960-m-2-e ms (Samp) **7/26/2021, 10:46:52 PM** **Rack 3, Tube 6**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.1796	47.9616	47.8182
Al 308.215	6806.17	6822.39	6798.07
As 188.980	92.4774	96.2421	95.0094
B 249.678	228.202	229.550	228.644
Ba 389.178	145.180	146.333	145.051
Be 313.042	47.0303	47.0876	47.0388
Ca 370.602	50593	50624	50657

Label	Replicates Concentration		
Cd 226.502	47.4183	47.8939	47.7853
Co 228.615	50.5788	50.4274	49.0544
Cr 267.716	96.6698	97.1966	97.6010
Cu 324.754	98.2417	98.2731	98.4568
Fe 271.441	6222.95	6233.03	6219.61
K 766.491	9945.81	9919.39	9925.28
Mg 279.078	16520.8	16552.8	16512.7
Mn 257.610	733.114	733.777	731.604
Mo 202.032	97.3951	97.0732	97.0124
Na 330.237	78440.1	78128.9	78365.3
Ni 231.604	101.747	100.449	96.2842
Pb 220.353	470.595	482.384	473.417
Sb 206.834	49.9237	44.8159	51.8412
Se 196.026	105.402	81.5327	94.8068
Si 288.158	9922.68	9897.19	9837.94
Sn 189.925	90.9261	97.1145	86.4621
Sr 216.596	277.007	276.151	274.726
Ti 334.941	390.268	390.618	386.530
Tl 190.794	41.2579	41.2019	38.5821
V 292.401	99.0692	98.5864	99.6767
Zn 206.200	100.349	98.0820	102.702

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.6531	ppb	0.4163	0.9	2028.58
Al 308.215	6808.88	ppb	12.3801	0.2	22774.8
As 188.980	94.5763	ppb	1.9194	2.0	36.5214
B 249.678	228.799	ppb	0.6869	0.3	1686.75
Ba 389.178	145.521	ppb	0.7054	0.5	1664.62
Be 313.042	47.0523	ppb	0.0309	0.1	44461.9
Ca 370.602	50625	ppb	32.34	0.1	110065
Cd 226.502	47.6992	ppb	0.2492	0.5	978.336
Co 228.615	50.0202	ppb	0.8398	1.7	243.404
Cr 267.716	97.1558	ppb	0.4669	0.5	2433.45
Cu 324.754	98.3239	ppb	0.1162	0.1	4322.87
Fe 271.441	6225.20	ppb	6.9863	0.1	5183.15
K 766.491	9930.16	ppb	13.8673	0.1	253502
Mg 279.078	16528.8	ppb	21.2037	0.1	24800.8
Mn 257.610	732.831	ppb	1.1138	0.2	76121.4
Mo 202.032	97.1602	ppb	0.2057	0.2	302.973
Na 330.237	78311.5	ppb	162.431	0.2	2789.35
Ni 231.604	99.4933	ppb	2.8538	2.9	136.986
Pb 220.353	475.465	ppb	6.1555	1.3	358.533
Sb 206.834	48.8603	ppb	3.6313	7.4	27.4165
Se 196.026	93.9137	ppb	11.9595	12.7	28.7065
Si 288.158	9885.94	ppb	43.4793	0.4	59019.7
Sn 189.925	91.5009	ppb	5.3494	5.8	38.2220
Sr 216.596	275.961	ppb	1.1522	0.4	1551.38
Ti 334.941	389.138	ppb	2.2657	0.6	57223.0
Tl 190.794	40.3473	ppb	1.5289	3.8	17.6576
V 292.401	99.1108	ppb	0.5463	0.6	1304.59
Zn 206.200	100.378	ppb	2.3100	2.3	65.8561

680-201960-m-2-f msd (Samp) **7/26/2021, 10:51:24 PM** **Rack 3, Tube 7**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.4692	48.2951	48.1359
Al 308.215	5360.25	5355.53	5349.02
As 188.980	100.396	97.0469	93.6003
B 249.678	230.342	229.301	229.874
Ba 389.178	160.772	161.553	161.904
Be 313.042	47.3568	47.3439	47.3328
Ca 370.602	53668	53722	53672
Cd 226.502	48.8559	47.8370	47.4891
Co 228.615	49.7310	49.4971	49.6589
Cr 267.716	96.2369	96.1591	96.6344
Cu 324.754	98.7105	98.5107	98.2310
Fe 271.441	5278.50	5302.20	5276.08
K 766.491	9689.21	9696.12	9696.05
Mg 279.078	17540.2	17552.9	17527.2
Mn 257.610	2481.15	2473.38	2470.17
Mo 202.032	98.6794	97.6989	98.1398
Na 330.237	80628.6	80700.8	80921.5
Ni 231.604	102.332	100.127	102.804
Pb 220.353	482.015	477.209	480.085
Sb 206.834	41.4474	50.0717	54.9152
Se 196.026	89.7117	89.5736	94.6867
Si 288.158	7627.89	7672.40	7634.02
Sn 189.925	93.2556	93.3244	94.1752
Sr 216.596	286.414	286.268	285.414
Ti 334.941	351.033	353.876	351.775
Tl 190.794	37.9612	42.4002	39.5877
V 292.401	98.5585	97.8349	97.9059
Zn 206.200	98.4744	102.791	100.829

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.3001	ppb	0.1667	0.3	2060.29
Al 308.215	5354.93	ppb	5.6411	0.1	18070.1
As 188.980	97.0145	ppb	3.3982	3.5	37.5383
B 249.678	229.839	ppb	0.5216	0.2	1696.53
Ba 389.178	161.410	ppb	0.5795	0.4	1849.10
Be 313.042	47.3445	ppb	0.0120	0.0	44739.9
Ca 370.602	53687	ppb	29.69	0.1	116756
Cd 226.502	48.0607	ppb	0.7103	1.5	984.587
Co 228.615	49.6290	ppb	0.1198	0.2	240.864
Cr 267.716	96.3434	ppb	0.2549	0.3	2417.11
Cu 324.754	98.4841	ppb	0.2408	0.2	4329.37
Fe 271.441	5285.60	ppb	14.4309	0.3	4408.27
K 766.491	9693.79	ppb	3.9731	0.0	247474
Mg 279.078	17540.1	ppb	12.8088	0.1	26300.8
Mn 257.610	2474.90	ppb	5.6483	0.2	256936
Mo 202.032	98.1727	ppb	0.4911	0.5	306.178
Na 330.237	80750.3	ppb	152.601	0.2	2875.84
Ni 231.604	101.755	ppb	1.4292	1.4	140.423
Pb 220.353	479.769	ppb	2.4183	0.5	361.840
Sb 206.834	48.8115	ppb	6.8218	14.0	27.3519
Se 196.026	91.3240	ppb	2.9130	3.2	28.1851
Si 288.158	7644.77	ppb	24.1235	0.3	45740.7

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	93.5851	ppb	0.5122	0.5	39.0813
Sr 216.596	286.032	ppb	0.5402	0.2	1607.56
Ti 334.941	352.228	ppb	1.4748	0.4	51797.2
Tl 190.794	39.9830	ppb	2.2458	5.6	17.1597
V 292.401	98.0998	ppb	0.3989	0.4	1291.09
Zn 206.200	100.698	ppb	2.1611	2.1	66.0675

680-201873-a-1-b (Samp) **7/26/2021, 10:55:55 PM** **Rack 3, Tube 8**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.3087u	-0.2248u	-0.2794u
Al 308.215	-9.1596u	-6.8963u	-5.5974u
As 188.980	6.9117	8.1025	-5.0160u
B 249.678	53.0800	52.7439	51.8866
Ba 389.178	27.7105	26.7365	27.1428
Be 313.042	0.0609	0.0572	0.0573
Ca 370.602	81413	81478	81427
Cd 226.502	0.1403	0.1446	0.3203
Co 228.615	2.7828	3.1639	3.3196
Cr 267.716	-0.0867	0.4543	0.5041
Cu 324.754	12.2263	11.8942	11.7567
Fe 271.441	271.357	271.852	272.711
K 766.491	1143.58	1142.73	1143.03
Mg 279.078	27318.6	27371.0	27360.3
Mn 257.610	1816.84	1816.52	1817.98
Mo 202.032	0.8736	2.2441	2.2166
Na 330.237	22495.7	22868.6	22666.1
Ni 231.604	5.6884	4.9863	6.8946
Pb 220.353	5.8432	5.2908	-0.2599u
Sb 206.834	-0.9734u	-5.4629u	1.8684
Se 196.026	-6.3560u	1.2057	2.6244
Si 288.158	15140.0	15141.7	15172.5
Sn 189.925	3.6064	0.4556	1.0820
Sr 216.596	280.265	281.087	281.604
Ti 334.941	1.2810	1.2833	1.3795
Tl 190.794	1.0289	1.5147	2.8149
V 292.401	2.2561	1.9466	1.6845
Zn 206.200	42.5289	44.0807	38.5420

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2710	ppb	0.0426	15.7	2.5315
Al 308.215	-7.2177	ppb	1.8027	25.0	711.129
As 188.980	3.3327	ppb	7.2547	217.7	-1.7309
B 249.678	52.5701	ppb	0.6154	1.2	347.725
Ba 389.178	27.1966	ppb	0.4892	1.8	307.690
Be 313.042	0.0584	ppb	0.0021	3.6	-247.387
Ca 370.602	81439	ppb	34.07	0.0	177057
Cd 226.502	0.2017	ppb	0.1027	50.9	-14.3970
Co 228.615	3.0888	ppb	0.2761	8.9	-14.2652
Cr 267.716	0.2905	ppb	0.3276	112.8	27.3853
Cu 324.754	11.9590	ppb	0.2415	2.0	713.242
Fe 271.441	271.973	ppb	0.6850	0.3	270.384
K 766.491	1143.11	ppb	0.4315	0.0	29412.3

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	27350.0	ppb	27.7152	0.1	41021.7
Mn 257.610	1817.11	ppb	0.7656	0.0	188659
Mo 202.032	1.7781	ppb	0.7834	44.1	3.1355
Na 330.237	22676.8	ppb	186.695	0.8	835.996
Ni 231.604	5.8564	ppb	0.9651	16.5	-5.2733
Pb 220.353	3.6247	ppb	3.3755	93.1	12.4095
Sb 206.834	-1.5226	ppb	3.6964	242.8	-2.9713
Se 196.026	-0.8420	ppb	4.8277	573.4	0.6524
Si 288.158	15151.4	ppb	18.2900	0.1	90163.6
Sn 189.925	1.7147	ppb	1.6679	97.3	1.2103
Sr 216.596	280.985	ppb	0.6754	0.2	1583.46
Ti 334.941	1.3146	ppb	0.0562	4.3	216.502
Tl 190.794	1.7862	ppb	0.9234	51.7	-5.5420
V 292.401	1.9624	ppb	0.2861	14.6	35.4923
Zn 206.200	41.7172	ppb	2.8572	6.8	26.0873

680-201965-c-1-b (Samp) **7/26/2021, 11:00:27 PM** **Rack 3, Tube 9**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0947u	-0.0501u	-0.0565u
Al 308.215	4059.69	4057.37	4063.64
As 188.980	2.9920	-2.5487u	3.5317
B 249.678	232.254	233.967	235.220
Ba 389.178	99.2225	98.4727	100.296
Be 313.042	0.3067	0.3024	0.2942
Ca 370.602	332008	331027	333088
Cd 226.502	0.5845	0.6961	0.8457
Co 228.615	7.5837	8.1432	7.7793
Cr 267.716	5.1217	5.1499	5.1208
Cu 324.754	7.2898	7.2471	7.0958
Fe 271.441	4574.70	4575.06	4562.10
K 766.491	22879.6	22851.7	22887.5
Mg 279.078	51348.2	51308.9	51399.2
Mn 257.610	1671.63	1669.44	1671.30
Mo 202.032	7.0294	6.2874	5.7275
Na 330.237	140672x	140875x	141102x
Ni 231.604	10.1498	9.7597	10.0179
Pb 220.353	2.0329	3.9441	2.2113
Sb 206.834	1.9630	-3.3504u	1.4560
Se 196.026	8.9521	2.9208	1.5483
Si 288.158	31097.8	31061.8	31075.0
Sn 189.925	4.5069	-1.1030u	-3.5151u
Sr 216.596	2170.19x	2167.72x	2169.48x
Ti 334.941	156.176	163.296	165.929
Tl 190.794	-1.0102u	4.3476	1.5968
V 292.401	63.8358	63.4400	63.1858
Zn 206.200	12.9442	13.0993	11.1172

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0671b	ppb	0.0241	36.0	2.5891
Al 308.215	4060.23b	ppb	3.1690	0.1	13876.5
As 188.980	1.3250b	ppb	3.3656	254.0	-2.5555
B 249.678	233.813b	ppb	1.4888	0.6	1728.39

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	99.3305b	ppb	0.9166	0.9	1179.87
Be 313.042	0.3011b	ppb	0.0063	2.1	25.5716
Ca 370.602	332041b	ppb	1031	0.3	721679
Cd 226.502	0.7088b	ppb	0.1311	18.5	1.4613
Co 228.615	7.8354b	ppb	0.2840	3.6	13.1802
Cr 267.716	5.1308b	ppb	0.0166	0.3	148.500
Cu 324.754	7.2109b	ppb	0.1019	1.4	515.630
Fe 271.441	4570.62b	ppb	7.3785	0.2	3815.79
K 766.491	22872.9b	ppb	18.7986	0.1	583572
Mg 279.078	51352.1b	ppb	45.2550	0.1	77021.9
Mn 257.610	1670.79b	ppb	1.1795	0.1	173473
Mo 202.032	6.3481b	ppb	0.6531	10.3	17.3961
Na 330.237	140883xb	ppb	215.323	0.2	4998.51
Ni 231.604	9.9758b	ppb	0.1984	2.0	0.9820
Pb 220.353	2.7294b	ppb	1.0557	38.7	11.8318
Sb 206.834	0.0228b	ppb	2.9323	12833.5	-1.9896
Se 196.026	4.4737b	ppb	3.9386	88.0	2.2489
Si 288.158	31078.2b	ppb	18.1751	0.1	184527
Sn 189.925	-0.0370b	ppb	4.1159	11110.0	0.5083
Sr 216.596	2169.13xb	ppb	1.2738	0.1	12136.5
Ti 334.941	161.801b	ppb	5.0456	3.1	23802.8
Tl 190.794	1.6447b	ppb	2.6792	162.9	-5.7634
V 292.401	63.4872b	ppb	0.3275	0.5	839.018
Zn 206.200	12.3869b	ppb	1.1023	8.9	6.2230

680-201965-c-2-b (Samp) **7/26/2021, 11:04:58 PM** **Rack 3, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.1863	-0.1719u	-0.1596u
Al 308.215	46845.5	46805.3	46875.4
As 188.980	21.4599	17.0907	27.1054
B 249.678	270.884	270.371	271.748
Ba 389.178	1716.95	1711.33	1717.02
Be 313.042	4.0762	4.0794	4.0963
Ca 370.602	645910	649478	647988
Cd 226.502	3.5439	3.8234	3.0823
Co 228.615	27.7070	27.6933	26.6407
Cr 267.716	54.8573	54.8672	54.9143
Cu 324.754	90.4073	90.6314	90.2455
Fe 271.441	62534.1	62495.5	62646.5
K 766.491	36306.4x	36298.6x	36311.6x
Mg 279.078	66881.8	66920.0	67054.5
Mn 257.610	3721.36	3716.93	3722.86
Mo 202.032	6.6309	6.0739	5.0755
Na 330.237	153713x	153935x	153780x
Ni 231.604	45.8892	47.3020	45.2466
Pb 220.353	64.6816	75.3517	76.5782
Sb 206.834	3.7918	1.6564	5.8820
Se 196.026	16.0879	2.7695	19.9939
Si 288.158	100344x	100326x	100548x
Sn 189.925	4.6546	6.7467	7.3642
Sr 216.596	2981.45x	2981.80x	2986.34x
Ti 334.941	953.800	953.483	955.562

Label	Replicates Concentration		
Tl 190.794	2.2745u	-0.4104u	7.1932
V 292.401	440.305	443.673	445.221
Zn 206.200	154.640	154.136	154.850

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0484b	ppb	0.2033	420.0	7.0228
Al 308.215	46842.1b	ppb	35.1607	0.1	152335
As 188.980	21.8853b	ppb	5.0209	22.9	6.2672
B 249.678	271.001b	ppb	0.6960	0.3	1902.81
Ba 389.178	1715.10b	ppb	3.2652	0.2	19896.0
Be 313.042	4.0840b	ppb	0.0108	0.3	3713.53
Ca 370.602	647792b	ppb	1792	0.3	1407835
Cd 226.502	3.4832b	ppb	0.3742	10.7	133.248
Co 228.615	27.3470b	ppb	0.6117	2.2	128.712
Cr 267.716	54.8796b	ppb	0.0305	0.1	1390.11
Cu 324.754	90.4281b	ppb	0.1938	0.2	4002.23
Fe 271.441	62558.7b	ppb	78.4508	0.1	51637.7
K 766.491	36305.5xb	ppb	6.5169	0.0	926135
Mg 279.078	66952.1b	ppb	90.7464	0.1	100390
Mn 257.610	3720.38b	ppb	3.0827	0.1	386177
Mo 202.032	5.9268b	ppb	0.7881	13.3	14.6805
Na 330.237	153809xb	ppb	114.021	0.1	5438.04
Ni 231.604	46.1459b	ppb	1.0515	2.3	55.9414
Pb 220.353	72.2038b	ppb	6.5433	9.1	64.8430
Sb 206.834	3.7767b	ppb	2.1129	55.9	1.3835
Se 196.026	12.9504b	ppb	9.0307	69.7	5.5890
Si 288.158	100406xb	ppb	123.274	0.1	595281
Sn 189.925	6.2552b	ppb	1.4201	22.7	3.1035
Sr 216.596	2983.19xb	ppb	2.7275	0.1	16716.8
Ti 334.941	954.282b	ppb	1.1200	0.1	140295
Tl 190.794	3.0191b	ppb	3.8561	127.7	-6.3232
V 292.401	443.067b	ppb	2.5137	0.6	5799.26
Zn 206.200	154.542b	ppb	0.3669	0.2	102.992

Cont Calib Verif (CCV) **7/26/2021, 11:09:31 PM** **Rack S, Tube 10**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	495.181	494.596	495.906
Al 308.215	9802.50	9766.00	9809.85
As 188.980	492.582	488.113	490.578
B 249.678	502.504	504.618	507.137
Ba 389.178	505.258	503.193	503.648
Be 313.042	502.289	501.427	501.028
Ca 370.602	9973	9952	9952
Cd 226.502	493.966	492.037	491.333
Co 228.615	495.688	496.091	497.184
Cr 267.716	498.445	495.966	496.320
Cu 324.754	494.563	494.497	493.076
Fe 271.441	9919.47	9884.02	9879.39
K 766.491	10168.9	10143.1	10164.9
Mg 279.078	9751.22	9721.13	9757.83
Mn 257.610	502.047	500.478	500.694
Mo 202.032	497.028	493.744	497.538

Label	Replicates Concentration		
Na 330.237	10028.8	9673.10	9955.53
Ni 231.604	493.327	493.919	488.522
Pb 220.353	501.519	491.543	495.950
Sb 206.834	492.492	494.281	491.919
Se 196.026	480.326	473.230	471.406
Si 288.158	4917.33	4896.28	4901.37
Sn 189.925	504.478	488.670	498.504
Sr 216.596	498.056	498.561	495.101
Ti 334.941	503.794	501.767	502.209
Tl 190.794	499.336	499.448	500.072
V 292.401	496.601	496.273	496.719
Zn 206.200	979.630	975.270	986.350

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	495.228	ppb	0.6560	0.1	20966.7	99.04551
Al 308.215	9792.78	ppb	23.4852	0.2	32462.3	97.92783
As 188.980	490.424	ppb	2.2385	0.5	202.375	98.08485
B 249.678	504.753	ppb	2.3195	0.5	3794.30	100.95058
Ba 389.178	504.033	ppb	1.0852	0.2	5800.39	100.80666
Be 313.042	501.581	ppb	0.6445	0.1	476964	100.31624
Ca 370.602	9959	ppb	12.27	0.1	21680	99.58838
Cd 226.502	492.445	ppb	1.3629	0.3	10209.2	98.48903
Co 228.615	496.321	ppb	0.7741	0.2	2656.18	99.26414
Cr 267.716	496.911	ppb	1.3409	0.3	12368.4	99.38210
Cu 324.754	494.045	ppb	0.8400	0.2	20856.0	98.80907
Fe 271.441	9894.29	ppb	21.9288	0.2	8238.66	98.89350
K 766.491	10159.0	ppb	13.8871	0.1	259338	101.58982
Mg 279.078	9743.39	ppb	19.5625	0.2	14625.4	97.43394
Mn 257.610	501.073	ppb	0.8508	0.2	52065.7	100.21458
Mo 202.032	496.103	ppb	2.0587	0.4	1557.54	99.22066
Na 330.237	9885.79	ppb	187.803	1.9	362.977	98.85793
Ni 231.604	491.922	ppb	2.9598	0.6	732.887	98.38450
Pb 220.353	496.337	ppb	4.9994	1.0	373.531	99.26746
Sb 206.834	492.897	ppb	1.2318	0.2	297.707	98.57945
Se 196.026	474.987	ppb	4.7128	1.0	141.961	94.99744
Si 288.158	4905.00	ppb	10.9853	0.2	29630.0	98.09991
Sn 189.925	497.217	ppb	7.9819	1.6	205.412	99.44344
Sr 216.596	497.239	ppb	1.8691	0.4	2771.44	99.44789
Ti 334.941	502.590	ppb	1.0658	0.2	73902.7	100.51798
Tl 190.794	499.619	ppb	0.3968	0.1	296.093	99.92373
V 292.401	496.531	ppb	0.2310	0.0	6486.30	99.30620
Zn 206.200	980.417	ppb	5.5819	0.6	662.477	98.04166

Cont Calib Blank (CCB) **7/26/2021, 11:14:03 PM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2292u	-0.1416u	0.1231
Al 308.215	-39.8149u	-37.9623u	-38.3744u
As 188.980	-3.0396u	-1.1176u	4.4704
B 249.678	25.8909	24.8670	24.7916
Ba 389.178	0.8523	1.1745	0.8168
Be 313.042	0.0519	0.0597	0.0599
Ca 370.602	-2.003u	-3.829u	6.908

Label	Replicates Concentration		
Cd 226.502	0.1076	0.3155	0.2087
Co 228.615	0.7224	0.6693	1.5663
Cr 267.716	0.0369	-0.2004u	0.1629
Cu 324.754	0.2518	0.4958	0.1672
Fe 271.441	-0.3889u	-7.2519u	-11.8407u
K 766.491	2.9266	3.5323	2.7051
Mg 279.078	-1.1690u	4.3657	1.2907
Mn 257.610	-0.0882u	-0.0088u	-0.0182u
Mo 202.032	0.7112	1.2399	0.2385
Na 330.237	-277.160u	-115.338u	-138.993u
Ni 231.604	3.1236	3.1381	4.2221
Pb 220.353	1.5375	-2.4206u	-0.5023u
Sb 206.834	-1.8729u	-1.6613u	1.5810
Se 196.026	-3.1468u	-0.3608u	-7.6005u
Si 288.158	3.0753	1.0234	1.4970
Sn 189.925	0.8930	-4.3588u	-3.9846u
Sr 216.596	-0.5878u	0.2328	0.3853
Ti 334.941	0.1081	0.1596	0.1061
Tl 190.794	0.5403	8.7056	4.2736
V 292.401	0.4655	-0.1233u	0.2582
Zn 206.200	-0.1997u	2.0092	-0.3724u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.0826	ppb	0.1834	222.1	7.3665	-0.08258
Al 308.215	-38.7172	ppb	0.9727	2.5	609.108	-38.71720
As 188.980	0.1044	ppb	3.9013	3737.4	-3.0844	0.10438
B 249.678	25.1832	ppb	0.6141	2.4	138.394	25.18317
Ba 389.178	0.9479	ppb	0.1971	20.8	-25.9470	0.94789
Be 313.042	0.0571	ppb	0.0046	8.0	-261.065	0.05714
Ca 370.602	0.3584	ppb	5.745	1603.0	32.60	0.35839
Cd 226.502	0.2106	ppb	0.1039	49.3	-14.6834	0.21063
Co 228.615	0.9860	ppb	0.5032	51.0	-25.6494	0.98597
Cr 267.716	-0.0002	ppb	0.1845	84809.2	15.9190	-0.00022
Cu 324.754	0.3049	ppb	0.1706	56.0	226.440	0.30495
Fe 271.441	-6.4939	ppb	5.7634	88.8	40.5970	-6.49385
K 766.491	3.0547	ppb	0.4282	14.0	338.139	3.05468
Mg 279.078	1.4958	ppb	2.7730	185.4	21.0222	1.49579
Mn 257.610	-0.0384	ppb	0.0434	113.0	51.6795	-0.03839
Mo 202.032	0.7299	ppb	0.5009	68.6	-0.1550	0.72986
Na 330.237	-177.164	ppb	87.4032	49.3	31.5298	-177.16374
Ni 231.604	3.4946	ppb	0.6301	18.0	-8.8601	3.49462
Pb 220.353	-0.4618	ppb	1.9794	428.6	9.2287	-0.46181
Sb 206.834	-0.6511	ppb	1.9359	297.3	-2.4235	-0.65110
Se 196.026	-3.7027	ppb	3.6518	98.6	-0.4686	-3.70270
Si 288.158	1.8652	ppb	1.0744	57.6	415.384	1.86522
Sn 189.925	-2.4834	ppb	2.9301	118.0	-0.5236	-2.48343
Sr 216.596	0.0101	ppb	0.5234	5191.6	9.2157	0.01008
Ti 334.941	0.1246	ppb	0.0303	24.3	42.4662	0.12462
Tl 190.794	4.5065	ppb	4.0876	90.7	-3.5631	4.50652
V 292.401	0.2001	ppb	0.2987	149.2	12.4093	0.20012
Zn 206.200	0.4791	ppb	1.3279	277.2	-1.8807	0.47907

680-201965-c-3-b (Samp) **7/26/2021, 11:18:34 PM** **Rack 3, Tube 11**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2843u	-0.2922u	-0.2918u
Al 308.215	118.703	118.064	129.194
As 188.980	8.4276	-0.5307u	1.1283
B 249.678	226.351	225.794	232.161
Ba 389.178	78.0471	74.7773	76.6671
Be 313.042	-0.0015	0.0143	0.0067
Ca 370.602	284440	283716	291376
Cd 226.502	2.2075	2.1464	2.2072
Co 228.615	2.9479	2.2647	1.8198
Cr 267.716	-0.0986	-0.1167	-0.1634
Cu 324.754	11.4604	11.3604	11.6855
Fe 271.441	166.999	162.635	172.784
K 766.491	20136.0	19923.3	19610.8
Mg 279.078	44513.4	44436.9	45547.2
Mn 257.610	4821.85	4800.64	4713.71
Mo 202.032	10.8825	9.9884	9.9122
Na 330.237	138234x	137733x	141285x
Ni 231.604	10.8870	11.3387	8.4916
Pb 220.353	-3.6880u	0.1754	-1.6007u
Sb 206.834	0.0837u	-1.6395u	1.8411
Se 196.026	0.7993	-1.9583	-0.8386
Si 288.158	21153.1	21100.0	21610.2
Sn 189.925	-5.3510u	-0.8868u	-3.4603u
Sr 216.596	1848.50x	1843.34x	1891.40x
Ti 334.941	7.3816	7.1129	6.9912
Tl 190.794	4.5929	0.4020u	-1.7162u
V 292.401	20.5098	20.7341	20.7629
Zn 206.200	9.6136	9.8886	11.1563

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2895b	ppb	0.0044	1.5	2.3569
Al 308.215	121.987b	ppb	6.2498	5.1	1130.39
As 188.980	3.0084b	ppb	4.7659	158.4	-1.8671
B 249.678	228.102b	ppb	3.5260	1.5	1693.04
Ba 389.178	76.4972b	ppb	1.6415	2.1	906.186
Be 313.042	0.0065b	ppb	0.0079	121.3	-267.169
Ca 370.602	286511b	ppb	4229	1.5	622794
Cd 226.502	2.1870b	ppb	0.0352	1.6	26.4358
Co 228.615	2.3441b	ppb	0.5682	24.2	-18.2541
Cr 267.716	-0.1263b	ppb	0.0334	26.5	24.6577
Cu 324.754	11.5021b	ppb	0.1665	1.4	694.185
Fe 271.441	167.473b	ppb	5.0907	3.0	184.266
K 766.491	19890.0b	ppb	264.129	1.3	507502
Mg 279.078	44832.5b	ppb	620.136	1.4	67213.6
Mn 257.610	4778.73b	ppb	57.3032	1.2	496056
Mo 202.032	10.2610b	ppb	0.5395	5.3	29.8135
Na 330.237	139084xb	ppb	1922.45	1.4	4937.50
Ni 231.604	10.2391b	ppb	1.5301	14.9	1.3882
Pb 220.353	-1.7045b	ppb	1.9338	113.5	8.7678
Sb 206.834	0.0951b	ppb	1.7404	1829.8	-2.0689
Se 196.026	-0.6658b	ppb	1.3869	208.3	1.1436
Si 288.158	21287.8b	ppb	280.481	1.3	126518

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-3.2327b	ppb	2.2408	69.3	-0.8090
Sr 216.596	1861.08xb	ppb	26.3820	1.4	10413.4
Ti 334.941	7.1619b	ppb	0.1998	2.8	1071.48
Tl 190.794	1.0929b	ppb	3.2108	293.8	-6.5078
V 292.401	20.6689b	ppb	0.1386	0.7	279.174
Zn 206.200	10.2195b	ppb	0.8229	8.1	4.7260

680-201965-c-4-b (Samp) **7/26/2021, 11:23:06 PM** **Rack 3, Tube 12**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0630u	0.0240u	-0.0935u
Al 308.215	201.844	194.313	199.601
As 188.980	3.2132	-0.0157u	8.4544
B 249.678	234.555	235.054	235.812
Ba 389.178	63.8307	65.3063	64.3683
Be 313.042	0.0229	0.0251	0.0237
Ca 370.602	293856	293213	294433
Cd 226.502	0.2705	0.3299	0.3328
Co 228.615	-0.0428u	0.5561	0.5457
Cr 267.716	0.3031	0.7573	0.8589
Cu 324.754	2.3738	2.5129	2.5665
Fe 271.441	2304.06	2289.53	2286.93
K 766.491	19780.9	20372.8	19859.4
Mg 279.078	45293.8	45306.6	45310.0
Mn 257.610	1352.87	1350.84	1352.38
Mo 202.032	5.2801	4.1515	5.5109
Na 330.237	142307x	142426x	142798x
Ni 231.604	3.7457	6.1131	3.7501
Pb 220.353	1.2373	-3.8028u	6.3247
Sb 206.834	0.6215	-1.1433u	-8.3523u
Se 196.026	3.3992	-8.3430u	-2.5183u
Si 288.158	26002.4	25946.1	26009.5
Sn 189.925	-2.3505u	-4.1350u	0.5692
Sr 216.596	2000.91x	2000.95x	2005.69x
Ti 334.941	10.4971	8.8533	8.9138
Tl 190.794	2.5500	6.2931	-0.2562u
V 292.401	5.6058	5.7429	5.4471
Zn 206.200	8.4681	8.5670	3.6640

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0442b	ppb	0.0610	138.1	3.2646
Al 308.215	198.586b	ppb	3.8666	1.9	1377.29
As 188.980	3.8840b	ppb	4.2747	110.1	-1.4954
B 249.678	235.140b	ppb	0.6329	0.3	1742.92
Ba 389.178	64.5017b	ppb	0.7468	1.2	768.944
Be 313.042	0.0239b	ppb	0.0012	4.8	-249.977
Ca 370.602	293834b	ppb	609.9	0.2	638639
Cd 226.502	0.3111b	ppb	0.0351	11.3	-9.8454
Co 228.615	0.3530b	ppb	0.3428	97.1	-28.9085
Cr 267.716	0.6398b	ppb	0.2959	46.3	36.1037
Cu 324.754	2.4844b	ppb	0.0995	4.0	318.119
Fe 271.441	2293.50b	ppb	9.2307	0.4	1937.27
K 766.491	20004.4b	ppb	321.519	1.6	510418

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	45303.4b	ppb	8.5318	0.0	67953.7
Mn 257.610	1352.03b	ppb	1.0603	0.1	140386
Mo 202.032	4.9808b	ppb	0.7274	14.6	13.1643
Na 330.237	142510xb	ppb	256.120	0.2	5058.13
Ni 231.604	4.5363b	ppb	1.3655	30.1	-7.2766
Pb 220.353	1.2531b	ppb	5.0637	404.1	10.7081
Sb 206.834	-2.9581b	ppb	4.7542	160.7	-3.8543
Se 196.026	-2.4874b	ppb	5.8711	236.0	0.1133
Si 288.158	25986.0b	ppb	34.7415	0.1	154350
Sn 189.925	-1.9721b	ppb	2.3748	120.4	-0.2889
Sr 216.596	2002.52xb	ppb	2.7479	0.1	11203.4
Ti 334.941	9.4214b	ppb	0.9321	9.9	1403.50
Tl 190.794	2.8623b	ppb	3.2858	114.8	-4.8280
V 292.401	5.5986b	ppb	0.1480	2.6	82.7927
Zn 206.200	6.8997b	ppb	2.8026	40.6	2.4888

680-201960-m-7-b (Samp) **7/26/2021, 11:27:37 PM** **Rack 3, Tube 13**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0992u	-0.1239u	-0.1639u
Al 308.215	-39.2592u	-41.6249u	-39.3850u
As 188.980	-1.1610u	5.6400	-7.3704u
B 249.678	18.0830	17.3510	17.7996
Ba 389.178	2.4735	2.2356	1.0710
Be 313.042	0.0461	0.0598	0.0444
Ca 370.602	11.93	10.02	4.177
Cd 226.502	0.1589	0.3227	0.0598
Co 228.615	0.4793	0.3066	0.1591
Cr 267.716	0.3578	0.2510	0.2982
Cu 324.754	0.3002	0.2617	0.0506
Fe 271.441	-9.9663u	-6.9964u	-3.1792u
K 766.491	4.7158	5.5878	4.5487
Mg 279.078	1.8380	-0.8968u	-2.9363u
Mn 257.610	0.0605	0.0304	0.0581
Mo 202.032	-0.3494u	0.7502	-0.2128u
Na 330.237	-5.0322u	-11.5852u	71.1269
Ni 231.604	4.1715	3.4118	0.6164
Pb 220.353	-5.2623u	2.0451	0.9103
Sb 206.834	1.3418	-1.3239u	-1.7574u
Se 196.026	-3.8215u	-7.4664u	-6.2794u
Si 288.158	4.3097	4.3012	6.8378
Sn 189.925	-7.1940u	1.2456	-5.8329u
Sr 216.596	0.4017	-0.2109u	-0.0859u
Ti 334.941	0.0185	0.0984	0.0326
Tl 190.794	-0.3467u	5.4245	0.5260
V 292.401	0.9659	-0.0191u	0.2633
Zn 206.200	1.5298	3.7475	-0.5523u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1290	ppb	0.0326	25.3	5.4040
Al 308.215	-40.0897	ppb	1.3310	3.3	604.685
As 188.980	-0.9638	ppb	6.5074	675.2	-3.5320
B 249.678	17.7445	ppb	0.3691	2.1	81.3942

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	1.9267	ppb	0.7506	39.0	-14.6369
Be 313.042	0.0501	ppb	0.0084	16.9	-267.738
Ca 370.602	8.708	ppb	4.039	46.4	50.75
Cd 226.502	0.1805	ppb	0.1328	73.6	-15.3110
Co 228.615	0.3150	ppb	0.1603	50.9	-29.2769
Cr 267.716	0.3024	ppb	0.0535	17.7	23.4406
Cu 324.754	0.2042	ppb	0.1344	65.8	222.226
Fe 271.441	-6.7140	ppb	3.4023	50.7	40.4173
K 766.491	4.9508	ppb	0.5580	11.3	386.494
Mg 279.078	-0.6650	ppb	2.3956	360.2	17.7812
Mn 257.610	0.0497	ppb	0.0167	33.7	60.8185
Mo 202.032	0.0626	ppb	0.5993	956.8	-2.2537
Na 330.237	18.1698	ppb	45.9790	253.1	38.4032
Ni 231.604	2.7332	ppb	1.8722	68.5	-10.0173
Pb 220.353	-0.7690	ppb	3.9325	511.4	9.0033
Sb 206.834	-0.5798	ppb	1.6783	289.4	-2.3787
Se 196.026	-5.8558	ppb	1.8590	31.7	-1.1085
Si 288.158	5.1496	ppb	1.4621	28.4	434.844
Sn 189.925	-3.9271	ppb	4.5311	115.4	-1.1185
Sr 216.596	0.0350	ppb	0.3237	925.3	9.3593
Ti 334.941	0.0498	ppb	0.0426	85.5	31.4704
Tl 190.794	1.8679	ppb	3.1108	166.5	-5.1623
V 292.401	0.4034	ppb	0.5072	125.7	15.0593
Zn 206.200	1.5750	ppb	2.1503	136.5	-1.1375

mb 680-678035/1-a (Samp) **7/26/2021, 11:32:09 PM** **Rack 3, Tube 14**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.1639	-0.2007u	-0.1699u
Al 308.215	-36.3268u	-31.9459u	-46.4975u
As 188.980	-0.4739u	0.7110	1.1004
B 249.678	14.1894	14.1262	12.8859
Ba 389.178	1.0018	1.6602	0.7093
Be 313.042	0.0258	0.0564	0.0571
Ca 370.602	1.412	0.2563	2.231
Cd 226.502	0.3219	0.2649	0.3908
Co 228.615	-0.5875u	0.5639	0.9010
Cr 267.716	0.0039	0.0533	0.2420
Cu 324.754	0.3055	0.6980	0.4061
Fe 271.441	1.5383	-6.1966u	-10.7217u
K 766.491	2.4908	4.3389	2.1519
Mg 279.078	-1.9488u	-0.3489u	-1.2292u
Mn 257.610	-0.0454u	0.0053	-0.0190u
Mo 202.032	-0.1148u	-1.0920u	0.2929
Na 330.237	-32.0863u	-261.668u	-116.193u
Ni 231.604	2.8172	2.7929	2.5984
Pb 220.353	6.2746	1.5615	-2.5759u
Sb 206.834	-4.1607u	-1.2124u	4.5517
Se 196.026	-3.8558u	3.4673	3.3849
Si 288.158	4.9909	8.0198	0.6409
Sn 189.925	5.5586	6.6573	-4.7322u
Sr 216.596	-0.0762u	0.1617	-0.2288u
Ti 334.941	0.0217	0.0621	0.0637

Label	Replicates Concentration		
Tl 190.794	0.4489	-0.6989u	2.9037
V 292.401	-0.0295u	-0.1803u	0.7724
Zn 206.200	0.9245	1.4359	0.9780

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0689	ppb	0.2022	293.4	7.9447
Al 308.215	-38.2567	ppb	7.4653	19.5	610.603
As 188.980	0.4458	ppb	0.8199	183.9	-2.9413
B 249.678	13.7338	ppb	0.7350	5.4	50.6660
Ba 389.178	1.1238	ppb	0.4870	43.3	-23.9172
Be 313.042	0.0465	ppb	0.0179	38.5	-271.259
Ca 370.602	1.300	ppb	0.9920	76.3	34.65
Cd 226.502	0.3259	ppb	0.0630	19.3	-12.2973
Co 228.615	0.2925	ppb	0.7805	266.9	-29.4004
Cr 267.716	0.0997	ppb	0.1257	126.0	18.4031
Cu 324.754	0.4698	ppb	0.2039	43.4	233.333
Fe 271.441	-5.1267	ppb	6.1996	120.9	41.7264
K 766.491	2.9939	ppb	1.1771	39.3	336.589
Mg 279.078	-1.1756	ppb	0.8013	68.2	17.0160
Mn 257.610	-0.0197	ppb	0.0254	129.0	53.6263
Mo 202.032	-0.3046	ppb	0.7117	233.6	-3.4087
Na 330.237	-136.649	ppb	116.150	85.0	32.9556
Ni 231.604	2.7362	ppb	0.1199	4.4	-10.0129
Pb 220.353	1.7534	ppb	4.4283	252.6	10.8538
Sb 206.834	-0.2738	ppb	4.4314	1618.5	-2.1950
Se 196.026	0.9988	ppb	4.2044	420.9	0.9286
Si 288.158	4.5505	ppb	3.7091	81.5	431.469
Sn 189.925	2.4946	ppb	6.2826	251.9	1.5279
Sr 216.596	-0.0478	ppb	0.1968	412.2	8.8901
Ti 334.941	0.0492	ppb	0.0238	48.4	31.3818
Tl 190.794	0.8846	ppb	1.8404	208.1	-5.7584
V 292.401	0.1875	ppb	0.5121	273.0	12.2439
Zn 206.200	1.1128	ppb	0.2811	25.3	-1.4509

lcs 680-678035/2-a (Samp) **7/26/2021, 11:36:40 PM** **Rack 3, Tube 15**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.9764	48.4755	47.3976
Al 308.215	4578.45	4610.18	4586.91
As 188.980	86.9349	93.5763	97.4271
B 249.678	195.568	197.238	195.659
Ba 389.178	98.5804	98.2008	97.9824
Be 313.042	45.9821	46.3427	46.1035
Ca 370.602	4636	4675	4643
Cd 226.502	46.5769	46.7808	46.5195
Co 228.615	46.7410	47.0363	46.4492
Cr 267.716	94.1028	94.3193	93.5532
Cu 324.754	92.4580	92.9838	92.6043
Fe 271.441	4674.56	4687.81	4672.53
K 766.491	6685.95	6730.50	6690.18
Mg 279.078	4531.22	4567.54	4541.39
Mn 257.610	373.124	376.335	373.441
Mo 202.032	94.8927	94.9950	93.0650

Label	Replicates Concentration		
Na 330.237	4366.65	4302.76	4556.72
Ni 231.604	93.1913	95.4761	96.6418
Pb 220.353	463.988	473.230	466.342
Sb 206.834	45.3409	44.1350	42.7722
Se 196.026	87.0757	86.2068	83.7398
Si 288.158	-5.1563	-6.1033	-6.5140
Sn 189.925	95.1877	84.7403	91.4698
Sr 216.596	91.9170	93.1709	92.3983
Ti 334.941	327.636	329.857	328.041
Tl 190.794	43.3310	39.4452	40.5133
V 292.401	93.4286	94.8278	93.4814
Zn 206.200	92.7960	90.7851	94.2825

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	47.9498	ppb	0.5394	1.1	2041.05
Al 308.215	4591.84	ppb	16.4313	0.4	15600.5
As 188.980	92.6461	ppb	5.3076	5.7	35.7051
B 249.678	196.155	ppb	0.9392	0.5	1439.58
Ba 389.178	98.2545	ppb	0.3026	0.3	1104.23
Be 313.042	46.1428	ppb	0.1835	0.4	43592.4
Ca 370.602	4651	ppb	20.69	0.4	10146
Cd 226.502	46.6258	ppb	0.1373	0.3	954.163
Co 228.615	46.7421	ppb	0.2936	0.6	225.001
Cr 267.716	93.9918	ppb	0.3949	0.4	2353.31
Cu 324.754	92.6821	ppb	0.2714	0.3	4086.88
Fe 271.441	4678.30	ppb	8.2948	0.2	3907.28
K 766.491	6702.21	ppb	24.5911	0.4	171182
Mg 279.078	4546.72	ppb	18.7337	0.4	6833.50
Mn 257.610	374.300	ppb	1.7699	0.5	38908.3
Mo 202.032	94.3176	ppb	1.0859	1.2	294.068
Na 330.237	4408.71	ppb	132.101	3.0	186.765
Ni 231.604	95.1030	ppb	1.7552	1.8	130.317
Pb 220.353	467.853	ppb	4.8026	1.0	352.888
Sb 206.834	44.0827	ppb	1.2851	2.9	24.4544
Se 196.026	85.6741	ppb	1.7306	2.0	26.1913
Si 288.158	-5.9245	ppb	0.6963	11.8	414.570
Sn 189.925	90.4659	ppb	5.2956	5.9	37.7830
Sr 216.596	92.4954	ppb	0.6326	0.7	523.821
Ti 334.941	328.511	ppb	1.1829	0.4	48313.9
Tl 190.794	41.0965	ppb	2.0075	4.9	18.2361
V 292.401	93.9126	ppb	0.7930	0.8	1236.49
Zn 206.200	92.6212	ppb	1.7552	1.9	60.5876

680-201959-a-1-d (Samp) **7/26/2021, 11:41:12 PM** **Rack 3, Tube 16**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.1170	0.0031u	-0.1159u
Al 308.215	72.9375	64.0975	69.2675
As 188.980	-0.5755u	2.3229	4.2919
B 249.678	36.1861	34.0069	34.1193
Ba 389.178	331.004	326.543	325.020
Be 313.042	0.0506	0.0467	0.0494
Ca 370.602	51352	50617	50745

Label	Replicates Concentration		
Cd 226.502	0.0692	0.1360	0.3701
Co 228.615	0.6723	-0.1690u	1.2921
Cr 267.716	7.0763	7.1233	7.0411
Cu 324.754	0.3956	0.7748	-0.0787u
Fe 271.441	80.3509	75.1710	66.0461
K 766.491	7141.98	7061.89	7062.59
Mg 279.078	12908.2	12724.1	12726.5
Mn 257.610	2.4907	2.5833	2.4196
Mo 202.032	-0.8984u	0.6680	-0.1504u
Na 330.237	59891.3	59146.5	59314.7
Ni 231.604	3.7896	4.0283	3.8391
Pb 220.353	1.8815	0.3424	1.6819
Sb 206.834	-2.5554u	6.5837	5.3095
Se 196.026	2.4155	7.0424	-10.3470u
Si 288.158	26154.3	25767.8	25781.0
Sn 189.925	-4.3353u	0.1230	-2.4385u
Sr 216.596	651.017	637.133	642.223
Ti 334.941	3.8549	3.0905	2.9468
Tl 190.794	0.4599	2.5194	1.2446
V 292.401	7.0127	6.9812	7.0573
Zn 206.200	5.2825	7.5559	4.8705

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.0014	ppb	0.1165	8474.9	8.0150
Al 308.215	68.7675	ppb	4.4412	6.5	957.310
As 188.980	2.0131	ppb	2.4484	121.6	-2.2847
B 249.678	34.7708	ppb	1.2270	3.5	211.719
Ba 389.178	327.522	ppb	3.1100	0.9	3762.30
Be 313.042	0.0489	ppb	0.0020	4.0	-263.019
Ca 370.602	50905	ppb	392.4	0.8	110662
Cd 226.502	0.1917	ppb	0.1580	82.4	-15.0581
Co 228.615	0.5984	ppb	0.7333	122.5	-27.6982
Cr 267.716	7.0802	ppb	0.0412	0.6	192.438
Cu 324.754	0.3639	ppb	0.4276	117.5	228.860
Fe 271.441	73.8560	ppb	7.2425	9.8	106.855
K 766.491	7088.82	ppb	46.0416	0.6	181041
Mg 279.078	12786.3	ppb	105.588	0.8	19196.2
Mn 257.610	2.4979	ppb	0.0820	3.3	315.093
Mo 202.032	-0.1269	ppb	0.7834	617.2	-2.8537
Na 330.237	59450.8	ppb	390.646	0.7	2132.12
Ni 231.604	3.8856	ppb	0.1260	3.2	-8.2652
Pb 220.353	1.3019	ppb	0.8370	64.3	10.5248
Sb 206.834	3.1126	ppb	4.9498	159.0	-0.0830
Se 196.026	-0.2964	ppb	9.0063	3038.7	0.5448
Si 288.158	25901.0	ppb	219.428	0.8	153846
Sn 189.925	-2.2169	ppb	2.2374	100.9	-0.4038
Sr 216.596	643.458	ppb	7.0238	1.1	3602.15
Ti 334.941	3.2974	ppb	0.4882	14.8	506.531
Tl 190.794	1.4080	ppb	1.0395	73.8	-5.4451
V 292.401	7.0171	ppb	0.0382	0.5	101.174
Zn 206.200	5.9030	ppb	1.4462	24.5	1.7944

680-201959-a-1-e ms (Samp) **7/26/2021, 11:45:43 PM** **Rack 3, Tube 17**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	46.6224	46.6186	46.8350
Al 308.215	4848.34	4865.99	4863.01
As 188.980	96.7840	95.3183	94.9760
B 249.678	217.576	219.358	219.306
Ba 389.178	410.311	408.655	410.350
Be 313.042	46.6735	46.7810	46.7329
Ca 370.602	53693	53792	53701
Cd 226.502	46.9474	46.8159	46.8084
Co 228.615	46.4190	47.6753	47.0247
Cr 267.716	101.916	101.900	101.477
Cu 324.754	94.2216	94.9955	95.2314
Fe 271.441	4787.14	4783.23	4782.46
K 766.491	14081.3	14101.3	14076.8
Mg 279.078	16906.5	16917.5	16881.0
Mn 257.610	376.427	377.414	376.386
Mo 202.032	95.7371	95.0110	93.9566
Na 330.237	62579.4	62483.8	62355.3
Ni 231.604	95.5075	96.6315	95.1656
Pb 220.353	463.465	466.421	462.643
Sb 206.834	48.6431	54.4424	45.7197
Se 196.026	93.6353	98.7703	89.0320
Si 288.158	25037.6	25093.1	25047.0
Sn 189.925	88.4107	86.4034	86.1229
Sr 216.596	711.541	711.433	713.486
Ti 334.941	334.000	334.588	334.904
Tl 190.794	40.3514	38.6699	37.7368
V 292.401	101.116	101.291	101.254
Zn 206.200	97.9175	97.3567	95.9049

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	46.6920	ppb	0.1239	0.3	1985.06
Al 308.215	4859.12	ppb	9.4465	0.2	16465.8
As 188.980	95.6928	ppb	0.9604	1.0	36.9821
B 249.678	218.747	ppb	1.0139	0.5	1612.51
Ba 389.178	409.772	ppb	0.9672	0.2	4718.01
Be 313.042	46.7291	ppb	0.0538	0.1	44156.0
Ca 370.602	53728	ppb	54.98	0.1	116806
Cd 226.502	46.8572	ppb	0.0782	0.2	959.021
Co 228.615	47.0397	ppb	0.6283	1.3	226.679
Cr 267.716	101.764	ppb	0.2489	0.2	2547.02
Cu 324.754	94.8162	ppb	0.5282	0.6	4175.97
Fe 271.441	4784.28	ppb	2.5078	0.1	3994.73
K 766.491	14086.5	ppb	13.0270	0.1	359497
Mg 279.078	16901.7	ppb	18.6841	0.1	25364.0
Mn 257.610	376.742	ppb	0.5821	0.2	39162.0
Mo 202.032	94.9016	ppb	0.8953	0.9	295.900
Na 330.237	62472.8	ppb	112.441	0.2	2232.25
Ni 231.604	95.7682	ppb	0.7669	0.8	131.328
Pb 220.353	464.177	ppb	1.9868	0.4	350.190
Sb 206.834	49.6017	ppb	4.4397	9.0	27.8740
Se 196.026	93.8125	ppb	4.8716	5.2	28.6113
Si 288.158	25059.2	ppb	29.7196	0.1	148904

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	86.9790	ppb	1.2478	1.4	36.3558
Sr 216.596	712.153	ppb	1.1550	0.2	3983.91
Ti 334.941	334.497	ppb	0.4591	0.1	49191.6
Tl 190.794	38.9194	ppb	1.3250	3.4	16.9109
V 292.401	101.220	ppb	0.0923	0.1	1331.67
Zn 206.200	97.0597	ppb	1.0387	1.1	63.5940

680-201959-a-1-f msd (Samp) **7/26/2021, 11:50:15 PM** **Rack 3, Tube 18**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	47.0963	46.2355	51.1395
Al 308.215	4846.34	4741.28	5124.50
As 188.980	97.5271	97.3167	106.157
B 249.678	221.906	217.489	235.348
Ba 389.178	405.964	396.406	428.094
Be 313.042	46.9344	45.9294	49.3169
Ca 370.602	53154	52071	56064
Cd 226.502	46.8542	45.2852	49.7403
Co 228.615	46.1744	46.4551	49.6286
Cr 267.716	101.674	99.5169	106.603
Cu 324.754	95.0667	94.4965	102.099
Fe 271.441	4794.17	4681.86	5047.23
K 766.491	14000.0	13800.4	14555.7
Mg 279.078	16787.0	16413.4	17662.7
Mn 257.610	377.282	369.455	397.945
Mo 202.032	95.4473	92.8723	100.272
Na 330.237	61650.7	60214.1	63461.1
Ni 231.604	97.1890	93.2691	101.518
Pb 220.353	463.096	452.673	492.316
Sb 206.834	49.0432	42.5161	59.4695
Se 196.026	96.5779	91.9151	99.3471
Si 288.158	24781.6	24236.4	26082.1
Sn 189.925	92.2215	94.2111	99.2670
Sr 216.596	706.546	690.831	740.808
Ti 334.941	335.761	328.716	353.701
Tl 190.794	40.8907	40.3939	44.7277
V 292.401	102.000	99.5530	106.544
Zn 206.200	99.4213	95.1555	104.992

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.1571	ppb	2.6185	5.4	2047.09
Al 308.215	4904.04	ppb	198.021	4.0	16611.3
As 188.980	100.334	ppb	5.0442	5.0	38.9270
B 249.678	224.914	ppb	9.3015	4.1	1659.67
Ba 389.178	410.155	ppb	16.2542	4.0	4722.50
Be 313.042	47.3936	ppb	1.7398	3.7	44788.3
Ca 370.602	53763	ppb	2065	3.8	116880
Cd 226.502	47.2932	ppb	2.2597	4.8	968.138
Co 228.615	47.4194	ppb	1.9184	4.0	228.774
Cr 267.716	102.598	ppb	3.6322	3.5	2567.75
Cu 324.754	97.2207	ppb	4.2343	4.4	4276.43
Fe 271.441	4841.09	ppb	187.148	3.9	4041.55
K 766.491	14118.7	ppb	391.387	2.8	360319

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	16954.4	ppb	641.279	3.8	25443.0
Mn 257.610	381.561	ppb	14.7187	3.9	39662.2
Mo 202.032	96.1972	ppb	3.7564	3.9	299.973
Na 330.237	61775.3	ppb	1627.10	2.6	2207.59
Ni 231.604	97.3255	ppb	4.1262	4.2	133.695
Pb 220.353	469.362	ppb	20.5509	4.4	353.995
Sb 206.834	50.3429	ppb	8.5511	17.0	28.3166
Se 196.026	95.9467	ppb	3.7560	3.9	29.2468
Si 288.158	25033.4	ppb	948.221	3.8	148753
Sn 189.925	95.2332	ppb	3.6322	3.8	39.7573
Sr 216.596	712.728	ppb	25.5557	3.6	3987.09
Ti 334.941	339.393	ppb	12.8823	3.8	49911.2
Tl 190.794	42.0041	ppb	2.3717	5.6	18.7745
V 292.401	102.699	ppb	3.5472	3.5	1350.99
Zn 206.200	99.8562	ppb	4.9326	4.9	65.4905

mb 680-677994/1-a (Samp) **7/26/2021, 11:54:46 PM** **Rack 3, Tube 19**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1296u	0.1313	-0.1823u
Al 308.215	-39.2790u	-36.5675u	-41.1242u
As 188.980	6.5484	-3.5679u	-3.8297u
B 249.678	15.4646	13.8145	13.1382
Ba 389.178	1.3660	1.6190	1.1473
Be 313.042	0.0502	0.0432	0.0441
Ca 370.602	3.036	3.767	3.754
Cd 226.502	0.2478	0.3507	0.3809
Co 228.615	0.2975	0.5802	-0.4787u
Cr 267.716	0.0275	-0.1603u	-0.0874u
Cu 324.754	0.1409	0.3369	0.0506
Fe 271.441	0.7352	-10.0604u	-8.7100u
K 766.491	4.7459	3.9805	3.4739
Mg 279.078	-0.2464u	2.1561	-3.9871u
Mn 257.610	0.0590	0.0082	-0.0306u
Mo 202.032	0.4024	0.5647	-0.6176u
Na 330.237	-89.7313u	-164.857u	-77.0713u
Ni 231.604	2.8360	2.3735	3.0640
Pb 220.353	-0.3318u	-3.4209u	-3.5792u
Sb 206.834	-4.4724u	-0.5677u	-0.1859u
Se 196.026	1.8329	5.4480	8.3978
Si 288.158	1.8390	1.7301	-0.1666u
Sn 189.925	-1.5610u	3.3894	-3.0912u
Sr 216.596	0.2673	0.2166	-0.4172u
Ti 334.941	0.0022	0.0847	0.0272
Tl 190.794	0.6505	1.3674	-0.3082u
V 292.401	-0.1300u	0.3612	-0.2917u
Zn 206.200	1.6422	1.5766	-0.2938u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0602	ppb	0.1679	279.1	8.3138
Al 308.215	-38.9902	ppb	2.2920	5.9	608.232
As 188.980	-0.2831	ppb	5.9177	2090.6	-3.2467
B 249.678	14.1391	ppb	1.1967	8.5	53.7713

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	1.3774	ppb	0.2360	17.1	-20.9870
Be 313.042	0.0458	ppb	0.0038	8.4	-271.763
Ca 370.602	3.519	ppb	0.4182	11.9	39.48
Cd 226.502	0.3265	ppb	0.0698	21.4	-12.2852
Co 228.615	0.1330	ppb	0.5483	412.2	-30.2593
Cr 267.716	-0.0734	ppb	0.0947	129.0	14.0997
Cu 324.754	0.1761	ppb	0.1464	83.1	221.044
Fe 271.441	-6.0118	ppb	5.8819	97.8	41.0033
K 766.491	4.0667	ppb	0.6404	15.7	363.949
Mg 279.078	-0.6925	ppb	3.0958	447.1	17.7402
Mn 257.610	0.0122	ppb	0.0449	368.4	56.9324
Mo 202.032	0.1165	ppb	0.6409	550.0	-2.0841
Na 330.237	-110.553	ppb	47.4523	42.9	33.8814
Ni 231.604	2.7579	ppb	0.3518	12.8	-9.9800
Pb 220.353	-2.4440	ppb	1.8309	74.9	7.7744
Sb 206.834	-1.7420	ppb	2.3723	136.2	-3.0891
Se 196.026	5.2262	ppb	3.2881	62.9	2.1850
Si 288.158	1.1342uv	ppb	1.1278	99.4	410.940
Sn 189.925	-0.4210	ppb	3.3874	804.6	0.3264
Sr 216.596	0.0222	ppb	0.3814	1715.4	9.2870
Ti 334.941	0.0380	ppb	0.0423	111.3	29.7365
Tl 190.794	0.5699	ppb	0.8407	147.5	-5.9488
V 292.401	-0.0202	ppb	0.3400	1686.3	9.5375
Zn 206.200	0.9750	ppb	1.0993	112.7	-1.5443

lcs 680-677994/2-a (Samp) **7/26/2021, 11:59:18 PM** **Rack 3, Tube 20**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	48.1738	47.7264	48.2802
Al 308.215	4782.85	4769.84	4774.88
As 188.980	95.0931	90.0092	93.9944
B 249.678	203.672	204.751	206.293
Ba 389.178	102.816	102.782	102.624
Be 313.042	47.8946	47.7864	47.7697
Ca 370.602	4871	4865	4863
Cd 226.502	49.4902	48.4926	49.1307
Co 228.615	49.7363	49.3901	48.7829
Cr 267.716	98.3012	97.8914	98.5482
Cu 324.754	96.7904	96.0458	95.8238
Fe 271.441	4906.27	4884.65	4895.81
K 766.491	7174.19	7153.73	7165.73
Mg 279.078	4766.02	4745.84	4755.16
Mn 257.610	391.280	390.242	390.435
Mo 202.032	96.9989	98.4086	97.7170
Na 330.237	4527.05	4497.53	4483.41
Ni 231.604	101.871	100.675	101.506
Pb 220.353	487.057	486.452	487.474
Sb 206.834	51.4088	56.9574	52.1893
Se 196.026	93.4137	106.839	86.7174
Si 288.158	-8.9208u	-8.8316u	-9.5409u
Sn 189.925	95.1769	92.5875	88.9693
Sr 216.596	96.8425	97.0976	96.9109
Ti 334.941	344.102	343.884	343.801

Label	Replicates Concentration		
Tl 190.794	41.8145	45.9200	41.3655
V 292.401	98.1184	98.4483	96.5944
Zn 206.200	100.060	97.8835	99.1490

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	48.0602	ppb	0.2939	0.6	2045.78
Al 308.215	4775.85	ppb	6.5577	0.1	16196.3
As 188.980	93.0322	ppb	2.6750	2.9	35.8673
B 249.678	204.905	ppb	1.3177	0.6	1506.23
Ba 389.178	102.740	ppb	0.1026	0.1	1156.33
Be 313.042	47.8169	ppb	0.0678	0.1	45185.5
Ca 370.602	4867	ppb	3.993	0.1	10615
Cd 226.502	49.0378	ppb	0.5052	1.0	1004.47
Co 228.615	49.3031	ppb	0.4826	1.0	238.992
Cr 267.716	98.2469	ppb	0.3317	0.3	2459.13
Cu 324.754	96.2200	ppb	0.5063	0.5	4234.74
Fe 271.441	4895.58	ppb	10.8125	0.2	4086.65
K 766.491	7164.55	ppb	10.2770	0.1	182973
Mg 279.078	4755.67	ppb	10.0978	0.2	7146.69
Mn 257.610	390.652	ppb	0.5523	0.1	40605.7
Mo 202.032	97.7082	ppb	0.7049	0.7	304.726
Na 330.237	4502.66	ppb	22.2692	0.5	189.797
Ni 231.604	101.351	ppb	0.6131	0.6	139.809
Pb 220.353	486.994	ppb	0.5136	0.1	366.934
Sb 206.834	53.5185	ppb	3.0036	5.6	30.2340
Se 196.026	95.6568	ppb	10.2467	10.7	29.1625
Si 288.158	-9.0978uv	ppb	0.3863	4.2	397.755
Sn 189.925	92.2446	ppb	3.1180	3.4	38.5161
Sr 216.596	96.9503	ppb	0.1321	0.1	548.608
Ti 334.941	343.929	ppb	0.1550	0.0	50580.3
Tl 190.794	43.0333	ppb	2.5100	5.8	19.3937
V 292.401	97.7204	ppb	0.9890	1.0	1286.24
Zn 206.200	99.0309	ppb	1.0931	1.1	64.9334

Cont Calib Verif (CCV) **7/27/2021, 12:03:51 AM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	495.948	498.073	499.626
Al 308.215	9864.99	9862.93	9815.90
As 188.980	492.000	486.309	485.024
B 249.678	493.437	498.463	497.426
Ba 389.178	504.201	503.019	502.589
Be 313.042	499.604	500.465	498.373
Ca 370.602	9909	9945	9909
Cd 226.502	492.500	491.965	489.470
Co 228.615	496.409	496.584	495.130
Cr 267.716	494.149	495.504	493.619
Cu 324.754	491.714	496.525	499.548
Fe 271.441	9862.18	9900.83	9824.11
K 766.491	10143.8	10156.4	10100.8
Mg 279.078	9710.63	9713.86	9669.88
Mn 257.610	503.276	503.390	500.540
Mo 202.032	502.328	502.090	495.814

Label	Replicates Concentration		
Na 330.237	9615.95	9805.96	9767.25
Ni 231.604	495.091	494.788	490.743
Pb 220.353	499.264	496.732	493.740
Sb 206.834	492.148	496.931	496.515
Se 196.026	496.018	477.476	474.875
Si 288.158	4903.81	4888.67	4861.59
Sn 189.925	488.739	489.971	485.480
Sr 216.596	497.667	497.433	497.639
Ti 334.941	499.925	500.788	498.232
Tl 190.794	503.356	504.568	501.824
V 292.401	498.868	498.977	495.936
Zn 206.200	990.617	980.123	980.087

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	497.882	ppb	1.8462	0.4	21079.0	99.57648
Al 308.215	9847.94	ppb	27.7642	0.3	32640.8	98.47940
As 188.980	487.778	ppb	3.7127	0.8	201.266	97.55555
B 249.678	496.442	ppb	2.6535	0.5	3730.63	99.28847
Ba 389.178	503.270	ppb	0.8343	0.2	5791.53	100.65397
Be 313.042	499.480	ppb	1.0515	0.2	474965	99.89610
Ca 370.602	9921	ppb	20.39	0.2	21598	99.21111
Cd 226.502	491.312	ppb	1.6175	0.3	10185.7	98.26234
Co 228.615	496.041	ppb	0.7934	0.2	2654.65	99.20818
Cr 267.716	494.424	ppb	0.9724	0.2	12306.6	98.88477
Cu 324.754	495.929	ppb	3.9509	0.8	20934.7	99.18582
Fe 271.441	9862.37	ppb	38.3583	0.4	8212.26	98.57444
K 766.491	10133.6	ppb	29.1815	0.3	258691	101.33646
Mg 279.078	9698.12	ppb	24.5152	0.3	14557.5	96.98123
Mn 257.610	502.402	ppb	1.6139	0.3	52203.7	100.48042
Mo 202.032	500.077	ppb	3.6941	0.7	1570.03	100.01542
Na 330.237	9729.72	ppb	100.409	1.0	357.537	97.29720
Ni 231.604	493.541	ppb	2.4276	0.5	735.348	98.70811
Pb 220.353	496.579	ppb	2.7651	0.6	373.707	99.31573
Sb 206.834	495.198	ppb	2.6494	0.5	299.092	99.03956
Se 196.026	482.790	ppb	11.5295	2.4	144.280	96.55794
Si 288.158	4884.69	ppb	21.3939	0.4	29509.6	97.69382
Sn 189.925	488.063	ppb	2.3201	0.5	201.640	97.61267
Sr 216.596	497.580	ppb	0.1277	0.0	2773.29	99.51602
Ti 334.941	499.648	ppb	1.3001	0.3	73470.3	99.92965
Tl 190.794	503.249	ppb	1.3752	0.3	298.293	100.64984
V 292.401	497.927	ppb	1.7250	0.3	6504.50	99.58540
Zn 206.200	983.609	ppb	6.0693	0.6	664.643	98.36091

Cont Calib Blank (CCB) **7/27/2021, 12:08:22 AM** **Rack S, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.1103	-0.2347u	-0.0708u
Al 308.215	-40.0778u	-74.1468u	-38.1120u
As 188.980	6.6328	4.0410	0.9670
B 249.678	20.5171	17.7202	19.5843
Ba 389.178	1.2205	2.1712	1.2281
Be 313.042	0.0487	0.0944	0.0652
Ca 370.602	-0.6522u	1.013	-0.6329u

Label	Replicates Concentration		
Cd 226.502	0.2209	0.4439	0.2404
Co 228.615	0.8366	1.3696	0.1569
Cr 267.716	0.1341	-0.1926u	0.1214
Cu 324.754	0.2096	-0.7415u	0.2042
Fe 271.441	3.4024	-12.0450u	8.8943
K 766.491	3.2358	0.9761	2.7364
Mg 279.078	-0.7233u	-4.4061u	-2.6140u
Mn 257.610	0.0440	-0.1015u	0.0332
Mo 202.032	0.8832	0.6383	-0.0874u
Na 330.237	-16.8563u	-359.271u	-229.248u
Ni 231.604	3.9342	4.1405	4.6296
Pb 220.353	-0.8245u	0.0986	-2.5467u
Sb 206.834	0.7676	-3.3203u	-2.6819u
Se 196.026	0.1242	-5.9917u	-13.4235u
Si 288.158	-0.9132u	-12.3232u	-0.7501u
Sn 189.925	-1.6892u	-4.3679u	0.3520
Sr 216.596	0.2157	0.2930	0.0329
Ti 334.941	0.0815	0.0299	0.1034
Tl 190.794	2.0331	4.9283	1.4740
V 292.401	-0.0198u	-0.1117u	0.0724
Zn 206.200	1.9008	0.2874	-0.3949u

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.0651	ppb	0.1726	265.3	8.1066	-0.06507
Al 308.215	-50.7789	ppb	20.2611	39.9	570.072	-50.77886
As 188.980	3.8803	ppb	2.8363	73.1	-1.5020	3.88027
B 249.678	19.2739	ppb	1.4240	7.4	93.1167	19.27389
Ba 389.178	1.5399	ppb	0.5467	35.5	-19.1110	1.53995
Be 313.042	0.0694	ppb	0.0231	33.3	-249.357	0.06941
Ca 370.602	-0.0906	ppb	0.9561	1055.7	31.63	-0.09056
Cd 226.502	0.3017	ppb	0.1235	40.9	-12.7971	0.30171
Co 228.615	0.7877	ppb	0.6078	77.2	-26.7207	0.78771
Cr 267.716	0.0209	ppb	0.1851	883.5	16.4438	0.02095
Cu 324.754	-0.1092	ppb	0.5476	501.4	209.135	-0.10921
Fe 271.441	0.0839	ppb	10.8569	12935.8	46.0018	0.08393
K 766.491	2.3161	ppb	1.1870	51.3	319.303	2.31609
Mg 279.078	-2.5812	ppb	1.8416	71.3	14.9085	-2.58115
Mn 257.610	-0.0081	ppb	0.0811	1004.0	54.8279	-0.00808
Mo 202.032	0.4780	ppb	0.5048	105.6	-0.9471	0.47802
Na 330.237	-201.792	ppb	172.851	85.7	30.6574	-201.79196
Ni 231.604	4.2347	ppb	0.3571	8.4	-7.7348	4.23475
Pb 220.353	-1.0909	ppb	1.3426	123.1	8.7673	-1.09088
Sb 206.834	-1.7449	ppb	2.1992	126.0	-3.0928	-1.74486
Se 196.026	-6.4304	ppb	6.7845	105.5	-1.2793	-6.43035
Si 288.158	-4.6622uv	ppb	6.6352	142.3	376.659	-4.66216
Sn 189.925	-1.9017	ppb	2.3671	124.5	-0.2839	-1.90169
Sr 216.596	0.1805	ppb	0.1336	74.0	10.1663	0.18054
Ti 334.941	0.0716	ppb	0.0378	52.7	34.6779	0.07160
Tl 190.794	2.8118	ppb	1.8541	65.9	-4.5903	2.81179
V 292.401	-0.0197	ppb	0.0920	466.9	9.5432	-0.01971
Zn 206.200	0.5978	ppb	1.1789	197.2	-1.8002	0.59777

680-201782-f-2-a (Samp) **7/27/2021, 12:12:53 AM** **Rack 3, Tube 21**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.1880u	-0.2368u	-0.2237u
Al 308.215	-26.9167u	-25.4818u	-29.1556u
As 188.980	4.3402	-3.4484u	-0.1850u
B 249.678	15.5600	15.1109	16.3002
Ba 389.178	15.0640	16.2186	15.5623
Be 313.042	0.0439	0.0386	0.0609
Ca 370.602	81245	80324	80183
Cd 226.502	0.4043	0.0272u	0.5210
Co 228.615	0.9281	1.1601	0.1591
Cr 267.716	-0.0262	0.2716	0.0535
Cu 324.754	10.4117	9.7839	9.9819
Fe 271.441	-5.9006u	4.4312	-9.0615u
K 766.491	53793.7x	53279.8x	53235.3x
Mg 279.078	8599.77	8516.64	8482.44
Mn 257.610	0.7529	0.7282	0.7555
Mo 202.032	0.0885	-0.4362u	1.0101
Na 330.237	405488x	400236x	398592x
Ni 231.604	1.5537	2.0537	3.0214
Pb 220.353	-0.6133u	-3.3139u	0.4089
Sb 206.834	0.6331	-0.6223u	2.6197
Se 196.026	4.8543	-2.6199u	-0.8630u
Si 288.158	3262.12	3223.23	3219.38
Sn 189.925	-3.5342u	-1.5872u	-2.9733u
Sr 216.596	126.694	125.964	125.220
Ti 334.941	0.2641	0.3091	0.3373
Tl 190.794	1.2881	-0.9025u	1.4611
V 292.401	2.3308	1.7522	2.0906
Zn 206.200	5.8849	5.0237	3.8524

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.2161b	ppb	0.0253	11.7	1.0253
Al 308.215	-27.1847b	ppb	1.8515	6.8	646.451
As 188.980	0.2356b	ppb	3.9113	1660.4	-3.0293
B 249.678	15.6570b	ppb	0.6006	3.8	65.4619
Ba 389.178	15.6150b	ppb	0.5791	3.7	156.390
Be 313.042	0.0478b	ppb	0.0117	24.4	-279.340
Ca 370.602	80584b	ppb	576.8	0.7	175164
Cd 226.502	0.3175b	ppb	0.2581	81.3	-13.5929
Co 228.615	0.7491b	ppb	0.5240	69.9	-26.9095
Cr 267.716	0.0996b	ppb	0.1542	154.8	21.9320
Cu 324.754	10.0592b	ppb	0.3209	3.2	633.785
Fe 271.441	-3.5103b	ppb	7.0568	201.0	43.0491
K 766.491	53436.3xb	ppb	310.323	0.6	1363007
Mg 279.078	8532.95b	ppb	60.3423	0.7	12816.9
Mn 257.610	0.7455b	ppb	0.0151	2.0	132.592
Mo 202.032	0.2208b	ppb	0.7322	331.6	-1.7564
Na 330.237	401439xb	ppb	3602.22	0.9	14180.6
Ni 231.604	2.2096b	ppb	0.7462	33.8	-10.8129
Pb 220.353	-1.1727b	ppb	1.9234	164.0	8.7074
Sb 206.834	0.8768b	ppb	1.6347	186.4	-1.4780
Se 196.026	0.4571b	ppb	3.9081	854.9	0.7678
Si 288.158	3234.91b	ppb	23.6426	0.7	19568.4

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-2.6982b	ppb	1.0022	37.1	-0.5447
Sr 216.596	125.959b	ppb	0.7368	0.6	718.841
Ti 334.941	0.3035b	ppb	0.0369	12.2	53.0968
Tl 190.794	0.6156b	ppb	1.3175	214.0	-5.9216
V 292.401	2.0579b	ppb	0.2907	14.1	35.2494
Zn 206.200	4.9203b	ppb	1.0202	20.7	1.1312

680-201782-f-2-b ms (Samp) **7/27/2021, 12:17:25 AM** **Rack 3, Tube 22**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	51.2569	50.6290	50.8320
Al 308.215	5198.22	5192.22	5189.55
As 188.980	104.683	106.151	98.3257
B 249.678	213.990	213.782	214.776
Ba 389.178	116.126	117.587	114.816
Be 313.042	49.3257	49.3002	49.1985
Ca 370.602	84817	84815	84675
Cd 226.502	49.4273	49.8275	49.5589
Co 228.615	49.1382	50.1514	49.4110
Cr 267.716	99.8165	99.8547	100.201
Cu 324.754	109.100	108.443	107.918
Fe 271.441	4964.19	4952.39	4947.55
K 766.491	60811.3x	60749.1x	60764.2x
Mg 279.078	13303.4	13255.2	13255.1
Mn 257.610	396.278	396.044	395.691
Mo 202.032	99.0340	99.8515	99.3861
Na 330.237	402523x	403059x	399823x
Ni 231.604	103.786	102.780	102.249
Pb 220.353	490.562	498.071	491.538
Sb 206.834	52.2220	48.9247	54.1860
Se 196.026	93.3514	84.0812	94.0144
Si 288.158	3208.65	3211.55	3209.07
Sn 189.925	95.9138	86.0784	97.8547
Sr 216.596	223.666	222.466	222.607
Ti 334.941	351.335	350.507	350.741
Tl 190.794	32.9704	43.8273	34.6558
V 292.401	101.969	101.666	101.597
Zn 206.200	107.501	109.450	106.217

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	50.9060b	ppb	0.3204	0.6	2165.53
Al 308.215	5193.33b	ppb	4.4421	0.1	17547.4
As 188.980	103.053b	ppb	4.1594	4.0	40.0676
B 249.678	214.183b	ppb	0.5247	0.2	1577.27
Ba 389.178	116.176b	ppb	1.3864	1.2	1324.41
Be 313.042	49.2748b	ppb	0.0673	0.1	46563.4
Ca 370.602	84769b	ppb	81.75	0.1	184266
Cd 226.502	49.6046b	ppb	0.2040	0.4	1015.21
Co 228.615	49.5669b	ppb	0.5242	1.1	240.507
Cr 267.716	99.9573b	ppb	0.2117	0.2	2505.15
Cu 324.754	108.487b	ppb	0.5921	0.5	4747.07
Fe 271.441	4954.71b	ppb	8.5617	0.2	4135.42
K 766.491	60774.9xb	ppb	32.4713	0.1	1550159

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	13271.2b	ppb	27.8792	0.2	19918.6
Mn 257.610	396.004b	ppb	0.2953	0.1	41160.9
Mo 202.032	99.4239b	ppb	0.4101	0.4	310.120
Na 330.237	401801xb	ppb	1734.21	0.4	14186.6
Ni 231.604	102.938b	ppb	0.7806	0.8	142.223
Pb 220.353	493.390b	ppb	4.0830	0.8	371.623
Sb 206.834	51.7776b	ppb	2.6586	5.1	29.1480
Se 196.026	90.4823b	ppb	5.5534	6.1	27.6260
Si 288.158	3209.75b	ppb	1.5682	0.0	19467.8
Sn 189.925	93.2823b	ppb	6.3138	6.8	39.0106
Sr 216.596	222.913b	ppb	0.6558	0.3	1258.20
Ti 334.941	350.861b	ppb	0.4269	0.1	51583.7
Tl 190.794	37.1512b	ppb	5.8428	15.7	15.8202
V 292.401	101.744b	ppb	0.1979	0.2	1337.38
Zn 206.200	107.723b	ppb	1.6275	1.5	70.8275

680-201782-f-2-c msd (Samp) **7/27/2021, 12:21:56 AM** **Rack 3, Tube 23**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	49.3264	49.9173	50.0342
Al 308.215	4998.01	5127.87	5141.17
As 188.980	98.7440	98.0759	102.979
B 249.678	208.245	214.331	214.517
Ba 389.178	112.083	115.183	115.528
Be 313.042	47.4103	48.6227	48.5142
Ca 370.602	82562	84700	84458
Cd 226.502	47.8239	49.3097	48.2448
Co 228.615	47.7388	50.3837	48.9375
Cr 267.716	96.0878	98.4919	98.0566
Cu 324.754	106.286	108.666	108.494
Fe 271.441	4749.21	4867.71	4853.27
K 766.491	59386.7x	60533.6x	60566.7x
Mg 279.078	12852.8	13199.0	13194.8
Mn 257.610	380.356	390.257	390.271
Mo 202.032	97.6755	100.094	97.8242
Na 330.237	379560x	402850x	401856x
Ni 231.604	98.1871	98.5595	100.204
Pb 220.353	474.695	489.426	483.275
Sb 206.834	51.8740	50.0890	47.8471
Se 196.026	103.742	108.859	101.199
Si 288.158	3137.53	3223.84	3223.19
Sn 189.925	90.7054	91.5803	94.9675
Sr 216.596	216.078	221.500	220.515
Ti 334.941	337.226	346.199	345.499
Tl 190.794	39.9696	30.1689	38.7840
V 292.401	97.1585	100.771	100.330
Zn 206.200	99.1826	106.543	104.015

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	49.7593b	ppb	0.3794	0.8	2116.98
Al 308.215	5089.02b	ppb	79.0960	1.6	17209.7
As 188.980	99.9331b	ppb	2.6592	2.7	38.7598
B 249.678	212.364b	ppb	3.5688	1.7	1563.58

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	114.264b	ppb	1.8972	1.7	1302.05
Be 313.042	48.1824b	ppb	0.6709	1.4	45524.2
Ca 370.602	83907b	ppb	1171	1.4	182392
Cd 226.502	48.4595b	ppb	0.7658	1.6	991.313
Co 228.615	49.0200b	ppb	1.3244	2.7	237.471
Cr 267.716	97.5454b	ppb	1.2810	1.3	2445.11
Cu 324.754	107.815b	ppb	1.3274	1.2	4718.97
Fe 271.441	4823.40b	ppb	64.6511	1.3	4027.06
K 766.491	60162.4xb	ppb	671.952	1.1	1534538
Mg 279.078	13082.2b	ppb	198.680	1.5	19635.3
Mn 257.610	386.961b	ppb	5.7207	1.5	40222.2
Mo 202.032	98.5313b	ppb	1.3555	1.4	307.316
Na 330.237	394755xb	ppb	13169.2	3.3	13938.5
Ni 231.604	98.9837b	ppb	1.0735	1.1	136.213
Pb 220.353	482.465b	ppb	7.3990	1.5	363.605
Sb 206.834	49.9367b	ppb	2.0178	4.0	28.0263
Se 196.026	104.600b	ppb	3.9015	3.7	31.8192
Si 288.158	3194.85b	ppb	49.6474	1.6	19378.0
Sn 189.925	92.4177b	ppb	2.2511	2.4	38.6531
Sr 216.596	219.365b	ppb	2.8887	1.3	1238.37
Ti 334.941	342.975b	ppb	4.9907	1.5	50424.7
Tl 190.794	36.3075b	ppb	5.3491	14.7	15.3180
V 292.401	99.4198b	ppb	1.9706	2.0	1307.04
Zn 206.200	103.247b	ppb	3.7400	3.6	67.7926

680-201782-f-2-a (Samp) **7/27/2021, 12:26:28 AM** **Rack 3, Tube 24**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0275	-0.1867u	-0.2222u
Al 308.215	-43.1973u	-46.3773u	-40.9826u
As 188.980	0.6262	-1.7714u	4.5095
B 249.678	13.3206	13.1183	11.7370
Ba 389.178	2.2840	1.5836	2.5109
Be 313.042	0.0425	0.0318	0.0376
Ca 370.602	7775	7744	7712
Cd 226.502	0.1889	0.1758	0.1370
Co 228.615	-0.3159u	0.2962	0.5797
Cr 267.716	-0.0294u	0.2142	0.0755
Cu 324.754	1.0667	1.0111	1.0844
Fe 271.441	0.6162	0.1007	-2.9572u
K 766.491	4624.70	4603.06	4587.42
Mg 279.078	831.460	825.732	824.402
Mn 257.610	0.0880	0.0479	0.0356
Mo 202.032	0.2453	-0.2980u	-0.0921u
Na 330.237	32264.9	32132.8	32160.0
Ni 231.604	3.6976	4.0996	3.2993
Pb 220.353	2.4804	-1.0741u	-0.6878u
Sb 206.834	0.8068	0.1396	0.6078
Se 196.026	-4.8363u	-8.8416u	-3.7913u
Si 288.158	304.403	304.951	301.783
Sn 189.925	-1.2922u	-2.3202u	-1.5909u
Sr 216.596	11.8398	12.9708	11.8458
Ti 334.941	0.1059	0.0438	0.0422

Label	Replicates Concentration		
Tl 190.794	9.3490	-0.9539u	2.5594
V 292.401	-0.0333u	0.7229	-0.2106u
Zn 206.200	-1.0358u	2.5471	0.5584

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1271	ppb	0.1351	106.2	5.4146
Al 308.215	-43.5190	ppb	2.7117	6.2	593.594
As 188.980	1.1214	ppb	3.1696	282.6	-2.6581
B 249.678	12.7253	ppb	0.8619	6.8	42.9226
Ba 389.178	2.1262	ppb	0.4834	22.7	-11.0875
Be 313.042	0.0373	ppb	0.0054	14.4	-280.470
Ca 370.602	7744	ppb	31.28	0.4	16862
Cd 226.502	0.1672	ppb	0.0270	16.1	-15.6647
Co 228.615	0.1867	ppb	0.4578	245.2	-29.9686
Cr 267.716	0.0868	ppb	0.1222	140.8	18.3642
Cu 324.754	1.0540	ppb	0.0382	3.6	257.721
Fe 271.441	-0.7468	ppb	1.9316	258.7	45.2962
K 766.491	4605.06	ppb	18.7243	0.4	117700
Mg 279.078	827.198	ppb	3.7505	0.5	1259.45
Mn 257.610	0.0572	ppb	0.0274	47.9	61.5652
Mo 202.032	-0.0483	ppb	0.2743	568.2	-2.6027
Na 330.237	32185.9	ppb	69.7891	0.2	1171.68
Ni 231.604	3.6988	ppb	0.4001	10.8	-8.5489
Pb 220.353	0.2395	ppb	1.9503	814.3	9.7439
Sb 206.834	0.5181	ppb	0.3426	66.1	-1.7032
Se 196.026	-5.8231	ppb	2.6658	45.8	-1.0987
Si 288.158	303.712	ppb	1.6928	0.6	2203.56
Sn 189.925	-1.7345	ppb	0.5288	30.5	-0.2095
Sr 216.596	12.2188	ppb	0.6513	5.3	77.9930
Ti 334.941	0.0640	ppb	0.0363	56.7	32.2944
Tl 190.794	3.6515	ppb	5.2375	143.4	-4.0817
V 292.401	0.1597	ppb	0.4957	310.5	11.7711
Zn 206.200	0.6899	ppb	1.7951	260.2	-1.7376

680-201782-f-2-b ms (Samp) **7/27/2021, 12:30:59 AM** **Rack 3, Tube 25**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	4.5607	4.6189	4.1065
Al 308.215	448.707	453.514	446.166
As 188.980	9.3489	12.9727	8.6340
B 249.678	29.0612	28.7261	27.4576
Ba 389.178	14.3993	14.0475	13.2636
Be 313.042	4.7955	4.7947	4.7688
Ca 370.602	8401	8420	8368
Cd 226.502	5.1911	5.3325	4.7827
Co 228.615	5.9463	4.7273	5.1425
Cr 267.716	9.9004	10.0012	10.1848
Cu 324.754	9.8134	10.2871	10.1944
Fe 271.441	494.785	491.452	484.771
K 766.491	5462.30	5471.44	5433.04
Mg 279.078	1322.54	1324.62	1323.28
Mn 257.610	39.5174	39.7430	39.4856
Mo 202.032	10.0245	9.8325	9.3377

Label	Replicates Concentration		
Na 330.237	33504.3	33262.0	33018.9
Ni 231.604	11.5462	12.1517	11.1607
Pb 220.353	45.2321	51.2382	44.0359
Sb 206.834	4.7914	1.8621	0.3158
Se 196.026	17.4413	11.9808	12.0838
Si 288.158	308.703	312.561	308.734
Sn 189.925	10.8096	7.4606	12.1605
Sr 216.596	22.8031	22.2580	22.7587
Ti 334.941	34.7021	34.8624	34.5941
Tl 190.794	4.4091	4.5410	4.0704
V 292.401	10.1552	10.0096	9.9651
Zn 206.200	11.6753	11.1567	10.6582

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	4.4287	ppb	0.2806	6.3	198.317
Al 308.215	449.462	ppb	3.7317	0.8	2189.61
As 188.980	10.3185	ppb	2.3262	22.5	1.1969
B 249.678	28.4149	ppb	0.8459	3.0	162.235
Ba 389.178	13.9034	ppb	0.5814	4.2	125.629
Be 313.042	4.7863	ppb	0.0152	0.3	4238.51
Ca 370.602	8396	ppb	26.39	0.3	18280
Cd 226.502	5.1021	ppb	0.2855	5.6	87.3182
Co 228.615	5.2721	ppb	0.6197	11.8	-2.1317
Cr 267.716	10.0288	ppb	0.1442	1.4	265.608
Cu 324.754	10.0983	ppb	0.2510	2.5	635.698
Fe 271.441	490.336	ppb	5.0994	1.0	450.635
K 766.491	5455.59	ppb	20.0590	0.4	139390
Mg 279.078	1323.48	ppb	1.0547	0.1	2003.31
Mn 257.610	39.5820	ppb	0.1403	0.4	4164.28
Mo 202.032	9.7316	ppb	0.3544	3.6	28.1435
Na 330.237	33261.7	ppb	242.680	0.7	1208.91
Ni 231.604	11.6195	ppb	0.4996	4.3	3.4835
Pb 220.353	46.8354	ppb	3.8596	8.2	43.9363
Sb 206.834	2.3231	ppb	2.2731	97.8	-0.6614
Se 196.026	13.8353	ppb	3.1233	22.6	4.7539
Si 288.158	310.000	ppb	2.2186	0.7	2245.78
Sn 189.925	10.1436	ppb	2.4197	23.9	4.6858
Sr 216.596	22.6066	ppb	0.3027	1.3	135.817
Ti 334.941	34.7195	ppb	0.1350	0.4	5126.49
Tl 190.794	4.3402	ppb	0.2427	5.6	-3.7040
V 292.401	10.0433	ppb	0.0994	1.0	140.869
Zn 206.200	11.1634	ppb	0.5086	4.6	5.3630

680-201782-f-2-c msd (Samp) **7/27/2021, 12:35:31 AM** **Rack 3, Tube 26**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	4.0547	4.5022	4.4722
Al 308.215	445.424	445.286	441.161
As 188.980	16.8646	8.9728	14.0379
B 249.678	27.2099	27.9467	26.2923
Ba 389.178	9.9949	9.2846	10.7110
Be 313.042	4.7409	4.7201	4.6817
Ca 370.602	8375	8353	8313

Label	Replicates Concentration		
Cd 226.502	5.2391	4.9298	4.8208
Co 228.615	5.5915	3.7328	5.8726
Cr 267.716	9.8129	9.4273	9.8378
Cu 324.754	10.6656	10.1923	10.1994
Fe 271.441	481.619	497.303	483.621
K 766.491	5405.18	5399.72	5379.70
Mg 279.078	1310.95	1308.01	1308.18
Mn 257.610	39.1520	38.8635	38.8229
Mo 202.032	10.9340	9.6861	9.0769
Na 330.237	33138.6	33080.9	33117.1
Ni 231.604	12.0183	10.7673	11.9953
Pb 220.353	52.1268	45.8202	48.8983
Sb 206.834	1.6354	5.8792	8.8457
Se 196.026	2.8620	3.3613	8.7561
Si 288.158	309.334	306.417	304.874
Sn 189.925	8.2649	13.0557	9.4784
Sr 216.596	22.9406	22.6585	22.3287
Ti 334.941	34.5200	34.3511	34.2478
Tl 190.794	9.6717	7.2177	7.7808
V 292.401	9.8776	9.8353	9.3025
Zn 206.200	10.1086	9.4333	12.1999

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	4.3430	ppb	0.2501	5.8	194.691
Al 308.215	443.957	ppb	2.4225	0.5	2171.75
As 188.980	13.2918	ppb	3.9985	30.1	2.4429
B 249.678	27.1496	ppb	0.8289	3.1	152.543
Ba 389.178	9.9968	ppb	0.7132	7.1	80.4720
Be 313.042	4.7142	ppb	0.0300	0.6	4169.93
Ca 370.602	8347	ppb	31.52	0.4	18172
Cd 226.502	4.9966	ppb	0.2170	4.3	85.1270
Co 228.615	5.0656	ppb	1.1628	23.0	-3.2494
Cr 267.716	9.6927	ppb	0.2302	2.4	257.249
Cu 324.754	10.3524	ppb	0.2712	2.6	646.303
Fe 271.441	487.514	ppb	8.5359	1.8	448.312
K 766.491	5394.87	ppb	13.4135	0.2	137842
Mg 279.078	1309.04	ppb	1.6497	0.1	1981.66
Mn 257.610	38.9461	ppb	0.1794	0.5	4098.28
Mo 202.032	9.8990	ppb	0.9467	9.6	28.6703
Na 330.237	33112.2	ppb	29.1776	0.1	1203.66
Ni 231.604	11.5936	ppb	0.7157	6.2	3.4439
Pb 220.353	48.9485	ppb	3.1536	6.4	45.4871
Sb 206.834	5.4534	ppb	3.6240	66.5	1.2695
Se 196.026	4.9931	ppb	3.2683	65.5	2.1259
Si 288.158	306.875	ppb	2.2650	0.7	2227.22
Sn 189.925	10.2663	ppb	2.4907	24.3	4.7363
Sr 216.596	22.6426	ppb	0.3063	1.4	136.034
Ti 334.941	34.3729	ppb	0.1374	0.4	5075.55
Tl 190.794	8.2234	ppb	1.2855	15.6	-1.3497
V 292.401	9.6718	ppb	0.3205	3.3	136.024
Zn 206.200	10.5806	ppb	1.4425	13.6	4.9678

660-112402-a-1-a (Samp) **7/27/2021, 12:40:02 AM** **Rack 3, Tube 27**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0429u	0.0628u	0.7005
Al 308.215	-21.2955u	-23.9489u	-24.1508u
As 188.980	-2.6795u	-8.2352u	-6.3710u
B 249.678	187.650	188.312	188.826
Ba 389.178	42.7020	43.8931	42.0840
Be 313.042	-0.0502	-0.0488	-0.0605
Ca 370.602	531180	529391	530202
Cd 226.502	-0.0988u	0.2471	0.3492
Co 228.615	2.2287	2.0707	1.5263
Cr 267.716	20.3803	20.5315	20.5546
Cu 324.754	4.7418	5.2031	4.8130
Fe 271.441	79.0471	84.7006	84.3463
K 766.491	9008.06	9031.16	9027.29
Mg 279.078	10021.3	9996.82	10021.0
Mn 257.610	15.2370	15.2479	15.2587
Mo 202.032	202.716	203.797	202.649
Na 330.237	31023.7	30904.3	30999.0
Ni 231.604	55.4311	55.2053	55.3074
Pb 220.353	-2.9072u	1.5196	-3.5510u
Sb 206.834	1.6112u	2.5631u	1.3701u
Se 196.026	2.9318	-5.6183u	13.8332
Si 288.158	1694.21	1690.58	1695.71
Sn 189.925	-10.2996u	3.3356	-3.4780u
Sr 216.596	1301.59x	1295.43x	1298.70x
Ti 334.941	1.5404	1.3658	1.2890
Tl 190.794	-2.6172u	-3.1008u	0.4383
V 292.401	7.3813	6.1197	7.0924
Zn 206.200	9.6415	13.8519	11.5092

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	0.2401b	ppb	0.4022	167.5	14.9266
Al 308.215	-23.1317b	ppb	1.5934	6.9	664.074
As 188.980	-5.7619b	ppb	2.8275	49.1	-5.5527
B 249.678	188.263b	ppb	0.5894	0.3	1387.90
Ba 389.178	42.8930b	ppb	0.9195	2.1	501.291
Be 313.042	-0.0532b	ppb	0.0064	12.0	-289.404
Ca 370.602	530258b	ppb	895.5	0.2	1152435
Cd 226.502	0.1658b	ppb	0.2348	141.6	-15.5225
Co 228.615	1.9419b	ppb	0.3685	19.0	-21.0994
Cr 267.716	20.4888b	ppb	0.0947	0.5	525.511
Cu 324.754	4.9193b	ppb	0.2483	5.0	423.833
Fe 271.441	82.6980b	ppb	3.1667	3.8	114.485
K 766.491	9022.17b	ppb	12.3717	0.1	230346
Mg 279.078	10013.0b	ppb	14.0578	0.1	15036.7
Mn 257.610	15.2479b	ppb	0.0108	0.1	1641.36
Mo 202.032	203.054b	ppb	0.6447	0.3	636.200
Na 330.237	30975.7b	ppb	63.0400	0.2	1128.86
Ni 231.604	55.3146b	ppb	0.1131	0.2	69.8994
Pb 220.353	-1.6462b	ppb	2.7605	167.7	8.2156
Sb 206.834	1.8481b	ppb	0.6308	34.1	-3.0676
Se 196.026	3.7156b	ppb	9.7494	262.4	1.7391
Si 288.158	1693.50b	ppb	2.6366	0.2	10471.7

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	-3.4807b	ppb	6.8176	195.9	-0.9294
Sr 216.596	1298.57xb	ppb	3.0842	0.2	7294.13
Ti 334.941	1.3984b	ppb	0.1288	9.2	228.497
Tl 190.794	-1.7599b	ppb	1.9190	109.0	-7.4269
V 292.401	6.8645b	ppb	0.6610	9.6	98.6604
Zn 206.200	11.6675b	ppb	2.1097	18.1	5.6966

mb 680-678010/1-a (Samp) **7/27/2021, 12:44:34 AM** **Rack 3, Tube 28**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0115u	-0.0500u	-0.0836u
Al 308.215	-40.0585u	-44.8159u	-44.3566u
As 188.980	-1.4750u	2.5857	3.6879
B 249.678	9.7596	10.1807	9.8039
Ba 389.178	1.5897	1.1197	0.9079
Be 313.042	0.0406	0.0339	0.0449
Ca 370.602	19.37	14.80	22.39
Cd 226.502	0.1138	0.2095	-0.1701u
Co 228.615	0.0788	0.3060	0.2555
Cr 267.716	-0.1632u	-0.1517u	0.2020
Cu 324.754	-0.3440u	-0.2217u	0.0545
Fe 271.441	-12.1796u	-8.6353u	5.8968
K 766.491	2.9747	1.4308	2.5612
Mg 279.078	-3.0870u	-0.6461u	-3.9445u
Mn 257.610	-0.0239u	-0.0337u	-0.1258u
Mo 202.032	-0.0150u	0.1836	-0.3005u
Na 330.237	-243.275u	-132.437u	33.2101
Ni 231.604	3.4325	2.6346	2.7920
Pb 220.353	-1.2951u	0.5501	-1.9429u
Sb 206.834	2.2932	0.2810	1.6122
Se 196.026	3.0189	0.0611	-9.9538u
Si 288.158	-3.5970u	-3.1251u	-4.7383u
Sn 189.925	-2.8522u	-0.3636u	-1.8335u
Sr 216.596	0.5427	0.2029	0.3856
Ti 334.941	-0.0098u	-0.0196u	0.0310
Tl 190.794	3.8308	5.5909	4.8992
V 292.401	0.4058	0.1681	-0.4582u
Zn 206.200	1.8658	1.8796	0.9014

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0484	ppb	0.0361	74.6	8.8134
Al 308.215	-43.0770	ppb	2.6242	6.1	594.994
As 188.980	1.5996	ppb	2.7190	170.0	-2.4577
B 249.678	9.9147	ppb	0.2314	2.3	21.3948
Ba 389.178	1.2058	ppb	0.3490	28.9	-22.9723
Be 313.042	0.0398	ppb	0.0055	13.8	-277.545
Ca 370.602	18.85	ppb	3.819	20.3	72.79
Cd 226.502	0.0511	ppb	0.1974	386.5	-17.9946
Co 228.615	0.2134	ppb	0.1193	55.9	-29.8259
Cr 267.716	-0.0376	ppb	0.2076	551.9	14.9895
Cu 324.754	-0.1704	ppb	0.2041	119.8	206.582
Fe 271.441	-4.9727	ppb	9.5786	192.6	41.8381
K 766.491	2.3222	ppb	0.7992	34.4	319.460

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	-2.5592	ppb	1.7114	66.9	14.9418
Mn 257.610	-0.0612	ppb	0.0562	91.9	49.3162
Mo 202.032	-0.0440	ppb	0.2433	553.1	-2.5890
Na 330.237	-114.167	ppb	139.145	121.9	33.7449
Ni 231.604	2.9530	ppb	0.4227	14.3	-9.6830
Pb 220.353	-0.8960	ppb	1.2935	144.4	8.9104
Sb 206.834	1.3955	ppb	1.0234	73.3	-1.1620
Se 196.026	-2.2913	ppb	6.7987	296.7	-0.0492
Si 288.158	-3.8201uv	ppb	0.8294	21.7	381.705
Sn 189.925	-1.6831	ppb	1.2511	74.3	-0.1938
Sr 216.596	0.3770	ppb	0.1701	45.1	11.2714
Ti 334.941	0.0005	ppb	0.0268	5233.4	24.2215
Tl 190.794	4.7736	ppb	0.8867	18.6	-3.4011
V 292.401	0.0386	ppb	0.4463	1156.8	10.3035
Zn 206.200	1.5490	ppb	0.5608	36.2	-1.1550

lcs 680-678010/2-a (Samp) **7/27/2021, 12:49:06 AM** **Rack 3, Tube 29**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	18.9506	18.7199	18.8521
Al 308.215	1844.82	1833.42	1856.26
As 188.980	33.9213	42.8897	33.1359
B 249.678	82.5883	82.4316	82.5153
Ba 389.178	42.3566	40.2182	42.1698
Be 313.042	18.6146	18.5562	18.6932
Ca 370.602	1925	1914	1927
Cd 226.502	19.4632	19.2482	19.4260
Co 228.615	19.3706	19.4890	20.3555
Cr 267.716	37.9777	37.9707	38.5078
Cu 324.754	37.8540	37.4522	37.7117
Fe 271.441	1918.54	1892.62	1916.64
K 766.491	2817.68	2805.31	2824.46
Mg 279.078	1859.14	1849.99	1855.98
Mn 257.610	153.257	152.717	153.737
Mo 202.032	39.2952	37.1970	37.8163
Na 330.237	1692.34	1726.32	1385.72
Ni 231.604	41.3425	39.2192	41.4189
Pb 220.353	195.288	187.939	189.841
Sb 206.834	21.1361	19.4314	21.9722
Se 196.026	38.3222	37.9206	23.5127
Si 288.158	-7.0574u	-8.9956u	-5.7065u
Sn 189.925	35.5863	37.0817	39.0790
Sr 216.596	37.9721	38.3467	38.2082
Ti 334.941	134.291	133.657	134.638
Tl 190.794	18.0533	17.9173	20.6387
V 292.401	38.3018	38.7582	37.6019
Zn 206.200	39.1130	38.1595	37.9534

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	18.8409	ppb	0.1158	0.6	808.600
Al 308.215	1844.83	ppb	11.4193	0.6	6707.09
As 188.980	36.6490	ppb	5.4188	14.8	12.2337
B 249.678	82.5117	ppb	0.0784	0.1	574.038

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	41.5815	ppb	1.1844	2.8	445.939
Be 313.042	18.6213	ppb	0.0687	0.4	17404.0
Ca 370.602	1922	ppb	7.350	0.4	4212
Cd 226.502	19.3791	ppb	0.1149	0.6	385.405
Co 228.615	19.7384	ppb	0.5377	2.7	77.0729
Cr 267.716	38.1521	ppb	0.3081	0.8	964.692
Cu 324.754	37.6726	ppb	0.2037	0.5	1788.03
Fe 271.441	1909.27	ppb	14.4485	0.8	1621.80
K 766.491	2815.82	ppb	9.7122	0.3	72070.0
Mg 279.078	1855.03	ppb	4.6472	0.3	2799.14
Mn 257.610	153.237	ppb	0.5102	0.3	15961.8
Mo 202.032	38.1028	ppb	1.0780	2.8	117.338
Na 330.237	1601.46	ppb	187.607	11.7	91.6106
Ni 231.604	40.6602	ppb	1.2485	3.1	47.6041
Pb 220.353	191.023	ppb	3.8144	2.0	149.745
Sb 206.834	20.8466	ppb	1.2949	6.2	10.5451
Se 196.026	33.2518	ppb	8.4367	25.4	10.5540
Si 288.158	-7.2532uv	ppb	1.6532	22.8	379.638
Sn 189.925	37.2490	ppb	1.7523	4.7	15.8510
Sr 216.596	38.1757	ppb	0.1894	0.5	221.602
Ti 334.941	134.195	ppb	0.4978	0.4	19750.3
Tl 190.794	18.8698	ppb	1.5335	8.1	4.9881
V 292.401	38.2207	ppb	0.5824	1.5	509.047
Zn 206.200	38.4086	ppb	0.6187	1.6	23.8340

llcs 680-678010/4-a (Samp) **7/27/2021, 12:53:37 AM** **Rack 3, Tube 30**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	9.5965	10.1302	9.6906
Al 308.215	157.634	161.730	162.179
As 188.980	19.1563	21.3705	22.5416
B 249.678	104.669	104.599	106.295
Ba 389.178	10.0055	10.9177	10.6340
Be 313.042	3.9009	3.9215	3.9313
Ca 370.602	500.2	504.4	516.4
Cd 226.502	5.1655	5.3169	5.2199
Co 228.615	10.8189	9.9341	11.8817
Cr 267.716	9.9396	10.1230	10.3599
Cu 324.754	19.2173	19.9459	19.8106
Fe 271.441	43.9018	43.8276	43.9773
K 766.491	1083.91	1095.28	1098.01
Mg 279.078	488.409	484.345	486.313
Mn 257.610	9.8632	9.9579	9.9446
Mo 202.032	9.9573	11.3065	10.9294
Na 330.237	648.230	751.126	813.255
Ni 231.604	42.0846	42.2183	43.7212
Pb 220.353	11.3483	13.5618	8.4974
Sb 206.834	25.9016	21.0276	16.4238
Se 196.026	18.1941	16.0933	22.1132
Si 288.158	3.8715	6.8385	5.4456
Sn 189.925	48.1446	47.6691	45.3876
Sr 216.596	10.2280	9.8901	10.0143
Ti 334.941	10.0708	10.0631	10.1028

Label	Replicates Concentration		
Tl 190.794	25.5272	25.2808	35.2808
V 292.401	10.2942	10.2410	9.8872
Zn 206.200	23.6382	19.9730	20.4769

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	9.8058	ppb	0.2849	2.9	425.793
Al 308.215	160.514	ppb	2.5043	1.6	1254.59
As 188.980	21.0228	ppb	1.7192	8.2	5.6813
B 249.678	105.188	ppb	0.9595	0.9	751.367
Ba 389.178	10.5191	ppb	0.4669	4.4	85.1659
Be 313.042	3.9179	ppb	0.0155	0.4	3412.73
Ca 370.602	507.0	ppb	8.374	1.7	1134
Cd 226.502	5.2341	ppb	0.0767	1.5	89.5965
Co 228.615	10.8782	ppb	0.9752	9.0	27.8924
Cr 267.716	10.1408	ppb	0.2107	2.1	268.016
Cu 324.754	19.6579	ppb	0.3876	2.0	1034.82
Fe 271.441	43.9022	ppb	0.0748	0.2	82.8427
K 766.491	1092.40	ppb	7.4824	0.7	28119.0
Mg 279.078	486.356	ppb	2.0323	0.4	748.099
Mn 257.610	9.9219	ppb	0.0512	0.5	1085.66
Mo 202.032	10.7311	ppb	0.6961	6.5	31.2967
Na 330.237	737.537	ppb	83.3477	11.3	63.2762
Ni 231.604	42.6747	ppb	0.9087	2.1	50.6762
Pb 220.353	11.1358	ppb	2.5389	22.8	17.7274
Sb 206.834	21.1176	ppb	4.7396	22.4	10.8969
Se 196.026	18.8002	ppb	3.0553	16.3	6.2211
Si 288.158	5.3852	ppb	1.4844	27.6	443.504
Sn 189.925	47.0671	ppb	1.4738	3.1	19.8971
Sr 216.596	10.0441	ppb	0.1709	1.7	64.7082
Ti 334.941	10.0789	ppb	0.0210	0.2	1505.67
Tl 190.794	28.6962	ppb	5.7037	19.9	11.0910
V 292.401	10.1408	ppb	0.2212	2.2	142.057
Zn 206.200	21.3627	ppb	1.9867	9.3	12.2768

Cont Calib Verif (CCV) **7/27/2021, 12:58:10 AM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	498.977	494.311	499.636
Al 308.215	9866.01	9849.73	9877.48
As 188.980	493.782	489.466	489.482
B 249.678	493.002	494.926	497.326
Ba 389.178	505.811	504.813	506.247
Be 313.042	503.474	501.857	503.066
Ca 370.602	9997	9949	9976
Cd 226.502	493.206	490.838	493.698
Co 228.615	499.565	498.757	497.243
Cr 267.716	498.316	496.276	498.124
Cu 324.754	496.183	492.767	496.407
Fe 271.441	9939.42	9906.21	9927.51
K 766.491	10198.3	10156.5	10173.3
Mg 279.078	9755.77	9729.08	9753.34
Mn 257.610	504.548	503.887	505.159
Mo 202.032	503.854	501.296	501.328

Label	Replicates Concentration		
Na 330.237	9952.79	9816.03	9827.56
Ni 231.604	495.583	495.416	498.108
Pb 220.353	504.543	501.289	499.450
Sb 206.834	493.767	490.170	496.850
Se 196.026	471.295	478.656	486.896
Si 288.158	4907.58	4891.66	4901.73
Sn 189.925	507.006	488.559	494.104
Sr 216.596	497.952	496.220	498.177
Ti 334.941	504.315	502.665	504.389
Tl 190.794	496.603	497.750	501.791
V 292.401	500.166	499.699	498.848
Zn 206.200	990.596	984.937	989.973

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	497.641	ppb	2.9029	0.6	21068.8	99.52824
Al 308.215	9864.41	ppb	13.9445	0.1	32694.3	98.64407
As 188.980	490.910	ppb	2.4873	0.5	202.579	98.18198
B 249.678	495.085	ppb	2.1668	0.4	3720.13	99.01695
Ba 389.178	505.624	ppb	0.7352	0.1	5818.80	101.12472
Be 313.042	502.799	ppb	0.8408	0.2	478123	100.55986
Ca 370.602	9974	ppb	24.47	0.2	21713	99.73908
Cd 226.502	492.581	ppb	1.5293	0.3	10212.1	98.51613
Co 228.615	498.522	ppb	1.1787	0.2	2668.09	99.70432
Cr 267.716	497.572	ppb	1.1265	0.2	12384.9	99.51433
Cu 324.754	495.119	ppb	2.0400	0.4	20900.9	99.02376
Fe 271.441	9924.38	ppb	16.8229	0.2	8263.58	99.19423
K 766.491	10176.0	ppb	21.0200	0.2	259772	101.76028
Mg 279.078	9746.06	ppb	14.7545	0.2	14629.3	97.46062
Mn 257.610	504.531	ppb	0.6357	0.1	52424.7	100.90629
Mo 202.032	502.159	ppb	1.4675	0.3	1576.58	100.43186
Na 330.237	9865.46	ppb	75.8493	0.8	362.185	98.65458
Ni 231.604	496.369	ppb	1.5084	0.3	739.644	99.27387
Pb 220.353	501.760	ppb	2.5790	0.5	377.507	100.35209
Sb 206.834	493.595	ppb	3.3434	0.7	298.083	98.71909
Se 196.026	478.949	ppb	7.8045	1.6	143.139	95.78976
Si 288.158	4900.32	ppb	8.0539	0.2	29603.3	98.00642
Sn 189.925	496.556	ppb	9.4648	1.9	205.140	99.31123
Sr 216.596	497.450	ppb	1.0710	0.2	2772.51	99.48997
Ti 334.941	503.789	ppb	0.9749	0.2	74079.0	100.75789
Tl 190.794	498.715	ppb	2.7251	0.5	295.541	99.74290
V 292.401	499.571	ppb	0.6680	0.1	6525.95	99.91421
Zn 206.200	988.502	ppb	3.1029	0.3	667.960	98.85020

Cont Calib Blank (CCB) **7/27/2021, 1:02:42 AM** **Rack S, Tube 1**
Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.2067u	0.1651	-0.1246u
Al 308.215	-40.7727u	-37.4731u	-44.3049u
As 188.980	-0.9420u	-0.4163u	3.1471
B 249.678	19.1499	17.2449	16.0728
Ba 389.178	0.4477	1.5570	-0.1370u
Be 313.042	0.0678	0.0709	0.0696
Ca 370.602	1.097	-0.8776u	0.1871

Label	Replicates Concentration		
Cd 226.502	0.3204	0.3075	0.4481
Co 228.615	0.2351	0.4344	1.1320
Cr 267.716	0.0182	-0.2868u	0.0551
Cu 324.754	0.1633	0.3480	0.3983
Fe 271.441	-7.0142u	0.6060	-0.0289
K 766.491	3.2862	3.4389	3.0744
Mg 279.078	2.2963	5.2435	-1.3704u
Mn 257.610	0.0355	0.0528	0.0455
Mo 202.032	-0.6484u	-0.2708u	0.0960
Na 330.237	-241.573u	16.4157	-299.230u
Ni 231.604	2.5085	2.5626	1.8284
Pb 220.353	-1.4900u	-0.7137u	1.1388
Sb 206.834	-3.2142u	4.1904	-4.3966u
Se 196.026	-6.6167u	6.4897	1.6990
Si 288.158	-2.3643u	0.4228	0.1747
Sn 189.925	-1.9566u	-1.3724u	1.5557
Sr 216.596	0.0849	-0.6420u	0.2178
Ti 334.941	0.1036	0.0272	0.0667
Tl 190.794	5.1010	4.3367	-2.8172u
V 292.401	-0.4252u	0.0922	0.3668
Zn 206.200	1.3392	0.2588	2.0002

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	-0.0554	ppb	0.1954	352.6	8.5178	-0.05540
Al 308.215	-40.8502	ppb	3.4166	8.4	602.204	-40.85025
As 188.980	0.5962	ppb	2.2247	373.1	-2.8782	0.59623
B 249.678	17.4892	ppb	1.5531	8.9	79.4362	17.48919
Ba 389.178	0.6226	ppb	0.8604	138.2	-29.7059	0.62257
Be 313.042	0.0694	ppb	0.0015	2.2	-249.384	0.06939
Ca 370.602	0.1356	ppb	0.9885	729.1	32.11	0.13558
Cd 226.502	0.3587	ppb	0.0777	21.7	-11.6127	0.35867
Co 228.615	0.6005	ppb	0.4709	78.4	-27.7327	0.60052
Cr 267.716	-0.0711	ppb	0.1876	263.8	14.1557	-0.07114
Cu 324.754	0.3032	ppb	0.1237	40.8	226.363	0.30323
Fe 271.441	-2.1457	ppb	4.2282	197.1	44.1764	-2.14568
K 766.491	3.2665	ppb	0.1831	5.6	343.541	3.26648
Mg 279.078	2.0565	ppb	3.3135	161.1	21.8627	2.05648
Mn 257.610	0.0446	ppb	0.0087	19.5	60.2921	0.04459
Mo 202.032	-0.2744	ppb	0.3722	135.6	-3.3137	-0.27441
Na 330.237	-174.796	ppb	168.085	96.2	31.6102	-174.79587
Ni 231.604	2.2998	ppb	0.4091	17.8	-10.6759	2.29983
Pb 220.353	-0.3550	ppb	1.3506	380.5	9.3073	-0.35495
Sb 206.834	-1.1402	ppb	4.6541	408.2	-2.7226	-1.14015
Se 196.026	0.5240	ppb	6.6317	1265.5	0.7876	0.52402
Si 288.158	-0.5890uv	ppb	1.5425	261.9	400.713	-0.58897
Sn 189.925	-0.5911	ppb	1.8820	318.4	0.2563	-0.59110
Sr 216.596	-0.1131	ppb	0.4629	409.2	8.5385	-0.11312
Ti 334.941	0.0659	ppb	0.0382	58.0	33.8294	0.06585
Tl 190.794	2.2068	ppb	4.3677	197.9	-4.9569	2.20683
V 292.401	0.0113	ppb	0.4021	3572.4	9.9471	0.01126
Zn 206.200	1.1994	ppb	0.8791	73.3	-1.3921	1.19939

660-112436-x-1-a (Samp) **7/27/2021, 1:07:13 AM** **Rack 3, Tube 31**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.0200	-0.1609u	-0.2033u
Al 308.215	-41.7261u	-41.5762u	-40.8899u
As 188.980	6.3604	11.9991	1.1081
B 249.678	22.9197	21.9673	21.2759
Ba 389.178	12.8536	12.0313	12.4503
Be 313.042	0.0320	0.0275	0.0243
Ca 370.602	56328	56314	56323
Cd 226.502	-0.0098u	0.1873	0.5167
Co 228.615	0.6123	0.5992	0.2478
Cr 267.716	1.1541	0.7671	0.7591
Cu 324.754	0.9235	1.0579	1.4381
Fe 271.441	3.1001	-2.1601u	12.1709
K 766.491	531.583	530.570	531.684
Mg 279.078	3789.79	3770.82	3778.08
Mn 257.610	0.9941	1.0134	0.9844
Mo 202.032	0.1743	0.8720	1.8688
Na 330.237	4656.30	4439.17	4600.12
Ni 231.604	5.0927	4.2592	3.0314
Pb 220.353	0.4259	-0.2859u	0.0856
Sb 206.834	-2.8654u	2.3111	-1.7872u
Se 196.026	4.4066	12.8351	6.5354
Si 288.158	5530.43	5516.75	5529.06
Sn 189.925	1.0254	-0.4006u	0.7488
Sr 216.596	111.283	110.231	110.924
Ti 334.941	0.1818	0.1347	0.1890
Tl 190.794	1.9859	7.1687	2.5975
V 292.401	4.1546	4.1296	3.6437
Zn 206.200	4.9985	2.0943	3.5269

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1148	ppb	0.1186	103.3	5.4461
Al 308.215	-41.3974	ppb	0.4459	1.1	600.645
As 188.980	6.4892	ppb	5.4467	83.9	-0.4087
B 249.678	22.0543	ppb	0.8254	3.7	114.399
Ba 389.178	12.4451	ppb	0.4112	3.3	113.875
Be 313.042	0.0279	ppb	0.0039	13.8	-278.893
Ca 370.602	56322	ppb	7.288	0.0	122435
Cd 226.502	0.2314	ppb	0.2660	114.9	-14.2270
Co 228.615	0.4865	ppb	0.2068	42.5	-28.3492
Cr 267.716	0.8934	ppb	0.2258	25.3	38.1709
Cu 324.754	1.1398	ppb	0.2669	23.4	261.291
Fe 271.441	4.3703	ppb	7.2495	165.9	49.5337
K 766.491	531.279	ppb	0.6159	0.1	13809.1
Mg 279.078	3779.56	ppb	9.5721	0.3	5687.54
Mn 257.610	0.9973	ppb	0.0148	1.5	159.502
Mo 202.032	0.9717	ppb	0.8517	87.6	0.6044
Na 330.237	4565.20	ppb	112.703	2.5	198.560
Ni 231.604	4.1278	ppb	1.0369	25.1	-7.8970
Pb 220.353	0.0752	ppb	0.3560	473.2	9.6231
Sb 206.834	-0.7805	ppb	2.7311	349.9	-2.5056
Se 196.026	7.9257	ppb	4.3829	55.3	2.9876
Si 288.158	5525.41	ppb	7.5318	0.1	33137.8

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	0.4579	ppb	0.7562	165.2	0.6893
Sr 216.596	110.813	ppb	0.5348	0.5	632.181
Ti 334.941	0.1685	ppb	0.0295	17.5	48.7386
Tl 190.794	3.9174	ppb	2.8323	72.3	-3.9210
V 292.401	3.9760	ppb	0.2880	7.2	61.6606
Zn 206.200	3.5399	ppb	1.4521	41.0	0.1948

660-112436-x-1-b ms (Samp) **7/27/2021, 1:11:44 AM** **Rack 3, Tube 32**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	19.2275	18.6834	18.8938
Al 308.215	1892.88	1887.11	1898.59
As 188.980	34.8109	37.4312	33.5336
B 249.678	96.5519	96.6186	97.7170
Ba 389.178	51.4257	49.7535	51.0262
Be 313.042	18.9183	18.9110	18.9085
Ca 370.602	58719	58629	58671
Cd 226.502	19.5706	19.5514	19.4230
Co 228.615	20.1094	19.4516	19.0838
Cr 267.716	39.4267	39.7715	39.9136
Cu 324.754	39.5082	39.7309	39.8401
Fe 271.441	1950.13	1952.47	1944.94
K 766.491	3479.03	3471.34	3476.78
Mg 279.078	5674.18	5669.75	5679.50
Mn 257.610	156.128	155.867	156.077
Mo 202.032	40.0169	39.0706	39.2134
Na 330.237	6375.75	6266.73	6608.33
Ni 231.604	41.7118	41.8752	39.5866
Pb 220.353	194.507	195.953	193.290
Sb 206.834	20.1318	14.1385	20.3142
Se 196.026	21.9505	33.9090	29.1811
Si 288.158	5642.97	5633.99	5643.98
Sn 189.925	32.6719	31.2182	36.3684
Sr 216.596	149.188	151.027	150.398
Ti 334.941	136.219	135.966	136.184
Tl 190.794	13.1796	18.5365	21.3092
V 292.401	42.4458	42.9984	42.5581
Zn 206.200	39.4090	42.3033	41.3113

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	18.9349	ppb	0.2744	1.4	812.021
Al 308.215	1892.86	ppb	5.7414	0.3	6862.78
As 188.980	35.2586	ppb	1.9870	5.6	11.6510
B 249.678	96.9625	ppb	0.6542	0.7	684.703
Ba 389.178	50.7352	ppb	0.8733	1.7	558.760
Be 313.042	18.9126	ppb	0.0051	0.0	17691.2
Ca 370.602	58673	ppb	45.28	0.1	127548
Cd 226.502	19.5150	ppb	0.0803	0.4	388.283
Co 228.615	19.5483	ppb	0.5196	2.7	76.0635
Cr 267.716	39.7039	ppb	0.2504	0.6	1003.31
Cu 324.754	39.6931	ppb	0.1691	0.4	1872.41
Fe 271.441	1949.18	ppb	3.8514	0.2	1654.74
K 766.491	3475.71	ppb	3.9541	0.1	88898.9

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	5674.48	ppb	4.8806	0.1	8527.70
Mn 257.610	156.024	ppb	0.1384	0.1	16251.4
Mo 202.032	39.4336	ppb	0.5101	1.3	121.521
Na 330.237	6416.94	ppb	174.485	2.7	261.194
Ni 231.604	41.0579	ppb	1.2768	3.1	48.2084
Pb 220.353	194.583	ppb	1.3330	0.7	152.357
Sb 206.834	18.1948	ppb	3.5140	19.3	8.9077
Se 196.026	28.3469	ppb	6.0228	21.2	9.0969
Si 288.158	5640.31	ppb	5.4968	0.1	33836.9
Sn 189.925	33.4195	ppb	2.6553	7.9	14.2737
Sr 216.596	150.204	ppb	0.9348	0.6	851.425
Ti 334.941	136.123	ppb	0.1369	0.1	20033.5
Tl 190.794	17.6751	ppb	4.1327	23.4	4.2615
V 292.401	42.6674	ppb	0.2921	0.7	567.056
Zn 206.200	41.0079	ppb	1.4708	3.6	25.5963

660-112436-x-1-c msd (Samp) **7/27/2021, 1:16:16 AM** **Rack 3, Tube 33**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	19.2860	18.2283	19.1770
Al 308.215	1876.54	1863.30	1851.88
As 188.980	38.7349	42.5574	42.0159
B 249.678	96.0092	96.7563	96.6374
Ba 389.178	51.5132	50.3891	49.5209
Be 313.042	18.6883	18.6107	18.6119
Ca 370.602	58558	58331	58333
Cd 226.502	18.9949	19.4000	18.8887
Co 228.615	19.3787	19.6312	19.1148
Cr 267.716	39.4178	38.8884	39.1539
Cu 324.754	39.1297	39.1017	38.7203
Fe 271.441	1921.40	1906.56	1918.66
K 766.491	3420.33	3421.30	3418.14
Mg 279.078	5637.31	5629.72	5616.00
Mn 257.610	153.988	153.428	153.085
Mo 202.032	39.8058	37.7286	37.9280
Na 330.237	6389.52	6367.95	6510.88
Ni 231.604	42.2714	40.6764	39.6758
Pb 220.353	192.260	185.152	193.533
Sb 206.834	21.8787	17.1073	24.2082
Se 196.026	34.2986	31.1624	40.3642
Si 288.158	5633.91	5614.63	5608.63
Sn 189.925	33.3134	31.3225	37.5948
Sr 216.596	147.815	148.327	146.859
Ti 334.941	134.326	133.849	134.051
Tl 190.794	12.8393	18.6003	13.9649
V 292.401	43.3908	42.5613	42.5280
Zn 206.200	37.9152	37.1456	41.4723

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	18.8971	ppb	0.5818	3.1	810.420
Al 308.215	1863.91	ppb	12.3392	0.7	6769.05
As 188.980	41.1027	ppb	2.0684	5.0	14.1001
B 249.678	96.4676	ppb	0.4014	0.4	680.967

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ba 389.178	50.4744	ppb	0.9989	2.0	555.676
Be 313.042	18.6370	ppb	0.0445	0.2	17428.9
Ca 370.602	58407	ppb	130.4	0.2	126969
Cd 226.502	19.0946	ppb	0.2698	1.4	379.524
Co 228.615	19.3749	ppb	0.2582	1.3	75.1074
Cr 267.716	39.1533	ppb	0.2647	0.7	989.618
Cu 324.754	38.9839	ppb	0.2287	0.6	1842.77
Fe 271.441	1915.54	ppb	7.8965	0.4	1626.97
K 766.491	3419.92	ppb	1.6166	0.0	87476.0
Mg 279.078	5627.68	ppb	10.8032	0.2	8457.54
Mn 257.610	153.500	ppb	0.4558	0.3	15989.5
Mo 202.032	38.4875	ppb	1.1460	3.0	118.546
Na 330.237	6422.78	ppb	77.0571	1.2	261.451
Ni 231.604	40.8745	ppb	1.3091	3.2	47.9302
Pb 220.353	190.315	ppb	4.5163	2.4	149.225
Sb 206.834	21.0647	ppb	3.6197	17.2	10.6794
Se 196.026	35.2751	ppb	4.6779	13.3	11.1554
Si 288.158	5619.06	ppb	13.2128	0.2	33710.9
Sn 189.925	34.0769	ppb	3.2051	9.4	14.5446
Sr 216.596	147.667	ppb	0.7452	0.5	837.266
Ti 334.941	134.075	ppb	0.2395	0.2	19732.5
Tl 190.794	15.1348	ppb	3.0535	20.2	2.7240
V 292.401	42.8267	ppb	0.4888	1.1	569.124
Zn 206.200	38.8444	ppb	2.3082	5.9	24.1292

680-201912-c-1-a (Samp) **7/27/2021, 1:20:47 AM** **Rack 3, Tube 34**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0592u	-0.0724u	-0.1494u
Al 308.215	-42.0033u	-43.0634u	-39.4455u
As 188.980	7.1366	-0.8340u	0.6219
B 249.678	30.7713	30.2623	30.5080
Ba 389.178	63.5473	62.0311	62.6060
Be 313.042	0.0366	0.0370	0.0425
Ca 370.602	27418	27433	27384
Cd 226.502	0.1051	0.2471	-0.0195u
Co 228.615	-0.2041u	0.0881	0.6318
Cr 267.716	0.2197	0.2540	0.2442
Cu 324.754	1.5595	1.3767	1.4596
Fe 271.441	38.8278	31.2413	40.0591
K 766.491	3186.80	3182.69	3176.89
Mg 279.078	14073.2	14098.4	14074.5
Mn 257.610	0.9719	0.9340	1.0661
Mo 202.032	0.4035	0.5634	1.1032
Na 330.237	15983.0	16368.4	15947.6
Ni 231.604	4.3543	3.9195	2.4571
Pb 220.353	-5.1996u	1.5381	-2.9942u
Sb 206.834	-4.5328u	-2.5775u	1.9640
Se 196.026	6.7584	4.8395	-9.0235u
Si 288.158	16899.6	16944.2	16909.1
Sn 189.925	-1.9376u	4.8828	-0.6011u
Sr 216.596	456.042	455.678	453.218
Ti 334.941	0.2653	0.1745	0.1905

Label	Replicates Concentration		
Tl 190.794	-1.3965u	3.1441	5.2419
V 292.401	0.2088	0.8262	0.4699
Zn 206.200	40.7229	37.5135	32.5001

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.0937	ppb	0.0487	52.0	4.8039
Al 308.215	-41.5041	ppb	1.8599	4.5	600.117
As 188.980	2.3082	ppb	4.2444	183.9	-2.1607
B 249.678	30.5139	ppb	0.2545	0.8	179.184
Ba 389.178	62.7281	ppb	0.7655	1.2	702.588
Be 313.042	0.0387	ppb	0.0033	8.4	-274.987
Ca 370.602	27411	ppb	25.23	0.1	59605
Cd 226.502	0.1109	ppb	0.1334	120.2	-16.6612
Co 228.615	0.1719	ppb	0.4242	246.7	-30.0478
Cr 267.716	0.2393	ppb	0.0176	7.4	22.0167
Cu 324.754	1.4652	ppb	0.0915	6.2	274.912
Fe 271.441	36.7094	ppb	4.7754	13.0	76.1965
K 766.491	3182.13	ppb	4.9777	0.2	81411.8
Mg 279.078	14082.0	ppb	14.2113	0.1	21139.7
Mn 257.610	0.9907	ppb	0.0680	6.9	158.593
Mo 202.032	0.6900	ppb	0.3667	53.1	-0.2812
Na 330.237	16099.6	ppb	233.399	1.4	604.355
Ni 231.604	3.5770	ppb	0.9939	27.8	-8.7343
Pb 220.353	-2.2185	ppb	3.4352	154.8	7.9409
Sb 206.834	-1.7154	ppb	3.3331	194.3	-3.0824
Se 196.026	0.8581	ppb	8.6114	1003.5	0.8873
Si 288.158	16917.6	ppb	23.4648	0.1	100627
Sn 189.925	0.7814	ppb	3.6143	462.6	0.8246
Sr 216.596	454.979	ppb	1.5361	0.3	2548.92
Ti 334.941	0.2101	ppb	0.0484	23.1	54.3988
Tl 190.794	2.3299	ppb	3.3933	145.6	-4.8833
V 292.401	0.5016	ppb	0.3099	61.8	16.3664
Zn 206.200	36.9121	ppb	4.1443	11.2	22.8272

680-201913-c-1-a (Samp) **7/27/2021, 1:25:19 AM** **Rack 3, Tube 35**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	-0.0581u	-0.1282u	-0.1155u
Al 308.215	-22.0796u	-19.8205u	-20.0921u
As 188.980	-3.8973u	-0.2627u	3.4398
B 249.678	28.9791	29.1457	28.9529
Ba 389.178	61.5170	62.9090	64.0074
Be 313.042	0.0411	0.0369	0.0360
Ca 370.602	27953	28061	28088
Cd 226.502	0.0079	0.5318	0.2501
Co 228.615	0.2843	0.2472	0.1364
Cr 267.716	0.2348	0.1575	0.2936
Cu 324.754	0.6619	0.8240	0.5612
Fe 271.441	61.9597	58.2897	55.6759
K 766.491	3200.55	3206.89	3216.34
Mg 279.078	14103.5	14165.3	14169.3
Mn 257.610	1.3554	1.3434	1.3305
Mo 202.032	0.2991	0.7533	0.6759

Label	Replicates Concentration		
Na 330.237	16021.3	16042.8	16137.6
Ni 231.604	3.1003	3.3997	2.3359
Pb 220.353	-1.4770u	-0.8718u	-1.9326u
Sb 206.834	2.2262	-3.3022u	-6.5365u
Se 196.026	0.9106	8.5047	3.2834
Si 288.158	16867.6	16965.3	16939.4
Sn 189.925	-5.6185u	-2.4225u	-5.6931u
Sr 216.596	455.167	456.145	455.801
Ti 334.941	0.7274	0.7233	0.6065
Tl 190.794	3.1764	-1.1238u	4.0660
V 292.401	0.5977	0.5127	0.8448
Zn 206.200	15.8734	17.0800	15.7873

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	-0.1006	ppb	0.0374	37.1	4.5043
Al 308.215	-20.6641	ppb	1.2334	6.0	667.557
As 188.980	-0.2401	ppb	3.6686	1528.2	-3.2286
B 249.678	29.0259	ppb	0.1046	0.4	167.727
Ba 389.178	62.8111	ppb	1.2481	2.0	703.647
Be 313.042	0.0380	ppb	0.0027	7.2	-275.507
Ca 370.602	28034	ppb	71.47	0.3	60957
Cd 226.502	0.2633	ppb	0.2622	99.6	-13.4638
Co 228.615	0.2226	ppb	0.0769	34.6	-29.7666
Cr 267.716	0.2286	ppb	0.0683	29.9	21.7523
Cu 324.754	0.6824	ppb	0.1326	19.4	242.220
Fe 271.441	58.6418	ppb	3.1567	5.4	94.2585
K 766.491	3207.93	ppb	7.9495	0.2	82069.7
Mg 279.078	14146.0	ppb	36.9051	0.3	21235.7
Mn 257.610	1.3431	ppb	0.0125	0.9	195.162
Mo 202.032	0.5761	ppb	0.2430	42.2	-0.6401
Na 330.237	16067.2	ppb	61.8765	0.4	603.563
Ni 231.604	2.9453	ppb	0.5486	18.6	-9.6939
Pb 220.353	-1.4271	ppb	0.5322	37.3	8.5228
Sb 206.834	-2.5375	ppb	4.4311	174.6	-3.5845
Se 196.026	4.2329	ppb	3.8851	91.8	1.8906
Si 288.158	16924.1	ppb	50.6415	0.3	100665
Sn 189.925	-4.5780	ppb	1.8671	40.8	-1.3841
Sr 216.596	455.704	ppb	0.4957	0.1	2553.04
Ti 334.941	0.6858	ppb	0.0686	10.0	124.323
Tl 190.794	2.0396	ppb	2.7754	136.1	-5.0601
V 292.401	0.6517	ppb	0.1725	26.5	18.3282
Zn 206.200	16.2469	ppb	0.7228	4.4	8.8127

X (Samp) **7/27/2021, 1:29:50 AM** **Rack 3, Tube 36**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	9.6434	10.0958	9.9036
Al 308.215	165.689	163.286	161.613
As 188.980	18.8042	23.1386	25.7106
B 249.678	106.933	105.693	107.410
Ba 389.178	11.6496	11.3650	11.6292
Be 313.042	4.1206	4.1149	4.0908
Ca 370.602	524.3	522.0	520.2

Label	Replicates Concentration		
Cd 226.502	5.5370	5.0222	5.4423
Co 228.615	11.0570	11.2762	11.0632
Cr 267.716	10.3323	10.3511	10.4932
Cu 324.754	20.6062	20.7270	20.0477
Fe 271.441	53.3170	57.0456	50.8662
K 766.491	1055.13	1055.01	1045.52
Mg 279.078	502.676	498.933	498.041
Mn 257.610	10.2770	10.2226	10.2184
Mo 202.032	10.9774	9.8242	10.7324
Na 330.237	683.530	804.030	555.713
Ni 231.604	45.6628	43.0809	42.9086
Pb 220.353	10.8256	10.3583	7.3914
Sb 206.834	22.5871	20.7127	16.2525
Se 196.026	12.9442	22.3368	18.1586
Si 288.158	8.9322	8.4544	6.7347
Sn 189.925	51.9980	49.0797	46.5909
Sr 216.596	10.0809	10.8995	10.8301
Ti 334.941	10.2880	10.2843	10.2180
Tl 190.794	31.5583	29.9357	33.1006
V 292.401	10.4143	10.4113	9.9317
Zn 206.200	21.0732	20.2854	19.6689

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	9.8809	ppb	0.2271	2.3	428.975
Al 308.215	163.529	ppb	2.0488	1.3	1264.36
As 188.980	22.5512	ppb	3.4905	15.5	6.3218
B 249.678	106.679	ppb	0.8860	0.8	762.789
Ba 389.178	11.5479	ppb	0.1587	1.4	97.0670
Be 313.042	4.1088	ppb	0.0158	0.4	3594.41
Ca 370.602	522.2	ppb	2.061	0.4	1167
Cd 226.502	5.3338	ppb	0.2740	5.1	91.6680
Co 228.615	11.1321	ppb	0.1248	1.1	29.2672
Cr 267.716	10.3922	ppb	0.0880	0.8	274.265
Cu 324.754	20.4603	ppb	0.3623	1.8	1068.32
Fe 271.441	53.7429	ppb	3.1116	5.8	90.9544
K 766.491	1051.89	ppb	5.5137	0.5	27085.8
Mg 279.078	499.883	ppb	2.4595	0.5	768.384
Mn 257.610	10.2393	ppb	0.0327	0.3	1118.60
Mo 202.032	10.5113	ppb	0.6076	5.8	30.6056
Na 330.237	681.091	ppb	124.176	18.2	61.2781
Ni 231.604	43.8841	ppb	1.5428	3.5	52.5144
Pb 220.353	9.5251	ppb	1.8626	19.6	16.5458
Sb 206.834	19.8507	ppb	3.2541	16.4	10.1240
Se 196.026	17.8132	ppb	4.7058	26.4	5.9279
Si 288.158	8.0404	ppb	1.1558	14.4	459.678
Sn 189.925	49.2229	ppb	2.7064	5.5	20.7855
Sr 216.596	10.6035	ppb	0.4539	4.3	67.8183
Ti 334.941	10.2634	ppb	0.0394	0.4	1532.80
Tl 190.794	31.5315	ppb	1.5827	5.0	12.8094
V 292.401	10.2524	ppb	0.2778	2.7	143.514
Zn 206.200	20.3425	ppb	0.7039	3.5	11.5847

X (Samp) **7/27/2021, 1:34:22 AM** **Rack 3, Tube 37**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	10.0838	10.1212	10.0279
Al 308.215	168.808	174.910	168.967
As 188.980	16.6966	16.3128	24.7201
B 249.678	106.805	109.053	108.929
Ba 389.178	11.7647	12.9135	10.9637
Be 313.042	4.1318	4.1523	4.1027
Ca 370.602	530.5	535.7	522.5
Cd 226.502	5.6640	5.5834	5.3243
Co 228.615	11.7860	10.1441	11.4168
Cr 267.716	10.1648	10.3694	10.1353
Cu 324.754	21.0492	20.8602	20.1746
Fe 271.441	47.5087	52.2547	39.0353
K 766.491	1059.64	1071.93	1052.25
Mg 279.078	497.555	502.445	497.518
Mn 257.610	10.4358	10.6909	10.4917
Mo 202.032	10.2769	11.0136	9.8705
Na 330.237	880.863	688.702	665.717
Ni 231.604	42.9946	43.2477	41.2200
Pb 220.353	10.0563	6.3569	15.1308
Sb 206.834	18.9689	20.5894	20.0890
Se 196.026	33.3931	19.5234	17.4954
Si 288.158	8.5441	7.3041	8.1129
Sn 189.925	55.4356	51.4698	50.0102
Sr 216.596	10.7968	10.4254	9.9802
Ti 334.941	10.3315	10.5551	10.2851
Tl 190.794	33.5891	27.5432	22.9556
V 292.401	9.6910	10.6495	10.2410
Zn 206.200	20.4774	21.6397	24.0900

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	10.0776	ppb	0.0469	0.5	437.299
Al 308.215	170.895	ppb	3.4781	2.0	1288.21
As 188.980	19.2432	ppb	4.7471	24.7	4.9355
B 249.678	108.262	ppb	1.2637	1.2	774.927
Ba 389.178	11.8806	ppb	0.9801	8.2	100.914
Be 313.042	4.1289	ppb	0.0249	0.6	3613.50
Ca 370.602	529.6	ppb	6.657	1.3	1183
Cd 226.502	5.5239	ppb	0.1775	3.2	95.6096
Co 228.615	11.1156	ppb	0.8614	7.7	29.1761
Cr 267.716	10.2232	ppb	0.1275	1.2	270.063
Cu 324.754	20.6947	ppb	0.4602	2.2	1078.13
Fe 271.441	46.2662	ppb	6.6967	14.5	84.8226
K 766.491	1061.27	ppb	9.9383	0.9	27325.1
Mg 279.078	499.173	ppb	2.8341	0.6	767.316
Mn 257.610	10.5395	ppb	0.1341	1.3	1149.76
Mo 202.032	10.3870	ppb	0.5794	5.6	30.2145
Na 330.237	745.094	ppb	118.140	15.9	63.5524
Ni 231.604	42.4874	ppb	1.1049	2.6	50.3911
Pb 220.353	10.5147	ppb	4.4048	41.9	17.2712
Sb 206.834	19.8824	ppb	0.8297	4.2	10.1346
Se 196.026	23.4706	ppb	8.6528	36.9	7.6093
Si 288.158	7.9870	ppb	0.6295	7.9	459.631

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Sn 189.925	52.3052	ppb	2.8076	5.4	22.0558
Sr 216.596	10.4008	ppb	0.4089	3.9	66.6874
Ti 334.941	10.3906	ppb	0.1444	1.4	1551.49
Tl 190.794	28.0293	ppb	5.3334	19.0	10.6866
V 292.401	10.1938	ppb	0.4810	4.7	142.749
Zn 206.200	22.0690	ppb	1.8442	8.4	12.7556

X (Samp) **7/27/2021, 1:38:55 AM** **Rack 3, Tube 38**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	10.0601	9.6729	10.0376
Al 308.215	167.615	165.597	165.783
As 188.980	19.2285	18.4070	22.8166
B 249.678	108.748	109.368	108.487
Ba 389.178	10.3334	12.0833	11.2445
Be 313.042	4.1177	4.1146	4.0781
Ca 370.602	525.4	526.3	519.7
Cd 226.502	5.1170	5.3519	5.3506
Co 228.615	11.5163	10.8339	10.6783
Cr 267.716	10.3648	9.8050	10.0989
Cu 324.754	20.3650	20.6498	20.6054
Fe 271.441	40.8576	51.0783	45.8821
K 766.491	1053.33	1056.07	1046.22
Mg 279.078	497.625	498.864	490.757
Mn 257.610	10.4528	10.4223	10.4754
Mo 202.032	10.4511	9.5397	10.0067
Na 330.237	844.414	849.096	977.623
Ni 231.604	43.7220	43.9086	44.4360
Pb 220.353	8.8478	8.2667	8.5626
Sb 206.834	21.0347	26.7308	21.4739
Se 196.026	19.6328	11.4691	19.0167
Si 288.158	7.8553	7.3731	6.4253
Sn 189.925	47.4461	49.2532	53.9391
Sr 216.596	10.1815	10.7117	10.4062
Ti 334.941	10.3440	10.3108	10.2059
Tl 190.794	33.7334	32.0656	28.6297
V 292.401	10.0889	10.2669	10.4584
Zn 206.200	20.3252	23.3131	21.1619

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Ag 328.068	9.9235	ppb	0.2173	2.2	430.776
Al 308.215	166.331	ppb	1.1154	0.7	1273.43
As 188.980	20.1507	ppb	2.3450	11.6	5.3158
B 249.678	108.868	ppb	0.4526	0.4	779.566
Ba 389.178	11.2204	ppb	0.8752	7.8	93.2803
Be 313.042	4.1035	ppb	0.0220	0.5	3589.32
Ca 370.602	523.8	ppb	3.571	0.7	1171
Cd 226.502	5.2732	ppb	0.1352	2.6	90.4078
Co 228.615	11.0095	ppb	0.4457	4.0	28.6030
Cr 267.716	10.0896	ppb	0.2800	2.8	266.744
Cu 324.754	20.5401	ppb	0.1532	0.7	1071.67
Fe 271.441	45.9393	ppb	5.1106	11.1	84.5429
K 766.491	1051.87	ppb	5.0840	0.5	27085.4

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)
Mg 279.078	495.749	ppb	4.3671	0.9	762.181
Mn 257.610	10.4502	ppb	0.0267	0.3	1140.49
Mo 202.032	9.9992	ppb	0.4557	4.6	28.9948
Na 330.237	890.378	ppb	75.5927	8.5	68.6389
Ni 231.604	44.0222	ppb	0.3703	0.8	52.7239
Pb 220.353	8.5590	ppb	0.2906	3.4	15.8363
Sb 206.834	23.0798	ppb	3.1695	13.7	12.1016
Se 196.026	16.7062	ppb	4.5459	27.2	5.5989
Si 288.158	7.2179	ppb	0.7275	10.1	454.626
Sn 189.925	50.2128	ppb	3.3512	6.7	21.1935
Sr 216.596	10.4331	ppb	0.2661	2.6	66.8600
Ti 334.941	10.2869	ppb	0.0721	0.7	1536.24
Tl 190.794	31.4762	ppb	2.6024	8.3	12.7758
V 292.401	10.2714	ppb	0.1848	1.8	143.761
Zn 206.200	21.6001	ppb	1.5414	7.1	12.4377

Cont Calib Verif (CCV) **7/27/2021, 1:43:28 AM** **Rack S, Tube 10**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	502.455	498.754	496.565
Al 308.215	9902.64	9956.74	9873.40
As 188.980	486.297	497.774	484.990
B 249.678	493.810	496.851	495.790
Ba 389.178	506.167	508.697	506.482
Be 313.042	503.427	505.384	502.984
Ca 370.602	9978	10013	9945
Cd 226.502	492.464	495.216	491.862
Co 228.615	498.421	500.542	500.057
Cr 267.716	497.011	499.248	496.274
Cu 324.754	496.188	494.284	492.355
Fe 271.441	9911.99	9934.51	9907.46
K 766.491	10191.4	10191.6	10177.6
Mg 279.078	9752.88	9783.20	9738.00
Mn 257.610	505.163	507.301	504.262
Mo 202.032	503.515	502.897	499.741
Na 330.237	9918.87	9878.09	9655.38
Ni 231.604	488.488	493.821	495.323
Pb 220.353	497.548	490.581	493.725
Sb 206.834	490.574	484.688	495.443
Se 196.026	489.788	489.656	488.531
Si 288.158	4908.90	4923.57	4892.36
Sn 189.925	491.942	502.650	492.138
Sr 216.596	498.494	499.717	500.577
Ti 334.941	503.261	505.290	502.191
Tl 190.794	507.232	506.444	495.535
V 292.401	501.462	501.944	499.531
Zn 206.200	980.568	995.511	981.384

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	499.258	ppb	2.9772	0.6	21137.2	99.85158
Al 308.215	9910.93	ppb	42.2868	0.4	32844.8	99.10928
As 188.980	489.687	ppb	7.0339	1.4	202.066	97.93734
B 249.678	495.484	ppb	1.5437	0.3	3723.17	99.09673

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ba 389.178	507.116	ppb	1.3789	0.3	5836.05	101.42314
Be 313.042	503.931	ppb	1.2772	0.3	479201	100.78629
Ca 370.602	9979	ppb	33.89	0.3	21723	99.78542
Cd 226.502	493.181	ppb	1.7885	0.4	10224.5	98.63615
Co 228.615	499.674	ppb	1.1113	0.2	2674.33	99.93472
Cr 267.716	497.511	ppb	1.5485	0.3	12383.4	99.50217
Cu 324.754	494.276	ppb	1.9161	0.4	20865.7	98.85515
Fe 271.441	9917.99	ppb	14.4877	0.1	8258.38	99.13033
K 766.491	10186.9	ppb	8.0124	0.1	260049	101.86878
Mg 279.078	9758.03	ppb	23.0369	0.2	14647.3	97.58026
Mn 257.610	505.575	ppb	1.5607	0.3	52533.1	101.11507
Mo 202.032	502.051	ppb	2.0240	0.4	1576.24	100.41020
Na 330.237	9817.45	ppb	141.825	1.4	360.409	98.17445
Ni 231.604	492.544	ppb	3.5917	0.7	733.829	98.50878
Pb 220.353	493.951	ppb	3.4891	0.7	371.777	98.79024
Sb 206.834	490.235	ppb	5.3854	1.1	296.033	98.04697
Se 196.026	489.325	ppb	0.6910	0.1	146.223	97.86504
Si 288.158	4908.28	ppb	15.6141	0.3	29650.4	98.16550
Sn 189.925	495.576	ppb	6.1264	1.2	204.736	99.11526
Sr 216.596	499.596	ppb	1.0470	0.2	2784.50	99.91919
Ti 334.941	503.581	ppb	1.5739	0.3	74048.4	100.71617
Tl 190.794	503.070	ppb	6.5373	1.3	298.181	100.61406
V 292.401	500.979	ppb	1.2768	0.3	6544.33	100.19585
Zn 206.200	985.821	ppb	8.4018	0.9	666.141	98.58213

Cont Calib Blank (CCB) **7/27/2021, 1:47:59 AM** **Rack S, Tube 1**

Weight: 1 **Volume: 1** **Dilution: 1**

Label	Replicates Concentration		
Ag 328.068	0.2596	-0.1595u	0.1987
Al 308.215	-40.5293u	-42.9426u	-40.2654u
As 188.980	0.3789	-3.7002u	-1.4261u
B 249.678	16.7607	16.3920	15.4308
Ba 389.178	1.7325	2.1223	1.1541
Be 313.042	0.0657	0.0581	0.0631
Ca 370.602	-3.001u	0.5693	-1.241u
Cd 226.502	0.3724	0.2422	0.1921
Co 228.615	0.4990	1.5196	0.6076
Cr 267.716	0.1989	-0.1857u	-0.2235u
Cu 324.754	-0.1813u	0.0936	0.2658
Fe 271.441	-2.9376u	-0.9748u	-3.8407u
K 766.491	2.4307	2.1392	2.5635
Mg 279.078	-3.7154u	0.2187	-2.3637u
Mn 257.610	0.0052	0.0171	0.0409
Mo 202.032	0.2653	0.2595	0.1737
Na 330.237	-188.097u	-160.996u	-222.126u
Ni 231.604	2.4310	3.1565	3.5754
Pb 220.353	1.1145	0.0353	-0.9341u
Sb 206.834	-3.1247u	-0.9352u	-2.8509u
Se 196.026	-4.6503u	-1.2125u	0.7793
Si 288.158	-0.6026u	-1.0370u	-0.2955u
Sn 189.925	-1.2679u	-3.5674u	-1.3935u
Sr 216.596	0.1250	-0.1768u	-0.6012u
Ti 334.941	0.0365	0.0223	0.0671

Label	Replicates Concentration		
Tl 190.794	4.5458	-2.1188u	-1.7931u
V 292.401	0.1160	-0.1036u	-0.4376u
Zn 206.200	3.7068	-1.2515u	1.0533

Label	Sol'n Conc.	Units	SD	%RSD	Int. (c/s)	QC Value
Ag 328.068	0.0996	ppb	0.2265	227.3	15.0745	0.09961
Al 308.215	-41.2458	ppb	1.4754	3.6	600.916	-41.24580
As 188.980	-1.5825	ppb	2.0440	129.2	-3.7913	-1.58249
B 249.678	16.1945	ppb	0.6866	4.2	69.5096	16.19448
Ba 389.178	1.6696	ppb	0.4872	29.2	-17.6104	1.66964
Be 313.042	0.0623	ppb	0.0039	6.2	-256.142	0.06232
Ca 370.602	-1.224	ppb	1.785	145.8	29.15	-1.22432
Cd 226.502	0.2689	ppb	0.0930	34.6	-13.4711	0.26891
Co 228.615	0.8754	ppb	0.5605	64.0	-26.2478	0.87543
Cr 267.716	-0.0701	ppb	0.2337	333.5	14.1816	-0.07009
Cu 324.754	0.0594	ppb	0.2255	379.8	216.184	0.05937
Fe 271.441	-2.5844	ppb	1.4653	56.7	43.8279	-2.58438
K 766.491	2.3778	ppb	0.2171	9.1	320.877	2.37778
Mg 279.078	-1.9535	ppb	1.9989	102.3	15.8489	-1.95347
Mn 257.610	0.0211	ppb	0.0182	86.3	57.8490	0.02108
Mo 202.032	0.2329	ppb	0.0513	22.0	-1.7182	0.23286
Na 330.237	-190.406	ppb	30.6304	16.1	31.0704	-190.40614
Ni 231.604	3.0543	ppb	0.5790	19.0	-9.5295	3.05430
Pb 220.353	0.0719	ppb	1.0248	1426.0	9.6204	0.07187
Sb 206.834	-2.3036	ppb	1.1929	51.8	-3.4399	-2.30360
Se 196.026	-1.6945	ppb	2.7467	162.1	0.1282	-1.69451
Si 288.158	-0.6450uv	ppb	0.3726	57.8	400.585	-0.64504
Sn 189.925	-2.0762	ppb	1.2929	62.3	-0.3558	-2.07624
Sr 216.596	-0.2177	ppb	0.3648	167.6	7.9439	-0.21767
Ti 334.941	0.0420	ppb	0.0229	54.6	30.3178	0.04195
Tl 190.794	0.2113	ppb	3.7573	1778.4	-6.1664	0.21128
V 292.401	-0.1417	ppb	0.2788	196.7	7.9522	-0.14172
Zn 206.200	1.1696	ppb	2.4812	212.1	-1.4123	1.16956

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG No.:

Project: Ft. Devens/Shepley Hill Landfill

Client Sample ID	Lab Sample ID
AS-21-1D (24-28)	680-201857-1
AS-21-1D (34-38)	680-201857-2
AS-21-1D (48-54)	680-201857-3
AS-21-1D (60-64)	680-201857-4
AS-21-1D (70-72)	680-201857-5
DUP 072121	680-201857-6

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 680-201857-1

SDG No.:

Project: Ft. Devens/Shepley Hill Landfill

Client Sample ID	Lab Sample ID
AS-21-1D (24-28)	680-201857-1
AS-21-1D (34-38)	680-201857-2
AS-21-1D (48-54)	680-201857-3
AS-21-1D (60-64)	680-201857-4
AS-21-1D (70-72)	680-201857-5
DUP 072121	680-201857-6

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job Number: 680-201857-1

SDG No.:

Project: Ft. Devens/Shepley Hill Landfill

Client Sample ID	Lab Sample ID
AS-21-1D (24-28)	680-201857-1
AS-21-1D (34-38)	680-201857-2
AS-21-1D (48-54)	680-201857-3
AS-21-1D (60-64)	680-201857-4
AS-21-1D (70-72)	680-201857-5
DUP 072121	680-201857-6

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (24-28)
Lab Sample ID: 680-201857-1
Lab Name: Eurofins Denver
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 07:30
Reporting Basis: WET
Date Received: 07/22/2021 10:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Total Organic Carbon	2.0	4.0	2.0	0.90	g/Kg	U		1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (34-38)
Lab Sample ID: 680-201857-2
Lab Name: Eurofins Denver
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 08:20
Reporting Basis: WET
Date Received: 07/22/2021 10:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Total Organic Carbon	2.0	4.0	2.0	0.90	g/Kg	U		1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (48-54)
Lab Sample ID: 680-201857-3
Lab Name: Eurofins Denver
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 09:45
Reporting Basis: WET
Date Received: 07/22/2021 10:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Total Organic Carbon	2.0	4.0	2.0	0.90	g/Kg	U		1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (60-64)
Lab Sample ID: 680-201857-4
Lab Name: Eurofins Denver
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 11:05
Reporting Basis: WET
Date Received: 07/22/2021 10:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Total Organic Carbon	2.0	4.0	2.0	0.90	g/Kg	U		1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (70-72)
Lab Sample ID: 680-201857-5
Lab Name: Eurofins Denver
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 13:45
Reporting Basis: WET
Date Received: 07/22/2021 10:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Total Organic Carbon	2.0	4.0	2.0	0.90	g/Kg	U		1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: DUP 072121
Lab Sample ID: 680-201857-6
Lab Name: Eurofins Denver
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 00:00
Reporting Basis: WET
Date Received: 07/22/2021 10:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Total Organic Carbon	1.1	4.0	2.0	0.90	g/Kg	J		1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (24-28)
Lab Sample ID: 680-201857-1
Lab Name: Eurofins Pittsburgh
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 07:30
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 83.4

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Biochemical Oxygen Demand	900	900		900	mg/Kg	U	H	1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (34-38)
Lab Sample ID: 680-201857-2
Lab Name: Eurofins Pittsburgh
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 08:20
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 76.5

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Biochemical Oxygen Demand	980	980		980	mg/Kg	U	H	1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (48-54)
Lab Sample ID: 680-201857-3
Lab Name: Eurofins Pittsburgh
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 09:45
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 76.6

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Biochemical Oxygen Demand	980	980		980	mg/Kg	U	H	1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (60-64)
Lab Sample ID: 680-201857-4
Lab Name: Eurofins Pittsburgh
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 11:05
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 77.4

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Biochemical Oxygen Demand	970	970		970	mg/Kg	U	H	1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: AS-21-1D (70-72)
Lab Sample ID: 680-201857-5
Lab Name: Eurofins Pittsburgh
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 13:45
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 87.8

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Biochemical Oxygen Demand	850	850		850	mg/Kg	U		1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: DUP 072121
Lab Sample ID: 680-201857-6
Lab Name: Eurofins Pittsburgh
Job No.: 680-201857-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/21/2021 00:00
Reporting Basis: DRY
Date Received: 07/22/2021 10:10
% Solids: 78.1

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Biochemical Oxygen Demand	960	960		960	mg/Kg	U	H	1	SM 5210B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Analyst: RAF Batch Start Date: 07/28/2021

Reporting Units: g/Kg Analytical Batch No.: 544631

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	10:53	Total Organic Carbon	25.4	23.6	108	90-110		STOC Daily_00010
2	ICB	11:02	Total Organic Carbon	2.0				U	
15	CCV	13:54	Total Organic Carbon	24.1	23.6	102	90-110		STOC Daily_00010
16	CCB	14:01	Total Organic Carbon	2.0				U	
26	CCV	15:28	Total Organic Carbon	21.9	23.6	93	90-110		STOC Daily_00010
27	CCB	15:36	Total Organic Carbon	2.0				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 544631 Date: 07/28/2021 11:51							
9060A	MB 280-544631/4	Total Organic Carbon	0.934	J	g/Kg	4.0	1

FORM III-IN

3-IN
UNSEEDED CONTROL BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job No.: 680-201857-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 366034 Date: 07/23/2021 12:31							
SM 5210B	USB 180-366034/1	Biochemical Oxygen Demand	2.0	U	mg/Kg	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 544631 Date: 07/28/2021 14:40											
9060A	680-201857-3	Total Organic Carbon	2.0	U	g/Kg						
9060A	680-201857-3 MS	Total Organic Carbon	12.0		g/Kg	11.5	104	46-130			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 544631 Date: 07/28/2021 14:47											
9060A	680-201857-3 MSD	Total Organic Carbon	11.8		g/Kg	11.5	103	46-130	2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job No.: 680-201857-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 366034 Date: 07/23/2021 14:07								
SM 5210B	AS-21-1D (48-54)	680-201857-3	Biochemical Oxygen Demand	980	mg/Kg			U
SM 5210B	AS-21-1D (48-54)	680-201857-3 DU	Biochemical Oxygen Demand	980	mg/Kg	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 544631	Date: 07/28/2021 11:39										
						LCS Source: STOC LCS Std_00018					
9060A	LCS 280-544631/3	Total Organic Carbon	3.40	J	g/Kg	4.16	82	46-130			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job No.: 680-201857-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 366034	Date: 07/23/2021 12:31										
						LCS Source: WBODGGAP_00089					
SM 5210B	LCS 180-366034/2	Biochemical Oxygen Demand	182		mg/Kg	198	92	85-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: CMSC

Method: Moisture LOQ Date: 01/01/2005 13:43

Analyte	Wavelength/ Mass	LOQ (%)	
Percent Moisture		0.01	
Percent Solids		0.01	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Savannah Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: CMSC

Method: Moisture XRL Date: 04/09/2011 17:03

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.01	
Percent Solids		0.01	

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: WC_SHI4

Method: 9060A DL Date: 07/31/2020 13:46

Analyte	Wavelength/ Mass	LOQ (g/Kg)	DL (g/Kg)
Total Organic Carbon		4	0.902

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: WC_SHI4

Method: 9060A XMDL Date: 07/31/2020 13:47

Analyte	Wavelength/ Mass	XRL (g/Kg)	XMDL (g/Kg)
Total Organic Carbon		4	0.902

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: SM 5210B DL Date: 01/28/2011 13:22

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Biochemical Oxygen Demand		750	750

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job Number: 680-201857-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: SM 5210B XMDL Date: 12/04/2014 09:17

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Biochemical Oxygen Demand		2	2

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Instrument ID: CMSC Analysis Method: Moisture

Start Date: 07/23/2021 13:30 End Date: 07/23/2021 13:30

Lab Sample Id	D/F	Type	Time	Analytes																							
				% Sol	Moist																						
ZZZZZZ			13:30																								
ZZZZZZ			13:30																								
ZZZZZZ			13:30																								
680-201857-1	1	T	13:30	X	X																						
680-201857-2	1	T	13:30	X	X																						
680-201857-3	1	T	13:30	X	X																						
680-201857-3 MS	1	T	13:30	X	X																						
680-201857-3 MSD	1	T	13:30	X	X																						
680-201857-4	1	T	13:30	X	X																						
680-201857-5	1	T	13:30	X	X																						
680-201857-6	1	T	13:30	X	X																						
ZZZZZZ			13:30																								
ZZZZZZ			13:30																								
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Instrument ID: CMSC Analysis Method: Moisture

Start Date: 07/23/2021 13:30 End Date: 07/23/2021 13:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				% Sol	Moist																							

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Instrument ID: WC_SHI4 Analysis Method: 9060A

Start Date: 07/28/2021 10:53 End Date: 07/28/2021 15:36

Lab Sample Id	D/F	Type	Time	Analytes																							
				TOC																							
ICV 280-544631/1	1		10:53	X																							
ICB 280-544631/2	1		11:02	X																							
LCS 280-544631/3	1	T	11:39	X																							
MB 280-544631/4	1	T	11:51	X																							
ZZZZZZ			12:06																								
ZZZZZZ			12:17																								
ZZZZZZ			12:27																								
ZZZZZZ			12:38																								
ZZZZZZ			12:49																								
ZZZZZZ			13:02																								
ZZZZZZ			13:13																								
ZZZZZZ			13:23																								
ZZZZZZ			13:33																								
ZZZZZZ			13:46																								
CCV 280-544631/15	1		13:54	X																							
CCB 280-544631/16	1		14:01	X																							
ZZZZZZ			14:11																								
680-201857-1	1	T	14:19	X																							
680-201857-3	1	T	14:31	X																							
680-201857-3 MS	1	T	14:40	X																							
680-201857-3 MSD	1	T	14:47	X																							
680-201857-2	1	T	14:55	X																							
680-201857-4	1	T	15:03	X																							
680-201857-5	1	T	15:12	X																							
680-201857-6	1	T	15:20	X																							
CCV 280-544631/26	1		15:28	X																							
CCB 280-544631/27	1		15:36	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Pittsburgh Job No.: 680-201857-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 5210B

Start Date: 07/23/2021 12:31 End Date: 07/23/2021 14:18

Lab Sample Id	D/F	Type	Time	Analytes																							
				BOD																							
USB 180-366034/1	1	T	12:31	X																							
LCS 180-366034/2	1	T	12:31	X																							
680-201857-1	1	T	12:31	X																							
680-201857-2	1	T	12:31	X																							
680-201857-3	1	T	12:31	X																							
680-201857-5	1	T	12:45	X																							
680-201857-3 DU	1	T	14:07	X																							
680-201857-4	1	T	14:07	X																							
680-201857-6	1	T	14:07	X																							
ZZZZZZ			14:07																								
ZZZZZZ			14:18																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 680-201857-1

SDG No.:

Batch Number: 677809 Batch Start Date: 07/23/21 13:30 Batch Analyst: Blair, Jyosi

Batch Method: Moisture Batch End Date: 07/23/21 17:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid	
680-201857-C-1	AS-21-1D (24-28)	Moisture	T	1.27 g	10.08 g	8.62 g	16.572077185017 %	83.427922814983 %	
680-201857-C-2	AS-21-1D (34-38)	Moisture	T	1.26 g	10.79 g	8.55 g	23.504721930745 %	76.495278069255 %	
680-201857-C-3	AS-21-1D (48-54)	Moisture	T	1.23 g	10.81 g	8.57 g	23.382045929018 %	76.617954070981 %	
680-201857-C-3 MS	AS-21-1D (48-54)	Moisture	T	1.24 g	10.18 g	7.85 g	26.062639821029 %	73.937360178970 %	
680-201857-C-3 MSD	AS-21-1D (48-54)	Moisture	T	1.26 g	10.86 g	8.69 g	22.604166666666 7 %	77.395833333333 3 %	
680-201857-C-4	AS-21-1D (60-64)	Moisture	T	1.25 g	10.55 g	8.45 g	22.580645161290 3 %	77.419354838709 7 %	
680-201857-C-5	AS-21-1D (70-72)	Moisture	T	1.29 g	10.73 g	9.58 g	12.182203389830 5 %	87.817796610169 5 %	
680-201857-C-6	DUP 072121	Moisture	T	1.26 g	10.02 g	8.10 g	21.917808219178 1 %	78.082191780821 9 %	

Batch Notes	
Balance ID	19
Oven ID	CU01
Thermometer ID	CU01
Date samples were placed in the oven	07/23/2021
Time samples were place in the oven	13:30
Temperature - Start - Uncorrected	110 Degrees C
Oven Temp In	109 Degrees C
Date samples were removed from oven	07/23/2021
Time Samples were removed from oven	17:45
Temperature - End - Uncorrected	104 Degrees C
Oven Temp Out	103 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Batch Number: 544631 Batch Start Date: 07/28/21 10:53 Batch Analyst: Fox, Regan A

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	STOC Daily 00010	STOC LCS Std 00018	AnalysisComment	
ICV 280-544631/1		9060A				50 uL		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
ICB 280-544631/2		9060A						The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
LCS 280-544631/3		9060A		94.9 mg	94.9 mg		94.9 mg	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
MB 280-544631/4		9060A		92.1 mg	92.1 mg			The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
CCV 280-544631/15		9060A				50 uL		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
CCB 280-544631/16		9060A						The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
680-201857-D-1	AS-21-1D (24-28)	9060A	T	104.6 mg	104.6 mg			The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Batch Number: 544631 Batch Start Date: 07/28/21 10:53 Batch Analyst: Fox, Regan A

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	STOC Daily 00010	STOC LCS Std 00018	AnalysisComment	
680-201857-D-3	AS-21-1D (48-54)	9060A	T	101.9 mg	101.9 mg			The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
680-201857-D-3 MS	AS-21-1D (48-54)	9060A	T	102.2 mg	102.2 mg	50 uL		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
680-201857-D-3 MSD	AS-21-1D (48-54)	9060A	T	102.7 mg	102.7 mg	50 uL		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
680-201857-D-2	AS-21-1D (34-38)	9060A	T	99.4 mg	99.4 mg			The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
680-201857-D-4	AS-21-1D (60-64)	9060A	T	98.9 mg	98.9 mg			The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
680-201857-D-5	AS-21-1D (70-72)	9060A	T	92.6 mg	92.6 mg			The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
680-201857-D-6	DUP 072121	9060A	T	102.4 mg	102.4 mg			The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 680-201857-1

SDG No.:

Batch Number: 544631 Batch Start Date: 07/28/21 10:53 Batch Analyst: Fox, Regan A

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	STOC Daily 00010	STOC LCS Std 00018	AnalysisComment	
CCV 280-544631/26		9060A				50 uL		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
CCB 280-544631/27		9060A						The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	

Batch Notes	
Acid ID	10% H2SO4_00032
Pipette/Syringe/Dispenser ID	100 LL
Batch Comment	Prepped by MU, run and reviewed by RAF

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Pittsburgh Job No.: 680-201857-1

SDG No.:

Batch Number: 366034 Batch Start Date: 07/23/21 12:31 Batch Analyst: Shireman, Edwin L

Batch Method: SM 5210B Batch End Date: 07/28/21 12:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	InitialTemp	Final pH	InitialAmount	FinalAmount
USB 180-366034/1		SM 5210B		6.76 SU	-	21.1 Celsius	6.76 SU	300 mL	300 mL
LCS 180-366034/2		SM 5210B		6.76 SU	-	21.1 Celsius	6.76 SU	6 mL	300 mL
680-201857-B-1	AS-21-1D (24-28)	SM 5210B	T	6.76 SU	-	21.3 Celsius	6.76 SU	0.8 g	300 mL
680-201857-B-2	AS-21-1D (34-38)	SM 5210B	T	6.76 SU	-	21.3 Celsius	6.76 SU	0.8 g	300 mL
680-201857-B-3	AS-21-1D (48-54)	SM 5210B	T	6.76 SU	-	21.1 Celsius	6.76 SU	0.8 g	300 mL
680-201857-B-3 DU	AS-21-1D (48-54)	SM 5210B	T	6.76 SU	-	21.1 Celsius	6.76 SU	0.8 g	300 mL
680-201857-B-4	AS-21-1D (60-64)	SM 5210B	T	6.76 SU	-	21.2 Celsius	6.76 SU	0.8 g	300 mL
680-201857-B-5	AS-21-1D (70-72)	SM 5210B	T	6.76 SU	-	21.3 Celsius	6.76 SU	0.8 g	300 mL
680-201857-B-6	DUP 072121	SM 5210B	T	6.76 SU	-	21.2 Celsius	6.76 SU	0.8 g	300 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	WBODGGAP 00089					
USB 180-366034/1		SM 5210B							
LCS 180-366034/2		SM 5210B		6 mL					
680-201857-B-1	AS-21-1D (24-28)	SM 5210B	T						
680-201857-B-2	AS-21-1D (34-38)	SM 5210B	T						
680-201857-B-3	AS-21-1D (48-54)	SM 5210B	T						
680-201857-B-3 DU	AS-21-1D (48-54)	SM 5210B	T						
680-201857-B-4	AS-21-1D (60-64)	SM 5210B	T						
680-201857-B-5	AS-21-1D (70-72)	SM 5210B	T						
680-201857-B-6	DUP 072121	SM 5210B	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Pittsburgh Job No.: 680-201857-1

SDG No.:

Batch Number: 366034 Batch Start Date: 07/23/21 12:31 Batch Analyst: Shireman, Edwin L

Batch Method: SM 5210B Batch End Date: 07/28/21 12:02

Batch Notes	
Bottle Lot ID	Env. Express ex-2345-170
Seed ID	4332866
Residual Chlorine Pillow Lot #	3954582
Nutrient Buffer Pillow ID	3561921
Sodium Hydroxide ID	4292776
Barometer ID	2001644781
Barometric Pressure - Uncorrected	D1 29.22/ D5 29.06 inHg
Barometric Pressure - Corrected	D1 29.22/ D5 29.06 inHg
Calibration - Initial Date/Time	07/23/2021 11:57
Calibration - Final Date/Time	07/28/2021 12:00
Incubator ID	BOD-2
Uncorrected Incubator Temp - Initial	21 Celsius
Corrected Incubator Temp - Initial	21 Celsius
Uncorrected Incubator Temp - Final	21 Celsius
Corrected Incubator Temp - Final	21 Celsius
Thermometer ID	Temp Guard sensor 3
Probe ID	VWU 1739
pH Meter ID	XL150 (XL15094107210)
Pipette/Syringe/Dispenser ID	B747014692
Analyst ID 1	ELS
Analyst ID 2	ELS

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

General Chemistry Raw Data Report

Job ID: 680-201857-1

Batch: 677809 **Analyst Initials: JB**
Method: Moisture **Instrument: MSC5975**

Lab Sample ID: 680-201857-C-1 — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	16.572077185017	%
Percent Solids	MSD	1	83.427922814983	%

Lab Sample ID: 680-201857-C-2 — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	23.504721930745	%
Percent Solids	MSD	1	76.495278069255	%

Lab Sample ID: 680-201857-C-3 — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	23.3820459290188	%
Percent Solids	MSD	1	76.6179540709812	%

Lab Sample ID: 680-201857-C-3 MS — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	26.0626398210291	%
Percent Solids	MSD	1	73.9373601789709	%

Lab Sample ID: 680-201857-C-3 MSD — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	22.6041666666667	%
Percent Solids	MSD	1	77.3958333333333	%

Lab Sample ID: 680-201857-C-4 — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	22.5806451612903	%
Percent Solids	MSD	1	77.4193548387097	%

Lab Sample ID: 680-201857-C-5 — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	12.1822033898305	%
Percent Solids	MSD	1	87.8177966101695	%

Lab Sample ID: 680-201857-C-6 — Analysis Date: Jul 23, 2021 13:30

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	MSD	1	21.9178082191781	%
Percent Solids	MSD	1	78.0821917808219	%

	Type	Analysis	Sample Name	S	Origin	Manual Dilution	Result	Notes	C	Status	A
1	Unknow	SSM-TC	ICV		SSM TC ppm.met	1.000	SSM-TC:25364ppm			Completed	
2	Unknow	SSM-TC	ICB		SSM TC ppm.met	1.000	SSM-TC:-906.9ppm			Completed	
3	Unknow	SSM-TC	LCS		SSM TC ppm.met	1.000	SSM-TC:3403ppm			Completed	
4	Unknow	SSM-TC	MB		SSM TC ppm.met	1.000	SSM-TC:933.8ppm			Completed	
5	Unknow	SSM-TC	280-150946-a-1		SSM TC ppm.met	1.000	SSM-TC:44940ppm			Completed	
6	Unknow	SSM-TC	MS 280-150946-a-1		SSM TC ppm.met	1.000	SSM-TC:49707ppm			Completed	
7	Unknow	SSM-TC	MSD 280-150946-a-1		SSM TC ppm.met	1.000	SSM-TC:53091ppm			Completed	
8	Unknow	SSM-TC	280-150946-a-2		SSM TC ppm.met	1.000	SSM-TC:38615ppm			Completed	
9	Unknow	SSM-TC	280-150946-a-3		SSM TC ppm.met	1.000	SSM-TC:44948ppm			Completed	
10	Unknow	SSM-TC	280-150946-a-4		SSM TC ppm.met	1.000	SSM-TC:34230ppm			Completed	
11	Unknow	SSM-TC	280-150946-a-5		SSM TC ppm.met	1.000	SSM-TC:38382ppm			Completed	
12	Unknow	SSM-TC	280-150946-a-6		SSM TC ppm.met	1.000	SSM-TC:50639ppm			Completed	
13	Unknow	SSM-TC	280-150946-a-7		SSM TC ppm.met	1.000	SSM-TC:44002ppm			Completed	
14	Unknow	SSM-TC	280-150946-a-8		SSM TC ppm.met	1.000	SSM-TC:40269ppm			Completed	
15	Unknow	SSM-TC	CCV		SSM TC ppm.met	1.000	SSM-TC:24077ppm			Completed	
16	Unknow	SSM-TC	CCB		SSM TC ppm.met	1.000	SSM-TC:-654.3ppm			Completed	
17	Unknow	SSM-TC	280-150946-a-9		SSM TC ppm.met	1.000	SSM-TC:39509ppm			Completed	
18	Unknow	SSM-TC	680-201857-d-1		SSM TC ppm.met	1.000	SSM-TC:587.9ppm			Completed	
19	Unknow	SSM-TC	680-201857-d-3		SSM TC ppm.met	1.000	SSM-TC:168.4ppm			Completed	
20	Unknow	SSM-TC	MS 680-201857-d-3		SSM TC ppm.met	1.000	SSM-TC:12034ppm			Completed	
21	Unknow	SSM-TC	MSD 680-201857-d-3		SSM TC ppm.met	1.000	SSM-TC:11811ppm			Completed	
22	Unknow	SSM-TC	680-201857-d-2		SSM TC ppm.met	1.000	SSM-TC:551.7ppm			Completed	
23	Unknow	SSM-TC	680-201857-d-4		SSM TC ppm.met	1.000	SSM-TC:186.6ppm			Completed	
24	Unknow	SSM-TC	680-201857-d-5		SSM TC ppm.met	1.000	SSM-TC:15.67ppm			Completed	
25	Unknow	SSM-TC	680-201857-d-6		SSM TC ppm.met	1.000	SSM-TC:1073ppm			Completed	
26	Unknow	SSM-TC	CCV		SSM TC ppm.met	1.000	SSM-TC:21948ppm			Completed	
27	Unknow	SSM-TC	CCB		SSM TC ppm.met	1.000	SSM-TC:-426.4ppm			Completed	

	Date / Time
1	7/28/2021 10:53:08 AM
2	7/28/2021 11:02:40 AM
3	7/28/2021 11:39:34 AM
4	7/28/2021 11:51:33 AM
5	7/28/2021 12:06:28 PM
6	7/28/2021 12:17:50 PM
7	7/28/2021 12:27:57 PM
8	7/28/2021 12:38:59 PM
9	7/28/2021 12:49:34 PM
10	7/28/2021 1:02:08 PM
11	7/28/2021 1:13:33 PM
12	7/28/2021 1:23:12 PM
13	7/28/2021 1:33:56 PM
14	7/28/2021 1:46:49 PM
15	7/28/2021 1:54:34 PM
16	7/28/2021 2:01:33 PM
17	7/28/2021 2:11:53 PM
18	7/28/2021 2:19:51 PM
19	7/28/2021 2:31:22 PM
20	7/28/2021 2:40:03 PM
21	7/28/2021 2:47:39 PM
22	7/28/2021 2:55:48 PM
23	7/28/2021 3:03:45 PM
24	7/28/2021 3:12:08 PM
25	7/28/2021 3:20:44 PM
26	7/28/2021 3:28:22 PM
27	7/28/2021 3:36:10 PM

TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥SSM CAL5.2021_07_13_12_59_31.cal

Date of Creation 10:48:04 AM 8/5/2020
User jmb
System SSM2

Cal. Curve

Sample Name: CAL
Sample ID:
Object ID 0A-100612-04635090-13464191E362-0000
Cal. Curve: SSM CAL5.2021_07_13_12_59_31.cal
Status Completed
Comment:

Type	Anal.	Density
Standard	SSM-TC	1.000mg/uL

AbsC: 0.000ug

No.	Area	CNV	Abs C	Weight	Volume	Rem.	Ex.	Date / Time
1	1.839	1.839	0.000ug	50.00mg	50uL	*****P*		7/13/2021 1:03:39 PM

Mean Area 1.839
Mean CNV 1.839
SD Area 0.000
CV Area 0.00%

AbsC: 250.0ug

No.	Area	CNV	Abs C	Weight	Volume	Rem.	Ex.	Date / Time
1	38.35	38.35	250.0ug	50.00mg	50uL	*****P*		7/13/2021 1:14:05 PM

Mean Area 38.35
Mean CNV 38.35
SD Area 0.000
CV Area 0.00%

AbsC: 500.0ug

No.	Area	CNV	Abs C	Weight	Volume	Rem.	Ex.	Date / Time
1	74.91	74.91	500.0ug	50.00mg	50uL	*****P*		7/13/2021 1:21:24 PM

Mean Area 74.91
Mean CNV 74.91
SD Area 0.000
CV Area 0.00%

AbsC: 1000ug

No.	Area	CNV	Abs C	Weight	Volume	Rem.	Ex.	Date / Time
1	136.5	136.5	1000ug	50.00mg	50uL	*****P*		7/13/2021 1:28:39 PM

Mean Area 136.5
Mean CNV 136.5
SD Area 0.000
CV Area 0.00%

AbsC: 2000ug

No.	Area	CNV	Abs C	Weight	Volume	Rem.	Ex.	Date / Time
1	269.1	269.1	2000ug	50.00mg	50uL	*****P*		7/13/2021 1:36:14 PM

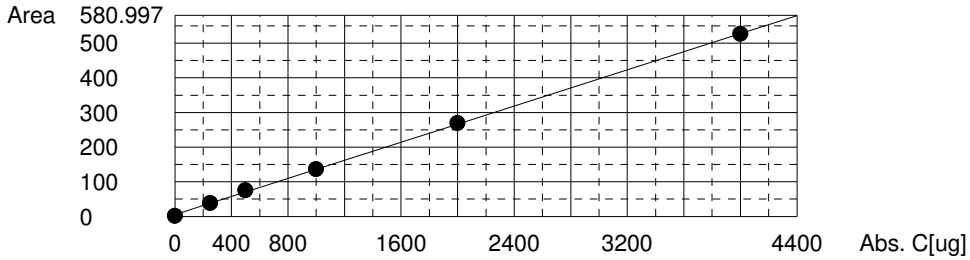
Mean Area 269.1
Mean CNV 269.1
SD Area 0.000
CV Area 0.00%

AbsC: 4000ug

No.	Area	CNV	Abs C	Weight	Volume	Rem.	Ex.	Date / Time
1	526.7	526.7	4000ug	50.00mg	50uL	*****P*		7/13/2021 1:43:53 PM

Mean Area 526.7
Mean CNV 526.7
SD Area 0.000
CV Area 0.00%

Slope: 0.1306
Intercept 5.921
r^2 0.9998
r 0.9999
Zero Shift No



Instr.Information

System SSM2
Instrument Options TOC/SSM/
Catalyst Regular Sensitivity

Sample

Sample Name: ICV
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

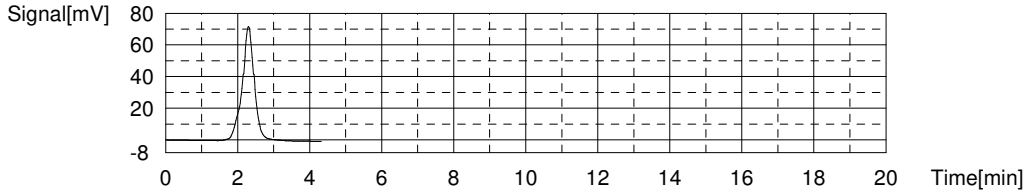
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:25364ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	171.5	171.5	1268ug	25364ppm	50.00mg	50uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 10:53:08 AM

Mean Area 171.5
Mean CNV 171.5
Mean Conc. 25364ppm



Sample

Sample Name: ICB
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

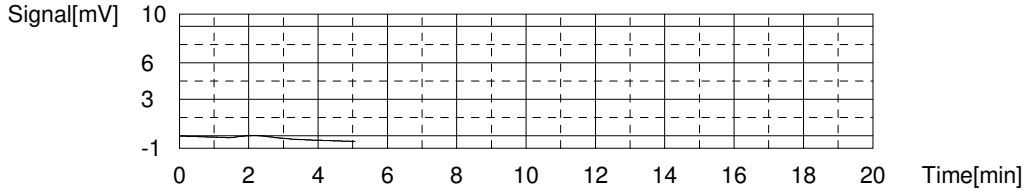
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:-906.9ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-45.35ug	-906.9ppm	50.00mg	50uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 11:02:40 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -906.9ppm



Sample

Sample Name: LCS
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

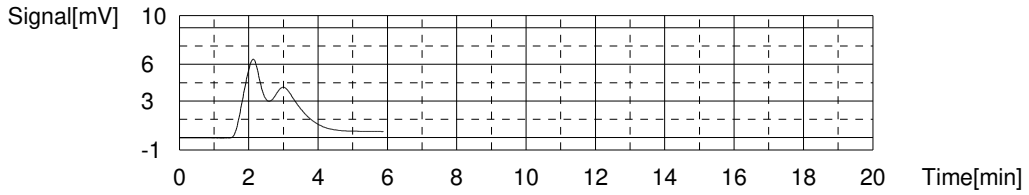
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:3403ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	48.09	48.09	323.0ug	3403ppm	94.90mg	94uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 11:39:34 AM

Mean Area 48.09
Mean CNV 48.09
Mean Conc. 3403ppm



Sample

Sample Name: MB
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

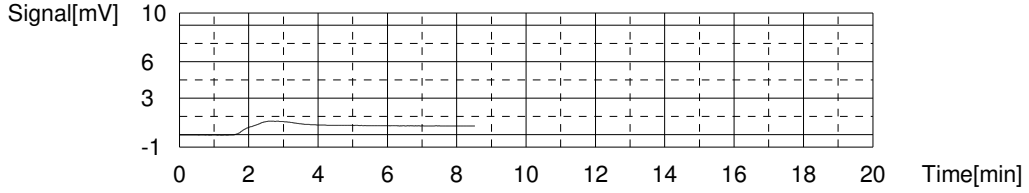
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:933.8ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	17.15	17.15	86.01ug	933.8ppm	92.10mg	92uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 11:51:33 AM

Mean Area 17.15
Mean CNV 17.15
Mean Conc. 933.8ppm



Sample

Sample Name: 280-150946-a-1
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

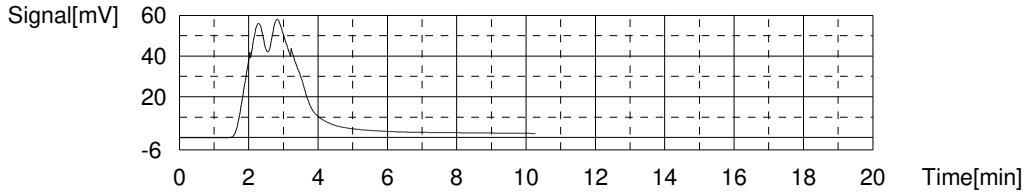
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:44940ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	587.4	587.4	4454ug	44940ppm	99.10mg	99uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 12:06:28 PM

Mean Area 587.4
Mean CNV 587.4
Mean Conc. 44940ppm



Sample

Sample Name: MS 280-150946-a-1
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

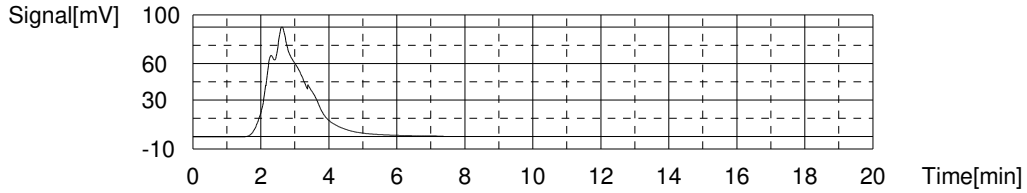
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:49707ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	666.6	666.6	5060ug	49707ppm	101.8mg	101uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 12:17:50 PM

Mean Area 666.6
Mean CNV 666.6
Mean Conc. 49707ppm



Sample

Sample Name: MSD 280-150946-a-1
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

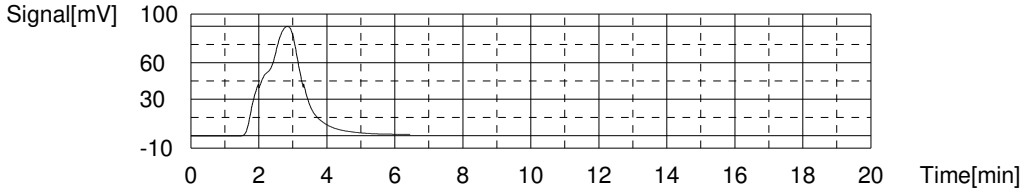
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:53091ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	688.7	688.7	5229ug	53091ppm	98.50mg	98uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 12:27:57 PM

Mean Area 688.7
Mean CNV 688.7
Mean Conc. 53091ppm



Sample

Sample Name: 280-150946-a-2
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

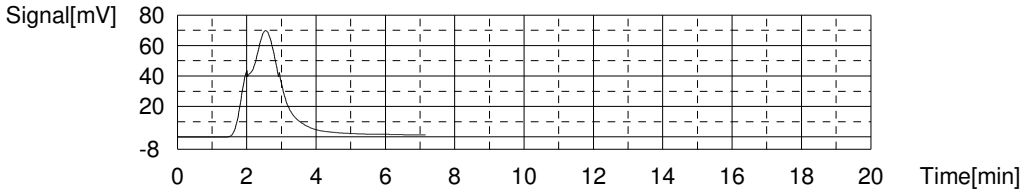
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:38615ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	474.3	474.3	3587ug	38615ppm	92.90mg	92uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 12:38:59 PM

Mean Area 474.3
Mean CNV 474.3
Mean Conc. 38615ppm



Sample

Sample Name: 280-150946-a-3
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

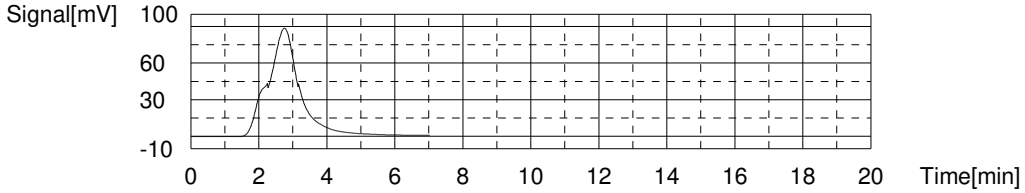
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:44948ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	574.0	574.0	4351ug	44948ppm	96.80mg	96uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 12:49:34 PM

Mean Area 574.0
Mean CNV 574.0
Mean Conc. 44948ppm



Sample

Sample Name: 280-150946-a-4
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

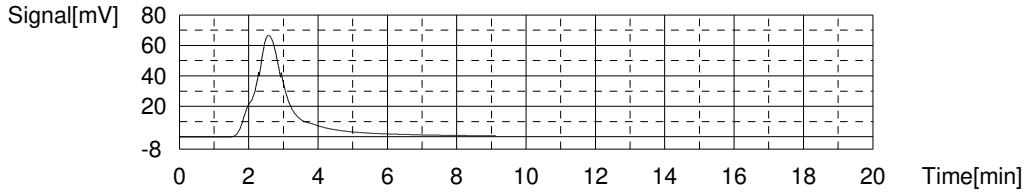
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:34230ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	444.8	444.8	3361ug	34230ppm	98.20mg	98uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 1:02:08 PM

Mean Area 444.8
Mean CNV 444.8
Mean Conc. 34230ppm



Sample

Sample Name: 280-150946-a-5
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

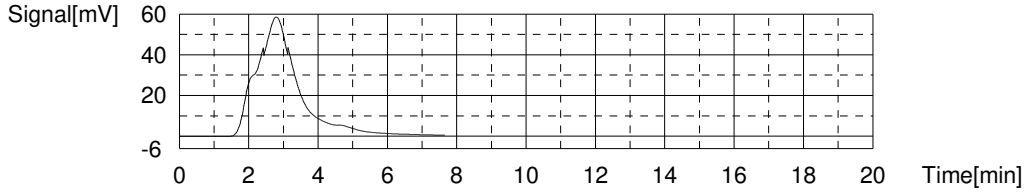
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:38382ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	484.0	484.0	3662ug	38382ppm	95.40mg	95uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 1:13:33 PM

Mean Area 484.0
Mean CNV 484.0
Mean Conc. 38382ppm



Sample

Sample Name: 280-150946-a-6
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

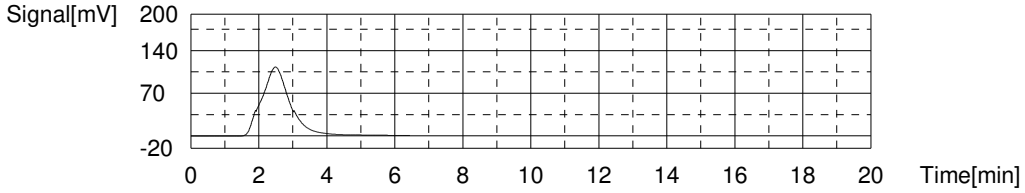
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:50639ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	661.8	661.8	5023ug	50639ppm	99.20mg	99uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 1:23:12 PM

Mean Area 661.8
Mean CNV 661.8
Mean Conc. 50639ppm



Sample

Sample Name: 280-150946-a-7
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

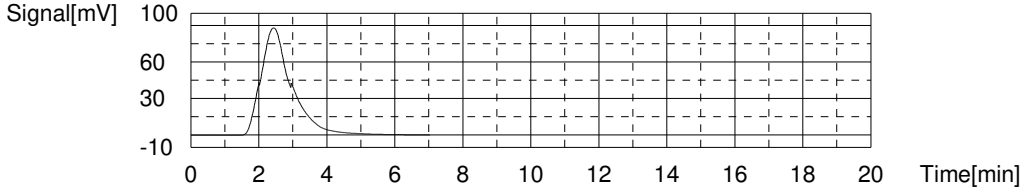
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:44002ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	554.0	554.0	4198ug	44002ppm	95.40mg	95uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 1:33:56 PM

Mean Area 554.0
Mean CNV 554.0
Mean Conc. 44002ppm



Sample

Sample Name: 280-150946-a-8
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

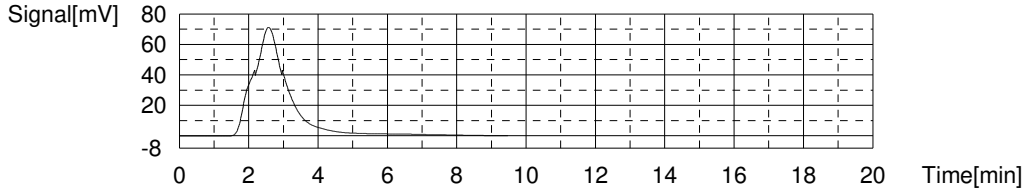
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:40269ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	501.2	501.2	3793ug	40269ppm	94.20mg	94uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 1:46:49 PM

Mean Area 501.2
Mean CNV 501.2
Mean Conc. 40269ppm



Sample

Sample Name: CCV
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

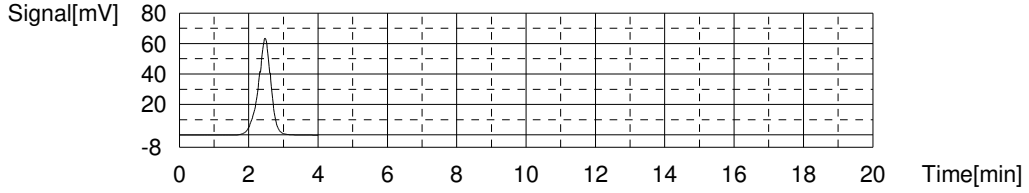
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:24077ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	163.1	163.1	1204ug	24077ppm	50.00mg	50uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 1:54:34 PM

Mean Area 163.1
Mean CNV 163.1
Mean Conc. 24077ppm



Sample

Sample Name: CCB
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

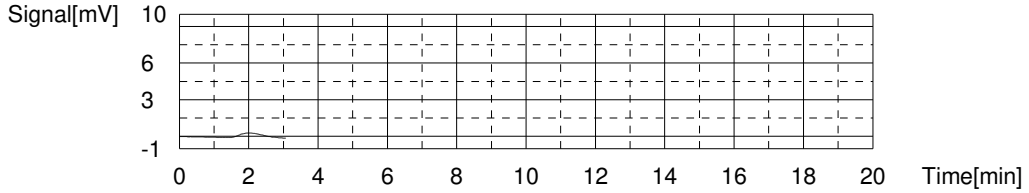
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:-654.3ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1.649	1.649	-32.72ug	-654.3ppm	50.00mg	50uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 2:01:33 PM

Mean Area 1.649
Mean CNV 1.649
Mean Conc. -654.3ppm



Sample

Sample Name: 280-150946-a-9
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

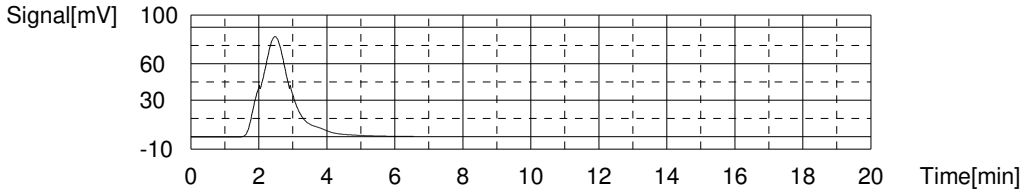
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:39509ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	509.9	509.9	3860ug	39509ppm	97.70mg	97uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 2:11:53 PM

Mean Area 509.9
Mean CNV 509.9
Mean Conc. 39509ppm



Sample

Sample Name: 680-201857-d-1
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

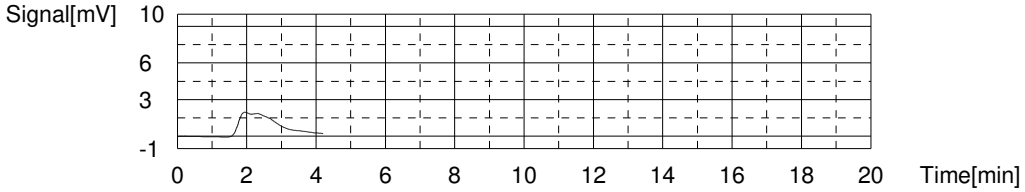
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:587.9ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	13.95	13.95	61.50ug	587.9ppm	104.6mg	104uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 2:19:51 PM

Mean Area 13.95
Mean CNV 13.95
Mean Conc. 587.9ppm



Sample

Sample Name: 680-201857-d-3
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

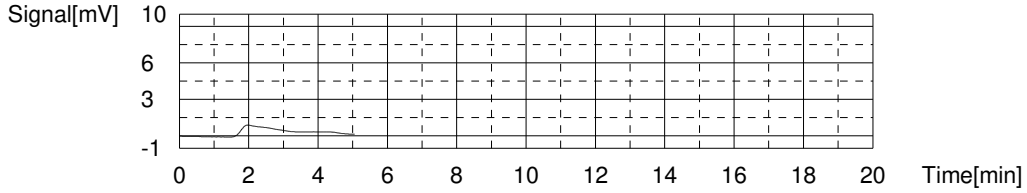
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:168.4ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	8.161	8.161	17.16ug	168.4ppm	101.9mg	101uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 2:31:22 PM

Mean Area 8.161
Mean CNV 8.161
Mean Conc. 168.4ppm



Sample

Sample Name: MS 680-201857-d-3
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

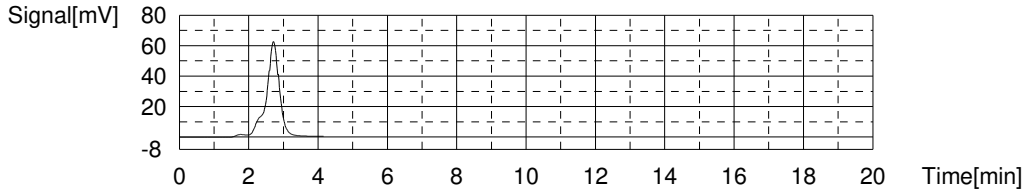
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:12034ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	166.5	166.5	1230ug	12034ppm	102.2mg	102uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 2:40:03 PM

Mean Area 166.5
Mean CNV 166.5
Mean Conc. 12034ppm



Sample

Sample Name: MSD 680-201857-d-3
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

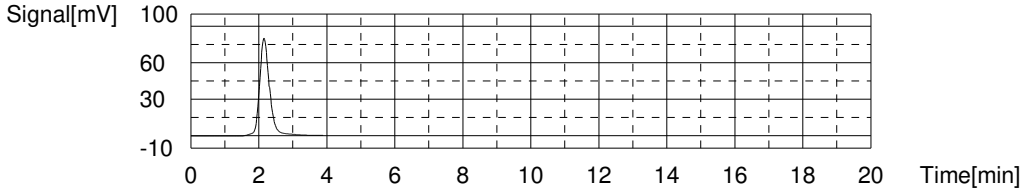
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:11811ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	164.3	164.3	1213ug	11811ppm	102.7mg	102uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 2:47:39 PM

Mean Area 164.3
Mean CNV 164.3
Mean Conc. 11811ppm



Sample

Sample Name: 680-201857-d-2
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

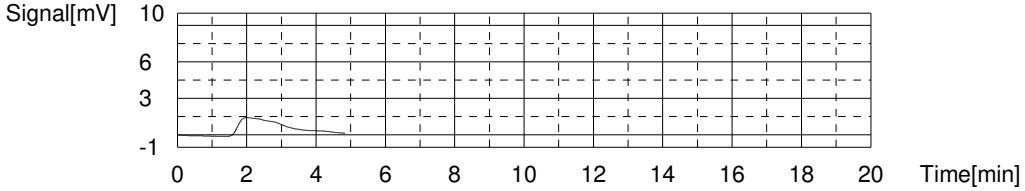
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:551.7ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	13.08	13.08	54.83ug	551.7ppm	99.40mg	99uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 2:55:48 PM

Mean Area 13.08
Mean CNV 13.08
Mean Conc. 551.7ppm



Sample

Sample Name: 680-201857-d-4
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

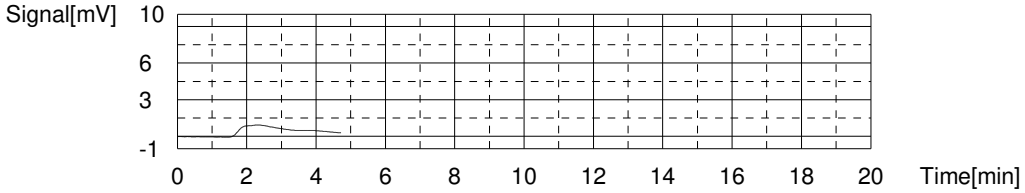
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:186.6ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	8.330	8.330	18.45ug	186.6ppm	98.90mg	98uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 3:03:45 PM

Mean Area 8.330
Mean CNV 8.330
Mean Conc. 186.6ppm



Sample

Sample Name: 680-201857-d-5
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

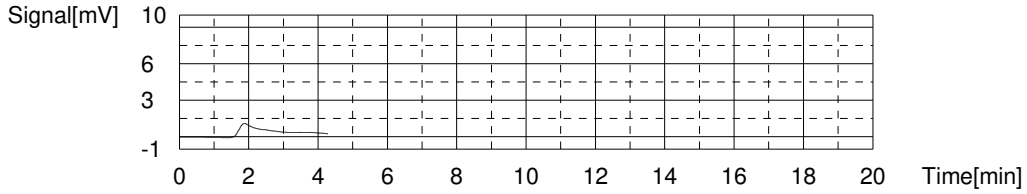
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:15.67ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	6.110	6.110	1.451ug	15.67ppm	92.60mg	92uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 3:12:08 PM

Mean Area 6.110
Mean CNV 6.110
Mean Conc. 15.67ppm



Sample

Sample Name: 680-201857-d-6
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

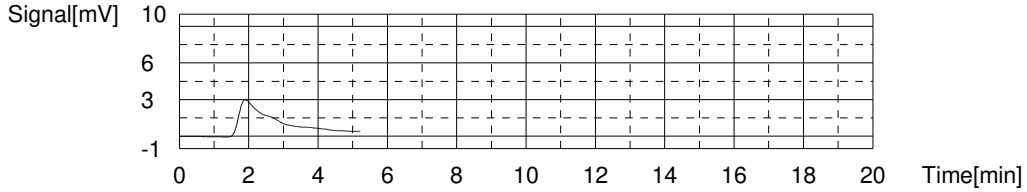
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:1073ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	20.26	20.26	109.8ug	1073ppm	102.4mg	102uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 3:20:44 PM

Mean Area 20.26
Mean CNV 20.26
Mean Conc. 1073ppm



Sample

Sample Name: CCV
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

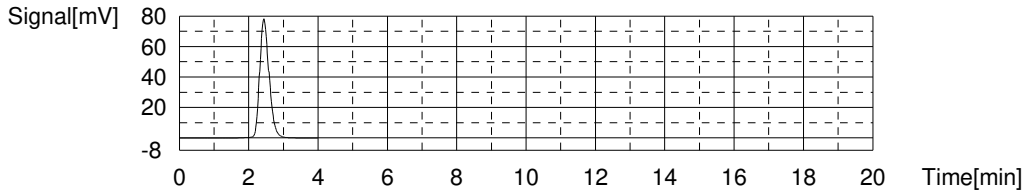
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:21948ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	149.2	149.2	1097ug	21948ppm	50.00mg	50uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 3:28:22 PM

Mean Area 149.2
Mean CNV 149.2
Mean Conc. 21948ppm



Sample

Sample Name: CCB
Sample ID:
Origin: SSM TC ppm.met
Status Completed
Chk. Result

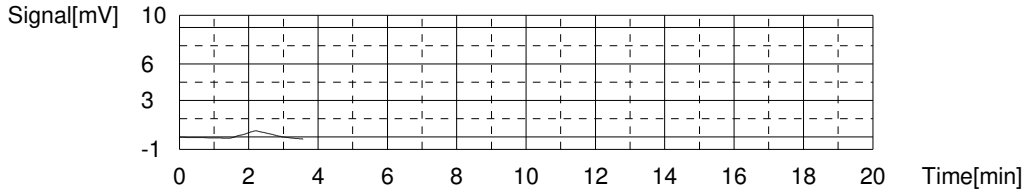
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:-426.4ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	3.137	3.137	-21.32ug	-426.4ppm	50.00mg	50uL		SSM CAL5.2021_07_13_12_59_31.cal	7/28/2021 3:36:10 PM

Mean Area 3.137
Mean CNV 3.137
Mean Conc. -426.4ppm



TOC Solids 1

		Type	Analysis	Sample Name	S	Or	M	Mass Result (mg)	Notes	C	St	A	D
	1*	Unknow	SSM-TC	ICV	✓	S	1				D		
	2*	Unknow	SSM-TC	ICB	✓	S	1	94.9			D		
LCS 1	3*	Unknow	SSM-TC	LCS	✓	S	1	~~101.8~~	STOC LCS Std 000:8		D		
MB 1	4*	Unknow	SSM-TC	MB	✓	S	1	92.1	sand		D		
1	5*	Unknow	SSM-TC	280-150946-a-1	✓	S	1	99.1	rocky mud		D		
1 MS	6*	Unknow	SSM-TC	MS 280-150946-a-1	✓	S	1	101.8	rocky mud		D		
1 MSD	7*	Unknow	SSM-TC	MSD 280-150946-a-1	✓	S	1	98.5	rocky mud		D		
2	8*	Unknow	SSM-TC	280-150946-a-2	✓	S	1	92.9	rocky mud		D		
3	9*	Unknow	SSM-TC	280-150946-a-3	✓	S	1	96.8	sandy mud		D		
4	10*	Unknow	SSM-TC	280-150946-a-4	✓	S	1	98.2	sandy mud		D		
5	11*	Unknow	SSM-TC	280-150946-a-5	✓	S	1	95.4	mud		D		
6	12*	Unknow	SSM-TC	280-150946-a-6	✓	S	1	99.2	fine mud		D		
7	13*	Unknow	SSM-TC	280-150946-a-7	✓	S	1	95.4	mud w/ orange debris		D		
8	14*	Unknow	SSM-TC	280-150946-a-8	✓	S	1	94.2	sandy mud		D		
	15*	Unknow	SSM-TC	CCV	✓	S	1				D		
	16*	Unknow	SSM-TC	CCB	✓	S	1				D		
9	17*	Unknow	SSM-TC	280-150946-a-9	✓	S	1	97.7	fine dirt		D		
10	18*	Unknow	SSM-TC	680-201857-d-1	✓	S	1	104.6	rocky sand		D		
11	19*	Unknow	SSM-TC	680-201857-d-3 msd	✓	S	1	101.9	fine sand		D		
11 MS	20*	Unknow	SSM-TC	MS 680-201857-d-3 ms	✓	S	1	102.2	fine sand		D		
11 MSD	21*	Unknow	SSM-TC	MSD 680-201857-d-3 m	✓	S	1	102.7	fine sand		D		
12	22*	Unknow	SSM-TC	680-201857-d-2	✓	S	1	99.4	fine sand		D		
13	23*	Unknow	SSM-TC	680-201857-d-4	✓	S	1	98.9	fine sand		D		
14	24*	Unknow	SSM-TC	680-201857-d-5	✓	S	1	92.6	fine sand		D		
15	25*	Unknow	SSM-TC	680-201857-d-6	✓	S	1	102.4	fine sand		D		
	26*	Unknow	SSM-TC	CCV	✓	S	1				D		
	27*	Unknow	SSM-TC	CCB	✓	S	1				D		

Date/Time		Temp.
IN: 7/26/21	13:07	103° C
OUT: 7/27/21	8:13	103° C
IN: 7/27/21	9:56	103°C
OUT: 7/27/21	11:55	103°C

General Chemistry Raw Data Report

Job ID: 680-201857-1

Batch: 366034 **Analyst Initials: ELS**

Method: SM 5210B **Instrument: No Equipment**

Lab Sample ID: USB 180-366034/1 **Analysis Date: Jul 23, 2021 12:31**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	0.16	mg/L	300 mL	300 mL

Lab Sample ID: LCS 180-366034/2 **Analysis Date: Jul 23, 2021 12:31**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	3.635	mg/L	6 mL	300 mL

Lab Sample ID: 680-201857-B-1 **Analysis Date: Jul 23, 2021 12:31**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	0.11	mg/L	0.8 g	300 mL

Lab Sample ID: 680-201857-B-2 **Analysis Date: Jul 23, 2021 12:31**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	0.10	mg/L	0.8 g	300 mL

Lab Sample ID: 680-201857-B-3 **Analysis Date: Jul 23, 2021 12:31**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	-0.32	mg/L	0.8 g	300 mL

Lab Sample ID: 680-201857-B-5 **Analysis Date: Jul 23, 2021 12:45**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	-0.11	mg/L	0.8 g	300 mL

Lab Sample ID: 680-201857-B-3 DU **Analysis Date: Jul 23, 2021 14:07**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	-0.40	mg/L	0.8 g	300 mL

Lab Sample ID: 680-201857-B-4 **Analysis Date: Jul 23, 2021 14:07**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	0.04	mg/L	0.8 g	300 mL

Lab Sample ID: 680-201857-B-6 **Analysis Date: Jul 23, 2021 14:07**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Biochemical Oxygen Demand	None	1	-0.25	mg/L	0.8 g	300 mL

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AUTOMATED BOD & CBOD LOG SHEET METHOD: SM 5210B

Rack Number: 003	Analyst: ELS	Incubator ID: BOD 2
Date & Time In Incubator: 7-23-21 @ 12:31	Date & Time Out of Incubator: 7-24-21 @ 12:02	
1N NaOH TALS ID: ELS 7-23-21 NA 4292776	1N H_2SO_4 TALS ID: NA	
Buffer Lot: 3561921	Chlorine Test Lot: 3954582	
Mini Buffer Lot: 4302636	Potassium Iodine Lot: NA	
G/GA Lot: 4234754	Sodium Sulfite Lot: NA	
Seed Lot: 4332466	CBOD Nitrification Inhibitor: NA	
Seed Volume Used (mL): 3.50	TALS Batch: 366034	
BOD Bottle Lot: Enc. Express EX-2345-170	Comments:	

Sample ID	Sample Temp °C	Initial pH	Final pH	Chlorine + = >0.2mg/L -- = <0.2mg/L	mL Na_2SO_3 Added (per L of Sample) to Remove Chlorine
Dilution Water	21.1	6.76	—	—	—
180-201857-1	21.3	6.76	—	0	NA
180-201857-2	21.3	6.76	—		
180-201857-3	21.1	6.76	—		
180-201857-4	21.2	6.76	—		
180-201857-5	21.3	6.76	—		
180-201857-6	21.2	6.76	—		
180-124109-5	21.5	3.28	7.00		
180-124846-1	19.0	6.20	—		
					7-23-21
					ELS

Day 1 DO Meter Calibration with Water Saturated Air	Day 5 DO Meter Calibration with Water Saturated Air
Date: 7-23-2021 Time: 11:57	Date: 7-24-2021 Time: 12:00
Barometric Pressure: 29.22	Barometric Pressure: 29.06
Air Temperature: 21.56	Air Temperature: 21.30
DO %Saturation: 97.70	DO %Saturation: 97.10
Calibration of pH Meter	
pH meter ID: XL150 (XL94720)	
Date calibrated: 7-23-21	
Slope: 98.3 Incubator Temp, °C 21	Incubator Temp, °C 21
sensor 3	

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AUTOMATED BOD & CBOD LOG SHEET METHOD: SM 5210B

Rack Number: 004	Date & Time In Incubator: 7-23-21 @ 14:07	Date & Time Out of Incubator: 7-24-21 @ 12:05
Rack Number: 005	Date & Time In Incubator: 7-23-21 @ 14:16	Date & Time Out of Incubator: 7-24-21 @ 12:05
Rack Number:	Date & Time In Incubator:	Date & Time Out of Incubator:
Analyst: ELS		

Sample ID	Sample Temp °C	Initial pH	Final pH	Chlorine + = >0.2mg/L -- = <0.2mg/L	mL Na_2SO_3 Added (per L of Sample) to Remove Chlorine
					ELS
					7-23-21

PC-BOD Final Report

Initials Operator:	ELS	**BOD Blank Average Depletion:**	.16	
Finals Operator:	ELS	**CBOD Blank Average Depletion:**	.00	
Run Number:	12963	**BOD Seed Correction: (per ml of seed)**	0.19668	
OrderNumber:	PC_BOD_20210723-3	**CBOD Seed Correction: (per ml of seed)**	0.00000	
Start Time:	11:57 AM			
Start Date:	07/23/2021	**Initial Cal Reading:**	97.70	
Finish Time:	1:01 PM	**Initial Pressure:**	29.22	inHg
Finish Date:	07/28/2021	**Final Cal Reading:**	97.10	
Method:	SM5210B / SM5210B Calc	**Final Pressure:**	29.06	inHg

Flag Definitions

SR	Standard - Out of range
SAR	Standard average out of range
bSS	Blank supersaturated
bDe	Blank - Depletion
cD	Seed - Depletion
cF	Seed - Final DO
cR	Seed - Range
sD	
sF	Sample Limit - Depletion Sample Limit - Final DO
gF	Group Failure - Final DO
gD	Group Failure - Depletion
gT	Group Failure - Toxicity
In+	
In-	Incubation too long
iT	Incubation too short
fT	Intial temperature out of range Final temperature out of range

Rack #	Bottle #	Sample Name	Sample ID	Start Time	Finish Time	Predil Factor	Sample Volume	Mass (g)	Seed Vol	Initial DO	Initial Temp	Final DO	Final Temp	Depletion	BOD\ CBOD	BOD\CBOD Average	Flags
003	1	flush		**11:59 AM**	**12:06 PM**	1.00	.00		3.50	8.16	20.90	7.49	20.40	2.00	< 4.93	.00	sD
003	2	flush		**12:00 PM**	**12:07 PM**	1.00	.00		3.50	8.16	20.90	7.48	20.40	2.00	< 4.93	< 4.93	sDgD
003	3	usb		**12:01 PM**	**12:08 PM**	1.00	.00		.00	8.15	21.30	8.01	20.40	.14	.00	.00	
003	4	usb		**12:02 PM**	**12:09 PM**	1.00	.00		.00	8.18	21.10	8.01	20.20	.17	.00	.00	
003	5	seed		**12:04 PM**	**12:10 PM**	1.00	.00		15.00	8.02	21.30	5.46	20.20	2.56	.00	.00	
003	6	seed		**12:07 PM**	**12:11 PM**	1.00	.00		20.00	8.20	21.20	4.16	20.30	4.04	.00	.00	
003	7	seed		**12:10 PM**	**12:12 PM**	1.00	.00		25.00	8.40	21.20	3.24	20.30	5.16	.00	.00	
003	8	seed		**12:13 PM**	**12:12 PM**	1.00	.00		30.00	8.15	21.00	1.92	20.10	6.23	.00	.00	
003	9	BLANK		**12:14 PM**	**12:13 PM**	1.00	.00		.00	8.21	21.10	7.96	20.20	2.00	< 4.93	.00	sD
003	10	GGA_Bod		**12:15 PM**	**12:14 PM**	1.00	6.00		3.50	8.20	21.10	4.11	20.20	4.09	170.08	.00	
003	11	GGA_Bod		**12:17 PM**	**12:28 PM**	1.00	6.00		3.50	8.18	21.10	3.35	20.50	4.83	207.08	.00	
003	12	GGA_Bod		**12:18 PM**	**12:16 PM**	1.00	6.00		3.50	8.21	21.00	4.16	20.10	4.05	168.08	181.75	
003	13	BLANK		**12:19 PM**	**12:17 PM**	1.00	.00		.00	8.23	21.30	7.98	20.20	2.00	< 168.08	.00	sD
003	14	680-201857-B-1		**12:20 PM**	**12:18 PM**	1.00	300.00	0.2	3.50	8.11	21.30	7.44	20.20	.67	-.02	.00	

Rack #	Bottle #	Sample Name	Sample ID	Start Time	Finish Time	Predil Factor	Sample Volume	Mass (g)	Seed Vol	Initial DO	Initial Temp	Final DO	Final Temp	Depletion	BOD\ CBOD	BOD\CBOD Average	Flags
003	15	680-201857-B-1		**12:21 PM**	**12:19 PM**	1.00	300.00	0.4	3.50	8.06	21.30	7.11	20.30	.95	.26	.00	
003	16	680-201857-B-1		**12:22 PM**	**12:20 PM**	1.00	300.00	0.6	3.50	8.09	21.30	7.37	20.10	.72	.03	.00	
003	17	680-201857-B-1		**12:23 PM**	**12:20 PM**	1.00	300.00	0.8	3.50	8.11	21.30	7.26	20.20	.85	.16	.11	gT
003	18	680-201857-B-2		**12:25 PM**	**12:21 PM**	1.00	300.00	0.2	3.50	8.11	21.30	7.49	20.30	.62	-.07	.00	
003	19	680-201857-B-2		**12:26 PM**	**12:22 PM**	1.00	300.00	0.4	3.50	8.08	21.30	6.98	20.30	1.10	.41	.00	
003	20	680-201857-B-2		**12:27 PM**	**12:23 PM**	1.00	300.00	0.6	3.50	8.11	21.20	7.44	20.20	.67	-.02	.00	
003	21	680-201857-B-2		**12:28 PM**	**12:24 PM**	1.00	300.00	0.8	3.50	8.09	21.30	7.31	20.20	.78	.09	.10	gT
003	22	680-201857-B-3		**12:29 PM**	**12:25 PM**	1.00	300.00	0.2	3.50	8.13	21.10	7.53	20.30	.60	-.09	.00	
003	23	680-201857-B-3		**12:30 PM**	**12:26 PM**	1.00	300.00	0.4	3.50	8.12	21.30	7.60	20.30	.52	-.17	.00	
004	1	680-201857-B-3		**12:33 PM**	**12:31 PM**	1.00	300.00	0.6	3.50	8.12	21.10	7.95	20.50	.17	-.52	.00	
004	2	680-201857-B-3		**12:34 PM**	**12:31 PM**	1.00	300.00	0.8	3.50	8.11	21.30	7.92	20.50	.19	-.50	-.32	
004	3	680-201857-B-3 DU		**12:35 PM**	**12:33 PM**	1.00	300.00	0.2	3.50	8.12	21.20	7.99	20.50	.13	-.56	.00	
004	4	680-201857-B-3 DU		**12:36 PM**	**12:34 PM**	1.00	300.00	0.4	3.50	8.14	21.10	8.06	20.40	.08	-.61	.00	
004	5	680-201857-B-3 DU		**12:37 PM**	**12:35 PM**	1.00	300.00	0.6	3.50	8.13	21.20	7.70	20.30	.43	-.26	.00	
004	6	680-201857-B-3 DU		**12:38 PM**	**12:36 PM**	1.00	300.00	0.8	3.50	8.13	21.30	7.62	20.40	.51	-.18	-.40	
004	7	BLANK		**12:39 PM**	**12:37 PM**	1.00	.00		.00	8.31	21.10	8.12	20.50	2.00	<-.18	.00	sD
004	8	680-201857-B-4		**12:40 PM**	**12:38 PM**	1.00	300.00	0.2	3.50	8.12	21.20	7.57	20.40	.55	-.14	.00	
004	9	680-201857-B-4		**12:41 PM**	**12:38 PM**	1.00	300.00	0.4	3.50	8.07	21.30	7.27	20.30	.80	.11	.00	
004	10	680-201857-B-4		**12:42 PM**	**12:39 PM**	1.00	300.00	0.6	3.50	8.09	21.30	7.26	20.30	.83	.14	.00	
004	11	680-201857-B-4		**12:43 PM**	**12:40 PM**	1.00	300.00	0.8	3.50	8.07	21.30	7.33	20.40	.74	.05	.04	gT
004	12	680-201857-B-5		**12:45 PM**	**12:41 PM**	1.00	300.00	0.2	3.50	8.21	21.30	7.56	20.30	.65	-.04	.00	
004	13	680-201857-B-5		**12:46 PM**	**12:42 PM**	1.00	300.00	0.4	3.50	8.12	21.20	7.62	20.30	.50	-.19	.00	
004	14	680-201857-B-5		**12:47 PM**	**12:42 PM**	1.00	300.00	0.6	3.50	8.10	21.10	7.61	20.30	.49	-.20	.00	
004	15	680-201857-B-5		**12:47 PM**	**12:43 PM**	1.00	300.00	0.8	3.50	8.10	21.20	7.43	20.40	.67	-.02	-.11	
004	16	680-201857-B-6		**12:49 PM**	**12:44 PM**	1.00	300.00	0.2	3.50	8.12	21.20	7.63	20.30	.49	-.20	.00	
004	17	680-201857-B-6		**12:50 PM**	**12:45 PM**	1.00	300.00	0.4	3.50	8.11	21.20	7.68	20.30	.43	-.26	.00	
004	18	680-201857-B-6		**12:51 PM**	**12:46 PM**	1.00	300.00	0.6	3.50	8.10	21.00	7.63	20.30	.47	-.22	.00	

Rack #	Bottle #	Sample Name	Sample ID	Start Time	Finish Time	Predil Factor	Sample Volume	Mass (g)	Seed Vol	Initial DO	Initial Temp	Final DO	Final Temp	Depletion	BOD\ CBOD	BOD\CBOD Average	Flags
004	19	680-201857-B-6		**12:52 PM**	**12:47 PM**	1.00	300.00	0.8	3.50	8.08	21.10	7.70	20.40	.38	-.31	-.25	
004	20	180-124109-A-5		**2:02 PM**	**12:48 PM**	1.00	2.50		3.50	8.11	20.90	6.58	20.30	2.00	< 157.39	.00	sD
004	21	180-124109-A-5		**2:03 PM**	**12:48 PM**	1.00	6.00		3.50	8.13	21.00	5.85	20.40	2.28	79.58	.00	
004	22	180-124109-A-5		**2:04 PM**	**12:49 PM**	1.00	15.00		3.50	8.14	21.10	4.08	20.40	4.06	67.43	.00	
004	23	180-124109-A-5		**2:05 PM**	**12:50 PM**	1.00	40.00		3.50	8.12	21.20	.21	20.50	7.12	> 48.24	.00	sF
005	1	180-124109-A-5		**2:07 PM**	**12:52 PM**	1.00	100.00		3.50	8.11	21.10	.23	20.50	7.11	> 19.26	.00	sF
005	2	180-124109-A-5		**2:08 PM**	**12:53 PM**	1.00	300.00		3.50	7.95	21.80	.16	20.50	7.79	> 7.10	73.51	sFgT
005	3	BLANK		**2:09 PM**	**12:54 PM**	1.00	.00		.00	8.21	21.40	7.99	20.60	2.00	< 7.10	.00	sD
005	4	180-124846-D-1		**2:11 PM**	**1:00 PM**	1.00	6.00		3.50	8.10	21.30	4.63	20.50	3.47	139.08	.00	
005	5	180-124846-D-1		**2:12 PM**	**12:56 PM**	1.00	15.00		3.50	7.97	21.40	.17	20.40	6.97	> 125.63	.00	sF
005	6	180-124846-D-1		**2:13 PM**	**12:57 PM**	1.00	40.00		3.50	7.78	21.20	.15	20.40	6.78	> 45.69	.00	sF
005	7	180-124846-D-1		**2:14 PM**	**12:58 PM**	1.00	100.00		3.50	7.54	20.90	.14	20.50	6.54	> 17.55	.00	sF
005	8	180-124846-D-1		**2:15 PM**	**12:58 PM**	1.00	300.00		3.50	5.79	20.30	.17	20.30	5.62	> 4.93	139.08	sFgT
005	9	BLANK		**2:17 PM**	**1:01 PM**	1.00	.00		.00	8.27	20.70	8.02	20.40	2.00	< 4.93	< 4.93	sDgDgT

Sample ID	Sample Weight (g)	Initial DO (mg/L)	Final DO (mg/L)	Depletion (mg/L)	SCF	P	BOD	Average BOD	Highest calc BOD	Lowest calc BOD	RPD (H/L)
Sample 1	0.8	8.11	7.26	0.85	0.688	0.00266667	60.61	#DIV/0!	60.61	60.61	0%
580-201857-1				0		0	#DIV/0!				
	ELS 7-31-21			0		0	#DIV/0!				
				0		0	#DIV/0!				
Sample 2	0.8	8.09	7.31	0.78	0.688	0.00266667	34.36	#DIV/0!	34.36	34.36	0%
580-201857-2				0		0	#DIV/0!				
	ELS 7-31-21			0		0	#DIV/0!				
				0		0	#DIV/0!				
Sample 3	0.8	8.11	7.92	0.19	0.688	0.00266667	-186.89	#DIV/0!	-186.89	-189.89	-2%
				0		0	#DIV/0!				
580-201857-3	ELS 7-31-21			0		0	#DIV/0!				
				0		0	#DIV/0!				
Sample 4	0.8	8.13	7.62	0.51	0.688	0.00266667	-66.89	#DIV/0!	-66.89	-66.89	0%
0-201857-3 DU				0		0	#DIV/0!				
	ELS 7-31-21			0		0	#DIV/0!				
Sample 5	0.8	8.07	7.33	0.74	0.688	0.00266667	19.36	#DIV/0!	19.36	19.36	0%
580-201857-4				0		0	#DIV/0!				
	ELS 7-31-21			0		0	#DIV/0!				
Sample 6	0.8	8.1	7.43	0.67	0.688	0.00266667	-6.89	#DIV/0!	-6.89	-6.89	0%
580-201857-5	ELS			0		0	#DIV/0!				
	7-31-21			0		0	#DIV/0!				
Sample 7	0.8	8.08	7.7	0.38	0.688	0.00266667	-115.64	#DIV/0!	-115.64	-115.64	0%
580-201857-6				0		0	#DIV/0!				
Sample 8	ELS 7-31-21			0		0	#DIV/0!	#DIV/0!			#DIV/0!
				0		0	#DIV/0!				
Sample 9				0		0	#DIV/0!	#DIV/0!			#DIV/0!
				0		0	#DIV/0!				

RPD (H/L) = (((BOD (highest working dilution) - BOD (lowest working dilution)) / ((BOD (highest working dilution) + BOD (lowest working dilution)/2)*100)

Date:	7/31/2021
Analyst:	ELS

BOD = ((D1-D2) - (S))/P

D1 = initial DO
D2 = final DO
S = Seed Correction Factor
P = sample amount / 300

Subcontract Data

Shipping and Receiving Documents

Eurofins TestAmerica, Boston Service Center
240 Bear Hill Road
Suite 104
Waltham, MA 02451-1039
phone 781.466.6900 fax 781.466.6901

Boston #215

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: EPA

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Heather Levesque	Site Contact: Jennifer Sandorf	Date: 7/21/2021	COC No:
Seres	Email: halevesque@seres-es.com	Lab Contact: Jerry Lanier	Carrier:	1 of 1 COCs
669 Marina Drive B7	Tel/Fax: (619) 370-0374			TALS Project #
Charleston, SC 29492	Analysis Turnaround Time			Sampler:
(619) 370-0374 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below			Walk-in Client:
Project Name: Fort Devens	☐ 2 weeks			Lab Sampling:
Site: Shepley Hill Landfill	☐ 1 week			
P O # JV2008	☐ 2 days			Job / SDG No:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Metals (Fe, Mn, Arsenic) 6010C	% Moisutre	TOC (Lloyd Kahn)	BOD5 (SM 5210B)	ABA (Acid Gen Pot, Acid Neut, Sulfur forms)	Sample Specific Notes:
AS-21-1D (24-28)	7/21/21	0730	G	S	4	N		X	X	X	X	X	
AS-21-1D (34-38)		0820	G	S	4	N		X	X	X	X	X	
AS-21-1D (48-54) MS/MSD		0945	G	S	12	N	Y	X	X	X	X	X	
AS-21-1D (60-64)		1105	G	S	4	N		X	X	X	X	X	
AS-21-1D (70-72)		1345	G	S	4	N		X	X	X	X	X	
DUP 072121		—	G	S	4	N		X	X	X	X	X	
			G	S		N							

680-201857 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

0.4/0.5, 2.8/2.9

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No: | Cooler Temp (°C): Obs'd _____ Corr'd _____ Therm ID No: _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	Seres	7/21 1510	[signature]	ETA	7/21/21 1510
[signature]	ETA	7/21/21 1705			
			Received in Laboratory by [signature]	SAV	7-22-21 / 1010

eurofins | Environment Testing TestAmerica

469-434 RIT2 EXP 11/21

ORIGIN ID:SAVA (912) 354-7858
SHIPPING
EUROFINS/TESTAMERICA
5102 LA ROUCHE AVE

SAVANNAH, GA 31404
UNITED STATES US

SHIP DATE: 22JUL21
ACTWGT: 15.00 LB MAN
CAD: 0801261/CAFE3409

BILL SENDER

TO SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7063
REF: 127774

FedEx Express

J201120121801uv

1 A
RT 98 10:30 6280
07.23
FZ

FRI - 23 JUL 10:30A
PRIORITY OVERNIGHT

XH AGCA

15238
PA-US PIT

Uncorrected temp 1.9 °C
Thermometer ID 17
CF 0 Initials AS
PT-WI-SR-001 effective 11/8/18

680-201857 Waybill

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

680-201857 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	COC No: 680-661118.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@Eurofinset.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - ANAB	Job #: 680-201857-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 8/4/2021		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: Ft. Devens/Shepley Hill Landfill	Project #: 68023801		
Site:	SSOW#:		

Massachusetts

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5210B/ BOD - 5Day	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
AS-21-1D (24-28) (680-201857-1)	7/21/21	07:30 Eastern		Solid			X	1	
AS-21-1D (34-38) (680-201857-2)	7/21/21	08:20 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3)	7/21/21	09:45 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3MS)	7/21/21	09:45 Eastern	MS	Solid			X	1	
AS-21-1D (48-54) (680-201857-3MSD)	7/21/21	09:45 Eastern	MSD	Solid			X	1	
AS-21-1D (60-64) (680-201857-4)	7/21/21	11:05 Eastern		Solid			X	1	
AS-21-1D (70-72) (680-201857-5)	7/21/21	13:45 Eastern		Solid			X	1	
DUP 072121 (680-201857-6)	7/21/21	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
JP	7-22-21/1525	SAV	[illegible]	7/23/21 9:50	EMPAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-661130.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@Eurofinset.com	State of Origin: Massachusetts	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - ANAB		Job #: 680-201857-1
Address: 4955 Yarrow Street	Due Date Requested: 8/4/2021			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #			
Email:	WO #			
Project Name: Ft. Devens/Shepley Hill Landfill	Project #: 68023801			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060A/ Solids - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
AS-21-1D (24-28) (680-201857-1)	7/21/21	07:30 Eastern		Solid			X	1	
AS-21-1D (34-38) (680-201857-2)	7/21/21	08:20 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3)	7/21/21	09:45 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3MS)	7/21/21	09:45 Eastern	MS	Solid			X	1	
AS-21-1D (48-54) (680-201857-3MSD)	7/21/21	09:45 Eastern	MSD	Solid			X	1	
AS-21-1D (60-64) (680-201857-4)	7/21/21	11:05 Eastern		Solid			X	1	
AS-21-1D (70-72) (680-201857-5)	7/21/21	13:45 Eastern		Solid			X	1	
DUP 072121 (680-201857-6)	7/21/21	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*			***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*		
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2		Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by: DQ	Date/Time: 7-22-21/1600	Company	Received by: [illegible]	Date/Time: 7/23/21 0920	Company: ETADEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.9 LE to.6 IR 12		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-201857-1

Login Number: 201857
List Number: 1
Creator: Mooken, Darmal

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-201857-1

Login Number: 201857
List Number: 3
Creator: Roehsner, Karen P

List Source: Eurofins Denver
List Creation: 07/23/21 12:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-201857-1

Login Number: 201857
List Number: 2
Creator: Jodis, Matthew V

List Source: Eurofins Pittsburgh
List Creation: 07/23/21 10:25 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-201857-1
Client Project/Site: Ft. Devens/Shepley Hill Landfill
Revision: 1

For:
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Attn: Heather Levesque

Authorized for release by:
4/14/2022 12:02:49 PM

Jerry Lanier, Project Manager I
(912)250-0281
Jerry.Lanier@et.eurofinsus.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-201857-1	AS-21-1D (24-28)	Solid	07/21/21 07:30	07/22/21 10:10
680-201857-2	AS-21-1D (34-38)	Solid	07/21/21 08:20	07/22/21 10:10
680-201857-3	AS-21-1D (48-54)	Solid	07/21/21 09:45	07/22/21 10:10
680-201857-4	AS-21-1D (60-64)	Solid	07/21/21 11:05	07/22/21 10:10
680-201857-5	AS-21-1D (70-72)	Solid	07/21/21 13:45	07/22/21 10:10
680-201857-6	DUP 072121	Solid	07/21/21 00:00	07/22/21 10:10

Job ID: 680-201857-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-201857-1

Comments
No additional comments.

Receipt
The samples were received on 7/22/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.5º C and 2.9º C.

Revision
The final report was revised to report to the LOD.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 5210B: The following samples were received outside of holding time: AS-21-1D (24-28) (680-201857-1), AS-21-1D (34-38) (680-201857-2), AS-21-1D (48-54) (680-201857-3) and DUP 072121 (680-201857-6). The samples were prepared a few hours outside of 48 hour holding time but within the same day.

Method SM 5210B: The following sample(s) were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: AS-21-1D (60-64) (680-201857-4). The samples were prepared a few hours outside of 48 hour holding time but within the same day.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (24-28)

Date Collected: 07/21/21 07:30
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-1

Matrix: Solid
Percent Solids: 83.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**17**		2.1	2.1	0.84	mg/Kg	☼	07/26/21 21:34	1
Iron	**7000**		21	16	5.6	mg/Kg	☼	07/26/21 21:34	1
Manganese	**47**		1.1	0.32	0.11	mg/Kg	☼	07/26/21 21:34	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 14:19	1
Biochemical Oxygen Demand	900	U H	900		900	mg/Kg	☼	07/23/21 12:31	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (34-38)

Date Collected: 07/21/21 08:20
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-2

Matrix: Solid
Percent Solids: 76.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**3.3**		2.5	2.5	1.0	mg/Kg	☼	07/26/21 21:39	1
Iron	**3500**		25	19	6.6	mg/Kg	☼	07/26/21 21:39	1
Manganese	**43**		1.2	0.37	0.12	mg/Kg	☼	07/26/21 21:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 14:55	1
Biochemical Oxygen Demand	980	U H	980		980	mg/Kg	☼	07/23/21 12:31	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (48-54)

Date Collected: 07/21/21 09:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-3

Matrix: Solid
Percent Solids: 76.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.8	J	2.3	2.3	0.90	mg/Kg	☼	07/26/21 21:02	1
Iron	3700	J1	23	17	6.0	mg/Kg	☼	07/26/21 21:02	1
Manganese	41		1.1	0.34	0.11	mg/Kg	☼	07/26/21 21:02	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 14:31	1
Biochemical Oxygen Demand	980	U H	980		980	mg/Kg	☼	07/23/21 12:31	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (60-64)

Date Collected: 07/21/21 11:05
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-4

Matrix: Solid
Percent Solids: 77.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**8.5**		2.4	2.4	0.97	mg/Kg	☼	07/26/21 21:43	1
Iron	**4900**		24	18	6.4	mg/Kg	☼	07/26/21 21:43	1
Manganese	**47**		1.2	0.36	0.12	mg/Kg	☼	07/26/21 21:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 15:03	1
Biochemical Oxygen Demand	970	U H	970		970	mg/Kg	☼	07/23/21 14:07	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (70-72)

Date Collected: 07/21/21 13:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-5

Matrix: Solid
Percent Solids: 87.8

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**33**		1.9	1.9	0.77	mg/Kg	☼	07/26/21 21:48	1
Iron	**5800**		19	14	5.1	mg/Kg	☼	07/26/21 21:48	1
Manganese	**150**		0.97	0.29	0.097	mg/Kg	☼	07/26/21 21:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	2.0	U	4.0	2.0	0.90	g/Kg		07/28/21 15:12	1
Biochemical Oxygen Demand	850	U	850		850	mg/Kg	☼	07/23/21 12:45	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: DUP 072121

Date Collected: 07/21/21 00:00
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-6

Matrix: Solid
Percent Solids: 78.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.8		2.3	2.3	0.92	mg/Kg	☼	07/26/21 21:52	1
Iron	3200		23	17	6.1	mg/Kg	☼	07/26/21 21:52	1
Manganese	44		1.2	0.35	0.12	mg/Kg	☼	07/26/21 21:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	1.1	J	4.0	2.0	0.90	g/Kg		07/28/21 15:20	1
Biochemical Oxygen Demand	960	U H	960		960	mg/Kg	☼	07/23/21 14:07	1

QC Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-677691/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.0	U	2.0	2.0	0.79	mg/Kg		07/26/21 20:53	1
Iron	15	U	20	15	5.2	mg/Kg		07/26/21 20:53	1
Manganese	0.30	U	0.99	0.30	0.099	mg/Kg		07/26/21 20:53	1

Lab Sample ID: LCS 680-677691/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	9.62	9.85		mg/Kg		102	82 - 111
Iron	481	475		mg/Kg		99	81 - 118
Manganese	38.5	38.2		mg/Kg		99	84 - 114

Lab Sample ID: 680-201857-3 MS — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.8	J	12.2	12.9		mg/Kg	☼	91	82 - 111
Iron	3700	J1	609	4200	4	mg/Kg	☼	86	81 - 118
Manganese	41		48.8	84.0		mg/Kg	☼	88	84 - 114

Lab Sample ID: 680-201857-3 MSD — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 678148 — **Prep Batch: 677691**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.8	J	11.7	13.5		mg/Kg	☼	100	82 - 111	4	20
Iron	3700	J1	587	4400	4	mg/Kg	☼	122	81 - 118	4	20
Manganese	41		47.0	86.7		mg/Kg	☼	97	84 - 114	3	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-544631/4 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon	0.934	J	4.0	2.0	0.90	g/Kg		07/28/21 11:51	1

Lab Sample ID: LCS 280-544631/3 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	4.16	3.40	J	g/Kg		82	46 - 130

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 680-201857-3 MS — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	2.0	U	11.5	12.0		g/Kg		104	46 - 130		

Lab Sample ID: 680-201857-3 MSD — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 544631

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	2.0	U	11.5	11.8		g/Kg		103	46 - 130	2	20

Method: SM 5210B - 5 Day BOD test

Lab Sample ID: USB 180-366034/1 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 366034

Analyte	USB Result	USB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0		2.0	mg/Kg		07/23/21 12:31	1

Lab Sample ID: LCS 180-366034/2 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 366034

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Biochemical Oxygen Demand			198	182		mg/Kg		92	85 - 115		

Lab Sample ID: 680-201857-3 DU — **Client Sample ID: AS-21-1D (48-54)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 366034

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	980	U H		980	U	mg/Kg	☼			NC	20

QC Association Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Metals

Prep Batch: 677691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	3050B	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	3050B	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	3050B	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	3050B	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	3050B	
680-201857-6	DUP 072121	Total/NA	Solid	3050B	
MB 680-677691/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 680-677691/2-A	Lab Control Sample	Total/NA	Solid	3050B	
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	3050B	
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	3050B	

Analysis Batch: 678148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	6010C	677691
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	6010C	677691
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	6010C	677691
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	6010C	677691
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	6010C	677691
680-201857-6	DUP 072121	Total/NA	Solid	6010C	677691
MB 680-677691/1-A	Method Blank	Total/NA	Solid	6010C	677691
LCS 680-677691/2-A	Lab Control Sample	Total/NA	Solid	6010C	677691
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	6010C	677691
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	6010C	677691

General Chemistry

Analysis Batch: 366034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	SM 5210B	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	SM 5210B	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	SM 5210B	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	SM 5210B	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	SM 5210B	
680-201857-6	DUP 072121	Total/NA	Solid	SM 5210B	
USB 180-366034/1	Method Blank	Total/NA	Solid	SM 5210B	
LCS 180-366034/2	Lab Control Sample	Total/NA	Solid	SM 5210B	
680-201857-3 DU	AS-21-1D (48-54)	Total/NA	Solid	SM 5210B	

Analysis Batch: 544631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	9060A	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	9060A	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	9060A	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	9060A	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	9060A	
680-201857-6	DUP 072121	Total/NA	Solid	9060A	
MB 280-544631/4	Method Blank	Total/NA	Solid	9060A	
LCS 280-544631/3	Lab Control Sample	Total/NA	Solid	9060A	
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	9060A	
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	9060A	

QC Association Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

General Chemistry

Analysis Batch: 677809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-201857-1	AS-21-1D (24-28)	Total/NA	Solid	Moisture	
680-201857-2	AS-21-1D (34-38)	Total/NA	Solid	Moisture	
680-201857-3	AS-21-1D (48-54)	Total/NA	Solid	Moisture	
680-201857-4	AS-21-1D (60-64)	Total/NA	Solid	Moisture	
680-201857-5	AS-21-1D (70-72)	Total/NA	Solid	Moisture	
680-201857-6	DUP 072121	Total/NA	Solid	Moisture	
680-201857-3 MS	AS-21-1D (48-54)	Total/NA	Solid	Moisture	
680-201857-3 MSD	AS-21-1D (48-54)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (24-28)
Date Collected: 07/21/21 07:30
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	104.6 mg	104.6 mg	544631	07/28/21 14:19	RAF	TAL DEN
	Instrument ID: WC_SHI4									
Total/NA	Analysis	Moisture		1			677809	07/23/21 13:30	JB	TAL SAV
	Instrument ID: CMSC									

Client Sample ID: AS-21-1D (24-28)
Date Collected: 07/21/21 07:30
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-1
Matrix: Solid
Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	100 mL	677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1			678148	07/26/21 21:34	BCB	TAL SAV
	Instrument ID: ICPE									
Total/NA	Analysis	SM 5210B		1	0.8 g	300 mL	366034	07/23/21 12:31	ELS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: AS-21-1D (34-38)
Date Collected: 07/21/21 08:20
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	99.4 mg	99.4 mg	544631	07/28/21 14:55	RAF	TAL DEN
	Instrument ID: WC_SHI4									
Total/NA	Analysis	Moisture		1			677809	07/23/21 13:30	JB	TAL SAV
	Instrument ID: CMSC									

Client Sample ID: AS-21-1D (34-38)
Date Collected: 07/21/21 08:20
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-2
Matrix: Solid
Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.05 g	100 mL	677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1			678148	07/26/21 21:39	BCB	TAL SAV
	Instrument ID: ICPE									
Total/NA	Analysis	SM 5210B		1	0.8 g	300 mL	366034	07/23/21 12:31	ELS	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: AS-21-1D (48-54)
Date Collected: 07/21/21 09:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	101.9 mg	101.9 mg	544631	07/28/21 14:31	RAF	TAL DEN
	Instrument ID: WC_SHI4									
Total/NA	Analysis	Moisture		1			677809	07/23/21 13:30	JB	TAL SAV
	Instrument ID: CMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (48-54)
Date Collected: 07/21/21 09:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-3
Matrix: Solid
Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1			678148	07/26/21 21:02	BCB	TAL SAV
	Instrument ID:	ICPE								
Total/NA	Analysis	SM 5210B		1	0.8 g	300 mL	366034	07/23/21 12:31	ELS	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: AS-21-1D (60-64)
Date Collected: 07/21/21 11:05
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	98.9 mg	98.9 mg	544631	07/28/21 15:03	RAF	TAL DEN
	Instrument ID:	WC_SHI4								
Total/NA	Analysis	Moisture		1			677809	07/23/21 13:30	JB	TAL SAV
	Instrument ID:	CMSC								

Client Sample ID: AS-21-1D (60-64)
Date Collected: 07/21/21 11:05
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-4
Matrix: Solid
Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	100 mL	677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1			678148	07/26/21 21:43	BCB	TAL SAV
	Instrument ID:	ICPE								
Total/NA	Analysis	SM 5210B		1	0.8 g	300 mL	366034	07/23/21 14:07	ELS	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: AS-21-1D (70-72)
Date Collected: 07/21/21 13:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	92.6 mg	92.6 mg	544631	07/28/21 15:12	RAF	TAL DEN
	Instrument ID:	WC_SHI4								
Total/NA	Analysis	Moisture		1			677809	07/23/21 13:30	JB	TAL SAV
	Instrument ID:	CMSC								

Client Sample ID: AS-21-1D (70-72)
Date Collected: 07/21/21 13:45
Date Received: 07/22/21 10:10

Lab Sample ID: 680-201857-5
Matrix: Solid
Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.18 g	100 mL	677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1			678148	07/26/21 21:48	BCB	TAL SAV
	Instrument ID:	ICPE								

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Client Sample ID: AS-21-1D (70-72)

Lab Sample ID: 680-201857-5
Date Collected: 07/21/21 13:45
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	0.8 g	300 mL	366034	07/23/21 12:45	ELS	TAL PIT

Client Sample ID: DUP 072121

Lab Sample ID: 680-201857-6
Date Collected: 07/21/21 00:00
Matrix: Solid
Date Received: 07/22/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	102.4 mg	102.4 mg	544631	07/28/21 15:20	RAF	TAL DEN
	Instrument ID:	WC_SHI4								
Total/NA	Analysis	Moisture		1			677809	07/23/21 13:30	JB	TAL SAV
	Instrument ID:	CMSC								

Client Sample ID: DUP 072121

Lab Sample ID: 680-201857-6
Date Collected: 07/21/21 00:00
Matrix: Solid
Date Received: 07/22/21 10:10
Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.11 g	100 mL	677691	07/22/21 15:01	BCB	TAL SAV
Total/NA	Analysis	6010C		1			678148	07/26/21 21:52	BCB	TAL SAV
	Instrument ID:	ICPE								
Total/NA	Analysis	SM 5210B		1	0.8 g	300 mL	366034	07/23/21 14:07	ELS	TAL PIT
	Instrument ID:	NOEQUIP								

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-18-22

Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-02-21

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	12-21-21
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	08-31-21
Georgia	State	PA 02-00416	08-31-21
Illinois	NELAP	004375	08-31-21
Kansas	NELAP	E-10350	08-31-21
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	08-31-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	08-31-21
Nevada	State	PA00164	07-30-21
New Hampshire	NELAP	2030	04-04-22
New Jersey	NELAP	PA005	08-31-21
New York	NELAP	11182	08-31-21
North Carolina (WW/SW)	State	434	11-11-21
North Dakota	State	R-227	08-31-21
Oregon	NELAP	PA-2151	08-31-21
Pennsylvania	NELAP	02-00416	08-11-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	11-11-21
Texas	NELAP	T104704528	08-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	08-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	08-31-21
Wisconsin	State	998027800	08-26-21

Method Summary

Client: Seres Engineering & Services LLC
Project/Site: Ft. Devens/Shepley Hill Landfill

Job ID: 680-201857-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SAV
9060A	Organic Carbon, Total (TOC)	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL SAV
SM 5210B	5 Day BOD test	SM	TAL PIT
3050B	Preparation, Metals	SW846	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins TestAmerica, Boston Service Center
240 Bear Hill Road
Suite 104
Waltham, MA 02451-1039
phone 781.466.6900 fax 781.466.6901

Boston #215

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: **EPA**

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Heather Levesque	Site Contact: Jennifer Sandorf	Date: 7/21/2021	COC No:
Seres	Email: halevesque@seres-es.com	Lab Contact: Jerry Lanier	Carrier:	1 of 1 COCs
669 Marina Drive B7	Tel/Fax: (619) 370-0374			TALS Project #:
Charleston, SC 29492	Analysis Turnaround Time			Sampler:
(619) 370-0374 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(xxx) xxx-xxxx FAX	TAT if different from Below ____			Walk-in Client:
Project Name: Fort Devens	☐ 2 weeks			Lab Sampling:
Site: Shepley Hill Landfill	☐ 1 week			
P O # JV2008	☐ 2 days			Job / SDG No.:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Total Metals (Fe, Mn, Arsenic) 6010C	% Moisutre	TOC (Lloyd Kahn)	BOD5 (SM 5210B)	ABA (Acid Gen Pot, Acid Neut. Sulfur forms)	Sample Specific Notes:
AS-21-1D (24-28)	7/21/21	0730	G	S	4	N		X	X	X	X	X	
AS-21-1D (34-38)		0820	G	S	4	N		X	X	X	X	X	
AS-21-1D (48-54) MS/MSD		0945	G	S	12	N	Y	X	X	X	X	X	
AS-21-1D (60-64)		1105	G	S	4	N		X	X	X	X	X	
AS-21-1D (70-72)		1345	G	S	4	N		X	X	X	X	X	
DUP 072121		—	G	S	4	N		X	X	X	X	X	
			G	S		N							

680-201857 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

0.4/0.5, 2.8/2.9

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd ____ Corr'd ____ Therm ID No. ____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	Seres	7/21 1510	[signature]	ETA	7/21/21 1510
Relinquished by: [signature]	Company: ETA	Date/Time: 7/21/21 1705	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: SAV	Date/Time: 7-22-21 / 1010

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

eurofins | Environment Testing TestAmerica

1469-434 RIT2 EXP 11/21

ORIGIN ID:SAVA (912) 354-7858
SHIPPING
EUROFINS/TESTAMERICA
5102 LA ROUCHE AVE

SAVANNAH, GA 31404
UNITED STATES US

SHIP DATE: 22JUL21
ACTWGT: 15.00 LB MAN
CAD: 0801261/CAFE3409

BILL SENDER

TO SAMPLE CUSTODY
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7053
REF: 127774

FedEx Express

J201120121801uv

680-201857 Waybill

RT 98 1 10:30 A 6280 07.23 FZ

FRI - 23 JUL 10:30A
PRIORITY OVERNIGHT

XH AGCA

15238
PA-US PIT

Uncorrected temp 1.9 °C
Thermometer ID 17
CF 0 Initials AS
PT-WI-SR-001 effective 11/8/18

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

680-201857 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	COC No: 680-661118.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@Eurofinset.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - ANAB	Job #: 680-201857-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 8/4/2021		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: Ft. Devens/Shepley Hill Landfill	Project #: 68023801		
Site:	SSOW#:		

Massachusetts

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5210B/ BOD - 5Day	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
AS-21-1D (24-28) (680-201857-1)	7/21/21	07:30 Eastern		Solid			X	1	
AS-21-1D (34-38) (680-201857-2)	7/21/21	08:20 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3)	7/21/21	09:45 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3MS)	7/21/21	09:45 Eastern	MS	Solid			X	1	
AS-21-1D (48-54) (680-201857-3MSD)	7/21/21	09:45 Eastern	MSD	Solid			X	1	
AS-21-1D (60-64) (680-201857-4)	7/21/21	11:05 Eastern		Solid			X	1	
AS-21-1D (70-72) (680-201857-5)	7/21/21	13:45 Eastern		Solid			X	1	
DUP 072121 (680-201857-6)	7/21/21	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	7-22-21/1525	AU	[illegible]	7/23/21 0950	EMAPHL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-661130.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@Eurofinset.com	State of Origin: Massachusetts	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - ANAB		Job #: 680-201857-1
Address: 4955 Yarrow Street	Due Date Requested: 8/4/2021			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #			
Email:	WO #			
Project Name: Ft. Devens/Shepley Hill Landfill	Project #: 68023801			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060A/ Solids - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
AS-21-1D (24-28) (680-201857-1)	7/21/21	07:30 Eastern		Solid			X	1	
AS-21-1D (34-38) (680-201857-2)	7/21/21	08:20 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3)	7/21/21	09:45 Eastern		Solid			X	1	
AS-21-1D (48-54) (680-201857-3MS)	7/21/21	09:45 Eastern	MS	Solid			X	1	
AS-21-1D (48-54) (680-201857-3MSD)	7/21/21	09:45 Eastern	MSD	Solid			X	1	
AS-21-1D (60-64) (680-201857-4)	7/21/21	11:05 Eastern		Solid			X	1	
AS-21-1D (70-72) (680-201857-5)	7/21/21	13:45 Eastern		Solid			X	1	
DUP 072121 (680-201857-6)	7/21/21	Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: DQ	Date/Time: 7-22-21/1600	Company:	Received by: JKL	Date/Time: 7/23/21 0920	Company: ETADEA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.9 C to.6 IR 12		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-201857-1

Login Number: 201857
List Number: 1
Creator: Mooken, Darmal

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-201857-1

Login Number: 201857
List Number: 3
Creator: Roehsner, Karen P

List Source: Eurofins Denver
List Creation: 07/23/21 12:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-201857-1

Login Number: 201857
List Number: 2
Creator: Jodis, Matthew V

List Source: Eurofins Pittsburgh
List Creation: 07/23/21 10:25 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
30048392.07F
SO7737

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM 30048392.07F
SO7737

Sample Receipt

The following samples were received on November 05, 2021 and were logged in under Katahdin Analytical Services work order number SO7737 for a hardcopy due date of November 24, 2021.

KATAHDIN Sample No.	SERES Sample Identification
SO7737-1	MW-21-1D-EVENT #1
SO7737-2	MW-21-1D-FF-EVENT #1
SO7737-3	MW-21-1S-EVENT #1
SO7737-4	MW-21-1S-FF-EVENT #1
SO7737-5	MW-21-4S-EVENT #1
SO7737-6	MW-21-4S-FF-EVENT #1
SO7737-7	MW-21-3S-EVENT #1
SO7737-8	MW-21-3S-FF-EVENT #1
SO7737-9	MW-21-4D-EVENT #1
SO7737-10	MW-21-4D-FF-EVENT #1
SO7737-11	MW-21-3D-EVENT #1
SO7737-12	MW-21-3D-FF-EVENT #1
SO7737-13	AS-DUP-EVENT #1
SO7737-14	AS-DUP-FF-EVENT #1
SO7737-15	SHM-10-06-EVENT #1
SO7737-16	SHM-10-06-FF-EVENT #1
SO7737-17	MW-21-2S-EVENT #1
SO7737-18	MW-21-2S-FF-EVENT #1
SO7737-19	MW-21-2D-EVENT #1
SO7737-20	MW-21-2D-FF-EVENT #1

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Metals Analysis

The samples associated with Katahdin Work Order SO7737 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

Aqueous-matrix Katahdin Sample Numbers SO7737-(1-4) were digested for ICP analysis on 11/11/2021 (QC Batch OK11CW1) in accordance USEPA Method 3010A.

Aqueous-matrix Katahdin Sample Numbers SO7737-(5-20) were digested for ICP analysis on 11/11/21 (QC Batch OK11CW2) in accordance USEPA Method 3010A. Katahdin Sample Number SO7737-5 was prepared with duplicate matrix-spiked aliquots.

ICP analyses of Katahdin Work Order SO7737 samples were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all applicable analytical run QC criteria were met.

Matrix QC Summary

The measured recoveries of iron in both of the matrix-spiked aliquots of Katahdin Sample Number SO7737-5 are outside project acceptance criteria. Because the sample result was greater than four times the spike value, no corrective action was taken.

The relative percent differences between the matrix-spiked duplicate analyses of Katahdin Sample Number SO7737-5 are within project acceptance criteria (<20% relative difference between duplicate sample aliquots) for all analytes.

The measured recoveries in the post-digestion spiked aliquot of Katahdin Sample Number SO7737-5 are outside laboratory acceptance criteria (80%-120% recovery of the added element) for iron and manganese. This may be attributable to the sample concentration being significantly higher than the spike amount. Because the serial dilution was acceptable, no corrective action was taken.

The serial dilution analyses of Katahdin Sample Number SO7737-5 is within laboratory acceptance criteria (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the LOD) for all analytes.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I, preparation blanks on Form IIIP, and matrix QC samples on Forms VA, VD, and VI have been reported using the laboratory's Limits of Quantitation (LOQ). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the LOQ is listed in the concentration column. Results that fall between the MDL and the LOQ are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. These LOQs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VB and IX for client samples, analysis QC samples (serial dilutions and post-digestion spikes) have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted MDL is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, LODs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of Work Order SO7737 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for alkalinity, filterable residue, and total biochemical oxygen demand were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOQ", where "LOQ" is the numerical value of the Limit of Quantitation.

All analyses were performed within analytical holding times, and all quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

12-6-2021

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: ARCADIS / Seres	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GN	Delivered By: KAS
KAS Work Order#: SO 7744	KIMS Review By: HHM	Received By: GN
	Labeled By: MLV	
SDG #:	Cooler: 1 of 2	Date/Time Rec.: 11/5/21 1610

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?					
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.		✓			Temp (°C): -1.7 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cbol?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: ARCADIS / Seres	KAS PM: HTM	Sampled By: Client
Project:	KIMS Entry By: GN	Delivered By: KAS
KAS Work Order#: 50 7227	KIMS Review By: HTM	Received By: GN
	Labeled By: MW	
SDG #:	Cooler: 2 of 2	Date/Time Rec.: 11/5/21 1610

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?					
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.		✓			Temp (°C): -0.2 Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: Arcadis / Seres JV
Contact: Heather Levesque
Phone #: (619) 370-0374
Fax #: ( )

Address: City: State: Zip Code:

Purchase Order #: Proj. Name / No.: Devens / 30048392.07F Katahdin Quote #:

Bill (if different than above): Address:

Sampler (Print / Sign): Desmond Bedard DBedard ; Grace Shockley
Copies To:

LAB USE ONLY
WORK ORDER #: 507737
KATAHDIN PROJECT NUMBER:

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Dissolved Metals 6010C HNO3 (Filt. ☐Y ☐N)	Total Metals 6010C HNO3 (Filt. ☐Y ☐N)	Alkalinity SM 2320B NP (Filt. ☐Y ☐N)	TDS 160.1 NP (Filt. ☐Y ☐N)	BOD5 SM 2320B NP (Filt. ☐Y ☐N)	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	MW-21-1D-EVENT#1	11/04/21/10:55	GW	3		✓	✓	✓	✓					
	MW-21-1D-FF-EVENT#1	11/04/21/10:55	GW	1	✓									
	MW-21-1S-EVENT#1	11/04/21/11:00	GW	4		✓	✓	✓	✓					
	MW-21-1S-FF-EVENT#1	11/04/21/11:00	GW	1	✓									
	MW-21-4S-EVENT#1	11/04/21/14:05	GW	3		✓	✓	✓						
	MW-21-4S-FF-EVENT#1	11/04/21/14:05	GW	1	✓									
	MW-21-3S-EVENT#1	11/04/21/14:20	GW	3		✓	✓	✓						
	MW-21-3S-FF-EVENT#1	11/04/21/14:20	GW	1	✓									
	MW-21-4D-EVENT#1	11/04/21/16:05	GW	3		✓	✓	✓						
	MW-21-4D-FF-EVENT#1	11/04/21/16:05	GW	1	✓									
	MW-21-3D-EVENT#1	11/04/21/17:00	GW	3		✓	✓	✓						
	MW-21-3D-FF-EVENT#1	11/04/21/17:00	GW	1	✓									
	AS-DUP-EVENT#1	11/05/21/09:00	GW	3		✓	✓	✓						
	AS-DUP-FF-EVENT#1	11/05/21/09:00	GW	1	✓									
	SHM-10-06-EVENT#1	11/05/21/10:48	GW	3		✓	✓	✓						
	SHM-10-06-FF-EVENT#1	11/05/21/10:48	GW	1	✓									

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Desmond Bedard (Arcadis)	11/05/21 13:50	[signature]	[signature]	11-5-21/16:50	[signature]
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES

600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: Arcadis / Seyes JV
Contact: Heather Levesque
Phone #: (614) 370-0374
Fax #: ( )
Address:
City:
State:
Zip Code:
Purchase Order #:
Proj. Name / No.: Devens / 30048342.07F
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign): Desmond Bedard Desmond Bedard & Grace Shields
Copies To:

LAB USE ONLY
WORK ORDER #: 507737
KATAHDIN PROJECT NUMBER:

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Dissolved Metals (Filt. ☑ Y ☐ N) 6010C HNO3	Total Metals (Filt. ☐ Y ☑ N) 6010C HNO3	Alkalinity (Filt. ☐ Y ☑ N) SM2320B NP	TDS (Filt. ☐ Y ☑ N) 160.1 NP	BOD5 (Filt. ☐ Y ☑ N) SM2320B NP	Filt. ☐ Y ☐ N	Filt. ☐ Y ☐ N	Filt. ☐ Y ☐ N	Filt. ☐ Y ☐ N	Filt. ☐ Y ☐ N
	MW-21-25-EVENT#1	11/05/21 / 11:50	GW	3		✓	✓	✓	✓					
	MW-21-25-FF-EVENT#1	11/05/21 / 11:50	GW	1	✓									
	MW-21-20-EVENT#1	11/05/21 / 12:41	GW	3		✓	✓	✓	✓					
	MW-21-20-FF-EVENT#1	11/05/21 / 12:41	GW	1	✓									
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COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Desmond Bedard (Arcadis)	11/05/21 13:50			11-5-21 / 16:10	
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Nov. 08, 2021
05:58 PM

Login Number: SO7737

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:
Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston, SC 29492
USA
halevesque@seres-es.com

Primary Invoice Address:
Accounts Payable
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA
metunstall@seres-es.com

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information:

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	-1.7, -0.2
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	ECC-091317-TXT
LOGIN INITIALS	:	GN
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM 30048392.07F
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Nov. 08, 2021
05:58 PM

Login Number: SO7737

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO7737-1	MW-21-1D-EVENT #1	04-NOV-21 10:55	05-NOV-21		**19-NOV-21**	24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Service	S	COURIER-BILLING				**Verbal is for metals only.**
Aqueous	S	SM2320B-ALKALINITY	18-NOV-21			
Aqueous	S	SM2540C-TDS	11-NOV-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	06-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	03-MAY-22	250mL Plastic+HNO3		

SO7737-2	MW-21-1D-FF-EVENT #1	04-NOV-21 10:55	05-NOV-21		**19-NOV-21**	24-NOV-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	03-MAY-22	250mL Plastic+HNO3		

SO7737-3	MW-21-1S-EVENT #1	04-NOV-21 11:00	05-NOV-21		**19-NOV-21**	24-NOV-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	18-NOV-21			**Verbal is for metals only.**
Aqueous	S	SM2540C-TDS	11-NOV-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	06-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	03-MAY-22	250mL Plastic+HNO3		

SO7737-4	MW-21-1S-FF-EVENT #1	04-NOV-21 11:00	05-NOV-21		**19-NOV-21**	24-NOV-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	03-MAY-22	250mL Plastic+HNO3		

Total Samples: 20 ***Total Analyses: 105***

Nov. 08, 2021

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Login Number: SO7737

Account: SERES001

SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS

Former Fort Devens - Annual LTM

Primary Report Address:

Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston, SC 29492
USA
halevesque@seres-es.com

Primary Invoice Address:

Accounts Payable
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA
metunstall@seres-es.com

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information:

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	-1.7, -0.2
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	ECC-091317-TXT
LOGIN INITIALS	:	GN
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM 30048392.07F
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Nov. 08, 2021
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Login Number: SO7737

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
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Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO7737-5	MW-21-4S-EVENT #1	04-NOV-21 14:05	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	18-NOV-21			
Aqueous	S	SM2540C-TDS	11-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	03-MAY-22	250mL Plastic+HNO3		

SO7737-6	MW-21-4S-FF-EVENT #1	04-NOV-21 14:05	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	03-MAY-22	250mL Plastic+HNO3		

SO7737-7	MW-21-3S-EVENT #1	04-NOV-21 14:20	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	18-NOV-21			
Aqueous	S	SM2540C-TDS	11-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	03-MAY-22	250mL Plastic+HNO3		

SO7737-8	MW-21-3S-FF-EVENT #1	04-NOV-21 14:20	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	03-MAY-22	250mL Plastic+HNO3		

SO7737-9	MW-21-4D-EVENT #1	04-NOV-21 16:05	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	18-NOV-21			
Aqueous	S	SM2540C-TDS	11-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	03-MAY-22	250mL Plastic+HNO3		

SO7737-10	MW-21-4D-FF-EVENT #1	04-NOV-21 16:05	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	03-MAY-22	250mL Plastic+HNO3		

SO7737-11	MW-21-3D-EVENT #1	04-NOV-21 17:00	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	18-NOV-21			
Aqueous	S	SM2540C-TDS	11-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	03-MAY-22	250mL Plastic+HNO3		

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Nov. 08, 2021

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Login Number: SO7737

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001

SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS

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Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO7737-12	MW-21-3D-FF-EVENT #1	04-NOV-21 17:00	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	03-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	03-MAY-22	250mL Plastic+HNO3		

SO7737-13	AS-DUP-EVENT #1	05-NOV-21 09:00	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	19-NOV-21			
Aqueous	S	SM2540C-TDS	12-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	04-MAY-22	250mL Plastic+HNO3		

SO7737-14	AS-DUP-FF-EVENT #1	05-NOV-21 09:00	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	04-MAY-22	250mL Plastic+HNO3		

SO7737-15	SHM-10-06-EVENT #1	05-NOV-21 10:48	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	19-NOV-21			
Aqueous	S	SM2540C-TDS	12-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	04-MAY-22	250mL Plastic+HNO3		

SO7737-16	SHM-10-06-FF-EVENT #1	05-NOV-21 10:48	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	04-MAY-22	250mL Plastic+HNO3		

SO7737-17	MW-21-2S-EVENT #1	05-NOV-21 11:50	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	19-NOV-21			
Aqueous	S	SM2540C-TDS	12-NOV-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	07-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	04-MAY-22	250mL Plastic+HNO3		

SO7737-18	MW-21-2S-FF-EVENT #1	05-NOV-21 11:50	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	04-MAY-22	250mL Plastic+HNO3		

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Nov. 08, 2021

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Login Number: SO7737

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001

SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS

Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO7737-19	MW-21-2D-EVENT #1	05-NOV-21 12:41	05-NOV-21			24-NOV-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	19-NOV-21			
Aqueous	S	SM2540C-TDS	12-NOV-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	07-NOV-21	250mL Plastic		
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	04-MAY-22	250mL Plastic+HNO3		

SO7737-20	MW-21-2D-FF-EVENT #1	05-NOV-21 12:41	05-NOV-21			24-NOV-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	04-MAY-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	04-MAY-22	250mL Plastic+HNO3		

Total Samples: 20 ***Total Analyses: 105***

SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as “U” MDL have a 50% rate for false negatives compared to those results reported as “U” PQL LOQ or “U” LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results <u>may</u> not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results <u>may</u> not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	766			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	41700			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	3530			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	627			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	34500			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	3190			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1.7	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	904			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	968			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-004

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	26	J		P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	939			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-005

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	31.5			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	56300		NA	P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	1570		A	P	1	5.0	0.87	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	30.2			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	55200			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	1530			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	3.0	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	797			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	634			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	198			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	658			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-009

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	1290			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	60500			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	800			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-010

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	1270			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	59400			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	785			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-011

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	2090			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	58300			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	2620			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-012

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	2030			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	56800			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	2580			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1010			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	83500			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	2780			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-014

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	1040			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	80800			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	2680			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-015

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1000			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	81000			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	2740			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-016

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1040			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	81800			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	2690			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	9.0			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	4880			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	975			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	6.9	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	4590			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	1010			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-019

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1600			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	39500			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	768			P	1	5.0	0.87	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-020

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1530			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	38100			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	747			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-1
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT #1	AQ	04-NOV-21 10:55:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	120 mg/L	5.0	0.23	4	STDM 2320B	WG309974	15-NOV-21 12:45:18	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	3.2 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:17:00	SM 5210B	05-NOV-21 1417	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-3
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT #1	AQ	04-NOV-21 11:00:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:14:15	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:26:00	SM 5210B	05-NOV-21 1713	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-5
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT #1	AQ	04-NOV-21 14:05:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	230 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:23:29	N/A	N/A	
Solids-Filterable Residue	270 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-7
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT #1	AQ	04-NOV-21 14:20:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:30:35	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-9
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT #1	AQ	04-NOV-21 16:05:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:33:32	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-11
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT #1	AQ	04-NOV-21 17:00:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:36:10	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-13
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-EVENT #1	AQ	05-NOV-21 09:00:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:44:12	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-15
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT #1	AQ	05-NOV-21 10:48:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	170 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:47:18	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-17
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT #1	AQ	05-NOV-21 11:50:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	160 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:50:17	N/A	N/A	
Solids-Filterable Residue	230 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	J0.81 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:30:00	SM 5210B	05-NOV-21 1720	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-19
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT #1	AQ	05-NOV-21 12:41:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	95. mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:53:17	N/A	N/A	
Solids-Filterable Residue	210 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	4.2 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:23:00	SM 5210B	05-NOV-21 1709	

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO7737 **SOW No.** SW846

Client Field ID	Lab Sample ID
AS-DUP-EVENT #1	SO7737-013
AS-DUP-FF-EVENT #1	SO7737-014
MW-21-1D-EVENT #1	SO7737-001
MW-21-1D-FF-EVENT #1	SO7737-002
MW-21-1S-EVENT #1	SO7737-003
MW-21-1S-FF-EVENT #1	SO7737-004
MW-21-2D-EVENT #1	SO7737-019
MW-21-2D-FF-EVENT #1	SO7737-020
MW-21-2S-EVENT #1	SO7737-017
MW-21-2S-FF-EVENT #1	SO7737-018
MW-21-3D-EVENT #1	SO7737-011
MW-21-3D-FF-EVENT #1	SO7737-012
MW-21-3S-EVENT #1	SO7737-007
MW-21-3S-FF-EVENT #1	SO7737-008
MW-21-4D-EVENT #1	SO7737-009
MW-21-4D-FF-EVENT #1	SO7737-010
MW-21-4S-EVENT #1	SO7737-005
MW-21-4S-EVENT #1P	SO7737-005P
MW-21-4S-EVENT #1S	SO7737-005S
MW-21-4S-FF-EVENT #1	SO7737-006
SHM-10-06-EVENT #1	SO7737-015
SHM-10-06-FF-EVENT #1	SO7737-016

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Emily Pelletier Name: Emily Pelletier

Date: 12/3/21 Title: Analyst

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	766			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	41700			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	3530			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	627			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	34500			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	3190			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1.7	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	904			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	968			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-004

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	26	J		P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	939			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	31.5			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	56300		NA	P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	1570		A	P	1	5.0	0.87	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	30.2			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	55200			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	1530			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-007

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	3.0	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	797			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	634			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-008

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	198			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	658			P	1	5.0	0.87	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-009

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	1290			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	60500			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	800			P	1	5.0	0.87	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1270			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	59400			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	785			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-011

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	2090			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	58300			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	2620			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2030			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	56800			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	2580			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1010			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	83500			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	2780			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-014

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	1040			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	80800			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	2680			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-015

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	1000			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	81000			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	2740			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-016

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1040			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	81800			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	2690			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	9.0			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	4880			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	975			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	6.9	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	4590			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	1010			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-019

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1600			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	39500			P	1	100	3.6	80
7439-96-5	MANGANESE, TOTAL	768			P	1	5.0	0.87	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-020

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1530			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	38100			P	1	100	3.6	80
7439-96-5	MANGANESE, DISSOLVED	747			P	1	5.0	0.87	4.0

Comments:

FORM I - IN

QC Summary Section

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: ICV

File: IOK12A Nov 12, 2021 10:33

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9957.00	99.6
ARSENIC	400.0	387.20	96.8
CALCIUM	10000.0	10160.00	101.6
IRON	10000.0	10140.00	101.4
MAGNESIUM	10000.0	10080.00	100.8
MANGANESE	400.0	396.30	99.1

SAMPLE: CCV

File: IOK12A Nov 12, 2021 10:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13010.00	104.1
ARSENIC	500.0	511.10	102.2
CALCIUM	12500.0	13080.00	104.6
IRON	12500.0	13320.00	106.6
MAGNESIUM	12500.0	13040.00	104.3
MANGANESE	500.0	512.40	102.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: CCV

File: IOK12A Nov 12, 2021 11:13

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12850.00	102.8
ARSENIC	500.0	507.40	101.5
CALCIUM	12500.0	13010.00	104.1
IRON	12500.0	13230.00	105.8
MAGNESIUM	12500.0	12850.00	102.8
MANGANESE	500.0	513.20	102.6

SAMPLE: CCV

File: IOK12A Nov 12, 2021 12:06

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12520.00	100.2
ARSENIC	500.0	505.60	101.1
CALCIUM	12500.0	12620.00	101.0
IRON	12500.0	12870.00	103.0
MAGNESIUM	12500.0	12730.00	101.8
MANGANESE	500.0	492.80	98.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: CCV

File: IOK12A Nov 12, 2021 12:58

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12660.00	101.3
ARSENIC	500.0	503.40	100.7
CALCIUM	12500.0	12900.00	103.2
IRON	12500.0	13160.00	105.3
MAGNESIUM	12500.0	12700.00	101.6
MANGANESE	500.0	498.20	99.6

SAMPLE: CCV

File: IOK12A Nov 12, 2021 13:50

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12890.00	103.1
ARSENIC	500.0	510.80	102.2
CALCIUM	12500.0	12980.00	103.8
IRON	12500.0	13320.00	106.6
MAGNESIUM	12500.0	12780.00	102.2
MANGANESE	500.0	497.00	99.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: CCV

File: IOK12A Nov 12, 2021 14:42

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13090.00	104.7
ARSENIC	500.0	509.00	101.8
CALCIUM	12500.0	13130.00	105.0
IRON	12500.0	13710.00	109.7
MAGNESIUM	12500.0	12710.00	101.7
MANGANESE	500.0	505.90	101.2

SAMPLE: CCV

File: IOK12A Nov 12, 2021 15:34

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12840.00	102.7
ARSENIC	500.0	504.20	100.8
CALCIUM	12500.0	12900.00	103.2
IRON	12500.0	13350.00	106.8
MAGNESIUM	12500.0	12620.00	101.0
MANGANESE	500.0	490.80	98.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: PQL

File: IOK12A Nov 12, 2021 10:42

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	304.00	101.3
ARSENIC	8.0	9.12	114.0
CALCIUM	100.0	106.50	106.5
IRON	100.0	104.20	104.2
MAGNESIUM	100.0	106.20	106.2
MANGANESE	5.0	4.88	97.6

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: ICB

File: IOK12A Nov 12, 2021 10:38

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	7.385	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U

SAMPLE: CCB

File: IOK12A Nov 12, 2021 11:00

Analyte	Result	C
ALUMINUM	19.930	J
ARSENIC	1.400	U
CALCIUM	13.890	J
IRON	16.210	J
MAGNESIUM	9.303	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOK12A Nov 12, 2021 11:18

Analyte	Result	C
ALUMINUM	21.940	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	12.040	J
MAGNESIUM	7.003	J
MANGANESE	0.870	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: CCB

File: IOK12A Nov 12, 2021 12:10

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	9.759	J
MAGNESIUM	3.104	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOK12A Nov 12, 2021 13:02

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	12.050	J
MAGNESIUM	5.326	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOK12A Nov 12, 2021 13:54

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	13.220	J
MAGNESIUM	4.669	J
MANGANESE	0.870	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: CCB

File: IOK12A Nov 12, 2021 14:46

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	11.610	J
MAGNESIUM	7.370	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOK12A Nov 12, 2021 15:38

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	12.330	J
MAGNESIUM	5.991	J
MANGANESE	0.870	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOK11ICW1

Matrix: WATER **SDG Name:** SO7737

QC Batch ID: OK11ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
IRON	6.6	J
MANGANESE	5.0	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOK11ICW2

Matrix: WATER **SDG Name:** SO7737

QC Batch ID: OK11ICW2

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
IRON	15	J
MANGANESE	5.0	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Concentration Units: ug/L

SAMPLE: ICSA

File: IOK12A Nov 12, 2021 10:46

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	499700.00	99.9
ARSENIC	0	-1.84	
CALCIUM	500000.00	469900.00	94.0
IRON	200000.00	183600.00	91.8
MAGNESIUM	500000.00	438700.00	87.7
MANGANESE	0	0.74	

SAMPLE: ICSAB

File: IOK12A Nov 12, 2021 10:51

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	498900.00	99.8
ARSENIC	100.00	98.27	98.0
CALCIUM	500000.00	467600.00	93.5
IRON	200000.00	183500.00	91.8
MAGNESIUM	500000.00	442000.00	88.4
MANGANESE	500.00	462.70	92.6

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT #1P

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-005P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	135		31.5		100	103.5		87	113	P
IRON, TOTAL	56200		56300		1000	-5.0	N	87	115	P
MANGANESE, TOTAL	2050		1570		500	95.6		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT #1S

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-005S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	136		31.5		100	104.6		87	113	P
IRON, TOTAL	55600		56300		1000	-72.0	N	87	115	P
MANGANESE, TOTAL	2020		1570		500	91.0		90	114	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT #1A

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-005A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	519		31.5		500	97.4		80	120	P
IRON, TOTAL	58300		56300		5500	36.9	A	80	120	P
MANGANESE, TOTAL	1940		1570		500	74.6	A	80	120	P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT #1

Matrix: WATER **SDG Name:** SO7737

Percent Solids: 0.00 **Lab Sample ID:** SO7737-005

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		136		135		0.8		P
IRON, TOTAL		55600		56200		1.2		P
MANGANESE, TOTAL		2020		2050		1.1		P

Comments:

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOK11ICW1

Matrix: WATER **SDG Name:** SO7737

QC Batch ID: OK11ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	99.8	99.8	87	113
IRON	1000	1050	105.4	87	115
MANGANESE	500	505	101.0	90	114

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOK11ICW2

Matrix: WATER **SDG Name:** SO7737

QC Batch ID: OK11ICW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	104	103.8	87	113
IRON	1000	1120	112.4	87	115
MANGANESE	500	534	106.8	90	114

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Matrix: WATER

Client Field ID: MW-21-4S-EVENT #1L

SDG Name: SO7737

Lab Sample ID: SO7737-005L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, TOTAL	31.5		32	J	1.6		P
IRON, TOTAL	56300		56600		0.5		P
MANGANESE, TOTAL	1570		1570		0.0		P

FORM IX - IN

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OK11ICW1

Matrix: WATER **SDG Name:** SO7737

Method: P **Prep Date:** 11/11/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOK11ICW1	LCSWOK11ICW1	0.05	0.05	
PBWOK11ICW1	PBWOK11ICW1	0.05	0.05	
MW-21-1D-EVENT #1	SO7737-001	0.05	0.05	C
MW-21-1D-FF-EVENT #1	SO7737-002	0.05	0.05	A
MW-21-1S-EVENT #1	SO7737-003	0.05	0.05	C
MW-21-1S-FF-EVENT #1	SO7737-004	0.05	0.05	A

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OK11ICW2

Matrix: WATER **SDG Name:** SO7737

Method: P **Prep Date:** 11/11/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOK11ICW2	LCSWOK11ICW2	0.05	0.05	
PBWOK11ICW2	PBWOK11ICW2	0.05	0.05	
MW-21-4S-EVENT #1	SO7737-005	0.05	0.05	C
MW-21-4S-EVENT #1P	SO7737-005P	0.05	0.05	C
MW-21-4S-EVENT #1S	SO7737-005S	0.05	0.05	C
MW-21-4S-FF-EVENT #1	SO7737-006	0.05	0.05	A
MW-21-3S-EVENT #1	SO7737-007	0.05	0.05	C
MW-21-3S-FF-EVENT #1	SO7737-008	0.05	0.05	A
MW-21-4D-EVENT #1	SO7737-009	0.05	0.05	C
MW-21-4D-FF-EVENT #1	SO7737-010	0.05	0.05	A
MW-21-3D-EVENT #1	SO7737-011	0.05	0.05	C
MW-21-3D-FF-EVENT #1	SO7737-012	0.05	0.05	A
AS-DUP-EVENT #1	SO7737-013	0.05	0.05	C
AS-DUP-FF-EVENT #1	SO7737-014	0.05	0.05	A
SHM-10-06-EVENT #1	SO7737-015	0.05	0.05	C
SHM-10-06-FF-EVENT #1	SO7737-016	0.05	0.05	A
MW-21-2S-EVENT #1	SO7737-017	0.05	0.05	C
MW-21-2S-FF-EVENT #1	SO7737-018	0.05	0.05	A
MW-21-2D-EVENT #1	SO7737-019	0.05	0.05	C
MW-21-2D-FF-EVENT #1	SO7737-020	0.05	0.05	A

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Instrument ID: THERMO ICAP 6500 **File Name:** IOK12A

Date: 11/12/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
Blank		1	10:25	AL	AS	CA	FE	MG MN
Std 1		1	10:29	AL	AS	CA	FE	MG MN
ICV		1	10:33	AL	AS	CA	FE	MG MN
ICB		1	10:38	AL	AS	CA	FE	MG MN
PQL		1	10:42	AL	AS	CA	FE	MG MN
ICSA		1	10:46	AL	AS	CA	FE	MG MN
ICSAB		1	10:51	AL	AS	CA	FE	MG MN
CCV		1	10:55	AL	AS	CA	FE	MG MN
CCB		1	11:00	AL	AS	CA	FE	MG MN
ZZZZZZ		1	11:04					
ZZZZZZ		1	11:09					
CCV		1	11:13	AL	AS	CA	FE	MG MN
CCB		1	11:18	AL	AS	CA	FE	MG MN
LCSWOK11ICW1		1	11:22		AS		FE	MN
PBWOK11ICW1		1	11:26		AS		FE	MN
LCSWOK11ICW2		1	11:31		AS		FE	MN
PBWOK11ICW2		1	11:35		AS		FE	MN
ZZZZZZ		1	11:39					
ZZZZZZ		1	11:44					
ZZZZZZ		1	11:48					
ZZZZZZ		1	11:52					
ZZZZZZ		1	11:57					
ZZZZZZ		1	12:01					
CCV		1	12:06	AL	AS	CA	FE	MG MN
CCB		1	12:10	AL	AS	CA	FE	MG MN
ZZZZZZ		1	12:14					
ZZZZZZ		1	12:19					

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Instrument ID: THERMO ICAP 6500 **File Name:** IOK12A

Date: 11/12/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
ZZZZZZ		1	12:23					
ZZZZZZ		1	12:27					
ZZZZZZ		1	12:32					
ZZZZZZ		1	12:36					
ZZZZZZ		1	12:40					
ZZZZZZ		1	12:45					
ZZZZZZ		1	12:49					
ZZZZZZ		1	12:53					
CCV		1	12:58	AL	AS	CA	FE	MG MN
CCB		1	13:02	AL	AS	CA	FE	MG MN
ZZZZZZ		1	13:06					
ZZZZZZ		1	13:11					
SO7737-001	MW-21-1D-EVENT #1	1	13:15		AS		FE	MN
SO7737-002	MW-21-1D-FF-EVENT #1	1	13:20		AS		FE	MN
SO7737-003	MW-21-1S-EVENT #1	1	13:24		AS		FE	MN
SO7737-004	MW-21-1S-FF-EVENT #1	1	13:28		AS		FE	MN
SO7737-005	MW-21-4S-EVENT #1	1	13:33		AS		FE	MN
SO7737-005L	MW-21-4S-EVENT #1L	5	13:37		AS		FE	MN
SO7737-005A	MW-21-4S-EVENT #1A	1	13:41		AS		FE	MN
SO7737-005P	MW-21-4S-EVENT #1P	1	13:46		AS		FE	MN
CCV		1	13:50	AL	AS	CA	FE	MG MN
CCB		1	13:54	AL	AS	CA	FE	MG MN
SO7737-005S	MW-21-4S-EVENT #1S	1	13:58		AS		FE	MN
SO7737-006	MW-21-4S-FF-EVENT #1	1	14:03		AS		FE	MN
SO7737-007	MW-21-3S-EVENT #1	1	14:07		AS		FE	MN
SO7737-008	MW-21-3S-FF-EVENT #1	1	14:11		AS		FE	MN
SO7737-009	MW-21-4D-EVENT #1	1	14:16		AS		FE	MN

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO7737

Instrument ID: THERMO ICAP 6500 **File Name:** IOK12A

Date: 11/12/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements					
SO7737-010	MW-21-4D-FF-EVENT #1	1	14:20		AS		FE	MN	
SO7737-011	MW-21-3D-EVENT #1	1	14:24		AS		FE	MN	
SO7737-012	MW-21-3D-FF-EVENT #1	1	14:29		AS		FE	MN	
SO7737-013	AS-DUP-EVENT #1	1	14:33		AS		FE	MN	
SO7737-014	AS-DUP-FF-EVENT #1	1	14:37		AS		FE	MN	
CCV		1	14:42	AL	AS	CA	FE	MG	MN
CCB		1	14:46	AL	AS	CA	FE	MG	MN
SO7737-015	SHM-10-06-EVENT #1	1	14:50		AS		FE	MN	
SO7737-016	SHM-10-06-FF-EVENT #1	1	14:55		AS		FE	MN	
SO7737-017	MW-21-2S-EVENT #1	1	14:59		AS		FE	MN	
SO7737-018	MW-21-2S-FF-EVENT #1	1	15:03		AS		FE	MN	
SO7737-019	MW-21-2D-EVENT #1	1	15:08		AS		FE	MN	
SO7737-020	MW-21-2D-FF-EVENT #1	1	15:12		AS		FE	MN	
ZZZZZZ		1	15:16						
ZZZZZZ		1	15:21						
ZZZZZZ		1	15:25						
ZZZZZZ		1	15:30						
CCV		1	15:34	AL	AS	CA	FE	MG	MN
CCB		1	15:38	AL	AS	CA	FE	MG	MN

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP/JT **ANALYSIS DATE**: 11/12/2021

METHOD: **ICP**
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOK12A

REVIEWED
11-15-21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed
to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by
EP (initals) on 11/12/21 (date). Client IDs verified

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20640	11/09/2021	11/09/2022	0 ug/L
Standard 1	MW20609	10/28/2021	12/10/2021	Varies by Element
ICV	MW20628	11/05/2021	01/27/2022	Varies by Element
PQL	MW20645	11/09/2021	12/21/2021	Varies by Element
LRS1	MW20643	11/09/2021	12/24/2021	Varies by Element
LRS2	MW20644	11/09/2021	12/21/2021	Varies by Element
ICSA	MW20647	11/09/2021	02/09/2022	Varies by Element
ICSAB	MW20648	11/09/2021	01/26/2022	Varies by Element
CCV	MW20646	11/09/2021	12/10/2021	Varies by Element
Internal Standard	MW20654	11/10/2021	11/02/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

Internal Standard expired 11/2/2021. Since no failures were seen with the internal standard, it was used.

Initial CCV warned high for iron, lithium, sodium, and strontium. Non-200.7 BQC accepted, 200.7 samples accepted below the true value of the PQL.

CCV (13:50-17:49) failed high for sodium, (14:42-17:49) failed high for copper, (17:19) failed high for potassium and lead.

11-15-21

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20640 (pipet M29)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOK12A	11/12/2021	10:25	EP
Std 1	1.000	IOK12A	11/12/2021	10:29	EP
ICV	1.000	IOK12A	11/12/2021	10:33	EP
ICB	1.000	IOK12A	11/12/2021	10:38	EP
PQL	1.000	IOK12A	11/12/2021	10:42	EP
ICSA	1.000	IOK12A	11/12/2021	10:46	EP
ICSAB	1.000	IOK12A	11/12/2021	10:51	EP
CCV	1.000	IOK12A	11/12/2021	10:55	EP
CCB	1.000	IOK12A	11/12/2021	11:00	EP
LRS1	1.000	IOK12A	11/12/2021	11:04	EP
LRS2	1.000	IOK12A	11/12/2021	11:09	EP
CCV	1.000	IOK12A	11/12/2021	11:13	EP
CCB	1.000	IOK12A	11/12/2021	11:18	EP
LCSWOK11ICW1	1.000	IOK12A	11/12/2021	11:22	EP
PBWOK11ICW1	1.000	IOK12A	11/12/2021	11:26	EP
LCSWOK11ICW2	1.000	IOK12A	11/12/2021	11:31	EP
PBWOK11ICW2	1.000	IOK12A	11/12/2021	11:35	EP
LCSWOK11ICW3	1.000	IOK12A	11/12/2021	11:39	EP
PBWOK11ICW3	1.000	IOK12A	11/12/2021	11:44	EP
SO7823-001	1.000	IOK12A	11/12/2021	11:48	EP
SO7831-001	1.000	IOK12A	11/12/2021	11:52	EP
SO7652-021	1.000	IOK12A	11/12/2021	11:57	EP
SO7652-022	1.000	IOK12A	11/12/2021	12:01	EP
CCV	1.000	IOK12A	11/12/2021	12:06	EP
CCB	1.000	IOK12A	11/12/2021	12:10	EP
SO7652-023	1.000	IOK12A	11/12/2021	12:14	EP
SO7652-024	1.000	IOK12A	11/12/2021	12:19	EP
SO7652-025	1.000	IOK12A	11/12/2021	12:23	EP
SO7677-001	1.000	IOK12A	11/12/2021	12:27	EP
SO7677-002	1.000	IOK12A	11/12/2021	12:32	EP
SO7677-003	1.000	IOK12A	11/12/2021	12:36	EP
SO7677-004	1.000	IOK12A	11/12/2021	12:40	EP
SO7677-005	1.000	IOK12A	11/12/2021	12:45	EP
SO7677-006	1.000	IOK12A	11/12/2021	12:49	EP
SO7677-007	1.000	IOK12A	11/12/2021	12:53	EP
CCV	1.000	IOK12A	11/12/2021	12:58	EP
CCB	1.000	IOK12A	11/12/2021	13:02	EP
SO7677-008	1.000	IOK12A	11/12/2021	13:06	EP
SO7682-001	1.000	IOK12A	11/12/2021	13:11	EP
SO7737-001	1.000	IOK12A	11/12/2021	13:15	EP
SO7737-002	1.000	IOK12A	11/12/2021	13:20	EP
SO7737-003	1.000	IOK12A	11/12/2021	13:24	EP
SO7737-004	1.000	IOK12A	11/12/2021	13:28	EP
SO7737-005	1.000	IOK12A	11/12/2021	13:33	EP

Katahdin Analytical Services 4000056

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO7737-005L	5.000	IOK12A	11/12/2021	13:37	EP
SO7737-005A	1.000	IOK12A	11/12/2021	13:41	EP
SO7737-005P	1.000	IOK12A	11/12/2021	13:46	EP
CCV	1.000	IOK12A	11/12/2021	13:50	EP
CCB	1.000	IOK12A	11/12/2021	13:54	EP
SO7737-005S	1.000	IOK12A	11/12/2021	13:58	EP
SO7737-006	1.000	IOK12A	11/12/2021	14:03	EP
SO7737-007	1.000	IOK12A	11/12/2021	14:07	EP
SO7737-008	1.000	IOK12A	11/12/2021	14:11	EP
SO7737-009	1.000	IOK12A	11/12/2021	14:16	EP
SO7737-010	1.000	IOK12A	11/12/2021	14:20	EP
SO7737-011	1.000	IOK12A	11/12/2021	14:24	EP
SO7737-012	1.000	IOK12A	11/12/2021	14:29	EP
SO7737-013	1.000	IOK12A	11/12/2021	14:33	EP
SO7737-014	1.000	IOK12A	11/12/2021	14:37	EP
CCV	1.000	IOK12A	11/12/2021	14:42	EP
CCB	1.000	IOK12A	11/12/2021	14:46	EP
SO7737-015	1.000	IOK12A	11/12/2021	14:50	EP
SO7737-016	1.000	IOK12A	11/12/2021	14:55	EP
SO7737-017	1.000	IOK12A	11/12/2021	14:59	EP
SO7737-018	1.000	IOK12A	11/12/2021	15:03	EP
SO7737-019	1.000	IOK12A	11/12/2021	15:08	EP
SO7737-020	1.000	IOK12A	11/12/2021	15:12	EP
SO7557-001	1.000	IOK12A	11/12/2021	15:16	EP
SO7591-001	1.000	IOK12A	11/12/2021	15:21	EP
SO7627-002	1.000	IOK12A	11/12/2021	15:25	EP
SO7627-004	1.000	IOK12A	11/12/2021	15:30	EP
CCV	1.000	IOK12A	11/12/2021	15:34	EP
CCB	1.000	IOK12A	11/12/2021	15:38	EP
SO7644-001	1.000	IOK12A	11/12/2021	15:43	EP
SO7745-001	1.000	IOK12A	11/12/2021	15:47	EP
SO7745-001L	5.000	IOK12A	11/12/2021	15:51	EP
SO7745-001A	1.000	IOK12A	11/12/2021	15:56	EP
SO7745-001P	1.000	IOK12A	11/12/2021	16:00	EP
SO7745-001S	1.000	IOK12A	11/12/2021	16:04	EP
SO7745-002	1.000	IOK12A	11/12/2021	16:08	EP
SO7745-003	1.000	IOK12A	11/12/2021	16:13	EP
SO7745-004	1.000	IOK12A	11/12/2021	16:17	EP
SO7745-005	1.000	IOK12A	11/12/2021	16:22	EP
CCV	1.000	IOK12A	11/12/2021	16:26	EP
CCB	1.000	IOK12A	11/12/2021	16:30	EP
SO7745-006	1.000	IOK12A	11/12/2021	16:35	EP
SO7745-007	1.000	IOK12A	11/12/2021	16:39	EP
SO7745-008	1.000	IOK12A	11/12/2021	16:43	EP
SO7745-009	1.000	IOK12A	11/12/2021	16:48	EP
SO7775-001	1.000	IOK12A	11/12/2021	16:52	EP
SO7775-002	1.000	IOK12A	11/12/2021	16:57	EP

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SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO7775-003	1.000	IOK12A	11/12/2021	17:01	EP
SO7775-004	1.000	IOK12A	11/12/2021	17:05	EP
SO7775-005	1.000	IOK12A	11/12/2021	17:10	EP
SO6384-007 RAW	1.000	IOK12A	11/12/2021	17:14	EP
CCV	1.000	IOK12A	11/12/2021	17:19	EP
CCB	1.000	IOK12A	11/12/2021	17:23	EP
SO6384-008 RAW	1.000	IOK12A	11/12/2021	17:27	EP
SO6384-009 RAW	1.000	IOK12A	11/12/2021	17:32	EP
SO6384-010 RAW	1.000	IOK12A	11/12/2021	17:36	EP
SO6427-006 RAW	1.000	IOK12A	11/12/2021	17:40	EP
SO6427-007 RAW	1.000	IOK12A	11/12/2021	17:45	EP
CCV	1.000	IOK12A	11/12/2021	17:49	EP
CCB	1.000	IOK12A	11/12/2021	17:53	EP
PQL	1.000	IOK12A	11/12/2021	17:58	EP
ICSA	1.000	IOK12A	11/12/2021	18:02	EP
ICSAB	1.000	IOK12A	11/12/2021	18:07	EP
CCV	1.000	IOK12A	11/12/2021	18:11	EP
CCB	1.000	IOK12A	11/12/2021	18:16	EP

Intensity Report

Author:

Published: 11/15/2021 8:49:14AM

Notes:

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Method Name: FAST-2016_NO_AU

Method Revision: 1,043

Analyst Name: EP

Acquire Date: 11/12/2021 10:25:24AM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.00005600	Cts/S	0.00004200	75.09	-7.735
Al3961_R		-0.0001770	Cts/S	0.0002030	114.7	-3.583
As1891_A		-0.0004560	Cts/S	0.00004500	9.766	-3.299
B_2089_A		0.0005090	Cts/S	0.00006300	12.34	3.684
Ba4554_R		0.0007020	Cts/S	0.00003300	4.743	14.08
Be3130_R		-0.0001410	Cts/S	0.00008300	58.99	-2.840
Ca3158_R		-0.001153	Cts/S	0.0001230	10.64	-23.13
Cd2265_A		-0.00007500	Cts/S	0.00004000	52.75	-0.5458
Co2286_A		-0.00001900	Cts/S	0.00006200	320.0	-0.1387
Cr2677_A		0.000001000	Cts/S	0.0000	9.563	0.1829
Cu3273_A		0.00003000	Cts/S	0.00005800	195.8	4.100
Fe2599_R		0.0005410	Cts/S	0.00003500	6.431	10.86
K_7664_R		0.0006670	Cts/S	0.0003150	47.19	13.36
Li6707_R		0.0004640	Cts/S	0.0004640	99.95	9.381
Mg2025_A		-0.001050	Cts/S	0.00004000	3.850	-7.596
Mn2576_R		0.00007900	Cts/S	0.00001000	12.74	1.588
Mo2020_A		0.0001330	Cts/S	0.00001700	12.90	0.9600
Na5895_R		0.001644	Cts/S	0.0001450	8.811	32.98
Ni2316_A		-0.0001310	Cts/S	0.00004700	36.04	-0.9471
Pb2203_A		-0.0001970	Cts/S	0.00005700	29.09	-1.423
Sb2068_A		0.00006800	Cts/S	0.00005500	80.70	0.4939
Se1960_A		0.0001640	Cts/S	0.00006300	38.68	1.186
Si2516_R		0.002210	Cts/S	0.0003520	15.93	44.31
Sn1899_A		0.00007600	Cts/S	0.00003000	40.32	0.5461
Sr4215_R		-0.001399	Cts/S	0.0003460	24.73	-28.04
Ti3349_A		-0.00001100	Cts/S	0.000002000	16.40	-1.499
Tl1908_A		-0.0002450	Cts/S	0.00002700	10.95	-1.776
V_2924_A		-0.00003400	Cts/S	0.000003000	9.607	-4.678
Zn2062_A		-0.00001300	Cts/S	0.00003100	243.6	-0.09055
Y_3600_R		20,074	Cts/S	248.43	1.2376	20,074
Y_2243_A		7,236.8	Cts/S	40.018	0.55299	7,236.8
Y_3600_A		137,200	Cts/S	204.57	0.14911	137,200

Std 1

Method Name: FAST-2016_NO_AU

Method Revision: 1,043

Analyst Name: EP

Acquire Date: 11/12/2021 10:29:49AM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1496	Cts/S	0.0004250	0.2843	19,790
Al3961_R		1.417	Cts/S	0.003742	0.2641	27,810
As1891_A		0.04981	Cts/S	0.00001300	0.02513	355.0
B_2089_A		0.1957	Cts/S	0.0006470	0.3307	1,395
Ba4554_R		4.249	Cts/S	0.008600	0.2024	83,380
Be3130_R		5.478	Cts/S	0.01802	0.3290	107,500
Ca3158_R		1.582	Cts/S	0.001706	0.1079	31,040
Cd2265_A		1.540	Cts/S	0.003515	0.2283	10,980
Co2286_A		0.4792	Cts/S	0.001645	0.3434	3,416
Cr2677_A		0.08129	Cts/S	0.0003660	0.4499	10,760
Cu3273_A		0.09359	Cts/S	0.0001190	0.1274	12,390
Fe2599_R		2.864	Cts/S	0.007970	0.2783	56,200
K_7664_R		0.8059	Cts/S	0.002875	0.3567	15,810
Li6707_R		0.7435	Cts/S	0.003592	0.4831	14,590

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:29:49AM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.310	Cts/S	0.005710	0.4358	9,339
Mn2576_R		0.5723	Cts/S	0.002205	0.3852	11,230
Mo2020_A		0.4332	Cts/S	0.001017	0.2347	3,088
Na5895_R		2.458	Cts/S	0.008187	0.3331	48,230
Ni2316_A		0.2413	Cts/S	0.0004720	0.1956	1,720
Pb2203_A		0.1195	Cts/S	0.00009300	0.07781	852.1
Sb2068_A		0.07485	Cts/S	0.0003940	0.5259	533.5
Se1960_A		0.03728	Cts/S	0.00004500	0.1208	265.7
Si2516_R		0.6752	Cts/S	0.004054	0.6004	13,250
Sn1899_A		0.06344	Cts/S	0.0002230	0.3511	452.2
Sr4215_R		4.807	Cts/S	0.001965	0.04087	94,330
Ti3349_A		0.1807	Cts/S	0.0002600	0.1440	23,910
Tl1908_A		0.07724	Cts/S	0.0002320	0.3004	550.6
V_2924_A		0.08155	Cts/S	0.00009200	0.1131	10,790
Zn2062_A		0.3292	Cts/S	0.0005340	0.1623	2,347
Y_3600_R		19,623	Cts/S	66.166	0.33719	19,623
Y_2243_A		7,128.2	Cts/S	12.559	0.17619	7,128.2
Y_3600_A		132,330	Cts/S	107.67	0.081362	132,330

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:33:55AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		386.8	ug/L	1.375	0.3555	7,847
Al3961_R		9,957	ug/L	66.95	0.6724	11,140
As1891_A		387.2	ug/L	0.9908	0.2559	136.4
B_2089_A		400.9	ug/L	2.742	0.6840	565.4
Ba4554_R		400.5	ug/L	2.424	0.6053	33,590
Be3130_R		402.7	ug/L	1.436	0.3567	43,530
Ca3158_R		10,160	ug/L	109.7	1.080	12,670
Cd2265_A		402.7	ug/L	1.923	0.4775	4,450
Co2286_A		407.0	ug/L	1.866	0.4585	1,400
Cr2677_A		391.6	ug/L	1.156	0.2952	4,323
Cu3273_A		395.1	ug/L	1.428	0.3615	5,025
Fe2599_R		10,140	ug/L	27.12	0.2675	22,930
K_7664_R		13,640	ug/L	23.21	0.1701	8,685
Li6707_R		405.4	ug/L	0.2028	0.05003	5,954
Mg2025_A		10,080	ug/L	56.48	0.5602	3,788
Mn2576_R		396.3	ug/L	5.777	1.458	4,477
Mo2020_A		406.8	ug/L	2.071	0.5090	1,265
Na5895_R		10,120	ug/L	10.57	0.1044	19,650
Ni2316_A		407.0	ug/L	1.594	0.3917	704.3
Pb2203_A		412.4	ug/L	2.452	0.5945	353.0
Sb2068_A		397.5	ug/L	1.849	0.4653	213.8
Se1960_A		403.9	ug/L	1.574	0.3897	108.8
Si2516_R		9,823	ug/L	166.3	1.693	5,160
Sn1899_A		404.5	ug/L	2.255	0.5573	184.5
Sr4215_R		405.0	ug/L	1.364	0.3368	38,400
Ti3349_A		391.6	ug/L	0.6654	0.1699	9,607
Tl1908_A		418.8	ug/L	1.705	0.4070	231.1
V_2924_A		394.0	ug/L	1.235	0.3135	4,361
Zn2062_A		415.3	ug/L	2.898	0.6980	981.1
Y_3600_R		19,737	Cts/S	221.00	1.1198	19,737
Y_2243_A		7,176.9	Cts/S	24.110	0.33593	7,176.9
Y_3600_A		135,810	Cts/S	14.513	0.010686	135,810

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:38:04AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3095	ug/L	0.04259	13.76	-14.14
Al3961_R		1.686	ug/L	1.614	95.74	-1.562
As1891_A		-0.8777	ug/L	0.4066	46.33	-3.587
B_2089_A		1.226	ug/L	0.06215	5.070	5.350
Ba4554_R		0.2159	ug/L	0.06123	28.37	31.58
Be3130_R		0.08903	ug/L	0.01842	20.69	6.678
Ca3158_R		-0.3969	ug/L	4.241	1,069	-22.97
Cd2265_A		0.02969	ug/L	0.08713	293.5	-0.1945
Co2286_A		0.1344	ug/L	0.008504	6.329	0.3274
Cr2677_A		-0.09545	ug/L	0.01523	15.95	-0.8761
Cu3273_A		-0.2465	ug/L	0.1026	41.64	0.9237
Fe2599_R		7.385	ug/L	0.5043	6.829	27.04
K_7664_R		-19.36	ug/L	12.60	65.11	0.8781
Li6707_R		1.336	ug/L	0.3814	28.55	28.40
Mg2025_A		1.569	ug/L	0.2960	18.87	-6.929
Mn2576_R		-0.1549	ug/L	0.1343	86.68	-0.1854
Mo2020_A		0.7439	ug/L	0.1746	23.48	3.262
Na5895_R		-3.802	ug/L	4.322	113.7	24.75
Ni2316_A		0.1164	ug/L	0.03106	26.67	-0.7302
Pb2203_A		0.4292	ug/L	0.09957	23.20	-1.042
Sb2068_A		0.3087	ug/L	0.5063	164.0	0.6538
Se1960_A		-1.018	ug/L	0.9375	92.07	0.9034
Si2516_R		44.03	ug/L	27.50	62.44	65.71
Sn1899_A		0.5719	ug/L	0.8412	147.1	0.8022
Sr4215_R		0.2024	ug/L	0.01156	5.712	-8.299
Ti3349_A		0.8107	ug/L	0.2239	27.62	18.49
Tl1908_A		0.7961	ug/L	0.9816	123.3	-1.318
V_2924_A		-0.2681	ug/L	0.1415	52.79	-7.694
Zn2062_A		0.07686	ug/L	0.04161	54.13	0.09134
Y_3600_R		19,504	Cts/S	119.75	0.61397	19,504
Y_2243_A		7,169.6	Cts/S	26.157	0.36484	7,169.6
Y_3600_A		136,470	Cts/S	223.43	0.16373	136,470

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:42:29AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.486	ug/L	0.2894	3.051	187.2
Al3961_R		304.0	ug/L	13.09	4.305	334.0
As1891_A		9.117	ug/L	0.1344	1.474	0.01999
B_2089_A		50.09	ug/L	0.6470	1.292	74.34
Ba4554_R		5.154	ug/L	0.01515	0.2939	442.8
Be3130_R		5.113	ug/L	0.02430	0.4753	545.6
Ca3158_R		106.5	ug/L	0.1011	0.09488	109.5
Cd2265_A		5.203	ug/L	0.07046	1.354	58.23
Co2286_A		10.37	ug/L	0.06376	0.6150	36.37
Cr2677_A		9.819	ug/L	0.5921	6.030	109.2
Cu3273_A		25.49	ug/L	1.457	5.717	329.6
Fe2599_R		104.2	ug/L	1.454	1.395	244.5
K_7664_R		1,045	ug/L	6.513	0.6236	672.2
Li6707_R		104.5	ug/L	1.258	1.204	1,530
Mg2025_A		106.2	ug/L	0.4981	0.4689	33.57
Mn2576_R		4.885	ug/L	0.1277	2.613	56.27
Mo2020_A		10.34	ug/L	0.04295	0.4155	33.85
Na5895_R		1,045	ug/L	10.98	1.051	2,043
Ni2316_A		10.69	ug/L	0.2639	2.468	18.00

PQL

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:42:29AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.592	ug/L	0.7716	13.80	3.461
Sb2068_A		7.762	ug/L	0.9586	12.35	4.221
Se1960_A		8.393	ug/L	0.2270	2.704	3.490
Si2516_R		206.2	ug/L	9.685	4.697	149.9
Sn1899_A		101.9	ug/L	0.04039	0.03963	47.98
Sr4215_R		10.64	ug/L	0.03541	0.3328	975.1
Ti3349_A		14.97	ug/L	0.8888	5.937	367.9
Tl1908_A		17.58	ug/L	0.6603	3.756	8.194
V_2924_A		9.931	ug/L	0.3909	3.936	106.1
Zn2062_A		20.76	ug/L	0.01636	0.07878	50.13
Y_3600_R		19,591	Cts/S	151.88	0.77526	19,591
Y_2243_A		7,344.3	Cts/S	51.899	0.70666	7,344.3
Y_3600_A		136,760	Cts/S	4,605.2	3.3674	136,760

ICSA

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:46:54AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.8411	ug/L	0.4854	57.71	-1,195
Al3961_R		499,700	ug/L	11,600	2.321	527,600
As1891_A		-1.842	ug/L	1.099	59.68	-14.91
B_2089_A		-0.4044	ug/L	0.2378	58.80	2.655
Ba4554_R		1.397	ug/L	0.03369	2.412	123.8
Be3130_R		0.001811	ug/L	0.01777	981.3	-2.572
Ca3158_R		469,900	ug/L	11,500	2.447	554,900
Cd2265_A		-1.316	ug/L	0.3685	28.00	355.8
Co2286_A		-0.07718	ug/L	0.2771	359.0	2.115
Cr2677_A		2.785	ug/L	0.03448	1.238	43.55
Cu3273_A		-1.256	ug/L	0.4300	34.24	10.41
Fe2599_R		183,600	ug/L	2,107	1.148	392,200
K_7664_R		-54.71	ug/L	6.254	11.43	-20.40
Li6707_R		6.923	ug/L	0.4302	6.213	104.6
Mg2025_A		438,700	ug/L	430.8	0.09819	142,100
Mn2576_R		0.7433	ug/L	0.1711	23.02	12.62
Mo2020_A		-1.105	ug/L	0.1013	9.166	-2.149
Na5895_R		59.96	ug/L	0.7484	1.248	140.5
Ni2316_A		-2.823	ug/L	0.7193	25.48	-12.24
Pb2203_A		0.3915	ug/L	1.261	322.1	-28.95
Sb2068_A		2.923	ug/L	1.756	60.09	5.758
Se1960_A		-4.551	ug/L	0.8045	17.68	1.096
Si2516_R		-4.595	ug/L	18.84	410.0	23.93
Sn1899_A		8.011	ug/L	0.4477	5.589	3.625
Sr4215_R	W	5.182	ug/L	0.03898	0.7522	438.7
Ti3349_A		1.027	ug/L	0.2071	20.16	20.53
Tl1908_A		-1.219	ug/L	0.2277	18.68	-1.524
V_2924_A		-0.9716	ug/L	0.1071	11.02	22.58
Zn2062_A		0.8190	ug/L	0.1804	22.03	1.593
Y_3600_R		18,653	Cts/S	227.64	1.2204	18,653
Y_2243_A		6,216.1	Cts/S	7.2722	0.11699	6,216.1
Y_3600_A		117,580	Cts/S	230.70	0.19620	117,580

ICSAB

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:51:30AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:51:30AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		214.8	ug/L	0.1767	0.08226	2,610
Al3961_R		498,900	ug/L	3,417	0.6850	528,500
As1891_A		98.27	ug/L	1.764	1.795	16.48
B_2089_A		485.9	ug/L	2.252	0.4636	591.6
Ba4554_R		496.0	ug/L	2.966	0.5980	39,450
Be3130_R		497.8	ug/L	3.541	0.7113	51,030
Ca3158_R		467,600	ug/L	4,380	0.9368	554,000
Cd2265_A		938.9	ug/L	0.2420	0.02578	9,291
Co2286_A		461.9	ug/L	0.2276	0.04929	1,376
Cr2677_A		482.5	ug/L	2.087	0.4327	4,643
Cu3273_A		543.8	ug/L	1.424	0.2619	6,020
Fe2599_R		183,500	ug/L	1,029	0.5606	393,300
K_7664_R		20,990	ug/L	171.7	0.8177	12,670
Li6707_R		531.3	ug/L	5.125	0.9647	7,397
Mg2025_A		442,000	ug/L	119.8	0.02711	142,900
Mn2576_R		462.7	ug/L	0.1111	0.02402	4,962
Mo2020_A		484.7	ug/L	1.061	0.2190	1,303
Na5895_R		21,150	ug/L	179.6	0.8492	38,910
Ni2316_A		906.8	ug/L	0.8794	0.09699	1,347
Pb2203_A		44.27	ug/L	1.318	2.977	3.600
Sb2068_A		610.4	ug/L	2.167	0.3550	287.7
Se1960_A		49.80	ug/L	0.5079	1.020	13.65
Si2516_R		1,901	ug/L	7.205	0.3790	968.6
Sn1899_A		465.7	ug/L	1.956	0.4201	183.5
Sr4215_R		507.9	ug/L	4.074	0.8021	45,680
Ti3349_A		486.6	ug/L	1.747	0.3591	10,370
Tl1908_A		83.86	ug/L	0.1501	0.1790	39.82
V_2924_A		492.0	ug/L	3.263	0.6632	4,766
Zn2062_A		920.9	ug/L	1.547	0.1680	1,882
Y_3600_R		18,714	Cts/S	25.515	0.13634	18,714
Y_2243_A		6,204.0	Cts/S	4.4666	0.071995	6,204.0
Y_3600_A		117,970	Cts/S	155.86	0.13212	117,970

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:55:59AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		500.6	ug/L	5.428	1.084	10,120
Al3961_R		13,010	ug/L	481.4	3.701	14,330
As1891_A		511.1	ug/L	0.7898	0.1545	180.3
B_2089_A		517.1	ug/L	0.1419	0.02744	724.8
Ba4554_R		523.3	ug/L	21.12	4.036	43,230
Be3130_R		523.5	ug/L	21.39	4.085	55,740
Ca3158_R		13,080	ug/L	533.9	4.082	16,070
Cd2265_A		519.1	ug/L	1.374	0.2647	5,713
Co2286_A		519.3	ug/L	0.3792	0.07302	1,778
Cr2677_A		507.3	ug/L	4.336	0.8546	5,579
Cu3273_A		505.6	ug/L	3.972	0.7856	6,403
Fe2599_R	W	13,320	ug/L	537.3	4.033	29,670
K_7664_R		13,130	ug/L	557.8	4.248	8,235
Li6707_R	W	527.4	ug/L	20.98	3.978	7,626
Mg2025_A		13,040	ug/L	2.680	0.02055	4,881
Mn2576_R		512.4	ug/L	21.01	4.101	5,701
Mo2020_A		515.5	ug/L	0.1462	0.02837	1,596
Na5895_R	W	13,250	ug/L	512.5	3.869	25,330
Ni2316_A		522.1	ug/L	1.205	0.2308	899.8

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 10:55:59AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		525.1	ug/L	0.6856	0.1306	447.8
Sb2068_A		510.3	ug/L	0.6610	0.1295	273.1
Se1960_A		513.5	ug/L	1.900	0.3700	137.4
Si2516_R		13,050	ug/L	652.9	5.003	6,736
Sn1899_A		518.1	ug/L	1.244	0.2400	235.1
Sr4215_R	W	529.6	ug/L	21.18	4.000	49,470
Ti3349_A		496.5	ug/L	3.738	0.7530	12,130
Tl1908_A		525.6	ug/L	0.01745	0.003319	289.2
V_2924_A		505.1	ug/L	2.199	0.4354	5,569
Zn2062_A		518.6	ug/L	2.483	0.4789	1,220
Y_3600_R		19,453	Cts/S	730.59	3.7557	19,453
Y_2243_A		7,145.3	Cts/S	9.2139	0.12895	7,145.3
Y_3600_A		135,270	Cts/S	534.02	0.39479	135,270

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:00:09AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01909	ug/L	0.2188	1,146	-7.432
Al3961_R		19.93	ug/L	7.540	37.82	18.54
As1891_A		-0.1913	ug/L	0.5224	273.1	-3.370
B_2089_A		1.195	ug/L	0.009311	0.7792	5.356
Ba4554_R		0.06898	ug/L	0.005060	7.335	19.39
Be3130_R		0.1702	ug/L	0.03208	18.85	15.36
Ca3158_R		13.89	ug/L	1.022	7.355	-5.339
Cd2265_A		0.06631	ug/L	0.004590	6.922	0.2285
Co2286_A		-0.006515	ug/L	0.03331	511.3	-0.1587
Cr2677_A		0.09878	ug/L	0.1165	118.0	1.274
Cu3273_A		-0.2066	ug/L	0.3822	185.0	1.450
Fe2599_R		16.21	ug/L	0.4275	2.638	46.74
K_7664_R		-9.717	ug/L	17.12	176.2	6.866
Li6707_R		0.7827	ug/L	0.1803	23.03	20.40
Mg2025_A		9.303	ug/L	1.526	16.40	-4.083
Mn2576_R		-0.2921	ug/L	0.1869	63.98	-1.716
Mo2020_A		0.7362	ug/L	0.2873	39.03	3.268
Na5895_R		1.875	ug/L	4.532	241.7	35.68
Ni2316_A		0.09349	ug/L	0.1689	180.6	-0.7769
Pb2203_A		0.2302	ug/L	0.7327	318.3	-1.225
Sb2068_A		1.151	ug/L	0.02916	2.533	1.120
Se1960_A		0.4474	ug/L	0.1707	38.14	1.304
Si2516_R		20.39	ug/L	13.99	68.62	53.60
Sn1899_A		0.3312	ug/L	0.03077	9.290	0.6984
Sr4215_R		0.2751	ug/L	0.07933	28.84	-1.451
Ti3349_A		0.5959	ug/L	0.1267	21.26	13.18
Tl1908_A		-0.04971	ug/L	0.2920	587.5	-1.804
V_2924_A		-0.1114	ug/L	0.3895	349.7	-5.945
Zn2062_A		0.1182	ug/L	0.009247	7.824	0.1904
Y_3600_R		19,497	Cts/S	151.48	0.77691	19,497
Y_2243_A		7,234.8	Cts/S	18.514	0.25590	7,234.8
Y_3600_A		136,280	Cts/S	729.13	0.53501	136,280

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:04:34AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:04:34AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1,992	ug/L	3.179	0.1596	39,040
Al3961_R		9.434	ug/L	2.043	21.66	216.5
As1891_A		20,360	ug/L	34.54	0.1696	6,922
B_2089_A		20,920	ug/L	18.12	0.08662	27,090
Ba4554_R		19,410	ug/L	182.4	0.9399	1,610,000
Be3130_R		19,450	ug/L	23.37	0.1202	2,080,000
Ca3158_R		8.678	ug/L	3.286	37.86	3.284
Cd2265_A		19,790	ug/L	19.38	0.09795	204,400
Co2286_A		20,520	ug/L	61.73	0.3009	66,290
Cr2677_A		19,480	ug/L	66.36	0.3406	207,100
Cu3273_A		20,180	ug/L	67.94	0.3367	246,700
Fe2599_R		-1.204	ug/L	1.475	122.5	7.858
K_7664_R		-12.93	ug/L	17.70	136.9	4.915
Li6707_R		19,920	ug/L	106.0	0.5324	288,900
Mg2025_A		-551.4	ug/L	15.48	2.807	842.9
Mn2576_R		19,460	ug/L	59.18	0.3041	217,500
Mo2020_A		5,126	ug/L	9.919	0.1935	14,960
Na5895_R		25.25	ug/L	0.7385	2.925	80.52
Ni2316_A		20,590	ug/L	27.17	0.1319	33,370
Pb2203_A		21,300	ug/L	15.20	0.07139	17,230
Sb2068_A		20,560	ug/L	79.95	0.3888	10,360
Se1960_A		20,880	ug/L	51.96	0.2489	5,224
Si2516_R		165.4	ug/L	90.22	54.57	249.6
Sn1899_A		20,110	ug/L	67.82	0.3372	8,593
Sr4215_R		19,820	ug/L	59.42	0.2997	1,861,000
Ti3349_A		19,440	ug/L	16.40	0.08437	459,000
Tl1908_A		20,320	ug/L	59.79	0.2942	10,620
V_2924_A		19,570	ug/L	60.17	0.3075	209,600
Zn2062_A		19,940	ug/L	20.96	0.1051	44,270
Y_3600_R		19,522	Cts/S	55.330	0.28342	19,522
Y_2243_A		6,742.5	Cts/S	13.312	0.19743	6,742.5
Y_3600_A		130,790	Cts/S	86.925	0.066459	130,790

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:09:18AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.319	ug/L	0.5805	25.03	-1,516
Al3961_R		506,500	ug/L	5,094	1.006	530,300
As1891_A		1.045	ug/L	0.1273	12.18	-16.32
B_2089_A		32.60	ug/L	4.469	13.71	43.23
Ba4554_R		4.336	ug/L	0.6999	16.14	353.1
Be3130_R		3.320	ug/L	0.7348	22.13	332.4
Ca3158_R		483,800	ug/L	5,564	1.150	566,400
Cd2265_A		-3.404	ug/L	0.8322	24.45	453.0
Co2286_A		2.479	ug/L	0.8487	34.23	10.78
Cr2677_A		0.02027	ug/L	0.2806	1,384	21.99
Cu3273_A		-0.8808	ug/L	0.4185	47.51	50.54
Fe2599_R		235,300	ug/L	165.4	0.07031	498,400
K_7664_R		315,100	ug/L	9,550	3.031	187,600
Li6707_R		10.10	ug/L	0.8558	8.473	147.3
Mg2025_A		185,000	ug/L	910.8	0.4924	61,740
Mn2576_R		13.78	ug/L	1.039	7.543	51.57
Mo2020_A		3.299	ug/L	0.9692	29.38	9.994
Na5895_R		212,000	ug/L	2,787	1.315	385,100
Ni2316_A		-0.9546	ug/L	0.9917	103.9	-11.79

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:09:18AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.164	ug/L	0.8374	20.11	-26.23
Sb2068_A		4.101	ug/L	1.708	41.64	7.375
Se1960_A		1.717	ug/L	0.4575	26.64	2.701
Si2516_R		48,770	ug/L	1,185	2.430	23,810
Sn1899_A		8.915	ug/L	0.8234	9.236	4.101
Sr4215_R		9.669	ug/L	0.8962	9.268	833.3
Ti3349_A		11.25	ug/L	0.9996	8.883	238.9
Tl1908_A		0.5761	ug/L	1.147	199.1	-0.7220
V_2924_A		1.566	ug/L	0.4102	26.20	57.39
Zn2062_A		5.357	ug/L	0.3629	6.774	11.22
Y_3600_R		18,495	Cts/S	365.17	1.9744	18,495
Y_2243_A		6,404.8	Cts/S	26.777	0.41809	6,404.8
Y_3600_A		118,220	Cts/S	130.15	0.11009	118,220

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:13:58AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		497.4	ug/L	4.957	0.9967	10,150
Al3961_R		12,850	ug/L	260.9	2.031	14,170
As1891_A		507.4	ug/L	0.6643	0.1309	179.2
B_2089_A	W	529.7	ug/L	0.9843	0.1858	743.1
Ba4554_R		519.2	ug/L	11.09	2.136	42,950
Be3130_R		518.4	ug/L	13.37	2.580	55,290
Ca3158_R		13,010	ug/L	225.5	1.733	16,010
Cd2265_A		515.0	ug/L	0.2608	0.05064	5,677
Co2286_A		513.2	ug/L	0.3425	0.06674	1,760
Cr2677_A		503.6	ug/L	4.267	0.8473	5,589
Cu3273_A		500.0	ug/L	4.183	0.8367	6,392
Fe2599_R	W	13,230	ug/L	331.8	2.508	29,500
K_7664_R		13,170	ug/L	241.5	1.833	8,272
Li6707_R		523.0	ug/L	12.37	2.364	7,574
Mg2025_A		12,850	ug/L	15.85	0.1234	4,816
Mn2576_R		513.2	ug/L	10.92	2.128	5,718
Mo2020_A		511.4	ug/L	0.5394	0.1055	1,586
Na5895_R	W	13,230	ug/L	258.7	1.956	25,330
Ni2316_A		518.3	ug/L	0.09779	0.01887	894.8
Pb2203_A		520.2	ug/L	0.1191	0.02289	444.4
Sb2068_A		504.2	ug/L	2.162	0.4288	270.3
Se1960_A		511.6	ug/L	2.645	0.5170	137.1
Si2516_R		13,170	ug/L	189.0	1.435	6,810
Sn1899_A		512.9	ug/L	0.2980	0.05811	233.1
Sr4215_R		524.9	ug/L	11.51	2.193	49,110
Ti3349_A		499.5	ug/L	3.410	0.6827	12,320
Tl1908_A		521.2	ug/L	3.932	0.7544	287.3
V_2924_A		501.4	ug/L	3.858	0.7695	5,580
Zn2062_A		513.4	ug/L	0.7209	0.1404	1,210
Y_3600_R		19,469	Cts/S	229.35	1.1780	19,469
Y_2243_A		7,157.5	Cts/S	45.675	0.63815	7,157.5
Y_3600_A		136,540	Cts/S	595.80	0.43637	136,540

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:18:07AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:18:07AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1380	ug/L	0.1662	120.5	-4.909
Al3961_R		21.94	ug/L	0.1736	0.7912	20.69
As1891_A		0.6044	ug/L	0.3632	60.09	-3.060
B_2089_A	W	12.25	ug/L	0.7765	6.339	20.53
Ba4554_R		0.3234	ug/L	0.04351	13.46	40.26
Be3130_R		0.1879	ug/L	0.04585	24.40	17.11
Ca3158_R		8.295	ug/L	0.4818	5.809	-12.18
Cd2265_A		0.2555	ug/L	0.03717	14.55	2.301
Co2286_A		0.2940	ug/L	0.008086	2.750	0.8846
Cr2677_A		0.2349	ug/L	0.1360	57.87	2.753
Cu3273_A		-0.04768	ug/L	0.2695	565.3	3.410
Fe2599_R		12.04	ug/L	1.519	12.61	37.24
K_7664_R		22.60	ug/L	37.00	163.7	26.97
Li6707_R		2.106	ug/L	0.6454	30.64	39.39
Mg2025_A		7.003	ug/L	0.6081	8.684	-4.900
Mn2576_R		-0.08760	ug/L	0.1745	199.2	0.5630
Mo2020_A		1.454	ug/L	0.1848	12.70	5.481
Na5895_R		18.47	ug/L	9.007	48.77	67.12
Ni2316_A		0.1240	ug/L	0.1321	106.5	-0.7103
Pb2203_A		0.5750	ug/L	0.1862	32.39	-0.9219
Sb2068_A		1.054	ug/L	0.03549	3.367	1.051
Se1960_A		0.4094	ug/L	0.7490	182.9	1.286
Si2516_R		22.34	ug/L	19.13	85.62	54.25
Sn1899_A		2.008	ug/L	0.2501	12.46	1.458
Sr4215_R		0.3035	ug/L	0.03263	10.75	1.185
Ti3349_A		2.031	ug/L	0.2960	14.57	47.88
Tl1908_A		1.253	ug/L	0.6592	52.60	-1.070
V_2924_A		0.1493	ug/L	0.3003	201.2	-3.021
Zn2062_A		0.3903	ug/L	0.03148	8.065	0.8335
Y_3600_R		19,390	Cts/S	151.77	0.78273	19,390
Y_2243_A		7,189.4	Cts/S	39.537	0.54993	7,189.4
Y_3600_A		134,560	Cts/S	571.75	0.42491	134,560

LCSWOK11ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:22:32AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		47.30	ug/L	0.3869	0.8181	934.8
Al3961_R		2,027	ug/L	23.64	1.166	2,227
As1891_A		99.82	ug/L	1.122	1.124	32.61
B_2089_A		519.7	ug/L	0.1797	0.03459	715.3
Ba4554_R		2,042	ug/L	16.33	0.7999	168,300
Be3130_R		51.71	ug/L	0.7684	1.486	5,493
Ca3158_R		2,552	ug/L	34.73	1.361	3,113
Cd2265_A		262.5	ug/L	0.02994	0.01141	2,871
Co2286_A		519.1	ug/L	0.7929	0.1527	1,775
Cr2677_A		203.5	ug/L	0.2480	0.1219	2,219
Cu3273_A		258.4	ug/L	1.555	0.6017	3,242
Fe2599_R		1,054	ug/L	11.14	1.057	2,353
K_7664_R		10,300	ug/L	92.05	0.8938	6,450
Li6707_R		520.6	ug/L	7.181	1.379	7,515
Mg2025_A		5,040	ug/L	7.329	0.1454	1,895
Mn2576_R		505.2	ug/L	7.159	1.417	5,614
Mo2020_A		107.0	ug/L	0.3038	0.2840	331.4
Na5895_R		7,793	ug/L	33.12	0.4250	14,890
Ni2316_A		527.1	ug/L	0.3472	0.06587	902.8

LCSWOK11ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:22:32AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		107.4	ug/L	0.4207	0.3916	90.40
Sb2068_A		100.8	ug/L	0.7704	0.7645	51.89
Se1960_A		102.4	ug/L	1.336	1.305	28.34
Si2516_R		1,050	ug/L	6.513	0.6202	583.4
Sn1899_A		515.8	ug/L	1.783	0.3456	233.7
Sr4215_R		525.0	ug/L	2.865	0.5457	48,960
Ti3349_A		507.5	ug/L	4.336	0.8544	12,290
Tl1908_A		106.0	ug/L	0.1942	0.1833	57.37
V_2924_A		504.7	ug/L	0.7050	0.1397	5,549
Zn2062_A		515.9	ug/L	0.06892	0.01336	1,212
Y_3600_R		19,404	Cts/S	127.36	0.65634	19,404
Y_2243_A		7,135.1	Cts/S	2.0965	0.029382	7,135.1
Y_3600_A		134,140	Cts/S	532.36	0.39688	134,140

PBWOK11ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:26:45AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1674	ug/L	0.04178	24.95	-11.07
Al3961_R		6.625	ug/L	3.411	51.49	3.854
As1891_A		-0.5911	ug/L	0.2885	48.81	-3.459
B_2089_A		8.204	ug/L	0.07328	0.8932	14.80
Ba4554_R		0.6574	ug/L	0.1931	29.37	67.53
Be3130_R		0.08343	ug/L	0.02543	30.47	6.038
Ca3158_R		0.7502	ug/L	3.816	508.7	-21.37
Cd2265_A		0.05416	ug/L	0.02173	40.12	0.07075
Co2286_A		0.2323	ug/L	0.05174	22.27	0.6610
Cr2677_A		0.1512	ug/L	0.04439	29.35	1.835
Cu3273_A		0.6418	ug/L	0.2948	45.92	12.09
Fe2599_R		6.582	ug/L	1.001	15.21	25.03
K_7664_R		15.15	ug/L	1.451	9.574	22.34
Li6707_R		1.537	ug/L	0.8264	53.76	31.12
Mg2025_A		7.380	ug/L	0.5864	7.945	-4.719
Mn2576_R		-0.08187	ug/L	0.03942	48.15	0.6236
Mo2020_A		0.5172	ug/L	0.05012	9.692	2.539
Na5895_R		18.01	ug/L	3.159	17.54	66.00
Ni2316_A		-0.01434	ug/L	0.1661	1,159	-0.9510
Pb2203_A		-0.05643	ug/L	0.007767	13.76	-1.450
Sb2068_A		0.9993	ug/L	1.081	108.2	1.019
Se1960_A		-0.2252	ug/L	0.4247	188.6	1.106
Si2516_R		1.872	ug/L	15.19	811.8	43.73
Sn1899_A		0.5781	ug/L	0.5223	90.35	0.7984
Sr4215_R		0.3553	ug/L	0.04033	11.35	5.977
Ti3349_A		1.272	ug/L	0.2894	22.75	29.46
Tl1908_A		0.4352	ug/L	0.1481	34.03	-1.508
V_2924_A		0.1022	ug/L	0.05093	49.83	-3.484
Zn2062_A		0.4290	ug/L	0.02091	4.874	0.9163
Y_3600_R		19,341	Cts/S	137.01	0.70838	19,341
Y_2243_A		7,118.5	Cts/S	6.1839	0.086870	7,118.5
Y_3600_A		134,650	Cts/S	97.891	0.072701	134,650

LCSWOK11ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:31:10AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSWOK11ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:31:10AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.25	ug/L	0.1299	0.2584	976.3
Al3961_R		2,167	ug/L	26.82	1.238	2,361
As1891_A		103.8	ug/L	0.4231	0.4077	33.71
B_2089_A		533.6	ug/L	1.778	0.3332	727.3
Ba4554_R		2,188	ug/L	13.58	0.6208	178,800
Be3130_R		54.66	ug/L	0.6201	1.135	5,758
Ca3158_R		2,619	ug/L	14.32	0.5468	3,168
Cd2265_A		271.6	ug/L	0.8022	0.2954	2,942
Co2286_A		546.7	ug/L	1.602	0.2930	1,851
Cr2677_A		215.7	ug/L	0.02112	0.009789	2,311
Cu3273_A		277.8	ug/L	0.1229	0.04425	3,424
Fe2599_R		1,124	ug/L	5.948	0.5292	2,487
K_7664_R		10,810	ug/L	69.73	0.6449	6,712
Li6707_R		544.0	ug/L	5.364	0.9860	7,785
Mg2025_A		5,194	ug/L	11.85	0.2281	1,935
Mn2576_R		533.9	ug/L	7.459	1.397	5,882
Mo2020_A		109.8	ug/L	0.4874	0.4439	336.8
Na5895_R		8,222	ug/L	2.398	0.02916	15,570
Ni2316_A		554.3	ug/L	1.645	0.2968	940.3
Pb2203_A		110.2	ug/L	1.135	1.030	91.90
Sb2068_A		104.5	ug/L	0.3676	0.3519	53.31
Se1960_A		105.9	ug/L	0.8283	0.7820	28.99
Si2516_R		1,073	ug/L	15.19	1.416	590.2
Sn1899_A		527.3	ug/L	3.044	0.5773	236.6
Sr4215_R		551.8	ug/L	1.979	0.3586	51,020
Ti3349_A		527.3	ug/L	0.9024	0.1711	12,550
Tl1908_A		108.4	ug/L	0.2655	0.2451	58.18
V_2924_A		534.4	ug/L	1.490	0.2788	5,774
Zn2062_A		541.7	ug/L	2.792	0.5155	1,261
Y_3600_R		19,237	Cts/S	16.380	0.085148	19,237
Y_2243_A		7,066.9	Cts/S	27.552	0.38987	7,066.9
Y_3600_A		131,790	Cts/S	74.811	0.056766	131,790

PBWOK11ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:35:22AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2576	ug/L	0.09081	35.25	-13.19
Al3961_R		17.07	ug/L	3.669	21.50	15.40
As1891_A		-0.6190	ug/L	0.7144	115.4	-3.494
B_2089_A		6.173	ug/L	0.6687	10.83	12.11
Ba4554_R		1.024	ug/L	0.2234	21.82	98.32
Be3130_R		0.1142	ug/L	0.08163	71.50	9.305
Ca3158_R		-0.1204	ug/L	0.8979	745.5	-22.61
Cd2265_A		0.03101	ug/L	0.07451	240.3	-0.1637
Co2286_A		0.2295	ug/L	0.01121	4.885	0.6560
Cr2677_A		0.1278	ug/L	0.08405	65.78	1.616
Cu3273_A		4.451	ug/L	0.1584	3.558	61.14
Fe2599_R		15.01	ug/L	1.429	9.520	44.02
K_7664_R		1.598	ug/L	3.163	197.9	14.02
Li6707_R		1.125	ug/L	0.09908	8.810	25.32
Mg2025_A		5.516	ug/L	1.757	31.86	-5.450
Mn2576_R		0.7646	ug/L	0.1841	24.08	10.05
Mo2020_A		0.3671	ug/L	0.2901	79.02	2.091
Na5895_R		16.13	ug/L	3.106	19.26	62.94
Ni2316_A		-0.04151	ug/L	0.1976	476.1	-1.007

PBWOK11ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:35:22AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.5735	ug/L	0.3783	65.96	-1.905
Sb2068_A		0.8395	ug/L	0.8427	100.4	0.9401
Se1960_A		0.2291	ug/L	0.4564	199.2	1.235
Si2516_R		7.882	ug/L	9.466	120.1	47.14
Sn1899_A		0.6535	ug/L	0.08776	13.43	0.8384
Sr4215_R		0.3807	ug/L	0.04558	11.97	8.389
Ti3349_A		1.228	ug/L	0.2979	24.27	28.84
Tl1908_A		0.09999	ug/L	0.1800	180.0	-1.705
V_2924_A		0.1284	ug/L	0.1091	84.94	-3.254
Zn2062_A		0.7518	ug/L	0.1033	13.74	1.685
Y_3600_R		19,484	Cts/S	238.45	1.2238	19,484
Y_2243_A		7,168.7	Cts/S	5.5554	0.077495	7,168.7
Y_3600_A		137,120	Cts/S	2,120.2	1.5462	137,120

LCSWOK11ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:39:47AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		47.97	ug/L	0.1673	0.3488	937.8
Al3961_R		2,038	ug/L	29.15	1.430	2,236
As1891_A		102.4	ug/L	0.1274	0.1245	33.19
B_2089_A		514.6	ug/L	0.3191	0.06201	701.3
Ba4554_R		2,087	ug/L	14.84	0.7110	171,700
Be3130_R		52.01	ug/L	0.2120	0.4076	5,515
Ca3158_R		2,553	ug/L	24.10	0.9443	3,108
Cd2265_A		264.4	ug/L	0.1085	0.04103	2,863
Co2286_A		521.6	ug/L	1.091	0.2092	1,765
Cr2677_A		205.5	ug/L	0.3380	0.1645	2,216
Cu3273_A		264.8	ug/L	0.7687	0.2903	3,286
Fe2599_R		1,079	ug/L	3.800	0.3523	2,403
K_7664_R		10,450	ug/L	20.76	0.1986	6,533
Li6707_R		522.3	ug/L	0.7797	0.1493	7,525
Mg2025_A		5,067	ug/L	6.497	0.1282	1,886
Mn2576_R		507.0	ug/L	4.551	0.8977	5,623
Mo2020_A		106.1	ug/L	0.1036	0.09772	325.2
Na5895_R		7,998	ug/L	9.794	0.1224	15,250
Ni2316_A		532.0	ug/L	0.1476	0.02775	901.9
Pb2203_A		107.8	ug/L	2.006	1.861	89.83
Sb2068_A		100.8	ug/L	0.4954	0.4913	51.46
Se1960_A		101.8	ug/L	0.8421	0.8269	27.91
Si2516_R		1,017	ug/L	2.596	0.2553	565.2
Sn1899_A		506.1	ug/L	1.063	0.2101	227.0
Sr4215_R		531.1	ug/L	1.958	0.3687	49,440
Ti3349_A		505.1	ug/L	0.04477	0.008863	12,100
Tl1908_A		105.5	ug/L	0.05993	0.05682	56.55
V_2924_A		509.6	ug/L	2.517	0.4939	5,541
Zn2062_A		516.6	ug/L	0.02351	0.004550	1,202
Y_3600_R		19,367	Cts/S	50.473	0.26061	19,367
Y_2243_A		7,063.4	Cts/S	4.3780	0.061981	7,063.4
Y_3600_A		132,660	Cts/S	111.46	0.084018	132,660

PBWOK11ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:44:00AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOK11ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:44:00AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.4061	ug/L	0.2460	60.58	-16.18
Al3961_R		1.829	ug/L	1.234	67.50	-1.434
As1891_A		-0.1773	ug/L	0.5792	326.6	-3.365
B_2089_A		4.804	ug/L	0.1385	2.884	10.33
Ba4554_R		0.6400	ug/L	0.02643	4.130	66.91
Be3130_R		0.07819	ug/L	0.004731	6.051	5.540
Ca3158_R		-1.636	ug/L	0.07977	4.877	-24.58
Cd2265_A		0.03215	ug/L	0.01435	44.64	-0.1588
Co2286_A		0.1070	ug/L	0.01098	10.25	0.2374
Cr2677_A		0.3966	ug/L	0.03048	7.685	4.578
Cu3273_A		-0.01979	ug/L	0.3567	1,802	3.824
Fe2599_R		12.19	ug/L	0.4128	3.387	37.89
K_7664_R		-0.5334	ug/L	21.66	4,060	12.72
Li6707_R		1.729	ug/L	0.3725	21.55	34.22
Mg2025_A		6.090	ug/L	1.395	22.91	-5.290
Mn2576_R		0.001589	ug/L	0.1894	11,920	1.562
Mo2020_A		0.2895	ug/L	0.06672	23.05	1.868
Na5895_R		7.101	ug/L	5.980	84.20	45.81
Ni2316_A		0.04480	ug/L	0.03203	71.48	-0.8671
Pb2203_A		0.4086	ug/L	0.07708	18.86	-1.070
Sb2068_A		-0.07490	ug/L	0.09555	127.6	0.4527
Se1960_A		-0.8498	ug/L	1.061	124.9	0.9560
Si2516_R		2.798	ug/L	10.30	368.2	44.67
Sn1899_A		0.4919	ug/L	0.1168	23.74	0.7723
Sr4215_R		0.2420	ug/L	0.007295	3.014	-4.599
Ti3349_A		1.109	ug/L	0.01060	0.9556	25.83
Tl1908_A		0.2778	ug/L	1.107	398.4	-1.620
V_2924_A		-0.001835	ug/L	0.3163	17,240	-4.683
Zn2062_A		0.4412	ug/L	0.1913	43.36	0.9608
Y_3600_R		19,562	Cts/S	4.1354	0.021140	19,562
Y_2243_A		7,236.2	Cts/S	28.044	0.38755	7,236.2
Y_3600_A		136,380	Cts/S	417.59	0.30620	136,380

SO7823-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:48:25AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1867	ug/L	0.09170	49.12	-11.75
Al3961_R		12.21	ug/L	2.842	23.27	23.17
As1891_A		1.889	ug/L	0.03435	1.819	-2.665
B_2089_A		4.716	ug/L	0.1575	3.340	10.48
Ba4554_R		0.9108	ug/L	0.07623	8.369	89.60
Be3130_R		0.1046	ug/L	0.02240	21.41	8.500
Ca3158_R		13,840	ug/L	6.532	0.04718	17,160
Cd2265_A		-0.02546	ug/L	0.01605	63.03	-0.8401
Co2286_A		0.3972	ug/L	0.07414	18.67	1.261
Cr2677_A		0.4330	ug/L	0.07795	18.00	5.074
Cu3273_A		2.830	ug/L	0.1302	4.601	40.86
Fe2599_R		1.452	ug/L	1.045	71.92	13.86
K_7664_R		734.5	ug/L	6.436	0.8763	476.9
Li6707_R		5.181	ug/L	1.293	24.96	84.58
Mg2025_A		2,233	ug/L	14.35	0.6426	852.1
Mn2576_R		1.517	ug/L	0.1521	10.03	19.33
Mo2020_A		2.173	ug/L	0.08580	3.948	7.931
Na5895_R		5,410	ug/L	27.65	0.5112	10,450
Ni2316_A		0.1147	ug/L	0.1222	106.6	-0.7363

SO7823-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:48:25AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.208	ug/L	0.8556	70.85	-0.3812
Sb2068_A		-1.021	ug/L	1.262	123.6	-0.06843
Se1960_A		-1.315	ug/L	2.512	191.0	0.8533
Si2516_R		7,118	ug/L	44.67	0.6276	3,724
Sn1899_A		0.5462	ug/L	0.3647	66.77	0.8147
Sr4215_R		104.8	ug/L	0.08024	0.07660	9,847
Ti3349_A		-0.1752	ug/L	0.1008	57.54	-5.847
Tl1908_A		0.8078	ug/L	0.3740	46.29	-1.350
V_2924_A		0.1865	ug/L	0.1331	71.38	-2.751
Zn2062_A		5.153	ug/L	0.02665	0.5172	12.45
Y_3600_R		19,603	Cts/S	18.623	0.094999	19,603
Y_2243_A		7,386.7	Cts/S	85.470	1.1571	7,386.7
Y_3600_A		138,730	Cts/S	1,876.7	1.3528	138,730

SO7831-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:52:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2609	ug/L	0.0002360	0.09052	-12.47
Al3961_R		5.922	ug/L	1.488	25.12	3.832
As1891_A		4.827	ug/L	0.6877	14.25	-1.499
B_2089_A		12.99	ug/L	0.1452	1.119	21.10
Ba4554_R		0.2468	ug/L	0.02928	11.86	34.25
Be3130_R		0.04881	ug/L	0.03048	62.44	2.466
Ca3158_R		762.8	ug/L	12.81	1.680	922.6
Cd2265_A		0.03517	ug/L	0.02749	78.17	-0.1508
Co2286_A		0.4277	ug/L	0.01521	3.556	1.307
Cr2677_A		-0.05375	ug/L	0.09468	176.2	-0.3846
Cu3273_A		-0.2467	ug/L	0.2686	108.9	0.8483
Fe2599_R		0.2020	ug/L	1.453	719.5	11.02
K_7664_R		183.5	ug/L	19.19	10.46	128.8
Li6707_R		5.080	ug/L	1.085	21.36	82.92
Mg2025_A		670.0	ug/L	3.034	0.4528	238.8
Mn2576_R		0.7040	ug/L	0.008054	1.144	9.663
Mo2020_A		0.5703	ug/L	0.005776	1.013	2.677
Na5895_R	W	115,500	ug/L	1,074	0.9297	222,200
Ni2316_A		0.8008	ug/L	0.1226	15.30	0.4374
Pb2203_A		1.414	ug/L	0.6386	45.16	-0.1910
Sb2068_A		-1.287	ug/L	0.2015	15.65	-0.2060
Se1960_A		1.204	ug/L	0.3681	30.58	1.469
Si2516_R		4,989	ug/L	41.66	0.8351	2,619
Sn1899_A		0.8578	ug/L	0.03477	4.054	0.9158
Sr4215_R		4.126	ug/L	0.04173	1.012	361.0
Ti3349_A		0.09760	ug/L	0.02328	23.85	0.8743
Tl1908_A		0.2996	ug/L	0.2469	82.41	-1.567
V_2924_A		0.1527	ug/L	0.05948	38.94	-2.844
Zn2062_A		0.3994	ug/L	0.1092	27.35	0.8388
Y_3600_R		19,575	Cts/S	143.06	0.73085	19,575
Y_2243_A		7,049.8	Cts/S	29.301	0.41562	7,049.8
Y_3600_A		130,140	Cts/S	2,519.3	1.9358	130,140

SO7652-021

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:57:18AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000072

SO7652-021

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 11:57:18AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2503	ug/L	0.003532	1.411	-13.49
Al3961_R		83.94	ug/L	5.220	6.219	171.5
As1891_A		0.03414	ug/L	1.435	4,202	-3.039
B_2089_A		22.41	ug/L	0.1442	0.6436	31.99
Ba4554_R		61.00	ug/L	0.3731	0.6117	4,930
Be3130_R		0.06470	ug/L	0.005839	9.025	3.851
Ca3158_R	W	93,210	ug/L	1,176	1.262	111,900
Cd2265_A		0.02395	ug/L	0.02365	98.73	0.1836
Co2286_A		1.831	ug/L	0.09336	5.098	5.741
Cr2677_A		0.9013	ug/L	0.1831	20.32	10.19
Cu3273_A		5.324	ug/L	0.1749	3.285	67.19
Fe2599_R		204.7	ug/L	4.215	2.060	455.0
K_7664_R		1,750	ug/L	4.063	0.2322	1,082
Li6707_R		3.921	ug/L	0.5209	13.28	64.09
Mg2025_A		9,142	ug/L	29.11	0.3185	3,172
Mn2576_R		798.2	ug/L	10.23	1.282	8,673
Mo2020_A		1.018	ug/L	0.006743	0.6624	3.780
Na5895_R	W	38,010	ug/L	64.05	0.1685	70,870
Ni2316_A		3.142	ug/L	0.04381	1.395	4.158
Pb2203_A		1.860	ug/L	0.5191	27.90	0.1761
Sb2068_A		-0.01926	ug/L	0.4816	2,501	0.4448
Se1960_A		0.5434	ug/L	1.036	190.6	1.332
Si2516_R		4,772	ug/L	61.77	1.294	2,430
Sn1899_A		1.133	ug/L	0.3400	30.00	0.9833
Sr4215_R		670.9	ug/L	4.218	0.6288	61,180
Ti3349_A		3.929	ug/L	0.04842	1.232	88.81
Tl1908_A		-0.1631	ug/L	0.2684	164.6	-2.146
V_2924_A		1.128	ug/L	0.07424	6.583	4.559
Zn2062_A		1.386	ug/L	0.07734	5.578	2.963
Y_3600_R		18,973	Cts/S	26.098	0.13755	18,973
Y_2243_A		6,671.8	Cts/S	20.786	0.31155	6,671.8
Y_3600_A		127,150	Cts/S	561.73	0.44177	127,150

SO7652-022

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:01:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1369	ug/L	0.1405	102.6	-10.80
Al3961_R		38.91	ug/L	4.046	10.40	133.9
As1891_A		-0.3288	ug/L	0.7802	237.3	-3.191
B_2089_A		15.19	ug/L	0.2216	1.458	23.01
Ba4554_R		80.55	ug/L	0.8403	1.043	6,437
Be3130_R		0.08039	ug/L	0.01468	18.27	5.602
Ca3158_R	W	106,500	ug/L	1,409	1.322	126,600
Cd2265_A		-0.02532	ug/L	0.008906	35.17	-0.5121
Co2286_A		0.1881	ug/L	0.1023	54.42	0.4886
Cr2677_A		1.025	ug/L	0.2719	26.52	10.92
Cu3273_A		0.3688	ug/L	0.1036	28.08	8.365
Fe2599_R		117.5	ug/L	0.4145	0.3529	262.7
K_7664_R		1,292	ug/L	1.978	0.1531	793.8
Li6707_R		6.403	ug/L	0.1936	3.024	98.04
Mg2025_A		14,370	ug/L	21.60	0.1503	5,044
Mn2576_R		5.165	ug/L	0.2998	5.805	61.67
Mo2020_A		0.1337	ug/L	0.1310	97.95	1.284
Na5895_R	W	40,160	ug/L	128.3	0.3195	74,100
Ni2316_A		0.2298	ug/L	0.2931	127.5	-0.5148

SO7652-022

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:01:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.02324	ug/L	0.5926	2,550	-1.346
Sb2068_A		0.3090	ug/L	0.6189	200.3	0.6127
Se1960_A		0.5093	ug/L	0.5092	99.98	1.232
Si2516_R		4,310	ug/L	103.0	2.391	2,176
Sn1899_A		1.770	ug/L	0.1611	9.097	1.266
Sr4215_R		838.6	ug/L	5.929	0.7071	75,670
Ti3349_A		1.923	ug/L	0.02890	1.503	43.39
Tl1908_A		0.2164	ug/L	0.3350	154.8	-1.545
V_2924_A		1.694	ug/L	0.03459	2.042	13.55
Zn2062_A		0.7918	ug/L	0.002600	0.3284	1.672
Y_3600_R		18,773	Cts/S	37.111	0.19768	18,773
Y_2243_A		6,742.2	Cts/S	0.85114	0.012624	6,742.2
Y_3600_A		129,000	Cts/S	1,452.1	1.1257	129,000

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:06:04PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		498.1	ug/L	1.218	0.2446	9,949
Al3961_R		12,520	ug/L	161.6	1.291	13,890
As1891_A		505.6	ug/L	1.324	0.2619	176.1
B_2089_A		522.6	ug/L	1.062	0.2033	722.8
Ba4554_R		512.8	ug/L	8.296	1.618	42,660
Be3130_R		498.3	ug/L	3.535	0.7095	53,440
Ca3158_R		12,620	ug/L	117.7	0.9328	15,610
Cd2265_A		523.8	ug/L	1.067	0.2038	5,689
Co2286_A		511.0	ug/L	0.1136	0.02224	1,727
Cr2677_A		506.0	ug/L	0.4467	0.08827	5,497
Cu3273_A		515.8	ug/L	2.479	0.4806	6,453
Fe2599_R		12,870	ug/L	134.9	1.048	28,870
K_7664_R		12,920	ug/L	170.3	1.318	8,162
Li6707_R		512.1	ug/L	6.966	1.360	7,458
Mg2025_A		12,730	ug/L	25.14	0.1975	4,703
Mn2576_R		492.8	ug/L	4.471	0.9072	5,522
Mo2020_A		510.8	ug/L	1.285	0.2516	1,562
Na5895_R		13,160	ug/L	138.7	1.054	25,340
Ni2316_A		524.5	ug/L	0.2491	0.04751	892.4
Pb2203_A		526.6	ug/L	0.3241	0.06155	443.5
Sb2068_A		495.7	ug/L	0.1569	0.03165	262.0
Se1960_A		508.9	ug/L	3.388	0.6658	134.4
Si2516_R		12,540	ug/L	24.47	0.1952	6,520
Sn1899_A		499.7	ug/L	1.220	0.2442	223.9
Sr4215_R		521.7	ug/L	7.894	1.513	49,080
Ti3349_A		489.7	ug/L	1.135	0.2318	11,820
Tl1908_A		512.1	ug/L	0.7026	0.1372	278.2
V_2924_A		495.6	ug/L	0.6336	0.1279	5,398
Zn2062_A		517.4	ug/L	0.08130	0.01571	1,202
Y_3600_R		19,576	Cts/S	1.7672	0.0090270	19,576
Y_2243_A		7,054.6	Cts/S	26.395	0.37415	7,054.6
Y_3600_A		133,640	Cts/S	211.45	0.15823	133,640

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:10:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:10:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1482	ug/L	0.04050	27.33	-10.63
Al3961_R		5.134	ug/L	2.015	39.25	2.212
As1891_A		-1.040	ug/L	0.01648	1.584	-3.628
B_2089_A		3.024	ug/L	0.2294	7.586	7.776
Ba4554_R		0.1678	ug/L	0.06579	39.22	27.28
Be3130_R		0.2464	ug/L	0.03300	13.39	23.27
Ca3158_R		1.693	ug/L	2.084	123.1	-20.18
Cd2265_A		0.05377	ug/L	0.06411	119.2	0.07325
Co2286_A		0.2190	ug/L	0.1224	55.91	0.6147
Cr2677_A		0.1134	ug/L	0.06076	53.59	1.413
Cu3273_A		-0.06570	ug/L	0.2201	335.1	3.174
Fe2599_R		9.759	ug/L	2.494	25.56	32.00
K_7664_R		-2.219	ug/L	13.98	630.0	11.51
Li6707_R		1.846	ug/L	0.06791	3.679	35.43
Mg2025_A		3.104	ug/L	1.518	48.92	-6.320
Mn2576_R		-0.3779	ug/L	0.04345	11.50	-2.652
Mo2020_A		0.7433	ug/L	0.1417	19.06	3.243
Na5895_R		9.797	ug/L	3.860	39.40	50.31
Ni2316_A		-0.02740	ug/L	0.3027	1,105	-0.9734
Pb2203_A		0.6441	ug/L	1.292	200.6	-0.8528
Sb2068_A		0.5860	ug/L	0.03856	6.580	0.7990
Se1960_A		-0.9622	ug/L	0.1581	16.43	0.9133
Si2516_R		19.34	ug/L	13.59	70.25	52.48
Sn1899_A		0.6482	ug/L	0.2868	44.25	0.8321
Sr4215_R		0.2980	ug/L	0.03840	12.89	0.6518
Ti3349_A		0.9357	ug/L	0.02580	2.758	21.16
Tl1908_A		0.6979	ug/L	0.7967	114.2	-1.366
V_2924_A		0.2191	ug/L	0.04469	20.40	-2.191
Zn2062_A		0.1700	ug/L	0.05639	33.16	0.3097
Y_3600_R		19,298	Cts/S	51.098	0.26478	19,298
Y_2243_A		7,134.4	Cts/S	9.5599	0.13400	7,134.4
Y_3600_A		133,850	Cts/S	233.56	0.17450	133,850

SO7652-023

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:14:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3259	ug/L	0.09566	29.35	-23.00
Al3961_R		1,073	ug/L	7.063	0.6581	1,210
As1891_A		-0.6013	ug/L	0.1831	30.45	-3.402
B_2089_A		15.66	ug/L	0.07774	0.4963	24.08
Ba4554_R		38.81	ug/L	0.4392	1.132	3,141
Be3130_R		0.1417	ug/L	0.00004000	0.02828	9.772
Ca3158_R	W	67,530	ug/L	609.9	0.9031	81,100
Cd2265_A		-0.06111	ug/L	0.05070	82.97	1.622
Co2286_A		0.8486	ug/L	0.1508	17.77	2.915
Cr2677_A		2.780	ug/L	0.3813	13.71	29.21
Cu3273_A		3.015	ug/L	0.1269	4.209	40.27
Fe2599_R		1,240	ug/L	10.64	0.8576	2,706
K_7664_R		1,066	ug/L	9.542	0.8951	664.1
Li6707_R		3.546	ug/L	0.1031	2.907	58.81
Mg2025_A		6,271	ug/L	47.64	0.7597	2,240
Mn2576_R		40.29	ug/L	0.3935	0.9765	440.6
Mo2020_A		0.2349	ug/L	0.02457	10.46	1.607
Na5895_R	W	25,540	ug/L	263.8	1.033	47,640
Ni2316_A		4.189	ug/L	0.08851	2.113	5.959

SO7652-023

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:14:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.400	ug/L	0.4985	35.62	-0.2438
Sb2068_A		-0.7919	ug/L	0.5736	72.43	0.08199
Se1960_A		1.306	ug/L	1.113	85.24	1.467
Si2516_R		4,359	ug/L	37.14	0.8520	2,224
Sn1899_A		1.084	ug/L	0.5554	51.25	0.9921
Sr4215_R		404.3	ug/L	4.023	0.9952	36,860
Ti3349_A		40.40	ug/L	0.8618	2.133	931.2
Tl1908_A		-0.07202	ug/L	0.8366	1,162	-1.762
V_2924_A		8.391	ug/L	0.1585	1.889	84.17
Zn2062_A		6.212	ug/L	0.1538	2.476	13.98
Y_3600_R		18,974	Cts/S	93.074	0.49052	18,974
Y_2243_A		6,874.5	Cts/S	38.957	0.56669	6,874.5
Y_3600_A		127,890	Cts/S	867.74	0.67848	127,890

SO7652-024

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:19:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2008	ug/L	0.03828	19.06	-17.28
Al3961_R		484.5	ug/L	0.3012	0.06216	545.8
As1891_A		-0.02772	ug/L	0.06763	244.0	-3.237
B_2089_A		7.645	ug/L	0.2797	3.659	13.80
Ba4554_R		13.22	ug/L	0.1739	1.316	1,104
Be3130_R		0.04773	ug/L	0.001313	2.750	1.341
Ca3158_R		18,050	ug/L	416.0	2.305	22,170
Cd2265_A		-0.02467	ug/L	0.01672	67.81	0.9451
Co2286_A		0.5042	ug/L	0.1820	36.09	1.657
Cr2677_A		1.172	ug/L	0.1020	8.704	12.84
Cu3273_A		1.360	ug/L	0.05432	3.995	21.05
Fe2599_R		762.5	ug/L	14.50	1.902	1,707
K_7664_R		654.8	ug/L	11.20	1.711	422.6
Li6707_R		2.206	ug/L	0.1785	8.092	40.89
Mg2025_A		2,622	ug/L	3.207	0.1223	949.4
Mn2576_R		47.38	ug/L	0.4937	1.042	528.9
Mo2020_A		0.1883	ug/L	0.1845	98.00	1.497
Na5895_R		3,004	ug/L	64.43	2.145	5,763
Ni2316_A		1.200	ug/L	0.1802	15.01	1.068
Pb2203_A		0.9652	ug/L	0.006117	0.6337	-0.5836
Sb2068_A		-0.1823	ug/L	1.109	608.0	0.3970
Se1960_A		1.182	ug/L	0.6284	53.15	1.462
Si2516_R		2,840	ug/L	40.49	1.425	1,498
Sn1899_A		0.7032	ug/L	0.07175	10.20	0.8408
Sr4215_R		106.1	ug/L	2.491	2.348	9,882
Ti3349_A		15.34	ug/L	0.7969	5.196	363.2
Tl1908_A		-0.2171	ug/L	0.6329	291.5	-1.868
V_2924_A		1.626	ug/L	0.01881	1.157	13.17
Zn2062_A		2.525	ug/L	0.01237	0.4899	5.735
Y_3600_R		19,426	Cts/S	258.76	1.3320	19,426
Y_2243_A		7,000.4	Cts/S	14.549	0.20783	7,000.4
Y_3600_A		131,740	Cts/S	402.78	0.30573	131,740

SO7652-025

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:23:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7652-025

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:23:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3474	ug/L	0.05330	15.34	-17.07
Al3961_R		224.2	ug/L	19.70	8.786	364.9
As1891_A		-0.8236	ug/L	0.4871	59.14	-3.351
B_2089_A		21.67	ug/L	0.06826	0.3150	31.14
Ba4554_R		65.18	ug/L	0.6783	1.041	5,215
Be3130_R		0.06177	ug/L	0.05682	91.97	2.989
Ca3158_R	W	144,300	ug/L	900.6	0.6239	171,600
Cd2265_A		-0.05453	ug/L	0.03185	58.40	-0.07156
Co2286_A		1.095	ug/L	0.2738	25.00	3.443
Cr2677_A		1.396	ug/L	0.06089	4.362	14.63
Cu3273_A		1.862	ug/L	0.5941	31.90	25.89
Fe2599_R		455.6	ug/L	7.923	1.739	990.3
K_7664_R		1,691	ug/L	26.58	1.571	1,036
Li6707_R		4.578	ug/L	0.5257	11.48	72.63
Mg2025_A		12,410	ug/L	185.1	1.492	4,323
Mn2576_R		178.1	ug/L	1.616	0.9077	1,920
Mo2020_A		0.2215	ug/L	0.0009270	0.4184	1.520
Na5895_R		16,810	ug/L	193.2	1.149	31,050
Ni2316_A		1.056	ug/L	0.08483	8.030	0.8041
Pb2203_A		0.7407	ug/L	1.770	238.9	-0.7214
Sb2068_A		0.5289	ug/L	0.3955	74.77	0.7295
Se1960_A		0.05556	ug/L	1.247	2,245	1.136
Si2516_R		4,684	ug/L	51.22	1.094	2,363
Sn1899_A		1.065	ug/L	0.3676	34.51	0.9584
Sr4215_R		903.5	ug/L	11.28	1.249	81,590
Ti3349_A		10.91	ug/L	0.6156	5.641	246.4
Tl1908_A		0.5409	ug/L	0.8811	162.9	-1.464
V_2924_A		0.6357	ug/L	0.1291	20.32	1.774
Zn2062_A		2.533	ug/L	0.02384	0.9411	5.502
Y_3600_R		18,785	Cts/S	24.718	0.13159	18,785
Y_2243_A		6,695.8	Cts/S	58.510	0.87384	6,695.8
Y_3600_A		125,810	Cts/S	563.52	0.44790	125,810

SO7677-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:27:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2476	ug/L	0.1360	54.94	-14.73
Al3961_R		441.8	ug/L	1.230	0.2784	483.0
As1891_A		0.9735	ug/L	0.3583	36.80	-2.888
B_2089_A		5.436	ug/L	0.1618	2.976	10.92
Ba4554_R		2.286	ug/L	0.08099	3.542	200.6
Be3130_R		0.2573	ug/L	0.01849	7.187	24.31
Ca3158_R		5,452	ug/L	67.57	1.239	6,627
Cd2265_A		0.9890	ug/L	0.08861	8.959	10.87
Co2286_A		0.8551	ug/L	0.06691	7.825	2.768
Cr2677_A		0.2369	ug/L	0.2336	98.61	3.363
Cu3273_A		2.532	ug/L	0.04857	1.918	35.33
Fe2599_R		313.9	ug/L	1.815	0.5783	703.0
K_7664_R		829.3	ug/L	0.5901	0.07116	527.4
Li6707_R		11.50	ug/L	0.1325	1.152	173.6
Mg2025_A		397.8	ug/L	1.174	0.2951	138.9
Mn2576_R		691.3	ug/L	6.410	0.9273	7,624
Mo2020_A		-0.03121	ug/L	0.1381	442.3	0.7971
Na5895_R		2,711	ug/L	12.48	0.4602	5,163
Ni2316_A		1.019	ug/L	0.1816	17.82	0.7866

SO7677-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:27:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.097	ug/L	0.2058	18.76	-0.4835
Sb2068_A		0.3189	ug/L	0.4399	137.9	0.6519
Se1960_A		-0.4551	ug/L	0.2616	57.47	1.133
Si2516_R		4,600	ug/L	14.98	0.3256	2,380
Sn1899_A		1.188	ug/L	0.8862	74.62	1.063
Sr4215_R		8.946	ug/L	0.1016	1.136	801.7
Ti3349_A		2.362	ug/L	0.09654	4.087	54.87
Tl1908_A		-1.011	ug/L	0.3925	38.84	-2.672
V_2924_A		0.5725	ug/L	0.08569	14.97	-0.7964
Zn2062_A		3.081	ug/L	0.08570	2.782	7.072
Y_3600_R		19,264	Cts/S	29.601	0.15366	19,264
Y_2243_A		7,053.9	Cts/S	14.674	0.20803	7,053.9
Y_3600_A		132,080	Cts/S	343.17	0.25982	132,080

SO7677-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:32:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1072	ug/L	0.2213	206.4	-10.36
Al3961_R		56.69	ug/L	0.06817	0.1203	120.8
As1891_A		8.443	ug/L	0.1906	2.258	-0.2112
B_2089_A		18.59	ug/L	0.1040	0.5593	27.54
Ba4554_R		27.44	ug/L	0.09973	0.3635	2,218
Be3130_R		0.05860	ug/L	0.03936	67.18	3.235
Ca3158_R	W	69,940	ug/L	441.0	0.6306	83,750
Cd2265_A		0.001222	ug/L	0.06274	5,134	-0.1667
Co2286_A		0.3618	ug/L	0.1661	45.92	1.060
Cr2677_A		0.7963	ug/L	0.05593	7.023	8.481
Cu3273_A		0.2524	ug/L	0.2726	108.0	6.887
Fe2599_R		152.4	ug/L	1.314	0.8623	340.4
K_7664_R		7,734	ug/L	33.81	0.4372	4,726
Li6707_R		13.83	ug/L	0.7377	5.335	203.1
Mg2025_A		11,160	ug/L	10.97	0.09829	3,935
Mn2576_R		57.20	ug/L	0.7631	1.334	624.5
Mo2020_A		0.4987	ug/L	0.01226	2.458	2.360
Na5895_R		10,340	ug/L	26.43	0.2556	19,240
Ni2316_A		4.331	ug/L	0.3643	8.411	6.155
Pb2203_A		0.3546	ug/L	0.2377	67.03	-1.046
Sb2068_A		-0.08150	ug/L	0.3469	425.7	0.4220
Se1960_A		-0.8929	ug/L	0.6217	69.63	0.8935
Si2516_R		9,783	ug/L	109.1	1.115	4,924
Sn1899_A		0.6525	ug/L	0.1834	28.11	0.7922
Sr4215_R		317.7	ug/L	0.5199	0.1636	28,880
Ti3349_A		2.436	ug/L	0.03001	1.232	54.64
Tl1908_A		-0.6029	ug/L	0.3716	61.65	-2.011
V_2924_A		0.2807	ug/L	0.4252	151.5	-1.624
Zn2062_A		0.9095	ug/L	0.08704	9.570	1.944
Y_3600_R		18,920	Cts/S	171.47	0.90631	18,920
Y_2243_A		6,778.0	Cts/S	8.3374	0.12301	6,778.0
Y_3600_A		127,420	Cts/S	698.36	0.54808	127,420

SO7677-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:36:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7677-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:36:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.630	ug/L	0.03059	1.877	-182.8
Al3961_R		-13.91	ug/L	3.387	24.35	62.79
As1891_A		35.11	ug/L	0.6451	1.837	7.722
B_2089_A		183.0	ug/L	1.222	0.6678	237.5
Ba4554_R		103.0	ug/L	0.9713	0.9426	8,305
Be3130_R		0.09732	ug/L	0.04158	42.73	7.617
Ca3158_R	W	89,180	ug/L	852.2	0.9556	106,900
Cd2265_A		-1.234	ug/L	0.007863	0.6369	50.45
Co2286_A		13.87	ug/L	0.1124	0.8101	44.72
Cr2677_A		0.3724	ug/L	0.1296	34.81	18.66
Cu3273_A		-1.425	ug/L	0.6779	47.56	9.758
Fe2599_R	W	29,410	ug/L	366.8	1.247	63,810
K_7664_R		12,380	ug/L	104.8	0.8465	7,565
Li6707_R		5.989	ug/L	0.1446	2.415	93.08
Mg2025_A		12,640	ug/L	81.63	0.6458	4,406
Mn2576_R	W	13,890	ug/L	82.20	0.5917	150,600
Mo2020_A		1.921	ug/L	0.1357	7.063	5.640
Na5895_R	W	86,470	ug/L	964.3	1.115	160,900
Ni2316_A		8.867	ug/L	0.01136	0.1281	12.15
Pb2203_A		1.989	ug/L	1.153	57.96	0.9678
Sb2068_A		-1.059	ug/L	0.6194	58.47	0.4368
Se1960_A		-0.4834	ug/L	0.7815	161.7	2.857
Si2516_R		5,369	ug/L	1.342	0.02499	2,722
Sn1899_A		1.545	ug/L	0.5167	33.45	1.162
Sr4215_R		393.9	ug/L	4.879	1.239	35,850
Ti3349_A		0.07096	ug/L	0.2220	312.9	0.2739
Tl1908_A		-0.5404	ug/L	0.2587	47.87	-9.376
V_2924_A		2.909	ug/L	0.05855	2.013	-17.83
Zn2062_A		6.508	ug/L	0.2415	3.711	14.28
Y_3600_R		18,940	Cts/S	84.468	0.44598	18,940
Y_2243_A		6,695.6	Cts/S	59.862	0.89406	6,695.6
Y_3600_A		126,120	Cts/S	294.08	0.23318	126,120

SO7677-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:40:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3878	ug/L	0.08601	22.18	-15.12
Al3961_R		-33.98	ug/L	3.721	10.95	56.98
As1891_A		-0.1721	ug/L	0.2900	168.5	-3.101
B_2089_A		77.67	ug/L	0.05155	0.06637	102.3
Ba4554_R		217.4	ug/L	0.1185	0.05448	17,230
Be3130_R		0.03852	ug/L	0.04550	118.1	1.325
Ca3158_R	W	107,600	ug/L	192.7	0.1791	126,900
Cd2265_A		0.5163	ug/L	0.02876	5.570	4.998
Co2286_A		0.1146	ug/L	0.1049	91.48	0.2424
Cr2677_A		1.023	ug/L	0.02641	2.583	10.56
Cu3273_A		8.031	ug/L	0.1261	1.570	97.53
Fe2599_R		111.2	ug/L	3.293	2.962	247.3
K_7664_R		6,473	ug/L	32.97	0.5094	3,897
Li6707_R		6.541	ug/L	0.2235	3.416	99.21
Mg2025_A		6,118	ug/L	27.82	0.4546	2,119
Mn2576_R		10.57	ug/L	1.343	12.71	116.1
Mo2020_A		0.09901	ug/L	0.01131	11.42	1.170
Na5895_R	W	91,480	ug/L	242.9	0.2656	167,500
Ni2316_A		9.978	ug/L	0.1691	1.694	15.08

SO7677-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:40:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.2414	ug/L	1.432	593.3	-1.110
Sb2068_A		0.3712	ug/L	0.02891	7.788	0.6384
Se1960_A		-0.2575	ug/L	1.246	484.1	1.030
Si2516_R		4,293	ug/L	14.37	0.3346	2,151
Sn1899_A		1.274	ug/L	0.3189	25.03	1.042
Sr4215_R		476.2	ug/L	0.5359	0.1125	42,640
Ti3349_A		-0.1406	ug/L	0.1455	103.5	-4.534
Tl1908_A		0.5616	ug/L	0.6989	124.5	-1.352
V_2924_A		0.1350	ug/L	0.05606	41.53	-2.921
Zn2062_A		104.4	ug/L	0.8538	0.8182	229.2
Y_3600_R		18,632	Cts/S	6.3671	0.034174	18,632
Y_2243_A		6,666.7	Cts/S	20.794	0.31191	6,666.7
Y_3600_A		124,810	Cts/S	628.73	0.50373	124,810

SO7677-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:45:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3457	ug/L	0.01167	3.375	-141.2
Al3961_R		-35.06	ug/L	6.171	17.60	63.35
As1891_A		149.7	ug/L	0.08054	0.05379	46.38
B_2089_A		103.1	ug/L	0.7287	0.7067	134.3
Ba4554_R		75.22	ug/L	1.696	2.255	6,045
Be3130_R		0.07074	ug/L	0.04586	64.82	4.655
Ca3158_R	W	114,900	ug/L	1,119	0.9743	137,200
Cd2265_A		-0.8546	ug/L	0.05825	6.816	34.25
Co2286_A		5.603	ug/L	0.1139	2.033	17.96
Cr2677_A		0.6966	ug/L	0.2244	32.22	10.51
Cu3273_A		-0.2479	ug/L	0.09762	39.37	16.35
Fe2599_R		20,250	ug/L	353.4	1.745	43,780
K_7664_R		15,230	ug/L	387.4	2.543	9,273
Li6707_R		17.80	ug/L	1.076	6.045	258.5
Mg2025_A	W	29,980	ug/L	127.6	0.4256	10,370
Mn2576_R	W	1,574	ug/L	18.64	1.185	17,010
Mo2020_A		4.067	ug/L	0.02790	0.6860	12.49
Na5895_R	W	59,500	ug/L	1,482	2.491	110,300
Ni2316_A		7.456	ug/L	0.004182	0.05609	10.21
Pb2203_A		1.075	ug/L	0.8630	80.26	0.01627
Sb2068_A		-0.2913	ug/L	0.1795	61.64	0.6602
Se1960_A		0.9350	ug/L	0.08324	8.902	1.556
Si2516_R		8,510	ug/L	104.9	1.233	4,277
Sn1899_A		1.569	ug/L	0.5091	32.44	1.162
Sr4215_R		496.8	ug/L	11.76	2.367	45,060
Ti3349_A		-0.2851	ug/L	0.09592	33.64	-7.719
Tl1908_A		0.3999	ug/L	0.2410	60.28	-2.269
V_2924_A		-0.03660	ug/L	0.2113	577.3	-6.245
Zn2062_A		1.711	ug/L	0.04526	2.645	3.659
Y_3600_R		18,875	Cts/S	92.709	0.49117	18,875
Y_2243_A		6,641.1	Cts/S	8.2049	0.12355	6,641.1
Y_3600_A		124,640	Cts/S	581.56	0.46659	124,640

SO7677-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:49:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000080

SO7677-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:49:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1143	ug/L	0.08315	72.72	-12.67
Al3961_R		45.79	ug/L	8.965	19.58	121.6
As1891_A		1.718	ug/L	1.112	64.73	-2.519
B_2089_A		208.9	ug/L	0.6621	0.3170	273.9
Ba4554_R		261.6	ug/L	4.357	1.666	21,240
Be3130_R		0.04516	ug/L	0.03157	69.90	1.832
Ca3158_R	W	82,230	ug/L	1,306	1.589	99,420
Cd2265_A		1.095	ug/L	0.02648	2.419	11.84
Co2286_A		0.4350	ug/L	0.07762	17.84	1.304
Cr2677_A		1.646	ug/L	0.03005	1.826	17.40
Cu3273_A		23.40	ug/L	0.5857	2.503	283.4
Fe2599_R		452.1	ug/L	3.144	0.6954	999.4
K_7664_R		11,490	ug/L	196.3	1.709	7,080
Li6707_R		4.008	ug/L	0.08745	2.182	65.76
Mg2025_A		12,350	ug/L	17.90	0.1450	4,353
Mn2576_R		127.1	ug/L	2.289	1.801	1,395
Mo2020_A		3.472	ug/L	0.05762	1.659	11.08
Na5895_R		22,870	ug/L	318.8	1.394	42,950
Ni2316_A		4.444	ug/L	0.02853	0.6420	6.356
Pb2203_A		2.034	ug/L	0.2271	11.16	0.3298
Sb2068_A		0.1213	ug/L	0.9684	798.6	0.5288
Se1960_A		1.041	ug/L	0.5546	53.27	1.388
Si2516_R		5,614	ug/L	89.36	1.592	2,871
Sn1899_A		1.431	ug/L	0.4872	34.05	1.126
Sr4215_R		394.4	ug/L	5.493	1.393	36,200
Ti3349_A		3.030	ug/L	0.6385	21.07	68.46
Tl1908_A		-0.7676	ug/L	0.2224	28.97	-2.133
V_2924_A		0.2959	ug/L	0.04445	15.02	-1.839
Zn2062_A		42.99	ug/L	0.07314	0.1701	95.88
Y_3600_R		19,102	Cts/S	54.947	0.28766	19,102
Y_2243_A		6,773.9	Cts/S	14.030	0.20712	6,773.9
Y_3600_A		127,660	Cts/S	322.67	0.25276	127,660

SO7677-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:53:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5863	ug/L	0.4305	73.43	-177.1
Al3961_R		-94.23	ug/L	1.973	2.094	94.62
As1891_A		344.2	ug/L	0.6392	0.1857	106.9
B_2089_A		261.2	ug/L	0.02910	0.01114	321.6
Ba4554_R		215.6	ug/L	0.3874	0.1797	16,710
Be3130_R		0.05413	ug/L	0.03034	56.06	2.827
Ca3158_R	W	223,100	ug/L	351.8	0.1577	257,400
Cd2265_A		-1.126	ug/L	0.004731	0.4200	44.40
Co2286_A		12.89	ug/L	0.1516	1.176	39.57
Cr2677_A		0.4194	ug/L	0.1278	30.47	10.33
Cu3273_A		0.6136	ug/L	0.1092	17.79	30.43
Fe2599_R	W	27,120	ug/L	45.14	0.1664	56,620
K_7664_R		19,030	ug/L	39.90	0.2097	11,190
Li6707_R		63.20	ug/L	0.7860	1.244	864.3
Mg2025_A	W	53,770	ug/L	103.3	0.1922	17,870
Mn2576_R	W	4,404	ug/L	19.39	0.4403	45,960
Mo2020_A		0.3509	ug/L	0.007152	2.038	1.568
Na5895_R	W	172,500	ug/L	4,411	2.557	308,900
Ni2316_A		10.50	ug/L	0.4740	4.515	14.15

SO7677-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:53:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.227	ug/L	0.2922	13.12	1.057
Sb2068_A		0.04974	ug/L	0.2046	411.3	0.9183
Se1960_A		-0.1603	ug/L	0.6294	392.7	1.605
Si2516_R		16,690	ug/L	77.20	0.4626	8,062
Sn1899_A		1.837	ug/L	0.8154	44.38	1.224
Sr4215_R	W	1,554	ug/L	2.570	0.1653	136,200
Ti3349_A		0.6036	ug/L	0.03157	5.230	11.75
Tl1908_A		-0.8716	ug/L	0.3949	45.31	-4.246
V_2924_A		0.4264	ug/L	0.02578	6.046	-9.469
Zn2062_A		1.369	ug/L	0.01982	1.447	2.797
Y_3600_R		18,225	Cts/S	64.266	0.35264	18,225
Y_2243_A		6,378.5	Cts/S	4.8301	0.075724	6,378.5
Y_3600_A		119,750	Cts/S	2,203.7	1.8403	119,750

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 12:58:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		511.8	ug/L	2.904	0.5674	10,010
Al3961_R		12,660	ug/L	46.15	0.3645	13,870
As1891_A		503.4	ug/L	1.179	0.2342	176.3
B_2089_A		525.5	ug/L	1.537	0.2924	731.2
Ba4554_R		523.2	ug/L	1.418	0.2711	42,970
Be3130_R		500.2	ug/L	0.5674	0.1134	52,950
Ca3158_R		12,900	ug/L	61.13	0.4739	15,760
Cd2265_A	W	530.9	ug/L	0.8767	0.1652	5,802
Co2286_A		510.3	ug/L	1.682	0.3297	1,735
Cr2677_A		521.9	ug/L	1.831	0.3508	5,550
Cu3273_A	W	535.4	ug/L	1.309	0.2444	6,557
Fe2599_R		13,160	ug/L	17.47	0.1328	29,130
K_7664_R	W	13,270	ug/L	77.84	0.5868	8,270
Li6707_R		517.8	ug/L	2.167	0.4184	7,444
Mg2025_A		12,700	ug/L	56.10	0.4416	4,722
Mn2576_R		498.2	ug/L	2.365	0.4746	5,510
Mo2020_A		510.2	ug/L	1.412	0.2767	1,569
Na5895_R	W	13,750	ug/L	59.77	0.4347	26,140
Ni2316_A		527.0	ug/L	1.151	0.2185	902.0
Pb2203_A	W	533.9	ug/L	0.8204	0.1537	452.4
Sb2068_A		489.6	ug/L	2.324	0.4748	260.4
Se1960_A		508.9	ug/L	2.849	0.5598	135.2
Si2516_R		12,530	ug/L	50.14	0.4002	6,433
Sn1899_A		494.8	ug/L	0.3435	0.06942	223.1
Sr4215_R	W	538.2	ug/L	2.833	0.5264	49,990
Ti3349_A		499.7	ug/L	3.432	0.6868	11,810
Tl1908_A		508.9	ug/L	2.235	0.4393	278.1
V_2924_A		505.7	ug/L	0.3286	0.06498	5,391
Zn2062_A		524.6	ug/L	0.4789	0.09129	1,226
Y_3600_R		19,324	Cts/S	14.418	0.074610	19,324
Y_2243_A		7,097.7	Cts/S	16.789	0.23655	7,097.7
Y_3600_A		130,810	Cts/S	584.49	0.44683	130,810

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:02:33PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:02:33PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2206	ug/L	0.08010	36.31	-12.04
Al3961_R		2.237	ug/L	6.876	307.3	-0.8212
As1891_A		-0.1599	ug/L	0.1783	111.5	-3.284
B_2089_A		2.229	ug/L	0.1341	6.019	6.630
Ba4554_R		0.2441	ug/L	0.06191	25.36	33.28
Be3130_R		0.2046	ug/L	0.005903	2.885	18.77
Ca3158_R		2.749	ug/L	3.044	110.7	-18.85
Cd2265_A		0.09813	ug/L	0.01335	13.61	0.5592
Co2286_A		0.5426	ug/L	0.02143	3.950	1.704
Cr2677_A		0.1827	ug/L	0.1989	108.9	2.167
Cu3273_A		-0.2287	ug/L	0.5145	225.0	1.165
Fe2599_R		12.05	ug/L	0.1909	1.584	36.87
K_7664_R		-18.55	ug/L	8.250	44.48	1.256
Li6707_R		2.436	ug/L	0.2327	9.553	43.70
Mg2025_A		5.326	ug/L	1.176	22.08	-5.431
Mn2576_R		-0.005606	ug/L	0.2283	4,073	1.496
Mo2020_A		0.5770	ug/L	0.1649	28.57	2.707
Na5895_R		10.70	ug/L	8.406	78.52	51.47
Ni2316_A		-0.1203	ug/L	0.4854	403.4	-1.125
Pb2203_A		-0.1316	ug/L	0.06781	51.52	-1.505
Sb2068_A		0.7403	ug/L	1.003	135.4	0.8745
Se1960_A		-0.09003	ug/L	0.02684	29.81	1.135
Si2516_R		23.58	ug/L	9.400	39.87	54.43
Sn1899_A		0.7254	ug/L	0.6623	91.30	0.8597
Sr4215_R		0.3202	ug/L	0.03500	10.93	2.645
Ti3349_A		0.8585	ug/L	0.3416	39.79	19.24
Tl1908_A		-0.2289	ug/L	0.3309	144.5	-1.861
V_2924_A		0.1071	ug/L	0.3475	324.6	-3.421
Zn2062_A		0.3186	ug/L	0.1391	43.64	0.6533
Y_3600_R		19,192	Cts/S	647.19	3.3722	19,192
Y_2243_A		7,074.8	Cts/S	1.4962	0.021148	7,074.8
Y_3600_A		133,160	Cts/S	1,500.1	1.1265	133,160

SO7677-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:06:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1102	ug/L	0.02579	23.41	-9.526
Al3961_R		-36.99	ug/L	1.549	4.187	53.63
As1891_A		-0.2752	ug/L	1.675	608.7	-3.129
B_2089_A		77.33	ug/L	0.09421	0.1218	101.7
Ba4554_R		216.2	ug/L	0.4075	0.1885	17,140
Be3130_R		0.03613	ug/L	0.01730	47.86	1.088
Ca3158_R	W	107,300	ug/L	120.2	0.1120	126,700
Cd2265_A		0.5989	ug/L	0.02874	4.799	5.723
Co2286_A		0.2842	ug/L	0.03818	13.43	0.7798
Cr2677_A		0.8495	ug/L	0.02983	3.512	8.790
Cu3273_A		7.944	ug/L	0.1490	1.875	96.45
Fe2599_R		60.77	ug/L	0.1370	0.2254	139.9
K_7664_R		6,459	ug/L	17.36	0.2687	3,892
Li6707_R		2.973	ug/L	0.6488	21.82	49.84
Mg2025_A		6,097	ug/L	11.70	0.1919	2,108
Mn2576_R		4.453	ug/L	0.1978	4.441	50.98
Mo2020_A		0.2407	ug/L	0.04778	19.86	1.577
Na5895_R	W	91,050	ug/L	528.4	0.5804	166,800
Ni2316_A		10.02	ug/L	0.2829	2.822	15.13

SO7677-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:06:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.02664	ug/L	1.022	3,837	-1.282
Sb2068_A		0.6333	ug/L	0.5529	87.31	0.7695
Se1960_A		1.085	ug/L	2.032	187.2	1.357
Si2516_R		4,255	ug/L	21.10	0.4959	2,134
Sn1899_A		0.7468	ug/L	0.6666	89.26	0.8173
Sr4215_R		472.5	ug/L	2.276	0.4817	42,350
Ti3349_A		-0.2867	ug/L	0.05607	19.56	-7.817
Tl1908_A		0.1084	ug/L	0.08706	80.30	-1.579
V_2924_A		0.1595	ug/L	0.007237	4.538	-2.661
Zn2062_A		101.1	ug/L	0.5346	0.5286	221.7
Y_3600_R		18,649	Cts/S	110.74	0.59383	18,649
Y_2243_A		6,654.5	Cts/S	14.439	0.21699	6,654.5
Y_3600_A		124,770	Cts/S	256.03	0.20520	124,770

SO7682-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:11:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3079	ug/L	0.1823	59.21	-13.12
Al3961_R		16.39	ug/L	0.3585	2.187	85.01
As1891_A		-2.539	ug/L	0.8738	34.42	-3.791
B_2089_A		533.1	ug/L	3.103	0.5820	670.4
Ba4554_R		58.39	ug/L	0.4816	0.8247	4,614
Be3130_R		0.05403	ug/L	0.002936	5.434	2.903
Ca3158_R	W	69,420	ug/L	443.0	0.6381	81,490
Cd2265_A		-0.05901	ug/L	0.07007	118.7	-0.8685
Co2286_A		0.7563	ug/L	0.1748	23.11	2.222
Cr2677_A		6.754	ug/L	0.2370	3.508	66.52
Cu3273_A		8.903	ug/L	0.2937	3.299	104.2
Fe2599_R		101.4	ug/L	1.167	1.152	225.4
K_7664_R		788.3	ug/L	23.50	2.981	483.3
Li6707_R		7.626	ug/L	0.5305	6.956	113.7
Mg2025_A		18,070	ug/L	116.3	0.6435	6,103
Mn2576_R		36.10	ug/L	0.2564	0.7104	390.5
Mo2020_A		241.4	ug/L	1.373	0.5689	678.9
Na5895_R	F	305,800	ug/L	10,850	3.547	557,100
Ni2316_A		3.624	ug/L	0.3500	9.659	7.403
Pb2203_A		0.5819	ug/L	0.8337	143.3	-0.9921
Sb2068_A		6.436	ug/L	0.01616	0.2511	3.530
Se1960_A		1.287	ug/L	0.05451	4.236	1.376
Si2516_R		132.0	ug/L	5.419	4.106	106.2
Sn1899_A		1.255	ug/L	0.4032	32.14	1.006
Sr4215_R		125.6	ug/L	1.140	0.9081	11,170
Ti3349_A		-0.2711	ug/L	0.2100	77.46	-3.671
Tl1908_A		-0.8225	ug/L	0.2986	36.31	-2.021
V_2924_A		0.1520	ug/L	0.04562	30.01	-16.27
Zn2062_A		19.86	ug/L	0.07460	0.3757	42.34
Y_3600_R		18,546	Cts/S	59.345	0.31999	18,546
Y_2243_A		6,485.1	Cts/S	36.925	0.56938	6,485.1
Y_3600_A		120,820	Cts/S	354.28	0.29322	120,820

SO7737-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:15:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7737-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:15:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.129	ug/L	0.04715	4.177	-281.8
Al3961_R		145.7	ug/L	3.383	2.321	182.4
As1891_A		765.5	ug/L	3.933	0.5138	259.8
B_2089_A		82.81	ug/L	0.2161	0.2609	112.0
Ba4554_R		28.44	ug/L	0.06674	0.2346	2,302
Be3130_R		0.1004	ug/L	0.03632	36.18	7.472
Ca3158_R	W	32,590	ug/L	275.0	0.8439	39,060
Cd2265_A		-1.902	ug/L	0.05340	2.808	71.87
Co2286_A		18.93	ug/L	0.1339	0.7075	62.55
Cr2677_A		0.4450	ug/L	0.09014	20.26	11.93
Cu3273_A		-1.731	ug/L	0.02420	1.398	15.77
Fe2599_R	W	41,710	ug/L	427.3	1.024	90,510
K_7664_R		6,416	ug/L	19.14	0.2983	3,927
Li6707_R		6.286	ug/L	0.8676	13.80	97.29
Mg2025_A		4,669	ug/L	17.15	0.3673	1,662
Mn2576_R	W	3,527	ug/L	37.66	1.068	38,230
Mo2020_A		1.210	ug/L	0.1236	10.22	4.287
Na5895_R		17,890	ug/L	92.44	0.5167	33,320
Ni2316_A		14.61	ug/L	0.1119	0.7660	21.34
Pb2203_A		1.808	ug/L	0.3511	19.42	1.120
Sb2068_A		-0.3972	ug/L	0.09762	24.57	1.039
Se1960_A		-0.3279	ug/L	0.4208	128.3	1.595
Si2516_R		8,536	ug/L	108.9	1.275	4,303
Sn1899_A		1.262	ug/L	0.1484	11.76	1.066
Sr4215_R		364.1	ug/L	2.200	0.6043	33,140
Ti3349_A		4.415	ug/L	0.1822	4.128	100.1
Tl1908_A		-0.3858	ug/L	0.1935	50.15	-3.826
V_2924_A		0.4825	ug/L	0.04343	9.001	-3.240
Zn2062_A		2.871	ug/L	0.09147	3.186	6.396
Y_3600_R		18,942	Cts/S	42.463	0.22417	18,942
Y_2243_A		6,852.3	Cts/S	5.3796	0.078507	6,852.3
Y_3600_A		127,380	Cts/S	480.61	0.37730	127,380

SO7737-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:20:10PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.261	ug/L	0.1581	12.53	-231.7
Al3961_R		53.84	ug/L	1.468	2.727	83.71
As1891_A		626.9	ug/L	3.750	0.5982	213.1
B_2089_A		80.81	ug/L	0.3335	0.4127	109.8
Ba4554_R		26.29	ug/L	0.4229	1.609	2,147
Be3130_R		0.08652	ug/L	0.01852	21.40	6.347
Ca3158_R	W	31,570	ug/L	1,017	3.220	38,150
Cd2265_A		-1.482	ug/L	0.2545	17.17	60.52
Co2286_A		17.41	ug/L	0.1641	0.9427	57.70
Cr2677_A		0.09149	ug/L	0.2638	288.4	7.388
Cu3273_A		-0.6396	ug/L	0.2356	36.83	23.55
Fe2599_R	W	34,480	ug/L	938.4	2.722	75,420
K_7664_R		6,170	ug/L	111.2	1.802	3,809
Li6707_R		6.802	ug/L	0.1520	2.235	105.4
Mg2025_A		4,388	ug/L	14.72	0.3354	1,568
Mn2576_R	W	3,190	ug/L	87.90	2.756	34,860
Mo2020_A		0.7068	ug/L	0.07448	10.54	2.826
Na5895_R		17,650	ug/L	310.6	1.760	33,140
Ni2316_A		15.29	ug/L	0.05169	0.3381	22.86

SO7737-002

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:20:10PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.8808	ug/L	0.5374	61.02	0.1937
Sb2068_A		-0.7887	ug/L	0.08769	11.12	0.7007
Se1960_A		0.7084	ug/L	0.4702	66.38	1.807
Si2516_R		7,899	ug/L	225.6	2.857	4,018
Sn1899_A		1.533	ug/L	0.2107	13.74	1.188
Sr4215_R		350.4	ug/L	6.436	1.837	32,160
Ti3349_A		1.073	ug/L	0.1473	13.74	23.68
Tl1908_A		-0.7074	ug/L	0.7324	103.5	-3.822
V_2924_A		0.6165	ug/L	0.003706	0.6012	-2.177
Zn2062_A		2.370	ug/L	0.1069	4.511	5.288
Y_3600_R		19,102	Cts/S	372.42	1.9496	19,102
Y_2243_A		6,882.7	Cts/S	11.040	0.16040	6,882.7
Y_3600_A		129,590	Cts/S	587.10	0.45305	129,590

SO7737-003

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:24:32PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2521	ug/L	0.08870	35.19	-18.47
Al3961_R		196.0	ug/L	2.119	1.081	237.6
As1891_A		1.732	ug/L	0.2375	13.71	-2.549
B_2089_A		225.9	ug/L	1.366	0.6045	297.9
Ba4554_R		74.34	ug/L	0.8780	1.181	5,965
Be3130_R		0.1212	ug/L	0.004664	3.847	9.769
Ca3158_R	W	35,260	ug/L	171.8	0.4874	42,050
Cd2265_A		-0.03583	ug/L	0.03616	100.9	1.103
Co2286_A		1.296	ug/L	0.1590	12.27	4.117
Cr2677_A		1.250	ug/L	0.1701	13.61	14.02
Cu3273_A		3.717	ug/L	0.08440	2.271	48.68
Fe2599_R		904.2	ug/L	10.14	1.122	1,962
K_7664_R		10,550	ug/L	63.89	0.6054	6,419
Li6707_R		1.832	ug/L	0.3676	20.07	34.39
Mg2025_A		5,944	ug/L	51.80	0.8715	2,105
Mn2576_R		967.5	ug/L	5.931	0.6130	10,440
Mo2020_A		3.896	ug/L	0.009948	0.2553	12.35
Na5895_R	W	25,940	ug/L	237.9	0.9173	48,050
Ni2316_A		2.025	ug/L	0.2258	11.15	2.426
Pb2203_A		1.341	ug/L	1.072	79.93	-0.2377
Sb2068_A		1.727	ug/L	0.5313	30.75	1.364
Se1960_A		-1.175	ug/L	0.3474	29.58	0.9510
Si2516_R		3,885	ug/L	63.88	1.644	1,973
Sn1899_A		1.101	ug/L	0.3955	35.93	0.9909
Sr4215_R		381.6	ug/L	4.062	1.064	34,560
Ti3349_A		1.679	ug/L	0.06371	3.794	37.26
Tl1908_A		0.3194	ug/L	0.1800	56.34	-2.032
V_2924_A		0.4233	ug/L	0.2094	49.48	-3.465
Zn2062_A		2.694	ug/L	0.1543	5.729	5.965
Y_3600_R		18,845	Cts/S	56.152	0.29797	18,845
Y_2243_A		6,817.6	Cts/S	26.949	0.39528	6,817.6
Y_3600_A		127,290	Cts/S	45.207	0.035515	127,290

SO7737-004

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:28:53PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7737-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:28:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1600	ug/L	0.2422	151.3	-10.47
Al3961_R		0.7175	ug/L	7.315	1,020	28.65
As1891_A		-0.05832	ug/L	0.5990	1,027	-3.138
B_2089_A		225.3	ug/L	0.9294	0.4126	297.7
Ba4554_R		70.75	ug/L	1.013	1.432	5,698
Be3130_R		0.09769	ug/L	0.01050	10.75	7.494
Ca3158_R	W	34,340	ug/L	752.8	2.192	41,090
Cd2265_A		0.007495	ug/L	0.01018	135.8	-0.3809
Co2286_A		1.071	ug/L	0.01652	1.543	3.365
Cr2677_A		0.5301	ug/L	0.02022	3.814	6.483
Cu3273_A		2.324	ug/L	0.02481	1.067	31.59
Fe2599_R		26.21	ug/L	0.4526	1.727	67.02
K_7664_R		10,460	ug/L	136.4	1.305	6,383
Li6707_R		1.899	ug/L	0.3097	16.31	35.44
Mg2025_A		5,863	ug/L	27.61	0.4709	2,081
Mn2576_R		939.3	ug/L	20.28	2.159	10,170
Mo2020_A		4.117	ug/L	0.02790	0.6777	13.04
Na5895_R	W	25,790	ug/L	410.7	1.592	47,950
Ni2316_A		1.976	ug/L	0.06434	3.256	2.391
Pb2203_A		0.1199	ug/L	0.6844	570.9	-1.250
Sb2068_A		0.8595	ug/L	0.9516	110.7	0.9044
Se1960_A		-0.3237	ug/L	0.3544	109.5	1.163
Si2516_R		3,625	ug/L	47.66	1.315	1,850
Sn1899_A		0.7752	ug/L	0.4013	51.77	0.8522
Sr4215_R		375.3	ug/L	6.559	1.748	34,110
Ti3349_A		-0.5260	ug/L	0.03436	6.534	-13.46
Tl1908_A		-0.3408	ug/L	0.2910	85.40	-2.370
V_2924_A		-0.1047	ug/L	0.1885	180.1	-9.110
Zn2062_A		1.767	ug/L	0.007733	0.4377	3.891
Y_3600_R		18,915	Cts/S	283.71	1.4999	18,915
Y_2243_A		6,833.7	Cts/S	22.099	0.32339	6,833.7
Y_3600_A		127,740	Cts/S	493.32	0.38620	127,740

SO7737-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:33:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.907	ug/L	0.01015	0.5323	-368.5
Al3961_R		14.19	ug/L	7.690	54.20	57.29
As1891_A		31.46	ug/L	0.08963	0.2849	5.542
B_2089_A		267.1	ug/L	0.7217	0.2702	347.7
Ba4554_R		144.4	ug/L	0.8910	0.6171	11,310
Be3130_R		0.09917	ug/L	0.006699	6.755	7.428
Ca3158_R	W	51,830	ug/L	267.8	0.5165	60,400
Cd2265_A		-2.722	ug/L	0.1014	3.726	94.16
Co2286_A		24.06	ug/L	0.08510	0.3537	78.32
Cr2677_A		-0.08730	ug/L	0.1669	191.1	6.174
Cu3273_A		-4.509	ug/L	0.3407	7.556	-5.797
Fe2599_R	W	56,330	ug/L	437.2	0.7761	118,800
K_7664_R		13,520	ug/L	74.60	0.5516	8,032
Li6707_R		1.793	ug/L	0.8748	48.80	33.07
Mg2025_A		7,290	ug/L	22.70	0.3114	2,558
Mn2576_R	W	1,574	ug/L	13.52	0.8589	16,570
Mo2020_A		0.5176	ug/L	0.03246	6.272	2.314
Na5895_R		20,130	ug/L	146.7	0.7285	36,450
Ni2316_A		-0.5609	ug/L	0.3378	60.23	-4.184

SO7737-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:33:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4940	ug/L	0.1715	34.71	0.3898
Sb2068_A		-0.4236	ug/L	0.9335	220.4	1.246
Se1960_A		0.8683	ug/L	0.09598	11.05	1.612
Si2516_R		6,082	ug/L	71.06	1.168	2,990
Sn1899_A		1.206	ug/L	0.6715	55.67	1.025
Sr4215_R		513.3	ug/L	4.376	0.8525	45,420
Ti3349_A		0.3305	ug/L	0.07476	22.62	6.167
Tl1908_A		-0.4174	ug/L	0.5573	133.5	-2.728
V_2924_A		0.6527	ug/L	0.1810	27.73	8.701
Zn2062_A		8.512	ug/L	0.1561	1.834	18.84
Y_3600_R		18,411	Cts/S	6.5332	0.035485	18,411
Y_2243_A		6,745.5	Cts/S	29.370	0.43540	6,745.5
Y_3600_A		126,660	Cts/S	1,896.3	1.4971	126,660

SO7737-005L

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:37:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.562	ug/L	0.4460	28.54	-83.34
Al3961_R		60.28	ug/L	1.166	1.935	19.01
As1891_A		32.05	ug/L	2.278	7.106	-1.367
B_2089_A		272.5	ug/L	3.236	1.188	76.62
Ba4554_R		144.7	ug/L	1.004	0.6942	2,344
Be3130_R		0.2477	ug/L	0.1121	45.26	2.487
Ca3158_R		51,880	ug/L	589.6	1.136	12,440
Cd2265_A		-3.054	ug/L	0.1363	4.464	18.56
Co2286_A		25.25	ug/L	0.8441	3.343	16.98
Cr2677_A		0.9117	ug/L	0.3577	39.23	3.524
Cu3273_A		-6.990	ug/L	1.768	25.29	-4.070
Fe2599_R		56,600	ug/L	506.9	0.8957	24,600
K_7664_R		13,230	ug/L	18.93	0.1430	1,630
Li6707_R		4.976	ug/L	2.110	42.41	22.84
Mg2025_A		7,538	ug/L	71.93	0.9542	544.2
Mn2576_R		1,566	ug/L	23.23	1.483	3,400
Mo2020_A		0.3567	ug/L	0.7121	199.6	1.129
Na5895_R		20,110	ug/L	98.85	0.4914	7,526
Ni2316_A		-0.2404	ug/L	1.353	563.1	-1.501
Pb2203_A		-1.927	ug/L	0.2959	15.36	-1.430
Sb2068_A		-1.798	ug/L	2.640	146.9	0.4971
Se1960_A		-1.946	ug/L	1.106	56.84	1.107
Si2516_R		5,843	ug/L	31.39	0.5373	625.6
Sn1899_A		3.187	ug/L	1.937	60.78	0.8135
Sr4215_R		514.5	ug/L	4.208	0.8180	9,358
Ti3349_A		-0.5761	ug/L	1.356	235.3	-4.135
Tl1908_A		-1.904	ug/L	2.054	107.9	-2.104
V_2924_A		0.4503	ug/L	0.06454	14.33	-2.186
Zn2062_A		17.14	ug/L	0.1046	0.6102	7.835
Y_3600_R		18,965	Cts/S	19.474	0.10268	18,965
Y_2243_A		7,014.1	Cts/S	25.316	0.36093	7,014.1
Y_3600_A		130,170	Cts/S	283.97	0.21816	130,170

SO7737-005A

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:41:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000088

SO7737-005A

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:41:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		494.5	ug/L	4.351	0.8798	8,956
Al3961_R		11,590	ug/L	28.51	0.2459	12,490
As1891_A		518.6	ug/L	0.1406	0.02712	170.5
B_2089_A		776.2	ug/L	0.04188	0.005395	1,015
Ba4554_R		650.7	ug/L	9.354	1.438	52,370
Be3130_R		493.4	ug/L	6.000	1.216	51,200
Ca3158_R	W	53,900	ug/L	275.8	0.5117	64,620
Cd2265_A		520.2	ug/L	3.086	0.5931	5,485
Co2286_A		521.9	ug/L	1.990	0.3814	1,682
Cr2677_A		505.6	ug/L	7.256	1.435	5,163
Cu3273_A		545.6	ug/L	4.257	0.7802	6,445
Fe2599_R	W	58,330	ug/L	761.9	1.306	126,500
K_7664_R		23,400	ug/L	290.4	1.241	14,290
Li6707_R		517.4	ug/L	5.041	0.9742	7,291
Mg2025_A		12,350	ug/L	16.68	0.1350	4,351
Mn2576_R	W	1,943	ug/L	11.26	0.5793	21,060
Mo2020_A		514.3	ug/L	0.6524	0.1268	1,499
Na5895_R	W	25,200	ug/L	389.2	1.545	46,910
Ni2316_A		517.1	ug/L	1.532	0.2962	836.9
Pb2203_A		525.5	ug/L	0.1553	0.02956	422.9
Sb2068_A		479.2	ug/L	0.03280	0.006845	242.3
Se1960_A		503.5	ug/L	2.967	0.5893	127.0
Si2516_R		5,974	ug/L	13.55	0.2268	3,026
Sn1899_A		469.5	ug/L	1.537	0.3274	200.5
Sr4215_R	W	1,021	ug/L	16.34	1.600	92,980
Ti3349_A		494.0	ug/L	3.776	0.7645	11,200
Tl1908_A		485.0	ug/L	1.211	0.2496	250.3
V_2924_A		496.4	ug/L	5.035	1.014	5,081
Zn2062_A		519.8	ug/L	2.509	0.4827	1,151
Y_3600_R		18,941	Cts/S	15.873	0.083802	18,941
Y_2243_A		6,724.3	Cts/S	8.2696	0.12298	6,724.3
Y_3600_A		125,490	Cts/S	707.48	0.56375	125,490

SO7737-005P

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:46:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.63	ug/L	0.3784	0.7329	569.4
Al3961_R		2,101	ug/L	13.75	0.6543	2,257
As1891_A		135.0	ug/L	1.804	1.336	40.75
B_2089_A		800.1	ug/L	0.7464	0.09328	1,037
Ba4554_R	W	2,305	ug/L	10.16	0.4406	182,000
Be3130_R		52.15	ug/L	0.4854	0.9307	5,307
Ca3158_R	W	53,480	ug/L	365.8	0.6840	62,900
Cd2265_A		267.9	ug/L	1.002	0.3740	2,889
Co2286_A		541.5	ug/L	2.597	0.4796	1,750
Cr2677_A		210.4	ug/L	1.215	0.5771	2,150
Cu3273_A		281.4	ug/L	0.9527	0.3386	3,340
Fe2599_R	W	56,250	ug/L	532.0	0.9459	119,700
K_7664_R		24,110	ug/L	1.641	0.006808	14,440
Li6707_R		535.2	ug/L	0.7883	0.1473	7,399
Mg2025_A		12,110	ug/L	11.83	0.09772	4,276
Mn2576_R	W	2,048	ug/L	16.71	0.8160	21,770
Mo2020_A		107.6	ug/L	0.07373	0.06851	314.9
Na5895_R	W	28,260	ug/L	77.39	0.2739	51,630
Ni2316_A		537.5	ug/L	1.486	0.2764	867.6

SO7737-005P

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:46:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		110.2	ug/L	0.2912	0.2642	89.00
Sb2068_A		98.95	ug/L	0.3470	0.3507	49.24
Se1960_A		106.1	ug/L	0.2035	0.1919	27.98
Si2516_R		7,005	ug/L	63.96	0.9131	3,473
Sn1899_A		489.8	ug/L	2.927	0.5976	209.7
Sr4215_R	W	1,062	ug/L	5.245	0.4937	94,930
Ti3349_A		511.1	ug/L	3.044	0.5957	11,560
Tl1908_A		99.57	ug/L	0.9089	0.9128	50.06
V_2924_A		514.2	ug/L	2.967	0.5769	5,287
Zn2062_A		539.9	ug/L	2.019	0.3740	1,199
Y_3600_R		18,585	Cts/S	9.7148	0.052273	18,585
Y_2243_A		6,742.5	Cts/S	9.5381	0.14146	6,742.5
Y_3600_A		125,270	Cts/S	513.20	0.40966	125,270

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:50:18PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		516.1	ug/L	3.216	0.6231	9,944
Al3961_R		12,890	ug/L	110.9	0.8606	13,860
As1891_A		510.8	ug/L	0.03101	0.006071	174.9
B_2089_A	W	538.8	ug/L	1.122	0.2082	732.5
Ba4554_R	W	534.4	ug/L	2.864	0.5360	43,090
Be3130_R		499.1	ug/L	0.8668	0.1737	51,870
Ca3158_R		12,980	ug/L	11.63	0.08960	15,570
Cd2265_A	W	543.1	ug/L	1.053	0.1938	5,801
Co2286_A		514.7	ug/L	0.1414	0.02747	1,711
Cr2677_A		525.3	ug/L	1.633	0.3108	5,505
Cu3273_A	W	549.6	ug/L	2.957	0.5381	6,632
Fe2599_R	W	13,320	ug/L	55.65	0.4180	28,950
K_7664_R	W	13,520	ug/L	19.70	0.1458	8,273
Li6707_R		524.0	ug/L	3.275	0.6250	7,396
Mg2025_A		12,780	ug/L	0.5815	0.004550	4,643
Mn2576_R		497.0	ug/L	0.2623	0.05277	5,397
Mo2020_A		517.5	ug/L	0.2357	0.04554	1,556
Na5895_R	F	13,980	ug/L	40.60	0.2905	26,080
Ni2316_A	W	539.2	ug/L	0.3555	0.06593	902.1
Pb2203_A	W	546.6	ug/L	1.178	0.2155	452.7
Sb2068_A		490.7	ug/L	0.9247	0.1884	255.1
Se1960_A		516.2	ug/L	1.108	0.2147	134.1
Si2516_R		12,630	ug/L	57.11	0.4521	6,366
Sn1899_A		494.2	ug/L	0.3328	0.06734	217.8
Sr4215_R	W	549.8	ug/L	2.855	0.5193	50,130
Ti3349_A		500.4	ug/L	5.013	1.002	11,650
Tl1908_A		510.1	ug/L	0.9676	0.1897	272.5
V_2924_A		504.4	ug/L	0.005452	0.001081	5,299
Zn2062_A	W	534.6	ug/L	1.256	0.2349	1,221
Y_3600_R		18,973	Cts/S	81.334	0.42869	18,973
Y_2243_A		6,937.3	Cts/S	2.0338	0.029317	6,937.3
Y_3600_A		128,900	Cts/S	647.98	0.50269	128,900

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:54:26PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:54:26PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06407	ug/L	0.2102	328.1	-6.164
Al3961_R		8.780	ug/L	0.2888	3.289	6.064
As1891_A		-0.7787	ug/L	0.4400	56.51	-3.449
B_2089_A		2.437	ug/L	0.3169	13.01	6.808
Ba4554_R		0.3726	ug/L	0.01016	2.727	43.15
Be3130_R		0.2179	ug/L	0.01772	8.131	19.83
Ca3158_R		0.7570	ug/L	0.4336	57.27	-20.88
Cd2265_A		0.09057	ug/L	0.07229	79.81	0.4732
Co2286_A		0.2758	ug/L	0.05863	21.26	0.7885
Cr2677_A		0.1796	ug/L	0.1624	90.42	2.068
Cu3273_A		-0.3275	ug/L	0.05538	16.91	-0.09972
Fe2599_R		13.22	ug/L	0.3909	2.956	38.82
K_7664_R		-23.71	ug/L	8.787	37.06	-1.814
Li6707_R		1.273	ug/L	0.4102	32.22	26.63
Mg2025_A		4.669	ug/L	0.2857	6.120	-5.596
Mn2576_R		-0.3315	ug/L	0.1601	48.30	-2.092
Mo2020_A		0.8105	ug/L	0.2991	36.91	3.369
Na5895_R		10.74	ug/L	4.553	42.40	50.96
Ni2316_A		-0.3288	ug/L	0.2520	76.66	-1.453
Pb2203_A		-0.1116	ug/L	0.1229	110.2	-1.464
Sb2068_A		0.5440	ug/L	0.5124	94.19	0.7557
Se1960_A		0.02311	ug/L	0.6425	2,780	1.146
Si2516_R		20.41	ug/L	27.05	132.5	51.89
Sn1899_A		1.065	ug/L	0.4727	44.40	0.9959
Sr4215_R		0.3066	ug/L	0.02548	8.310	1.423
Ti3349_A		0.8432	ug/L	0.2174	25.78	18.33
Tl1908_A		0.2657	ug/L	0.4437	167.0	-1.566
V_2924_A		0.09376	ug/L	0.3194	340.6	-3.467
Zn2062_A		0.2922	ug/L	0.02767	9.471	0.5823
Y_3600_R		18,888	Cts/S	63.100	0.33408	18,888
Y_2243_A		6,962.2	Cts/S	10.873	0.15617	6,962.2
Y_3600_A		129,690	Cts/S	158.36	0.12211	129,690

SO7737-005S

Method Name: FAST-2016_NO_AU Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:58:51PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.58	ug/L	0.05862	0.1115	591.1
Al3961_R		2,143	ug/L	26.91	1.256	2,305
As1891_A		136.1	ug/L	0.8908	0.6546	41.02
B_2089_A		807.7	ug/L	5.158	0.6386	1,044
Ba4554_R	W	2,336	ug/L	6.218	0.2661	184,900
Be3130_R		52.69	ug/L	0.3825	0.7258	5,373
Ca3158_R	W	52,780	ug/L	1,056	2.001	62,200
Cd2265_A		273.3	ug/L	1.531	0.5602	2,935
Co2286_A		549.6	ug/L	3.026	0.5506	1,772
Cr2677_A		216.0	ug/L	1.112	0.5151	2,202
Cu3273_A		288.8	ug/L	0.6546	0.2266	3,421
Fe2599_R	W	55,580	ug/L	636.6	1.145	118,500
K_7664_R		24,160	ug/L	28.37	0.1175	14,500
Li6707_R		541.0	ug/L	0.01271	0.002348	7,495
Mg2025_A		12,070	ug/L	67.98	0.5631	4,253
Mn2576_R	W	2,025	ug/L	34.02	1.680	21,570
Mo2020_A		109.0	ug/L	0.7783	0.7139	318.1
Na5895_R	W	28,290	ug/L	60.25	0.2130	51,780
Ni2316_A		550.2	ug/L	2.362	0.4293	885.9

SO7737-005S

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 1:58:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		113.5	ug/L	0.4235	0.3731	91.38
Sb2068_A		99.92	ug/L	0.8479	0.8486	49.59
Se1960_A		108.2	ug/L	0.008465	0.007823	28.43
Si2516_R		6,873	ug/L	122.3	1.779	3,415
Sn1899_A		492.5	ug/L	2.726	0.5535	210.3
Sr4215_R	W	1,065	ug/L	0.2538	0.02384	95,310
Ti3349_A		517.6	ug/L	0.5709	0.1103	11,690
Tl1908_A		100.5	ug/L	0.8914	0.8866	50.46
V_2924_A		524.5	ug/L	4.108	0.7831	5,383
Zn2062_A		551.2	ug/L	1.765	0.3201	1,221
Y_3600_R		18,621	Cts/S	131.99	0.70883	18,621
Y_2243_A		6,724.6	Cts/S	28.569	0.42484	6,724.6
Y_3600_A		125,060	Cts/S	1.5071	0.0012050	125,060

SO7737-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:03:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.550	ug/L	0.09223	5.950	-364.0
Al3961_R		-3.739	ug/L	8.192	219.1	37.87
As1891_A		30.23	ug/L	1.255	4.152	5.169
B_2089_A		266.6	ug/L	1.212	0.4548	347.4
Ba4554_R		143.2	ug/L	1.178	0.8227	11,250
Be3130_R		0.05409	ug/L	0.007925	14.65	2.920
Ca3158_R	W	50,840	ug/L	554.3	1.090	59,460
Cd2265_A		-2.721	ug/L	0.02394	0.8798	91.82
Co2286_A		23.82	ug/L	0.04605	0.1933	77.61
Cr2677_A		-0.08065	ug/L	0.04755	58.96	6.028
Cu3273_A		-4.866	ug/L	0.3797	7.804	-10.76
Fe2599_R	W	55,210	ug/L	289.9	0.5250	116,900
K_7664_R		13,400	ug/L	33.06	0.2467	7,988
Li6707_R		0.8041	ug/L	1.063	132.2	19.60
Mg2025_A		7,161	ug/L	9.083	0.1268	2,515
Mn2576_R	W	1,533	ug/L	21.75	1.419	16,210
Mo2020_A		0.7350	ug/L	0.2278	30.99	2.954
Na5895_R		20,190	ug/L	103.4	0.5122	36,690
Ni2316_A		-0.1492	ug/L	0.004024	2.698	-3.470
Pb2203_A		0.9935	ug/L	0.07535	7.584	0.7700
Sb2068_A		-0.3046	ug/L	0.2766	90.81	1.285
Se1960_A		0.8945	ug/L	1.953	218.3	1.613
Si2516_R		5,872	ug/L	67.87	1.156	2,899
Sn1899_A		1.897	ug/L	0.06730	3.547	1.322
Sr4215_R		513.3	ug/L	3.834	0.7470	45,590
Ti3349_A		0.07818	ug/L	0.2548	326.0	0.4097
Tl1908_A		-0.01093	ug/L	0.4285	3,921	-2.496
V_2924_A		0.7681	ug/L	0.1188	15.47	9.691
Zn2062_A		8.912	ug/L	0.04758	0.5339	19.75
Y_3600_R		18,481	Cts/S	56.358	0.30495	18,481
Y_2243_A		6,752.8	Cts/S	1.3403	0.019848	6,752.8
Y_3600_A		125,480	Cts/S	35.999	0.028689	125,480

SO7737-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:07:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000092

SO7737-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:07:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.01953	ug/L	0.1931	989.1	-13.12
Al3961_R		101.3	ug/L	2.339	2.309	130.5
As1891_A		2.998	ug/L	0.6951	23.18	-2.102
B_2089_A		248.9	ug/L	0.5336	0.2143	326.6
Ba4554_R		119.0	ug/L	0.1241	0.1042	9,484
Be3130_R		0.09816	ug/L	0.007102	7.236	7.219
Ca3158_R	W	29,470	ug/L	154.7	0.5252	34,920
Cd2265_A		-0.01798	ug/L	0.006300	35.05	1.050
Co2286_A		6.459	ug/L	0.02903	0.4495	20.89
Cr2677_A		0.5275	ug/L	0.1656	31.40	6.183
Cu3273_A		1.019	ug/L	0.3652	35.85	16.32
Fe2599_R		797.1	ug/L	4.833	0.6063	1,720
K_7664_R		15,100	ug/L	35.01	0.2319	9,121
Li6707_R		1.318	ug/L	0.7678	58.24	27.09
Mg2025_A		4,108	ug/L	6.556	0.1596	1,448
Mn2576_R		634.0	ug/L	2.949	0.4651	6,800
Mo2020_A		0.2939	ug/L	0.02955	10.05	1.728
Na5895_R	W	28,520	ug/L	62.30	0.2185	52,510
Ni2316_A		2.885	ug/L	0.3750	13.00	3.782
Pb2203_A		0.5437	ug/L	0.7373	135.6	-0.8820
Sb2068_A		0.1010	ug/L	0.03809	37.73	0.5263
Se1960_A		-0.5921	ug/L	0.3212	54.24	1.049
Si2516_R		5,417	ug/L	8.626	0.1592	2,718
Sn1899_A		0.9178	ug/L	0.08470	9.228	0.9083
Sr4215_R		373.2	ug/L	0.9352	0.2506	33,590
Ti3349_A		3.060	ug/L	0.08447	2.761	68.24
Tl1908_A		0.5144	ug/L	1.236	240.2	-1.732
V_2924_A		0.07305	ug/L	0.01706	23.35	-5.650
Zn2062_A		1.905	ug/L	0.08223	4.317	4.177
Y_3600_R		18,732	Cts/S	150.53	0.80358	18,732
Y_2243_A		6,793.5	Cts/S	3.8915	0.057283	6,793.5
Y_3600_A		126,030	Cts/S	513.67	0.40758	126,030

SO7737-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:11:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3455	ug/L	0.1068	30.92	-15.27
Al3961_R		8.631	ug/L	3.242	37.56	33.08
As1891_A		0.1485	ug/L	0.4064	273.6	-3.092
B_2089_A		250.5	ug/L	1.458	0.5822	332.6
Ba4554_R		122.5	ug/L	1.844	1.505	9,743
Be3130_R		0.09850	ug/L	0.01671	16.96	7.494
Ca3158_R	W	30,460	ug/L	641.2	2.105	36,030
Cd2265_A		-0.006316	ug/L	0.03425	542.3	-0.1467
Co2286_A		6.467	ug/L	0.1483	2.292	21.14
Cr2677_A		0.3800	ug/L	0.09143	24.06	4.695
Cu3273_A		0.2680	ug/L	0.1424	53.12	7.159
Fe2599_R		197.9	ug/L	3.560	1.799	433.8
K_7664_R		15,530	ug/L	231.4	1.490	9,366
Li6707_R		1.518	ug/L	0.1583	10.43	29.80
Mg2025_A		4,189	ug/L	24.74	0.5907	1,494
Mn2576_R		658.4	ug/L	8.786	1.334	7,048
Mo2020_A		0.2669	ug/L	0.1054	39.48	1.666
Na5895_R	W	29,340	ug/L	485.0	1.653	53,910
Ni2316_A		2.681	ug/L	0.06669	2.487	3.517

SO7737-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:11:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4602	ug/L	0.1738	37.78	-0.9702
Sb2068_A		0.4745	ug/L	0.6691	141.0	0.7129
Se1960_A		-0.006598	ug/L	0.7688	11,650	1.214
Si2516_R		5,484	ug/L	71.40	1.302	2,745
Sn1899_A		0.9827	ug/L	0.4518	45.98	0.9470
Sr4215_R		388.9	ug/L	6.438	1.656	34,930
Ti3349_A		-0.09323	ug/L	0.04415	47.35	-3.536
Tl1908_A		-0.02587	ug/L	0.4524	1,749	-2.053
V_2924_A		0.2027	ug/L	0.02036	10.05	-4.596
Zn2062_A		1.397	ug/L	0.08398	6.011	3.078
Y_3600_R		18,696	Cts/S	448.68	2.3998	18,696
Y_2243_A		6,876.3	Cts/S	45.008	0.65455	6,876.3
Y_3600_A		127,630	Cts/S	380.18	0.29788	127,630

SO7737-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:16:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.733	ug/L	0.6550	37.81	-402.2
Al3961_R		114.6	ug/L	5.476	4.777	144.5
As1891_A	W	1,289	ug/L	8.623	0.6690	435.9
B_2089_A		80.41	ug/L	0.6382	0.7937	107.8
Ba4554_R		30.94	ug/L	0.1326	0.4285	2,477
Be3130_R		0.08055	ug/L	0.01975	24.52	5.407
Ca3158_R	W	29,110	ug/L	9.371	0.03219	34,530
Cd2265_A		-2.824	ug/L	0.03617	1.281	102.9
Co2286_A		3.452	ug/L	0.03321	0.9620	11.98
Cr2677_A		-0.09878	ug/L	0.07420	75.12	5.809
Cu3273_A		-4.731	ug/L	0.06561	1.387	-5.206
Fe2599_R	W	60,510	ug/L	321.8	0.5319	129,900
K_7664_R		8,670	ug/L	5.501	0.06345	5,248
Li6707_R		1.781	ug/L	2.154	121.0	33.44
Mg2025_A		3,975	ug/L	15.93	0.4007	1,400
Mn2576_R		800.5	ug/L	1.228	0.1534	8,574
Mo2020_A		2.365	ug/L	0.09809	4.148	7.806
Na5895_R		22,330	ug/L	64.92	0.2907	41,160
Ni2316_A		-1.313	ug/L	0.2136	16.26	-5.594
Pb2203_A		2.186	ug/L	0.08566	3.919	1.861
Sb2068_A		-0.3664	ug/L	0.1156	31.55	1.400
Se1960_A		2.471	ug/L	0.5600	22.67	1.959
Si2516_R		10,350	ug/L	44.38	0.4287	5,155
Sn1899_A		2.311	ug/L	0.03810	1.649	1.507
Sr4215_R		276.9	ug/L	1.198	0.4324	24,940
Ti3349_A		3.614	ug/L	0.1644	4.549	81.45
Tl1908_A		-0.4007	ug/L	0.7363	183.7	-2.360
V_2924_A		0.3780	ug/L	0.1718	45.45	9.421
Zn2062_A		2.444	ug/L	0.08274	3.385	5.383
Y_3600_R		18,746	Cts/S	93.895	0.50088	18,746
Y_2243_A		6,788.5	Cts/S	26.058	0.38386	6,788.5
Y_3600_A		126,930	Cts/S	573.27	0.45165	126,930

SO7737-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:20:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000094

SO7737-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:20:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.683	ug/L	0.09418	5.596	-393.1
Al3961_R		27.80	ug/L	6.736	24.23	51.82
As1891_A	W	1,266	ug/L	3.749	0.2962	426.6
B_2089_A		79.87	ug/L	0.1123	0.1406	106.8
Ba4554_R		30.30	ug/L	0.2025	0.6684	2,427
Be3130_R		0.09913	ug/L	0.0004930	0.4970	7.524
Ca3158_R	W	28,430	ug/L	91.40	0.3215	33,740
Cd2265_A		-2.827	ug/L	0.1082	3.826	100.1
Co2286_A		3.136	ug/L	0.2457	7.837	10.89
Cr2677_A		-0.4009	ug/L	0.02468	6.154	2.555
Cu3273_A		-4.768	ug/L	0.1507	3.161	-6.409
Fe2599_R	W	59,430	ug/L	362.6	0.6101	127,700
K_7664_R		8,601	ug/L	50.11	0.5825	5,209
Li6707_R		2.135	ug/L	0.2104	9.857	38.47
Mg2025_A		3,902	ug/L	6.529	0.1673	1,370
Mn2576_R		784.7	ug/L	5.686	0.7246	8,410
Mo2020_A		2.531	ug/L	0.06654	2.629	8.270
Na5895_R		22,240	ug/L	134.3	0.6038	41,020
Ni2316_A		-1.274	ug/L	0.04375	3.433	-5.465
Pb2203_A		1.382	ug/L	0.8864	64.13	1.184
Sb2068_A		-0.2635	ug/L	0.5227	198.4	1.430
Se1960_A		-1.431	ug/L	0.6516	45.53	0.9696
Si2516_R		10,020	ug/L	34.80	0.3472	4,997
Sn1899_A		1.783	ug/L	0.09038	5.068	1.276
Sr4215_R		274.8	ug/L	1.962	0.7141	24,760
Ti3349_A		0.4077	ug/L	0.3722	91.31	7.946
Tl1908_A		0.1539	ug/L	0.6426	417.6	-2.053
V_2924_A		0.1491	ug/L	0.1174	78.77	6.799
Zn2062_A		2.134	ug/L	0.1621	7.598	4.673
Y_3600_R		18,757	Cts/S	83.858	0.44707	18,757
Y_2243_A		6,766.5	Cts/S	8.8505	0.13080	6,766.5
Y_3600_A		126,170	Cts/S	99.641	0.078973	126,170

SO7737-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:24:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.574	ug/L	0.1395	8.863	-388.0
Al3961_R		1,064	ug/L	20.14	1.893	1,158
As1891_A	W	2,089	ug/L	6.022	0.2883	705.6
B_2089_A		79.18	ug/L	0.09210	0.1163	105.6
Ba4554_R		35.32	ug/L	0.5010	1.418	2,824
Be3130_R		0.1282	ug/L	0.02272	17.72	8.309
Ca3158_R	W	38,730	ug/L	284.6	0.7347	45,900
Cd2265_A		-2.778	ug/L	0.004815	0.1733	98.00
Co2286_A		14.60	ug/L	0.1649	1.130	48.02
Cr2677_A		2.557	ug/L	0.2434	9.518	34.35
Cu3273_A		-2.546	ug/L	0.07305	2.869	18.44
Fe2599_R	W	58,330	ug/L	230.7	0.3955	125,100
K_7664_R		6,879	ug/L	72.28	1.051	4,162
Li6707_R		7.156	ug/L	0.8756	12.24	108.3
Mg2025_A		5,896	ug/L	10.95	0.1858	2,068
Mn2576_R	W	2,623	ug/L	23.97	0.9141	28,100
Mo2020_A		1.650	ug/L	0.02304	1.396	5.563
Na5895_R		16,310	ug/L	64.41	0.3949	30,040
Ni2316_A		9.030	ug/L	0.2541	2.814	11.27

SO7737-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:24:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.838	ug/L	0.1792	6.315	2.262
Sb2068_A		-1.019	ug/L	0.9717	95.32	1.059
Se1960_A		0.6143	ug/L	1.697	276.3	1.744
Si2516_R		13,360	ug/L	138.7	1.038	6,634
Sn1899_A		1.812	ug/L	0.3628	20.02	1.284
Sr4215_R		384.2	ug/L	2.243	0.5837	34,580
Ti3349_A		33.02	ug/L	4.006	12.13	751.2
Tl1908_A		-0.6099	ug/L	0.2220	36.39	-3.431
V_2924_A		1.586	ug/L	0.1576	9.939	15.09
Zn2062_A		6.190	ug/L	0.04870	0.7867	13.68
Y_3600_R		18,728	Cts/S	50.949	0.27205	18,728
Y_2243_A		6,748.2	Cts/S	15.994	0.23701	6,748.2
Y_3600_A		126,170	Cts/S	1,311.3	1.0393	126,170

SO7737-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:29:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.852	ug/L	0.005283	0.2852	-372.1
Al3961_R		237.4	ug/L	2.248	0.9468	281.7
As1891_A	W	2,031	ug/L	0.7596	0.03740	693.7
B_2089_A		77.73	ug/L	0.3006	0.3868	104.9
Ba4554_R		30.65	ug/L	0.2591	0.8454	2,445
Be3130_R		0.07997	ug/L	0.05259	65.76	5.142
Ca3158_R	W	37,990	ug/L	308.4	0.8117	44,910
Cd2265_A		-2.753	ug/L	0.07762	2.820	96.05
Co2286_A		13.74	ug/L	0.1952	1.421	45.58
Cr2677_A		0.3304	ug/L	0.1826	55.25	11.34
Cu3273_A		-4.316	ug/L	0.1947	4.510	-3.184
Fe2599_R	W	56,840	ug/L	512.0	0.9008	121,600
K_7664_R		6,644	ug/L	88.94	1.339	4,010
Li6707_R		7.082	ug/L	0.8869	12.52	107.0
Mg2025_A		5,645	ug/L	3.295	0.05836	2,002
Mn2576_R	W	2,580	ug/L	21.14	0.8193	27,570
Mo2020_A		1.724	ug/L	0.1401	8.130	5.845
Na5895_R		15,980	ug/L	173.3	1.085	29,350
Ni2316_A		7.037	ug/L	0.2540	3.609	8.202
Pb2203_A		1.360	ug/L	0.1931	14.20	1.099
Sb2068_A		-0.3322	ug/L	0.8777	264.2	1.392
Se1960_A		-0.5481	ug/L	0.9674	176.5	1.459
Si2516_R		12,160	ug/L	58.34	0.4798	6,027
Sn1899_A		1.024	ug/L	0.4604	44.97	0.9583
Sr4215_R		374.7	ug/L	4.513	1.204	33,630
Ti3349_A		6.292	ug/L	0.2893	4.598	142.1
Tl1908_A		-0.7058	ug/L	0.1858	26.33	-3.486
V_2924_A		0.4900	ug/L	0.06250	12.76	3.432
Zn2062_A		3.743	ug/L	0.01827	0.4881	8.332
Y_3600_R		18,679	Cts/S	10.372	0.055528	18,679
Y_2243_A		6,824.4	Cts/S	2.9478	0.043194	6,824.4
Y_3600_A		126,320	Cts/S	438.05	0.34679	126,320

SO7737-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:33:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7737-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:33:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.830	ug/L	0.1788	6.319	-540.8
Al3961_R		2.149	ug/L	4.873	226.7	32.57
As1891_A	W	1,006	ug/L	0.08229	0.008180	337.7
B_2089_A		178.9	ug/L	0.05378	0.03006	235.2
Ba4554_R		66.62	ug/L	0.01578	0.02369	5,250
Be3130_R		0.07764	ug/L	0.05593	72.04	5.299
Ca3158_R	W	37,760	ug/L	86.97	0.2304	44,200
Cd2265_A		-4.174	ug/L	0.01423	0.3409	139.1
Co2286_A		24.65	ug/L	0.03953	0.1604	81.01
Cr2677_A		-0.5907	ug/L	0.07127	12.07	4.674
Cu3273_A		-6.213	ug/L	0.1763	2.838	-4.760
Fe2599_R	W	83,530	ug/L	1.333	0.001596	177,000
K_7664_R		11,680	ug/L	94.95	0.8127	6,975
Li6707_R		2.838	ug/L	0.1552	5.467	47.62
Mg2025_A		5,667	ug/L	4.777	0.08430	1,998
Mn2576_R	W	2,783	ug/L	1.644	0.05905	29,450
Mo2020_A		3.063	ug/L	0.08075	2.637	9.725
Na5895_R		19,670	ug/L	107.0	0.5441	35,780
Ni2316_A		2.605	ug/L	0.05672	2.177	-0.1888
Pb2203_A		1.845	ug/L	1.292	70.01	2.130
Sb2068_A		-0.1059	ug/L	0.1398	132.1	1.934
Se1960_A		1.219	ug/L	0.5766	47.28	1.933
Si2516_R		9,378	ug/L	6.170	0.06580	4,611
Sn1899_A		1.795	ug/L	0.3968	22.10	1.283
Sr4215_R		467.0	ug/L	0.8887	0.1903	41,520
Ti3349_A		-0.4573	ug/L	0.2949	64.49	-11.74
Tl1908_A		-0.09599	ug/L	0.09965	103.8	-3.253
V_2924_A		0.2534	ug/L	0.1939	76.51	5.755
Zn2062_A		4.250	ug/L	0.1230	2.895	9.409
Y_3600_R		18,501	Cts/S	66.738	0.36072	18,501
Y_2243_A		6,779.0	Cts/S	4.4145	0.065119	6,779.0
Y_3600_A		126,190	Cts/S	567.98	0.45010	126,190

SO7737-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:37:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.992	ug/L	0.4512	22.65	-535.2
Al3961_R		-7.857	ug/L	3.699	47.08	21.31
As1891_A	W	1,040	ug/L	7.489	0.7200	349.2
B_2089_A		176.6	ug/L	0.3558	0.2015	232.1
Ba4554_R		63.73	ug/L	1.342	2.106	5,110
Be3130_R		0.07642	ug/L	0.04035	52.81	5.303
Ca3158_R	W	36,410	ug/L	942.2	2.588	43,370
Cd2265_A		-3.687	ug/L	0.3746	10.16	138.0
Co2286_A		24.71	ug/L	0.1385	0.5607	81.11
Cr2677_A		-0.8571	ug/L	0.1029	12.01	1.572
Cu3273_A		-6.627	ug/L	0.3146	4.747	-11.73
Fe2599_R	W	80,750	ug/L	2,144	2.655	174,100
K_7664_R		11,320	ug/L	264.9	2.340	6,877
Li6707_R		2.412	ug/L	1.417	58.73	42.63
Mg2025_A		5,636	ug/L	22.42	0.3979	1,985
Mn2576_R	W	2,679	ug/L	70.50	2.632	28,840
Mo2020_A		3.164	ug/L	0.001997	0.06311	10.02
Na5895_R		19,280	ug/L	443.5	2.300	35,690
Ni2316_A		2.649	ug/L	0.1278	4.827	0.001701

SO7737-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:37:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.857	ug/L	1.003	54.00	2.075
Sb2068_A		-0.8177	ug/L	0.5638	68.95	1.517
Se1960_A		-0.03335	ug/L	1.813	5,438	1.601
Si2516_R		9,217	ug/L	227.3	2.467	4,611
Sn1899_A		2.412	ug/L	0.2564	10.63	1.547
Sr4215_R		455.8	ug/L	9.993	2.192	41,230
Ti3349_A		-0.4885	ug/L	0.1161	23.77	-12.41
Tl1908_A		-0.4306	ug/L	0.4787	111.2	-3.367
V_2924_A		0.1620	ug/L	0.1178	72.71	4.588
Zn2062_A		3.552	ug/L	0.1017	2.863	7.845
Y_3600_R		18,827	Cts/S	267.95	1.4232	18,827
Y_2243_A		6,774.6	Cts/S	17.940	0.26481	6,774.6
Y_3600_A		125,700	Cts/S	386.06	0.30712	125,700

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:42:10PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		513.6	ug/L	1.701	0.3311	9,860
Al3961_R		13,090	ug/L	682.0	5.210	13,790
As1891_A		509.0	ug/L	0.7603	0.1494	173.8
B_2089_A	W	536.1	ug/L	2.045	0.3815	726.7
Ba4554_R	W	549.4	ug/L	26.81	4.880	43,380
Be3130_R		513.3	ug/L	26.01	5.068	52,250
Ca3158_R		13,130	ug/L	675.7	5.144	15,430
Cd2265_A	W	542.9	ug/L	0.08224	0.01515	5,783
Co2286_A		511.7	ug/L	0.3361	0.06567	1,696
Cr2677_A	W	527.0	ug/L	0.005933	0.001126	5,504
Cu3273_A	F	555.1	ug/L	3.669	0.6610	6,676
Fe2599_R	W	13,710	ug/L	707.0	5.156	29,190
K_7664_R	F	13,940	ug/L	529.2	3.797	8,355
Li6707_R	W	539.0	ug/L	25.66	4.761	7,451
Mg2025_A		12,710	ug/L	4.287	0.03374	4,602
Mn2576_R		505.9	ug/L	28.07	5.549	5,379
Mo2020_A		514.1	ug/L	0.2253	0.04383	1,541
Na5895_R	F	14,490	ug/L	619.0	4.274	26,470
Ni2316_A	W	536.3	ug/L	0.4876	0.09093	894.6
Pb2203_A	W	544.1	ug/L	0.7938	0.1459	449.3
Sb2068_A		485.7	ug/L	1.232	0.2537	251.8
Se1960_A		513.1	ug/L	0.2387	0.04652	132.9
Si2516_R		12,740	ug/L	546.9	4.293	6,288
Sn1899_A		486.6	ug/L	1.458	0.2996	213.8
Sr4215_R	F	569.0	ug/L	27.42	4.818	50,820
Ti3349_A		496.4	ug/L	2.347	0.4727	11,520
Tl1908_A		505.8	ug/L	0.6589	0.1303	269.4
V_2924_A		503.6	ug/L	0.4542	0.09019	5,273
Zn2062_A	W	531.7	ug/L	0.4835	0.09094	1,211
Y_3600_R		18,594	Cts/S	539.30	2.9004	18,594
Y_2243_A		6,916.8	Cts/S	13.665	0.19756	6,916.8
Y_3600_A		128,470	Cts/S	276.77	0.21544	128,470

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:46:19PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:46:19PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.03987	ug/L	0.2043	512.4	-8.219
Al3961_R		6.463	ug/L	6.843	105.9	3.620
As1891_A		-0.2445	ug/L	0.5114	209.2	-3.260
B_2089_A		1.686	ug/L	0.2847	16.89	5.804
Ba4554_R		0.1657	ug/L	0.1153	69.58	26.47
Be3130_R		0.1901	ug/L	0.01863	9.799	16.95
Ca3158_R		2.338	ug/L	1.153	49.34	-18.97
Cd2265_A		0.08223	ug/L	0.06536	79.49	0.3803
Co2286_A		0.4145	ug/L	0.02813	6.786	1.250
Cr2677_A		0.05677	ug/L	0.003236	5.700	0.7755
Cu3273_A		-0.2284	ug/L	0.5442	238.3	1.111
Fe2599_R		11.61	ug/L	2.501	21.55	35.25
K_7664_R		-31.16	ug/L	21.87	70.19	-6.416
Li6707_R		0.5665	ug/L	0.2311	40.79	16.69
Mg2025_A		7.370	ug/L	0.9351	12.69	-4.607
Mn2576_R		-0.1740	ug/L	0.2568	147.5	-0.4044
Mo2020_A		0.7098	ug/L	0.1121	15.79	3.063
Na5895_R		-0.8134	ug/L	6.062	745.3	29.45
Ni2316_A		-0.1968	ug/L	0.1691	85.95	-1.232
Pb2203_A		0.3614	ug/L	0.6599	182.6	-1.068
Sb2068_A		1.171	ug/L	0.1613	13.78	1.084
Se1960_A		-0.5322	ug/L	0.8144	153.0	1.002
Si2516_R		23.92	ug/L	10.38	43.41	53.57
Sn1899_A		0.8671	ug/L	0.7696	88.76	0.9084
Sr4215_R		0.2568	ug/L	0.01006	3.917	-3.101
Ti3349_A		0.7522	ug/L	0.1186	15.77	16.27
Tl1908_A		-0.3806	ug/L	0.06523	17.14	-1.913
V_2924_A		0.01623	ug/L	0.1709	1,054	-4.301
Zn2062_A		0.2898	ug/L	0.001428	0.4930	0.5767
Y_3600_R		18,867	Cts/S	191.27	1.0138	18,867
Y_2243_A		6,959.3	Cts/S	14.012	0.20134	6,959.3
Y_3600_A		130,250	Cts/S	135.92	0.10435	130,250

SO7737-015

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:50:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.089	ug/L	0.09274	4.439	-535.1
Al3961_R		-6.431	ug/L	5.140	79.93	23.05
As1891_A		999.7	ug/L	3.860	0.3861	333.7
B_2089_A		176.1	ug/L	1.070	0.6079	230.2
Ba4554_R		64.40	ug/L	0.3635	0.5644	5,132
Be3130_R		0.08025	ug/L	0.004441	5.534	5.654
Ca3158_R	W	36,840	ug/L	129.3	0.3511	43,610
Cd2265_A		-3.697	ug/L	0.02784	0.7530	137.8
Co2286_A		24.33	ug/L	0.08778	0.3608	79.48
Cr2677_A		-0.8475	ug/L	0.1671	19.71	1.748
Cu3273_A		-7.036	ug/L	0.1207	1.715	-16.32
Fe2599_R	W	81,030	ug/L	543.9	0.6712	173,600
K_7664_R		11,400	ug/L	44.69	0.3922	6,880
Li6707_R		2.612	ug/L	0.2997	11.47	45.01
Mg2025_A		5,651	ug/L	5.227	0.09249	1,980
Mn2576_R	W	2,741	ug/L	11.47	0.4184	29,330
Mo2020_A		3.199	ug/L	0.06864	2.146	10.07
Na5895_R		19,240	ug/L	50.17	0.2607	35,400
Ni2316_A		2.533	ug/L	0.02352	0.9287	-0.1970

SO7737-015

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:50:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.247	ug/L	0.7799	34.72	2.385
Sb2068_A		-1.019	ug/L	1.181	115.9	1.410
Se1960_A		-0.3538	ug/L	0.5931	167.6	1.519
Si2516_R		9,211	ug/L	22.92	0.2488	4,580
Sn1899_A		2.413	ug/L	0.1712	7.097	1.539
Sr4215_R		457.6	ug/L	3.941	0.8613	41,140
Ti3349_A		-0.4106	ug/L	0.08172	19.90	-10.64
Tl1908_A		0.2054	ug/L	0.05424	26.40	-3.053
V_2924_A		0.5487	ug/L	0.2870	52.31	8.409
Zn2062_A		4.440	ug/L	0.01454	0.3275	9.776
Y_3600_R		18,709	Cts/S	31.254	0.16706	18,709
Y_2243_A		6,739.1	Cts/S	8.6570	0.12846	6,739.1
Y_3600_A		125,660	Cts/S	313.16	0.24920	125,660

SO7737-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:55:04PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.608	ug/L	0.1810	6.940	-532.9
Al3961_R		-5.961	ug/L	6.137	102.9	23.42
As1891_A	W	1,036	ug/L	3.087	0.2979	347.5
B_2089_A		176.4	ug/L	1.336	0.7571	231.6
Ba4554_R		64.03	ug/L	0.3483	0.5440	5,084
Be3130_R		0.06816	ug/L	0.003139	4.605	4.377
Ca3158_R	W	36,790	ug/L	431.9	1.174	43,400
Cd2265_A		-3.875	ug/L	0.03586	0.9254	138.1
Co2286_A		24.28	ug/L	0.2883	1.188	79.62
Cr2677_A		-0.9011	ug/L	0.1978	21.95	1.235
Cu3273_A		-7.268	ug/L	0.03943	0.5425	-18.58
Fe2599_R	W	81,760	ug/L	534.0	0.6531	174,600
K_7664_R		11,570	ug/L	11.30	0.09768	6,960
Li6707_R		2.634	ug/L	0.4704	17.86	45.14
Mg2025_A		5,663	ug/L	15.14	0.2674	1,992
Mn2576_R	W	2,689	ug/L	23.12	0.8596	28,670
Mo2020_A		3.180	ug/L	0.1587	4.990	10.05
Na5895_R		19,700	ug/L	14.52	0.07373	36,100
Ni2316_A		2.566	ug/L	0.1540	6.001	-0.1747
Pb2203_A		1.975	ug/L	0.4901	24.81	2.191
Sb2068_A		0.08506	ug/L	0.5937	697.9	1.997
Se1960_A		1.589	ug/L	0.8502	53.50	2.008
Si2516_R		9,276	ug/L	88.44	0.9534	4,596
Sn1899_A		1.612	ug/L	0.4679	29.02	1.202
Sr4215_R		463.5	ug/L	1.847	0.3986	41,520
Ti3349_A		-0.4952	ug/L	0.3653	73.77	-12.62
Tl1908_A		-0.6612	ug/L	0.1244	18.81	-3.490
V_2924_A		0.1397	ug/L	0.04015	28.74	4.549
Zn2062_A		3.379	ug/L	0.005766	0.1706	7.447
Y_3600_R		18,641	Cts/S	5.4195	0.029073	18,641
Y_2243_A		6,764.7	Cts/S	14.054	0.20776	6,764.7
Y_3600_A		126,260	Cts/S	150.74	0.11939	126,260

SO7737-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:59:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7737-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 2:59:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07809	ug/L	0.07618	97.55	-39.88
Al3961_R		52.84	ug/L	4.691	8.877	86.36
As1891_A		9.011	ug/L	0.4282	4.752	-0.1912
B_2089_A		178.7	ug/L	1.500	0.8393	233.4
Ba4554_R		44.22	ug/L	0.1550	0.3506	3,543
Be3130_R		0.07871	ug/L	0.04552	57.83	5.410
Ca3158_R	W	37,170	ug/L	444.1	1.195	44,200
Cd2265_A		-0.2481	ug/L	0.06774	27.30	7.519
Co2286_A		2.538	ug/L	0.03949	1.556	8.131
Cr2677_A		0.4478	ug/L	0.04043	9.029	6.055
Cu3273_A		1.232	ug/L	0.006203	0.5037	22.01
Fe2599_R		4,878	ug/L	43.72	0.8963	10,510
K_7664_R		8,135	ug/L	41.47	0.5099	4,936
Li6707_R		2.418	ug/L	0.7347	30.38	42.47
Mg2025_A		4,106	ug/L	23.51	0.5727	1,434
Mn2576_R		975.2	ug/L	12.55	1.287	10,490
Mo2020_A		1.430	ug/L	0.1044	7.299	5.006
Na5895_R	W	37,130	ug/L	144.8	0.3900	68,570
Ni2316_A		24.94	ug/L	0.2197	0.8810	39.21
Pb2203_A		0.3806	ug/L	0.5839	153.4	-0.9072
Sb2068_A		-0.1221	ug/L	0.04177	34.22	0.4708
Se1960_A		-0.8976	ug/L	0.9920	110.5	1.015
Si2516_R		5,942	ug/L	21.24	0.3575	2,986
Sn1899_A		1.380	ug/L	0.1027	7.445	1.097
Sr4215_R		351.8	ug/L	2.103	0.5978	31,760
Ti3349_A		1.043	ug/L	0.1536	14.73	22.36
Tl1908_A		-0.1941	ug/L	0.8047	414.6	-2.280
V_2924_A		0.2591	ug/L	0.2440	94.16	-4.161
Zn2062_A		1.286	ug/L	0.3098	24.08	2.769
Y_3600_R		18,790	Cts/S	91.650	0.48777	18,790
Y_2243_A		6,733.2	Cts/S	13.346	0.19821	6,733.2
Y_3600_A		125,930	Cts/S	1.6746	0.0013300	125,930

SO7737-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:03:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.07436	ug/L	0.002439	3.280	-40.86
Al3961_R		3.921	ug/L	0.08983	2.291	35.16
As1891_A		6.865	ug/L	0.5401	7.867	-0.9173
B_2089_A		183.3	ug/L	1.192	0.6503	241.4
Ba4554_R		45.17	ug/L	0.4616	1.022	3,598
Be3130_R		0.08769	ug/L	0.04735	54.00	6.361
Ca3158_R	W	38,270	ug/L	475.3	1.242	45,230
Cd2265_A		-0.2407	ug/L	0.008079	3.356	7.037
Co2286_A		2.546	ug/L	0.06308	2.477	8.215
Cr2677_A		0.4505	ug/L	0.1392	30.89	6.107
Cu3273_A		-0.9076	ug/L	0.1376	15.16	-3.383
Fe2599_R		4,589	ug/L	59.63	1.299	9,828
K_7664_R		8,365	ug/L	16.60	0.1984	5,045
Li6707_R		2.344	ug/L	0.3375	14.40	41.23
Mg2025_A		4,231	ug/L	18.50	0.4373	1,491
Mn2576_R	W	1,011	ug/L	4.784	0.4731	10,810
Mo2020_A		1.512	ug/L	0.09956	6.583	5.291
Na5895_R	W	38,530	ug/L	276.7	0.7180	70,740
Ni2316_A		16.14	ug/L	0.1169	0.7239	25.24

SO7737-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:03:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4466	ug/L	0.6582	147.4	-0.8667
Sb2068_A		0.7544	ug/L	1.117	148.0	0.9209
Se1960_A		-0.1958	ug/L	1.488	759.9	1.206
Si2516_R		5,986	ug/L	6.357	0.1062	2,991
Sn1899_A		1.071	ug/L	0.7772	72.59	0.9748
Sr4215_R		362.7	ug/L	2.904	0.8007	32,550
Ti3349_A		-0.3557	ug/L	0.1199	33.72	-9.464
Tl1908_A		-0.3565	ug/L	0.7197	201.9	-2.403
V_2924_A		0.1429	ug/L	0.1471	102.9	-5.588
Zn2062_A		1.228	ug/L	0.1731	14.10	2.663
Y_3600_R		18,680	Cts/S	109.67	0.58711	18,680
Y_2243_A		6,792.9	Cts/S	33.674	0.49572	6,792.9
Y_3600_A		126,340	Cts/S	351.55	0.27825	126,340

SO7737-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:08:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9794	ug/L	0.1448	14.78	-268.0
Al3961_R		153.3	ug/L	13.39	8.738	185.7
As1891_A	W	1,600	ug/L	2.247	0.1404	543.5
B_2089_A		74.81	ug/L	0.1975	0.2641	100.6
Ba4554_R		21.75	ug/L	0.3958	1.820	1,741
Be3130_R		0.08208	ug/L	0.02520	30.70	5.426
Ca3158_R	W	29,830	ug/L	515.0	1.726	35,300
Cd2265_A		-1.997	ug/L	0.1426	7.141	65.50
Co2286_A		7.765	ug/L	0.01565	0.2015	25.70
Cr2677_A		0.2688	ug/L	0.03643	13.55	7.493
Cu3273_A		-2.993	ug/L	0.2088	6.978	-0.9631
Fe2599_R	W	39,540	ug/L	843.6	2.133	84,710
K_7664_R		6,512	ug/L	113.9	1.749	3,935
Li6707_R		3.094	ug/L	0.2935	9.485	51.70
Mg2025_A		4,538	ug/L	6.413	0.1413	1,600
Mn2576_R		767.7	ug/L	15.03	1.957	8,210
Mo2020_A		2.903	ug/L	0.01738	0.5989	9.393
Na5895_R		22,670	ug/L	474.5	2.093	41,690
Ni2316_A		0.6195	ug/L	0.2532	40.86	-1.543
Pb2203_A		1.793	ug/L	0.7905	44.10	1.044
Sb2068_A		0.3812	ug/L	0.6015	157.8	1.425
Se1960_A		-2.371	ug/L	0.8220	34.67	0.7147
Si2516_R		11,470	ug/L	158.2	1.380	5,695
Sn1899_A		0.9544	ug/L	1.108	116.1	0.9233
Sr4215_R		251.4	ug/L	5.315	2.114	22,580
Ti3349_A		5.277	ug/L	0.8016	15.19	119.4
Tl1908_A		0.05162	ug/L	0.4762	922.6	-2.080
V_2924_A		0.4552	ug/L	0.1281	28.13	5.873
Zn2062_A		2.719	ug/L	0.04507	1.657	5.999
Y_3600_R		18,703	Cts/S	142.80	0.76351	18,703
Y_2243_A		6,791.6	Cts/S	13.213	0.19455	6,791.6
Y_3600_A		126,770	Cts/S	487.72	0.38474	126,770

SO7737-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:12:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000102

SO7737-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:12:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.6163	ug/L	0.1511	24.52	-262.0
Al3961_R		33.99	ug/L	3.271	9.623	58.93
As1891_A	W	1,527	ug/L	1.393	0.09121	523.3
B_2089_A		73.49	ug/L	0.1093	0.1488	99.81
Ba4554_R		20.71	ug/L	0.2311	1.116	1,661
Be3130_R		0.1012	ug/L	0.02127	21.03	7.714
Ca3158_R	W	29,120	ug/L	344.6	1.183	34,500
Cd2265_A		-2.017	ug/L	0.07622	3.779	62.64
Co2286_A		7.410	ug/L	0.1025	1.383	24.72
Cr2677_A		-0.01755	ug/L	0.2225	1,268	4.332
Cu3273_A		-2.979	ug/L	0.001116	0.03745	-1.847
Fe2599_R	W	38,080	ug/L	447.5	1.175	81,690
K_7664_R		6,288	ug/L	10.87	0.1729	3,805
Li6707_R		3.066	ug/L	0.4333	14.13	51.36
Mg2025_A		4,392	ug/L	5.765	0.1313	1,563
Mn2576_R		747.4	ug/L	7.306	0.9776	8,002
Mo2020_A		2.828	ug/L	0.04493	1.589	9.258
Na5895_R		22,040	ug/L	151.0	0.6849	40,580
Ni2316_A		0.5351	ug/L	0.1883	35.20	-1.633
Pb2203_A		1.283	ug/L	0.3755	29.27	0.6078
Sb2068_A		-0.04462	ug/L	0.2742	614.5	1.186
Se1960_A		-0.1762	ug/L	0.1025	58.20	1.272
Si2516_R		11,000	ug/L	71.92	0.6537	5,473
Sn1899_A		1.412	ug/L	1.063	75.27	1.131
Sr4215_R		244.6	ug/L	1.618	0.6617	22,000
Ti3349_A		0.8109	ug/L	0.1156	14.26	17.06
Tl1908_A		-1.034	ug/L	0.5473	52.96	-2.661
V_2924_A		0.1678	ug/L	0.09885	58.91	2.598
Zn2062_A		2.417	ug/L	0.04637	1.918	5.372
Y_3600_R		18,725	Cts/S	48.083	0.25678	18,725
Y_2243_A		6,853.3	Cts/S	1.6237	0.023693	6,853.3
Y_3600_A		125,560	Cts/S	800.37	0.63742	125,560

SO7557-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:16:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.007226	ug/L	0.07590	1,050	-19.14
Al3961_R		-0.2955	ug/L	6.218	2,104	49.44
As1891_A		-1.017	ug/L	1.487	146.2	-3.346
B_2089_A		6.267	ug/L	0.2328	3.715	11.03
Ba4554_R		69.91	ug/L	0.7276	1.041	5,364
Be3130_R		0.2770	ug/L	0.008337	3.010	24.86
Ca3158_R	W	61,260	ug/L	246.9	0.4030	69,870
Cd2265_A		0.9849	ug/L	0.05244	5.324	13.21
Co2286_A		12.48	ug/L	0.1404	1.125	38.47
Cr2677_A		0.6775	ug/L	0.1341	19.79	7.723
Cu3273_A		251.9	ug/L	2.146	0.8517	2,805
Fe2599_R		1,897	ug/L	17.72	0.9343	3,925
K_7664_R		1,519	ug/L	12.37	0.8143	893.9
Li6707_R		2.820	ug/L	0.1555	5.514	46.12
Mg2025_A		2,306	ug/L	0.4587	0.01989	770.9
Mn2576_R	W	1,056	ug/L	6.419	0.6076	10,900
Mo2020_A		-0.02318	ug/L	0.09427	406.6	0.7325
Na5895_R	F	318,400	ug/L	5,178	1.626	563,700
Ni2316_A		15.94	ug/L	0.1123	0.7046	23.80

SO7557-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:16:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.507	ug/L	1.115	73.96	-0.01200
Sb2068_A		0.3008	ug/L	0.3339	111.0	0.6147
Se1960_A		0.7984	ug/L	1.267	158.6	1.387
Si2516_R		823.0	ug/L	10.10	1.227	430.9
Sn1899_A		1.102	ug/L	0.2063	18.73	0.9396
Sr4215_R		234.8	ug/L	2.896	1.233	20,320
Ti3349_A		-0.3822	ug/L	0.1363	35.67	-9.495
Tl1908_A		-0.4581	ug/L	0.01854	4.047	-2.328
V_2924_A		0.3727	ug/L	0.1999	53.64	-3.623
Zn2062_A		188.8	ug/L	0.1500	0.07944	402.0
Y_3600_R		18,020	Cts/S	41.048	0.22780	18,020
Y_2243_A		6,463.3	Cts/S	3.1935	0.049409	6,463.3
Y_3600_A		118,880	Cts/S	307.84	0.25895	118,880

SO7591-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:21:16PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.09453	ug/L	0.02082	22.02	-27.19
Al3961_R		2.069	ug/L	6.556	316.9	15.26
As1891_A		-0.5998	ug/L	0.2505	41.77	-3.386
B_2089_A		35.70	ug/L	0.1732	0.4851	49.56
Ba4554_R		18.43	ug/L	0.2332	1.265	1,454
Be3130_R		0.09372	ug/L	0.01043	11.12	6.878
Ca3158_R		18,560	ug/L	27.22	0.1466	21,600
Cd2265_A		-0.1705	ug/L	0.06071	35.62	3.496
Co2286_A		0.5605	ug/L	0.07862	14.03	1.719
Cr2677_A		0.1182	ug/L	0.1757	148.7	1.909
Cu3273_A		-0.4638	ug/L	0.4276	92.20	0.3487
Fe2599_R		2,642	ug/L	14.24	0.5390	5,577
K_7664_R		3,385	ug/L	47.84	1.413	2,019
Li6707_R		4.357	ug/L	0.6388	14.66	68.11
Mg2025_A		8,171	ug/L	0.05905	0.0007230	2,872
Mn2576_R		345.9	ug/L	1.753	0.5067	3,647
Mo2020_A		0.1611	ug/L	0.02838	17.62	1.348
Na5895_R	W	55,960	ug/L	530.9	0.9487	101,200
Ni2316_A		0.2317	ug/L	0.04469	19.29	-0.6208
Pb2203_A		0.3548	ug/L	0.4993	140.7	-0.9814
Sb2068_A		0.06561	ug/L	0.1497	228.2	0.5375
Se1960_A		-0.1038	ug/L	0.3825	368.6	1.131
Si2516_R		3,110	ug/L	13.79	0.4434	1,550
Sn1899_A		1.082	ug/L	0.6476	59.86	0.9744
Sr4215_R		157.6	ug/L	1.437	0.9121	13,920
Ti3349_A		-0.2775	ug/L	0.09438	34.01	-7.616
Tl1908_A		-0.3129	ug/L	0.3374	107.9	-2.012
V_2924_A		0.08929	ug/L	0.1205	134.9	-4.028
Zn2062_A		8.232	ug/L	0.06786	0.8243	18.26
Y_3600_R		18,401	Cts/S	39.517	0.21476	18,401
Y_2243_A		6,760.7	Cts/S	11.769	0.17408	6,760.7
Y_3600_A		124,810	Cts/S	398.01	0.31891	124,810

SO7627-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:25:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000104

SO7627-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:25:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.4691	ug/L	0.3749	79.91	-15.33
Al3961_R		-22.35	ug/L	3.618	16.19	59.55
As1891_A		-1.766	ug/L	0.9081	51.43	-3.504
B_2089_A		7.953	ug/L	0.06667	0.8383	13.04
Ba4554_R		40.51	ug/L	0.1201	0.2965	3,134
Be3130_R		0.08177	ug/L	0.01366	16.71	5.587
Ca3158_R	W	98,550	ug/L	673.9	0.6838	113,100
Cd2265_A		-0.07439	ug/L	0.02379	31.98	-1.155
Co2286_A		0.1235	ug/L	0.05121	41.46	0.2549
Cr2677_A		0.4742	ug/L	0.01453	3.063	5.129
Cu3273_A		2.994	ug/L	0.3761	12.56	36.76
Fe2599_R		30.57	ug/L	0.2698	0.8826	73.31
K_7664_R		4,171	ug/L	0.2744	0.006579	2,448
Li6707_R		3.366	ug/L	0.5794	17.21	53.78
Mg2025_A		6,114	ug/L	49.47	0.8091	2,042
Mn2576_R		504.8	ug/L	3.007	0.5958	5,243
Mo2020_A		-0.1262	ug/L	0.02229	17.66	0.4728
Na5895_R	F	301,200	ug/L	6,470	2.148	536,500
Ni2316_A		0.9086	ug/L	0.07338	8.076	0.5564
Pb2203_A		0.1280	ug/L	0.7676	599.6	-1.166
Sb2068_A		0.1874	ug/L	0.6412	342.1	0.5270
Se1960_A		0.6014	ug/L	1.339	222.7	1.261
Si2516_R		1,556	ug/L	5.974	0.3840	784.3
Sn1899_A		1.201	ug/L	0.1019	8.489	0.9747
Sr4215_R		397.4	ug/L	1.859	0.4677	34,630
Ti3349_A		-0.3167	ug/L	0.0002730	0.08612	-8.066
Tl1908_A		-0.7257	ug/L	0.2720	37.49	-2.199
V_2924_A		-0.04603	ug/L	0.3229	701.4	-6.159
Zn2062_A		21.70	ug/L	0.5233	2.412	45.88
Y_3600_R		18,135	Cts/S	22.625	0.12476	18,135
Y_2243_A		6,428.6	Cts/S	40.976	0.63741	6,428.6
Y_3600_A		118,460	Cts/S	1,998.3	1.6869	118,460

SO7627-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:30:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2679	ug/L	0.1758	65.62	-11.73
Al3961_R		-29.16	ug/L	8.239	28.26	63.08
As1891_A		-0.9531	ug/L	2.098	220.2	-3.245
B_2089_A		16.10	ug/L	0.2360	1.466	23.06
Ba4554_R		58.23	ug/L	1.365	2.343	4,503
Be3130_R		0.1029	ug/L	0.04463	43.35	7.730
Ca3158_R	W	110,500	ug/L	2,882	2.608	127,000
Cd2265_A		-0.04322	ug/L	0.02917	67.50	-0.8322
Co2286_A		0.2076	ug/L	0.05103	24.58	0.5147
Cr2677_A		0.6117	ug/L	0.1533	25.06	6.455
Cu3273_A		262.3	ug/L	3.417	1.303	2,907
Fe2599_R		38.25	ug/L	1.000	2.616	89.32
K_7664_R		6,418	ug/L	124.6	1.941	3,764
Li6707_R		3.740	ug/L	1.427	38.16	59.03
Mg2025_A		9,965	ug/L	44.05	0.4420	3,335
Mn2576_R		505.5	ug/L	12.08	2.389	5,257
Mo2020_A		-0.09836	ug/L	0.1733	176.2	0.5514
Na5895_R	F	350,000	ug/L	5,490	1.569	624,100
Ni2316_A		1.324	ug/L	0.1932	14.59	1.199

SO7627-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:30:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.8238	ug/L	0.1174	14.25	-0.5774
Sb2068_A		-0.4981	ug/L	0.03454	6.935	0.1985
Se1960_A		0.1927	ug/L	0.8696	451.2	1.163
Si2516_R		1,706	ug/L	12.02	0.7045	856.7
Sn1899_A		1.033	ug/L	0.2643	25.60	0.9070
Sr4215_R		434.8	ug/L	10.87	2.499	37,920
Ti3349_A		-0.1025	ug/L	0.1872	182.7	-3.498
Tl1908_A		-1.207	ug/L	0.06139	5.084	-2.426
V_2924_A		0.1540	ug/L	0.5485	356.3	-4.262
Zn2062_A		186.0	ug/L	0.9082	0.4882	394.3
Y_3600_R		18,153	Cts/S	282.57	1.5566	18,153
Y_2243_A		6,433.4	Cts/S	11.711	0.18204	6,433.4
Y_3600_A		118,400	Cts/S	903.16	0.76280	118,400

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:34:35PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.2	ug/L	10.93	2.155	9,763
Al3961_R		12,840	ug/L	115.2	0.8969	13,660
As1891_A		504.2	ug/L	3.343	0.6630	171.9
B_2089_A	W	538.3	ug/L	4.967	0.9227	728.5
Ba4554_R	W	539.9	ug/L	3.063	0.5673	43,070
Be3130_R		494.1	ug/L	1.444	0.2923	50,800
Ca3158_R		12,900	ug/L	5.569	0.04318	15,300
Cd2265_A	W	545.5	ug/L	3.767	0.6906	5,802
Co2286_A		507.0	ug/L	4.042	0.7973	1,678
Cr2677_A		520.8	ug/L	10.38	1.992	5,454
Cu3273_A	F	553.3	ug/L	11.24	2.032	6,672
Fe2599_R	W	13,350	ug/L	54.19	0.4059	28,710
K_7664_R	W	13,750	ug/L	92.58	0.6734	8,324
Li6707_R		525.6	ug/L	4.028	0.7664	7,339
Mg2025_A		12,620	ug/L	102.8	0.8144	4,566
Mn2576_R		490.8	ug/L	1.014	0.2066	5,273
Mo2020_A		512.6	ug/L	4.468	0.8716	1,534
Na5895_R	F	14,540	ug/L	138.4	0.9521	26,830
Ni2316_A	W	537.7	ug/L	2.725	0.5067	895.7
Pb2203_A	W	546.6	ug/L	3.286	0.6012	450.8
Sb2068_A		478.6	ug/L	4.404	0.9202	247.8
Se1960_A		511.1	ug/L	5.962	1.166	132.2
Si2516_R		12,250	ug/L	112.8	0.9210	6,109
Sn1899_A		477.2	ug/L	1.280	0.2682	209.4
Sr4215_R	F	560.9	ug/L	3.253	0.5800	50,600
Ti3349_A		487.3	ug/L	8.300	1.703	11,340
Tl1908_A		499.9	ug/L	2.955	0.5912	265.9
V_2924_A		492.8	ug/L	10.12	2.053	5,173
Zn2062_A	W	533.3	ug/L	2.833	0.5312	1,213
Y_3600_R		18,770	Cts/S	89.880	0.47886	18,770
Y_2243_A		6,907.8	Cts/S	61.770	0.89420	6,907.8
Y_3600_A		128,830	Cts/S	1,947.9	1.5120	128,830

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:38:44PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:38:44PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.01500	ug/L	0.2160	1,440	-7.588
Al3961_R		8.004	ug/L	8.945	111.8	5.176
As1891_A		-0.5004	ug/L	0.1130	22.58	-3.335
B_2089_A		1.306	ug/L	0.1508	11.55	5.275
Ba4554_R		0.3082	ug/L	0.04059	13.17	37.62
Be3130_R		0.2748	ug/L	0.03208	11.67	25.48
Ca3158_R		4.460	ug/L	4.206	94.31	-16.29
Cd2265_A		0.1136	ug/L	0.03713	32.69	0.7122
Co2286_A		0.2082	ug/L	0.05701	27.38	0.5610
Cr2677_A		0.2922	ug/L	0.009344	3.197	3.203
Cu3273_A		-0.7644	ug/L	0.3691	48.29	-5.316
Fe2599_R		12.33	ug/L	1.801	14.61	36.52
K_7664_R		-7.633	ug/L	9.325	122.2	7.879
Li6707_R		1.243	ug/L	0.8201	66.00	25.97
Mg2025_A		5.991	ug/L	1.429	23.85	-5.096
Mn2576_R		-0.06481	ug/L	0.1774	273.7	0.7802
Mo2020_A		0.6779	ug/L	0.1949	28.75	2.953
Na5895_R		31.58	ug/L	6.692	21.19	88.78
Ni2316_A		-0.3927	ug/L	0.1195	30.44	-1.553
Pb2203_A		0.3195	ug/L	1.062	332.5	-1.098
Sb2068_A		0.7292	ug/L	0.5650	77.49	0.8526
Se1960_A		-0.05872	ug/L	1.296	2,207	1.120
Si2516_R		21.02	ug/L	25.45	121.0	51.70
Sn1899_A		0.4792	ug/L	0.6281	131.1	0.7335
Sr4215_R		0.2707	ug/L	0.02001	7.393	-1.815
Ti3349_A		0.8596	ug/L	0.1959	22.79	18.42
Tl1908_A		0.2366	ug/L	0.1390	58.73	-1.574
V_2924_A		0.2111	ug/L	0.02534	12.00	-2.175
Zn2062_A		0.1864	ug/L	0.1832	98.26	0.3372
Y_3600_R		18,706	Cts/S	31.263	0.16713	18,706
Y_2243_A		6,928.6	Cts/S	16.337	0.23579	6,928.6
Y_3600_A		127,650	Cts/S	204.38	0.16011	127,650

SO7644-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,043
Analyst Name: EP
Acquire Date: 11/12/2021 3:43:10PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.02484	ug/L	0.05523	222.4	-8.680
Al3961_R		15.46	ug/L	0.6510	4.212	18.83
As1891_A		0.3163	ug/L	0.4183	132.3	-3.023
B_2089_A		18.25	ug/L	0.1944	1.065	27.42
Ba4554_R		9.163	ug/L	0.07911	0.8634	738.5
Be3130_R		0.09463	ug/L	0.04837	51.11	7.023
Ca3158_R		6,484	ug/L	37.62	0.5802	7,630
Cd2265_A		-0.06711	ug/L	0.02771	41.29	-0.9159
Co2286_A		0.6148	ug/L	0.001177	0.1915	1.886
Cr2677_A		0.2871	ug/L	0.002207	0.7688	3.279
Cu3273_A		0.8116	ug/L	0.3634	44.78	13.65
Fe2599_R		138.6	ug/L	1.834	1.323	305.9
K_7664_R		896.7	ug/L	17.84	1.989	550.7
Li6707_R		1.837	ug/L	0.05807	3.161	34.09
Mg2025_A		1,708	ug/L	16.18	0.9474	603.2
Mn2576_R		125.8	ug/L	1.006	0.8000	1,344
Mo2020_A		1.027	ug/L	0.01705	1.659	3.952
Na5895_R		7,813	ug/L	3.691	0.04724	14,340
Ni2316_A		0.5023	ug/L	0.2077	41.35	-0.06751

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc. | **Metals Preparation Benchsheet**

Reagents and Consumables Information: | **Method:** 3010

HNO3: MSR267 | HCL: MSR256 | Digestion Vessels: MLD0260000130

1:1 HNO3: MR3194 | 1:1 HCL: MR3193

Pipet | **LCS/Spiking Information:**

M11 CLPP-SPK-1 (ID/Vol): MS2378 / 0.05 mL

M21 CLPP-SPK-INT1 (ID/Vol): MW20604 / 0.5 mL

M21 CLPP-SPK-INT2 (ID/Vol): MW20631 / 0.5 mL

– – Spike (ID/Vol): – / – mL

Heat Source ID : A

Start Time: 720 /Temp. 90 °C

End Time: 14:37 /Temp. 90 °C

Thermometer ID/Pos: ALC30 /6.8

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWOK11ICW1	OK11ICW1	0.05	L	0.05	L	AQ	IC	JT	11/11/2021	–	✓
PBWOK11ICW1	OK11ICW1		L		L	AQ	IC	JT	11/11/2021	–	
SO7628-001	OK11ICW1		L		L	AQ	IC	JT	11/11/2021	F	
SO7628-001P	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7628-001S	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7628-007	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7652-021	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7652-022	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7652-023	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7652-024	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7652-025	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-001	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-002	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-003	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-004	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-005	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-006	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-007	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7677-008	OK11ICW1		L		L	AQ	IC	JT	11/11/2021		
SO7682-001	OK11ICW1	0.01	L		L	AQ	IC	JT	11/11/2021	–	
SO7737-001	OK11ICW1	0.05	L		L	AQ	IC	JT	11/11/2021	C	
SO7737-002	OK11ICW1		L		L	AQ	IC	JT	11/11/2021	A	
SO7737-003	OK11ICW1		L		L	AQ	IC	JT	11/11/2021	C	
SO7737-004	OK11ICW1		L		L	AQ	IC	JT	11/11/2021	A	

REVIEWED

Em 11-13-21

KATAHDIN ANALYTICAL METALS SECTION!

Client IDs Verified

JT 11/11/21

QA-064-Revision 5 -12/07/2018 | Digestion performed by: JT/CD | On: 11/11/21 | Page: OK054 | Revision: 00

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSR262 HCL: MSR256 Digestion Vessels: MLD0260000130

1:1 HNO3: MR3194 1:1 HCL: ~~MR3193~~ 3201

LCS/Spiking Information:

Pipet			
M11	CLPP-SPK-1 (ID/Vol):	MS2328	/ 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol):	MW20604	/ 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol):	MW20631	/ 0.5 mL
–	– Spike (ID/Vol):	–	/ – mL

Heat Source ID : A
Start Time: 7:20 /Temp. 90 °C
End Time: 14:37 /Temp. 90 °C
Thermometer ID/Pos: ALC36 /6,8

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWOK11ICW2	OK11ICW2	0.05	L	0.05	L	AQ	IC	JT	11/11/2021	–	✓
PBWOK11ICW2	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	–	↓
SO7601-001P	OK11ICW2	0.01	L	↓	L	AQ	IC	JT	11/11/2021	–	↓
SO7601-001S	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	–	↓
SO7737-005	OK11ICW2	0.05	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-005P	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	↓	↓
SO7737-005S	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	↓	↓
SO7737-006	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓
SO7737-007	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-008	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓
SO7737-009	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-010	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓
SO7737-011	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-012	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓
SO7737-013	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-014	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓
SO7737-015	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-016	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓
SO7737-017	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-018	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓
SO7737-019	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	C	↓
SO7737-020	OK11ICW2	↓	L	↓	L	AQ	IC	JT	11/11/2021	A	↓

REVIEWED
Em 11-13-21
KATAHDIN ANALYTICAL
METALS SECTION

Client IDs Verified
11/11/21 JT

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Alkalinity

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG309974	SM2320B	15-NOV-21	N/A	J 2.4 mg/L	5.0 mg/L
MBLANK	WG310032	SM2320B	16-NOV-21	N/A	J 2.4 mg/L	5.0 mg/L

Solids-Filterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG309743	SM2540C	15-NOV-21	11-NOV-21	U 8.0 mg/L	10. mg/L

Total Biochemical Oxygen Demand

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG309423	SM5210B	10-NOV-21	05-NOV-21	U 1.0 mg/L	2.0 mg/L

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG309974-2	LCS	WG309974	15-NOV-21	N/A	mg/L	120	140	114	80-120	
WG310032-2	LCS	WG310032	16-NOV-21	N/A	mg/L	120	140	114	80-120	

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG309743-2	LCS	WG309743	15-NOV-21	11-NOV-21	mg/L	750	710	94	80-120	

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG309423-2	LCS	WG309423	10-NOV-21	05-NOV-21	mg/L	198	220	113	85-115	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Duplicate Sample Summary Report

Alkalinity

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG310032-3	SO7737-3	WG310032	16-NOV-21	mg/L	150	160	1	20

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Matrix Spike Sample Summary Report

Alkalinity

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG310032-4	MS	SO7737-3	WG310032	16-NOV-21	mg/L	120	155	267	109	75 - 125
WG310032-5	MS	SO7737-5	WG310032	16-NOV-21	mg/L	120	227	297	82	75 - 125

Total Biochemical Oxygen Demand

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG309423-3	MS	SO7737-1	WG309423	10-NOV-21	mg/L	47.52	3.25	53.2	105	75 - 125

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-1
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT #1	AQ	04-NOV-21 10:55:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	120 mg/L	5.0	0.23	4	STDM 2320B	WG309974	15-NOV-21 12:45:18	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	3.2 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:17:00	SM 5210B	05-NOV-21 1417	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-3
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT #1	AQ	04-NOV-21 11:00:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:14:15	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:26:00	SM 5210B	05-NOV-21 1713	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-5
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT #1	AQ	04-NOV-21 14:05:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	230 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:23:29	N/A	N/A	
Solids-Filterable Residue	270 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-7
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT #1	AQ	04-NOV-21 14:20:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:30:35	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-9
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT #1	AQ	04-NOV-21 16:05:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:33:32	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-11
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT #1	AQ	04-NOV-21 17:00:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:36:10	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-13
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-EVENT #1	AQ	05-NOV-21 09:00:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:44:12	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-15
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT #1	AQ	05-NOV-21 10:48:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	170 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:47:18	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-17
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT #1	AQ	05-NOV-21 11:50:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	160 mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:50:17	N/A	N/A	
Solids-Filterable Residue	230 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	J0.81 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:30:00	SM 5210B	05-NOV-21 1720	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO7737-19
Report Date: 03-DEC-21
Project: Fort Devens 2021 LTM
SDG: SO7737

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT #1	AQ	05-NOV-21 12:41:00	05-NOV-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	95. mg/L	5.0	0.23	4	STDM 2320B	WG310032	16-NOV-21 11:53:17	N/A	N/A	
Solids-Filterable Residue	210 mg/L	10.	5.0	8	STDM 2540C	WG309743	15-NOV-21 07:41:00	SM 2540C	11-NOV-21	
Total Biochemical Oxygen Demand	4.2 mg/L	2.0	0.23	1	SM5210B	WG309423	10-NOV-21 14:23:00	SM 5210B	05-NOV-21 1709	

Raw Data Section

WET CHEMISTRY BATCH REPORT
Nov 15 2021, 04:28 pm
Batch: WG309974 Run ID 1: R580820 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 15-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7643-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	82.9	83. mg/L	NA	5	0.23	5.0		
SO7643-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	260.383	260 mg/L	NA	5	0.23	5.0		
SO7643-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	159.091	160 mg/L	NA	5	0.23	5.0		
SO7643-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	230.328	230 mg/L	NA	5	0.23	5.0		
SO7677-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	16.396	16. mg/L	NA	5	0.23	5.0		
SO7677-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	199.71	200 mg/L	NA	5	0.23	5.0		
SO7677-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	319.404	320 mg/L	NA	5	0.23	5.0		
SO7677-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	285.844	280 mg/L	NA	5	0.23	5.0		
SO7677-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	303.52	300 mg/L	NA	5	0.23	5.0		
SO7677-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	219.826	220 mg/L	NA	5	0.23	5.0		
SO7677-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	340.179	340 mg/L	NA	5	0.23	5.0		
SO7677-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	290.698	290 mg/L	NA	5	0.23	5.0		
SO7679-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	455.763	460 mg/L	NA	5	0.23	5.0		
SO7679-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.257	U5.0 mg/L	NA	5	0.23	5.0		
SO7680-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	123.404	120 mg/L	NA	5	0.23	5.0		
SO7680-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	408.48	410 mg/L	NA	5	0.23	5.0		
SO7680-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	100.654	100 mg/L	NA	5	0.23	5.0		
SO7721-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	161.473	160 mg/L	NA	5	0.23	5.0		
SO7737-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	124.512	120 mg/L	NA	5	0.23	5.0		
SO7796-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	9.405	9.4 mg/L	NA	5	0.23	5.0		
WG309974-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.445	J2.4 mg/L	NA	5	0.23	5.0		
WG309974-2	LCS	STDM 2320B	50.0mL	50.0mL	1	136.936	140 mg/L	NA	5	0.23	5.0		114
WG309974-3	DUP	STDM 2320B	50.0mL	50.0mL	1	84.729	85. mg/L	NA	5	0.23	5.0	2	
WG309974-4	MS	STDM 2320B	50.0mL	50.0mL	1	200.912	200 mg/L	NA	5	0.23	5.0		107
WG309974-5	MS	STDM 2320B	50.0mL	50.0mL	1	356.22	360 mg/L	NA	5	0.23	5.0		106

Comments:

SO7737-1	Verbal is for metals only.
WG309974-1	SO7643-6
WG309974-2	SO7643-6
WG309974-3	SO7643-6
WG309974-4	SO7643-6
WG309974-5	SO7643-7

Entered by: SS Date: 11/15/21 Accepted by: [signature] Date: 11/16/21

Katahdin Analytical Services 5000020

WET CHEMISTRY BATCH REPORT
Nov 15 2021, 04:28 pm
Batch: WG309975

Parameter: Bicarbonate (As CaCO3)

Date Analyzed: 15-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7677-1	SAMP	SM4500CO2 D	16.4mg/L	5.77pH	1	16.39481	16. mg/L	NA	5	.497	5		
SO7677-2	SAMP	SM4500CO2 D	200.mg/L	6.19pH	1	199.67995	200 mg/L	NA	5	.497	5		
SO7677-3	SAMP	SM4500CO2 D	319.mg/L	6.14pH	1	319.36138	320 mg/L	NA	5	.497	5		
SO7677-4	SAMP	SM4500CO2 D	286.mg/L	6.40pH	1	285.77574	280 mg/L	NA	5	.497	5		
SO7677-5	SAMP	SM4500CO2 D	304.mg/L	6.60pH	1	303.40579	300 mg/L	NA	5	.497	5		
SO7677-6	SAMP	SM4500CO2 D	220.mg/L	6.32pH	1	219.78128	220 mg/L	NA	5	.497	5		
SO7677-7	SAMP	SM4500CO2 D	340.mg/L	6.36pH	1	340.10513	340 mg/L	NA	5	.497	5		
SO7677-8	SAMP	SM4500CO2 D	291.mg/L	6.99pH	1	290.42507	290 mg/L	NA	5	.497	5		
WG309975-1	MBLANK	SM4500CO2 D	2.44mg/L	5.63pH	1	2.44469	U5.0 mg/L	NA	5	.497	5		

Comments:

WG309975-1 SO7677-1

Entered by: SS Date: 11/15/21 Accepted by: [signature] Date: 11/16/21

Katahdin Analytical Services 5000021

WET CHEMISTRY BATCH REPORT
Nov 15 2021, 04:28 pm
Batch: WG309977

Parameter: Bicarbonate (As CaCO3)

Date Analyzed: 15-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7679-1	SAMP	SM4500CO2 D	456.mg/L	6.47pH	1	455.63512	460 mg/L	NA	5	.497	5		
SO7679-2	SAMP	SM4500CO2 D	2.26mg/L	5.51pH	1	2.25677	U5.0 mg/L	NA	5	.497	5		
SO7680-1	SAMP	SM4500CO2 D	123.mg/L	6.07pH	1	123.38965	120 mg/L	NA	5	.497	5		
SO7680-2	SAMP	SM4500CO2 D	408.mg/L	6.87pH	1	408.19251	410 mg/L	NA	5	.497	5		
SO7680-3	SAMP	SM4500CO2 D	101.mg/L	6.64pH	1	100.61093	100 mg/L	NA	5	.497	5		
WG309977-1	MBLANK	SM4500CO2 D	2.44mg/L	5.63pH	1	2.44469	U5.0 mg/L	NA	5	.497	5		

Comments:

WG309977-1 SO7679-1

Entered by: SS Date: 11/15/21 Accepted by: [signature] Date: 11/16/21 J

Katahdin Analytical Services 5000022

WET CHEMISTRY BATCH REPORT
Nov 15 2021, 04:28 pm
Batch: WG309978

Parameter: Carbonate (As CaCO3)

Date Analyzed: 15-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Bicarb	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7679-1	SAMP	SM4500CO2 D		6.47pH	1	.1264	U5.0 mg/L	NA	5	.497	5		
SO7679-2	SAMP	SM4500CO2 D		5.51pH	1	.00007	U5.0 mg/L	NA	5	.497	5		
SO7680-1	SAMP	SM4500CO2 D		6.07pH	1	.01375	U5.0 mg/L	NA	5	.497	5		
SO7680-2	SAMP	SM4500CO2 D		6.87pH	1	.28379	U5.0 mg/L	NA	5	.497	5		
SO7680-3	SAMP	SM4500CO2 D		6.64pH	1	.0409	U5.0 mg/L	NA	5	.497	5		
WG309978-1	MBLANK	SM4500CO2 D		5.63pH	1	.0001	U5.0 mg/L	NA	5	.497	5		

Comments:

WG309978-1 SO7679-1

Entered by: SS Date: 11/15/21 Accepted by: [signature] Date: 11/16/21

Start time: 11/15/2021 10:29

Results

No.	Comment / ID	Start time	Rx	Result	Unit	Name	Recovery:
1/4	CCV	11/15/2021 10:30:17 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	125.034	mg/L	Total Alkal	100.03%
			R3 =	6.917	pH	pH	
			R4 =	20.5	oC	TEMPERATURE	
2/4	CCB	11/15/2021 10:33:39 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.445	mg/L	Total Alkalinity	
			R3 =	5.63	pH	pH	
			R4 =	21.1	oC	TEMPERATURE	
3/4	LCS	11/15/2021 10:35:32 AM	R1 =	100.884	mg/L	P Alkalinity- pH8.2	
			R2 =	139.518	mg/L	Total Alkalinity	
			R3 =	10.57	pH	pH	
			R4 =	20.7	oC	TEMPERATURE	
4/4	LCSD	11/15/2021 10:38:44 AM	R1 =	96.704	mg/L	P Alkalinity- pH8.2	
			R2 =	140.301	mg/L	Total Alkalinity	
			R3 =	10.569	pH	pH	
			R4 =	20.6	oC	TEMPERATURE	
1/2	LCS	11/15/2021 10:46:55 AM	R1 =	86.536	mg/L	P Alkalinity- pH8.2	
			R2 =	136.936	mg/L	Total Alkalinity	
			R3 =	10.551	pH	pH	
			R4 =	21	oC	TEMPERATURE	
2/2	LCSD	11/15/2021 10:50:14 AM	R1 =	88.229	mg/L	P Alkalinity- pH8.2	
			R2 =	139.162	mg/L	Total Alkalinity	
			R3 =	10.593	pH	pH	
			R4 =	21	oC	TEMPERATURE	
1/18	SO7643-6	11/15/2021 11:17:52 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	82.9	mg/L	Total Alkalinity	
			R3 =	5.917	pH	pH	
			R4 =	14.6	oC	TEMPERATURE	
2/18	SO7643-6 DUP	11/15/2021 11:20:21 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	84.729	mg/L	Total Alkalinity	
			R3 =	5.811	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
3/18	SO7643-6 MS	11/15/2021 11:22:45 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	200.912	mg/L	Total Alkalinity	
			R3 =	6.276	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
4/18	SO7643-7	11/15/2021 11:26:02 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	260.383	mg/L	Total Alkalinity	
			R3 =	6.141	pH	pH	
			R4 =	14.5	oC	TEMPERATURE	
5/18	SO7643-7 MS	11/15/2021 11:29:44 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	356.22	mg/L	Total Alkalinity	
			R3 =	6.468	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
6/18	SO7643-8	11/15/2021 11:34:13 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	159.091	mg/L	Total Alkalinity	
			R3 =	6.08	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
7/18	CCV	11/15/2021 11:37:10 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	130.008	mg/L	Total Alkal	104.01%
			R3 =	7.929	pH	pH	
			R4 =	19.2	oC	TEMPERATURE	
8/18	CCB	11/15/2021 11:40:16 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	

			R2 =	2.424	mg/L	Total Alkalinity
			R3 =	5.643	pH	pH
			R4 =	19.8	oC	TEMPERATURE
9/18	SO7643-9	11/15/2021 11:42:08 AM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	230.328	mg/L	Total Alkalinity
			R3 =	6.019	pH	pH
			R4 =	15.7	oC	TEMPERATURE
10/18	SO7677-1	11/15/2021 11:45:59 AM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	16.396	mg/L	Total Alkalinity
			R3 =	5.767	pH	pH
			R4 =	15	oC	TEMPERATURE
11/18	SO7677-2	11/15/2021 11:47:58 AM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	199.71	mg/L	Total Alkalinity
			R3 =	6.193	pH	pH
			R4 =	14.8	oC	TEMPERATURE
12/18	SO7677-3	11/15/2021 11:51:24 AM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	319.404	mg/L	Total Alkalinity
			R3 =	6.145	pH	pH
			R4 =	15.1	oC	TEMPERATURE
13/18	SO7677-4	11/15/2021 11:55:41 AM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	285.844	mg/L	Total Alkalinity
			R3 =	6.397	pH	pH
			R4 =	15.5	oC	TEMPERATURE
14/18	SO7677-5	11/15/2021 12:00:09 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	303.52	mg/L	Total Alkalinity
			R3 =	6.595	pH	pH
			R4 =	15.9	oC	TEMPERATURE
15/18	SO7677-6	11/15/2021 12:04:27 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	219.826	mg/L	Total Alkalinity
			R3 =	6.325	pH	pH
			R4 =	16.3	oC	TEMPERATURE
16/18	SO7677-7	11/15/2021 12:08:02 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	340.179	mg/L	Total Alkalinity
			R3 =	6.357	pH	pH
			R4 =	16.8	oC	TEMPERATURE
17/18	SO7677-8	11/15/2021 12:12:22 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	290.698	mg/L	Total Alkalinity
			R3 =	6.992	pH	pH
			R4 =	18	oC	TEMPERATURE
18/18	SO7679-1	11/15/2021 12:16:38 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	455.763	mg/L	Total Alkalinity
			R3 =	6.47	pH	pH
			R4 =	17.5	oC	TEMPERATURE
1/11	CCV	11/15/2021 12:24:55 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	131.848	mg/L	Total Alkal 105.48%
			R3 =	8.158	pH	pH
			R4 =	19.7	oC	TEMPERATURE
2/11	CCB	11/15/2021 12:27:36 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	2.573	mg/L	Total Alkalinity
			R3 =	5.614	pH	pH
			R4 =	20.4	oC	TEMPERATURE
3/11	SO7679-2	11/15/2021 12:29:27 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	2.257	mg/L	Total Alkalinity
			R3 =	5.507	pH	pH
			R4 =	15.6	oC	TEMPERATURE
4/11	SO7680-1	11/15/2021 12:31:20 PM	R1 =	0	mg/L	P Alkalinity- pH8.2

			R2 =	123.404	mg/L	Total Alkalinity
			R3 =	6.074	pH	pH
			R4 =	14.8	oC	TEMPERATURE
5/11	SO7680-2	11/15/2021 12:34:02 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	408.48	mg/L	Total Alkalinity
			R3 =	6.869	pH	pH
			R4 =	14.7	oC	TEMPERATURE
6/11	SO7680-3	11/15/2021 12:39:05 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	100.654	mg/L	Total Alkalinity
			R3 =	6.636	pH	pH
			R4 =	15	oC	TEMPERATURE
7/11	SO7721-1	11/15/2021 12:42:01 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	161.473	mg/L	Total Alkalinity
			R3 =	7.353	pH	pH
			R4 =	15.2	oC	TEMPERATURE
8/11	SO7737-1	11/15/2021 12:45:18 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	124.512	mg/L	Total Alkalinity
			R3 =	5.944	pH	pH
			R4 =	15.6	oC	TEMPERATURE
9/11	SO7796-1	11/15/2021 12:47:58 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	9.405	mg/L	Total Alkalinity
			R3 =	5.863	pH	pH
			R4 =	16.2	oC	TEMPERATURE
10/11	CCV	11/15/2021 12:49:58 PM	R1 =	13.251	mg/L	P Alkalinity- pH8.2
			R2 =	130.27	mg/L	Total Alkal 104.22%
			R3 =	8.676	pH	pH
			R4 =	20	oC	TEMPERATURE
11/11	CCB	11/15/2021 12:53:15 PM	R1 =	0	mg/L	P Alkalinity- pH8.2
			R2 =	2.466	mg/L	Total Alkalinity
			R3 =	5.555	pH	pH
			R4 =	20	oC	TEMPERATURE

Calibration data

Number of segments	1	
Slope	-58.56 mV/pH	
Zero point	6.949 pH	
Calibration temperature	25.0 oC	

A: W6309974 → R580820 TB: W6309977 → R580824
B: W6309975 → R580821 TC: W6309978 → R580825

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: D6111-SC	
Alkalinity Acid Reagent: W20501	**Buffer pH 4 ID:** SWL 4798
Acid Concentration: 0.02 N	**Buffer pH 7 ID:** 4737
Alkalinity Check Standard: W20490/W20514 TV=125mg/L	**Buffer pH 10 ID:** 4788
Alkalinity MS: W20455 TV=120 mg/L	**Pipette IDs:** W11
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	CCV	1	50	
CCB	2	↓	CCB	2		
LCS	3	44	7679-2	3		LCS failed high
LCSD	4	↓	7680-1	4		↓
LCS	1	44	-2	5		
LCSD	2	↓	-3	6		LCS failed high
SO 7643-6	1	50	7721-1	7		
↓ DUP	2	↓	7737-1	8		
↓ MS	3	44	7796-1	9		
7643-7	4	50	CCV	10		New CCV ID
↓ MS	5	44	CCB	11	↓	
7643-8	6	50				
CCV	7					
CCB	8					
7643-9	9					
7677-1	10					
-2	11					
-3	12					
-4	13					
-5	14					
-6	15					
-7	16					
-8	17				SS	11/15/21
7679-1	18	↓				

Analyst: SS **Date:** 11/15/21
Checked By: [signature] **Date:** 11/16/21

WET CHEMISTRY BATCH REPORT
Nov 19 2021, 01:19 pm
Batch: WG310032 Run ID 1: R581183 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 16-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7725-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	7.148	7.1 mg/L	NA	5	0.23	5.0		
SO7737-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	154.712	150 mg/L	NA	5	0.23	5.0		
SO7737-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	226.713	230 mg/L	NA	5	0.23	5.0		
SO7737-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	143.228	140 mg/L	NA	5	0.23	5.0		
SO7737-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	110.091	110 mg/L	NA	5	0.23	5.0		
SO7737-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	134.815	130 mg/L	NA	5	0.23	5.0		
SO7737-13	SAMP	STDM 2320B	50.0mL	50.0mL	1	178.402	180 mg/L	NA	5	0.23	5.0		
SO7737-15	SAMP	STDM 2320B	50.0mL	50.0mL	1	169.374	170 mg/L	NA	5	0.23	5.0		
SO7737-17	SAMP	STDM 2320B	50.0mL	50.0mL	1	156.457	160 mg/L	NA	5	0.23	5.0		
SO7737-19	SAMP	STDM 2320B	50.0mL	50.0mL	1	95.189	95. mg/L	NA	5	0.23	5.0		
SO7745-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	185.373	180 mg/L	NA	5	0.23	5.0		
SO7745-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	78.939	79. mg/L	NA	5	0.23	5.0		
SO7745-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	45.761	46. mg/L	NA	5	0.23	5.0		
SO7745-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	634.399	630 mg/L	NA	5	0.23	5.0		
SO7745-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	384.957	380 mg/L	NA	5	0.23	5.0		
SO7745-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	439.517	440 mg/L	NA	5	0.23	5.0		
SO7745-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	208.341	210 mg/L	NA	5	0.23	5.0		
SO7745-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.351	U5.0 mg/L	NA	5	0.23	5.0		
SO7795-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	8.872	8.9 mg/L	NA	5	0.23	5.0		
SO7866-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	56.305	56. mg/L	NA	5	0.23	5.0		
WG310032-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.362	J2.4 mg/L	NA	5	0.23	5.0		
WG310032-2	LCS	STDM 2320B	50.0mL	50.0mL	1	137.187	140 mg/L	NA	5	0.23	5.0		114
WG310032-3	DUP	STDM 2320B	50.0mL	50.0mL	1	155.799	160 mg/L	NA	5	0.23	5.0	1	
WG310032-4	MS	STDM 2320B	50.0mL	50.0mL	1	267.155	270 mg/L	NA	5	0.23	5.0		109
WG310032-5	MS	STDM 2320B	50.0mL	50.0mL	1	297.376	300 mg/L	NA	5	0.23	5.0		82

Comments:

SO7737-3	Verbal is for metals only.
WG310032-1	SO7725-1
WG310032-2	SO7725-1
WG310032-3	SO7737-3
WG310032-4	SO7737-3
WG310032-5	SO7737-5

Entered by: SS Date: 11/19/21 Accepted by: [signature] Date: 11/20/21

Katahdin Analytical Services 5000028

WET CHEMISTRY BATCH REPORT
Nov 19 2021, 01:18 pm
Batch: WG310033

Parameter: Bicarbonate (As CaCO3)

Date Analyzed: 16-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7745-1	SAMP	SM4500CO2 D	185.mg/L	6.20pH	1	185.34446	180 mg/L	NA	5	.497	5		
SO7745-2	SAMP	SM4500CO2 D	78.9mg/L	6.00pH	1	78.93108	79. mg/L	NA	5	.497	5		
SO7745-3	SAMP	SM4500CO2 D	45.8mg/L	5.87pH	1	45.75741	46. mg/L	NA	5	.497	5		
SO7745-5	SAMP	SM4500CO2 D	634.mg/L	6.35pH	1	634.26472	630 mg/L	NA	5	.497	5		
SO7745-6	SAMP	SM4500CO2 D	385.mg/L	6.48pH	1	384.84496	380 mg/L	NA	5	.497	5		
SO7745-7	SAMP	SM4500CO2 D	440.mg/L	6.47pH	1	439.39335	440 mg/L	NA	5	.497	5		
SO7745-8	SAMP	SM4500CO2 D	208.mg/L	6.42pH	1	208.28843	210 mg/L	NA	5	.497	5		
SO7745-9	SAMP	SM4500CO2 D	2.35mg/L	5.74pH	1	2.35061	U5.0 mg/L	NA	5	.497	5		
WG310033-1	MBLANK	SM4500CO2 D	2.36mg/L	5.59pH	1	2.36172	U5.0 mg/L	NA	5	.497	5		

Comments:

WG310033-1 SO7745-1

Entered by: SS Date: 11/19/21 Accepted by: [signature] Date: 11/20/21

Katahdin Analytical Services 5000029

WET CHEMISTRY BATCH REPORT
Nov 19 2021, 01:20 pm
Batch: WG310043 Run ID 1: R581185 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 16-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7775-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	283.038	280 mg/L	NA	5	0.23	5.0		
SO7775-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	81.393	81. mg/L	NA	5	0.23	5.0		
SO7775-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	80.852	81. mg/L	NA	5	0.23	5.0		
SO7775-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	552.371	550 mg/L	NA	5	0.23	5.0		
SO7775-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	143.719	140 mg/L	NA	5	0.23	5.0		
SO7775-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	163.428	160 mg/L	NA	5	0.23	5.0		
SO7775-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	136.299	140 mg/L	NA	5	0.23	5.0		
SO7775-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	127.218	130 mg/L	NA	5	0.23	5.0		
SO7775-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	148.087	150 mg/L	NA	5	0.23	5.0		
SO7775-10	SAMP	STDM 2320B	50.0mL	50.0mL	1	142.235	140 mg/L	NA	5	0.23	5.0		
SO7775-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	139.508	140 mg/L	NA	5	0.23	5.0		
SO7775-12	SAMP	STDM 2320B	50.0mL	50.0mL	1	148.547	150 mg/L	NA	5	0.23	5.0		
SO7775-13	SAMP	STDM 2320B	50.0mL	50.0mL	1	281.21	280 mg/L	NA	5	0.23	5.0		
SO7775-14	SAMP	STDM 2320B	50.0mL	50.0mL	1	62.784	63. mg/L	NA	5	0.23	5.0		
SO7775-15	SAMP	STDM 2320B	50.0mL	50.0mL	1	40.264	40. mg/L	NA	5	0.23	5.0		
SO7775-16	SAMP	STDM 2320B	50.0mL	50.0mL	1	46.388	46. mg/L	NA	5	0.23	5.0		
SO7775-17	SAMP	STDM 2320B	50.0mL	50.0mL	1	46.774	47. mg/L	NA	5	0.23	5.0		
WG310043-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.304	J2.3 mg/L	NA	5	0.23	5.0		
WG310043-2	LCS	STDM 2320B	50.0mL	50.0mL	1	137.564	140 mg/L	NA	5	0.23	5.0		115
WG310043-4	DUP	STDM 2320B	50.0mL	50.0mL	1	284.554	280 mg/L	NA	5	0.23	5.0	0	
WG310043-5	MS	STDM 2320B	50.0mL	50.0mL	1	367.192	370 mg/L	NA	5	0.23	5.0		98
WG310043-6	MS	STDM 2320B	50.0mL	50.0mL	1	205.583	200 mg/L	NA	5	0.23	5.0		112
WG310043-7	LCSD	STDM 2320B	50.0mL	50.0mL	1	134.586	130 mg/L	NA	5	0.23	5.0	2	112

Comments:

WG310043-1	SO7775-1
WG310043-2	SO7775-1
WG310043-4	SO7775-1
WG310043-5	SO7775-1
WG310043-6	SO7775-2
WG310043-7	SO7775-2

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Katahdin Analytical Services 5000030

WET CHEMISTRY BATCH REPORT
Nov 19 2021, 01:21 pm
Batch: WG310044

Parameter: Bicarbonate (As CaCO3)

Date Analyzed: 16-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7788-1	SAMP	SM2320B	21.3mg/L	5.84pH	1	21.27429	21. mg/L	NA	5	.497	5		
SO7788-2	SAMP	SM2320B	14.1mg/L	5.78pH	1	14.12891	14. mg/L	NA	5	.497	5		
SO7788-3	SAMP	SM2320B	40.7mg/L	6.02pH	1	40.70845	41. mg/L	NA	5	.497	5		
WG310044-1	MBLANK	SM2320B	2.30mg/L	5.66pH	1	2.30367	U5.0 mg/L	NA	5	.497	5		

Comments:

WG310044-1 SO7788-1

Entered by: SS Date: 11/19/21 Accepted by: [signature] Date: 11/20/21

Katahdin Analytical Services 5000031

WET CHEMISTRY BATCH REPORT
Nov 19 2021, 01:21 pm
Batch: WG310045

Parameter: Carbonate (As CaCO3)

Date Analyzed: 16-NOV-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Bicarb	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7788-1	SAMP	SM2320B		5.84pH	1	.00137	U5.0 mg/L	NA	5	.497	5		
SO7788-2	SAMP	SM2320B		5.78pH	1	.00079	U5.0 mg/L	NA	5	.497	5		
SO7788-3	SAMP	SM2320B		6.02pH	1	.00402	U5.0 mg/L	NA	5	.497	5		
WG310045-1	MBLANK	SM2320B		5.66pH	1	.0001	U5.0 mg/L	NA	5	.497	5		

Comments:

WG310045-1 SO7788-1

Entered by: SS Date: 11/19/21 Accepted by: [signature] Date: 11/20/21

Katahdin Analytical Services 5000032

ALK:WG310032 → R581183
B: WG310033 → R581184
ALK:WG310043 → R581185
TB: WG310044 → R581186
TC: WG310045 → R581187

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DG111-SC	
Alkalinity Acid Reagent: W20501	**Buffer pH 4 ID:** SWL 4798
Acid Concentration: 0.02N	**Buffer pH 7 ID:** 4737
Alkalinity Check Standard: W20514 TV=125 mg/L	**Buffer pH 10 ID:** 4788
Alkalinity MS: W20455 TV=120	**Pipette IDs:** W11
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	7745-3	17	50	Mis-prep of QC
~~LCS~~ CCB	2	↓	-4	18	↓	7745-4 = high level
~~LCSD~~ LCS	3	44	7737-3 MS	1	44	
LCSD	4	↓	-5 MS	2	↓	
CCV	1	50	CCV	3	50	
CCB	2	↓	CCB	4		
LCS	3	44	7745-5	5		
LCSD	4	↓	-6	6		LCS failed high
SS 7737-3	1	50	-7	7		
Dup	2	↓	-8	8		
MS	3	44	-9	9		forgot to spike MS, rerun
7737-5	4	50	7795-1	10		
MS	5	44	7725-1	11		forgot to spike MS, rerun
7737-7	6	50	CCV	12		
7737-9	7		CCB	13	↓	
-11	8		SS 7866-1	1	50	
CCV	9		CCV	2		
CCB	10		CCB	3	↓	
7737-13	11		LCS	4	44	
-15	12		LCSD	5	↓	
-17	13		SS 7775-1	1	50	
-19	14		Dup	2	↓	
7745-1	15		MS	3	44	
-2	16	↓	7775-2	4	50	

SS 11/16/21

SS 11/16/21

Analyst: SS	**Date:** 11/16/21
Checked By: [signature]	**Date:** 11/19/21

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID:	
Alkalinity Acid Reagent:	**Buffer pH 4 ID:**
Acid Concentration:	**Buffer pH 7 ID:** See pg
Alkalinity Check Standard:	**Buffer pH 10 ID:** 18 SS 11/16/21
Alkalinity MS:	**Pipette IDs:**
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
SO 7775-2 MS	5	44	CCB	11	50	
7775-3	6	50				
-4	7					
-5	8					
CCV	9					
CCB	10					
7775-6	11					
-7	12					
-8	13					
-9	14					
-10	15					
-11	16					
-12	17					
-13	18					
7775-14	1	50				
-15	2					
CCV	3					
CCB	4					
7775-16	5					
-17	6					
7788-1	7					
-2	8					
-3	9				SS 11/19/21	
CCV	10	50				

Analyst: SS **Date:** 11/16/21

Checked By: [signature] **Date:** 11/19/21

Start time:	11/16/2021 10:29						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	Recovery:
1/4	CCV	11/16/2021 10:30:43 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	4.619	mg/L	Total Alkalinity	3.70%
			R3 =	7.927	pH	pH	
			R4 =	21.2	oC	TEMPERATURE	
2/4	CCB	11/16/2021 10:32:49 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1083.978	mg/L	Total Alkalinity	
			R3 =	7.01	pH	pH	
			R4 =	20.3	oC	TEMPERATURE	
3/4	LCS	11/16/2021 10:42:46 AM	R1 =	78.239	mg/L	P Alkalinity- pH8.2	
			R2 =	138.285	mg/L	Total Alkalinity	
			R3 =	10.524	pH	pH	
			R4 =	20.5	oC	TEMPERATURE	
4/4	LCSD	11/16/2021 10:45:58 AM	R1 =	84.687	mg/L	P Alkalinity- pH8.2	
			R2 =	138.369	mg/L	Total Alkalinity	
			R3 =	10.536	pH	pH	
			R4 =	20.3	oC	TEMPERATURE	
1/4	CCV	11/16/2021 10:51:58 AM	R1 =	12.317	mg/L	P Alkalinity- pH8.2	
			R2 =	132.064	mg/L	Total Alkalinity	105.65%
			R3 =	8.688	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
2/4	CCB	11/16/2021 10:55:00 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.362	mg/L	Total Alkalinity	
			R3 =	5.592	pH	pH	
			R4 =	21.1	oC	TEMPERATURE	
3/4	LCS	11/16/2021 10:56:53 AM	R1 =	86.954	mg/L	P Alkalinity- pH8.2	
			R2 =	137.187	mg/L	Total Alkalinity	
			R3 =	10.552	pH	pH	
			R4 =	21	oC	TEMPERATURE	
4/4	LCSD	11/16/2021 11:00:10 AM	R1 =	82.283	mg/L	P Alkalinity- pH8.2	
			R2 =	139.413	mg/L	Total Alkalinity	
			R3 =	10.548	pH	pH	
			R4 =	21	oC	TEMPERATURE	
1/18	SO7737-3	11/16/2021 11:14:15 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	154.712	mg/L	Total Alkalinity	
			R3 =	6.456	pH	pH	
			R4 =	10.5	oC	TEMPERATURE	
2/18	SO7737-3 DUP	11/16/2021 11:17:14 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	155.799	mg/L	Total Alkalinity	
			R3 =	6.276	pH	pH	
			R4 =	10.3	oC	TEMPERATURE	
3/18	SO7737-3 MS	11/16/2021 11:20:22 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	135.944	mg/L	Total Alkalinity	
			R3 =	6.406	pH	pH	
			R4 =	10.9	oC	TEMPERATURE	
4/18	SO7737-5	11/16/2021 11:23:29 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	226.713	mg/L	Total Alkalinity	
			R3 =	5.963	pH	pH	

Do Not Report

			R4 =	10.7	oC	TEMPERATURE	
5/18	SO7737-5 MS	11/16/2021 11:27:24 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	201.56	mg/L	Total Alkalinity	
			R3 =	6.008	pH	pH	
			R4 =	11.3	oC	TEMPERATURE	
6/18	SO7737-7	11/16/2021 11:30:35 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	143.228	mg/L	Total Alkalinity	
			R3 =	6.103	pH	pH	
			R4 =	11.5	oC	TEMPERATURE	
7/18	SO7737-9	11/16/2021 11:33:32 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	110.091	mg/L	Total Alkalinity	
			R3 =	5.883	pH	pH	
			R4 =	11.8	oC	TEMPERATURE	
8/18	SO7737-11	11/16/2021 11:36:10 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	134.815	mg/L	Total Alkalinity	
			R3 =	5.926	pH	pH	
			R4 =	11.9	oC	TEMPERATURE	
9/18	CCV	11/16/2021 11:38:58 AM	R1 =	10.764	mg/L	P Alkalinity- pH8.2	
			R2 =	128.933	mg/L	Total Alkalinity	103.15%
			R3 =	8.601	pH	pH	
			R4 =	19.2	oC	TEMPERATURE	
10/18	CCB	11/16/2021 11:42:20 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.414	mg/L	Total Alkalinity	
			R3 =	5.72	pH	pH	
			R4 =	19.7	oC	TEMPERATURE	
11/18	SO7737-13	11/16/2021 11:44:12 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	178.402	mg/L	Total Alkalinity	
			R3 =	5.949	pH	pH	
			R4 =	13.2	oC	TEMPERATURE	
12/18	SO7737-15	11/16/2021 11:47:18 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	169.374	mg/L	Total Alkalinity	
			R3 =	5.971	pH	pH	
			R4 =	13	oC	TEMPERATURE	
13/18	SO7737-17	11/16/2021 11:50:17 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	156.457	mg/L	Total Alkalinity	
			R3 =	6.197	pH	pH	
			R4 =	13.3	oC	TEMPERATURE	
14/18	SO7737-19	11/16/2021 11:53:17 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	95.189	mg/L	Total Alkalinity	
			R3 =	5.926	pH	pH	
			R4 =	14.1	oC	TEMPERATURE	
15/18	SO7745-1	11/16/2021 11:55:46 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	185.373	mg/L	Total Alkalinity	
			R3 =	6.202	pH	pH	
			R4 =	14.6	oC	TEMPERATURE	
16/18	SO7745-2	11/16/2021 11:58:59 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	78.939	mg/L	Total Alkalinity	
			R3 =	6	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
17/18	SO7745-3	11/16/2021 12:01:20 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	

			R2 =	45.761	mg/L	Total Alkalinity	
			R3 =	5.874	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
18/18	SO7745-4	11/16/2021 12:03:31 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	7.59	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
1/13	SO7737-3 MS	11/16/2021 12:16:43 PM	R1 =	82.409	mg/L	P Alkalinity- pH8.2	
			R2 =	267.155	mg/L	Total Alkalinity	
			R3 =	9.397	pH	pH	
			R4 =	15.6	oC	TEMPERATURE	
2/13	SO7737-5 MS	11/16/2021 12:20:42 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	297.376	mg/L	Total Alkalinity	
			R3 =	6.279	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
3/13	CCV	11/16/2021 12:24:45 PM	R1 =	11.777	mg/L	P Alkalinity- pH8.2	
			R2 =	130.677	mg/L	Total Alkalinity	104.54%
			R3 =	8.552	pH	pH	
			R4 =	19	oC	TEMPERATURE	
4/13	CCB	11/16/2021 12:28:01 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.372	mg/L	Total Alkalinity	
			R3 =	5.442	pH	pH	
			R4 =	19.8	oC	TEMPERATURE	
5/13	SO7745-5	11/16/2021 12:29:54 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	634.399	mg/L	Total Alkalinity	
			R3 =	6.349	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
6/13	SO7745-6	11/16/2021 12:36:09 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	384.957	mg/L	Total Alkalinity	
			R3 =	6.485	pH	pH	
			R4 =	14.7	oC	TEMPERATURE	
7/13	SO7745-7	11/16/2021 12:40:49 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	439.517	mg/L	Total Alkalinity	
			R3 =	6.471	pH	pH	
			R4 =	15	oC	TEMPERATURE	
8/13	SO7745-8	11/16/2021 12:46:10 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	208.341	mg/L	Total Alkalinity	
			R3 =	6.418	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
9/13	SO7745-9	11/16/2021 12:50:50 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.351	mg/L	Total Alkalinity	
			R3 =	5.736	pH	pH	
			R4 =	16.3	oC	TEMPERATURE	
10/13	SO7795-1	11/16/2021 12:52:45 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	8.872	mg/L	Total Alkalinity	
			R3 =	5.787	pH	pH	
			R4 =	16.6	oC	TEMPERATURE	
11/13	SO7725-1	11/16/2021 12:54:46 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	7.148	mg/L	Total Alkalinity	
			R3 =	5.783	pH	pH	

			R4 =	17.3	oC	TEMPERATURE	
12/13	CCV	11/16/2021 12:56:51 PM	R1 =	9.677	mg/L	P Alkalinity- pH8.2	
			R2 =	131.482	mg/L	Total Alkalinity	105.19%
			R3 =	8.526	pH	pH	
			R4 =	19.1	oC	TEMPERATURE	
13/13	CCB	11/16/2021 1:00:11 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.467	mg/L	Total Alkalinity	
			R3 =	5.465	pH	pH	
			R4 =	19.4	oC	TEMPERATURE	
1/5	SO7866-1	11/16/2021 1:28:30 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	56.305	mg/L	Total Alkalinity	
			R3 =	6.945	pH	pH	
			R4 =	8.2	oC	TEMPERATURE	
2/5	CCV	11/16/2021 1:30:49 PM	R1 =	11.965	mg/L	P Alkalinity- pH8.2	
			R2 =	130.991	mg/L	Total Alkalinity	104.79%
			R3 =	8.603	pH	pH	
			R4 =	19.6	oC	TEMPERATURE	
3/5	CCB	11/16/2021 1:34:10 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.304	mg/L	Total Alkalinity	
			R3 =	5.663	pH	pH	
			R4 =	21.4	oC	TEMPERATURE	
4/5	LCS	11/16/2021 1:36:00 PM	R1 =	84.196	mg/L	P Alkalinity- pH8.2	
			R2 =	137.564	mg/L	Total Alkalinity	
			R3 =	10.524	pH	pH	
			R4 =	21.3	oC	TEMPERATURE	
5/5	LCSD	11/16/2021 1:39:18 PM	R1 =	79.159	mg/L	P Alkalinity- pH8.2	
			R2 =	134.586	mg/L	Total Alkalinity	
			R3 =	10.515	pH	pH	
			R4 =	21.3	oC	TEMPERATURE	
1/18	SO7775-1	11/16/2021 1:47:43 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	283.038	mg/L	Total Alkalinity	
			R3 =	7.047	pH	pH	
			R4 =	9.2	oC	TEMPERATURE	
2/18	SO7775-1 DUP	11/16/2021 1:51:57 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	284.554	mg/L	Total Alkalinity	
			R3 =	6.709	pH	pH	
			R4 =	9	oC	TEMPERATURE	
3/18	SO7775-1 MS	11/16/2021 1:56:11 PM	R1 =	93.402	mg/L	P Alkalinity- pH8.2	
			R2 =	367.192	mg/L	Total Alkalinity	
			R3 =	9.149	pH	pH	
			R4 =	10.8	oC	TEMPERATURE	
4/18	SO7775-2	11/16/2021 2:00:51 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	81.393	mg/L	Total Alkalinity	
			R3 =	5.84	pH	pH	
			R4 =	10.5	oC	TEMPERATURE	
5/18	SO7775-2 MS	11/16/2021 2:03:52 PM	R1 =	61.216	mg/L	P Alkalinity- pH8.2	
			R2 =	205.583	mg/L	Total Alkalinity	
			R3 =	9.129	pH	pH	
			R4 =	11.8	oC	TEMPERATURE	
6/18	SO7775-3	11/16/2021 2:07:44 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	

			R2 =	80.852	mg/L	Total Alkalinity	
			R3 =	5.806	pH	pH	
			R4 =	11.2	oC	TEMPERATURE	
7/18	SO7775-4	11/16/2021 2:10:15 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	552.371	mg/L	Total Alkalinity	
			R3 =	5.23	pH	pH	
			R4 =	11.4	oC	TEMPERATURE	
8/18	SO7775-5	11/16/2021 2:16:54 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	143.719	mg/L	Total Alkalinity	
			R3 =	6.543	pH	pH	
			R4 =	12.5	oC	TEMPERATURE	
9/18	CCV	11/16/2021 2:19:41 PM	R1 =	0.008	mg/L	P Alkalinity- pH8.2	
			R2 =	118.02	mg/L	Total Alkalinity	94.42%
			R3 =	8.241	pH	pH	
			R4 =	19.2	oC	TEMPERATURE	
10/18	CCB	11/16/2021 2:22:54 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.414	mg/L	Total Alkalinity	
			R3 =	5.599	pH	pH	
			R4 =	20.5	oC	TEMPERATURE	
11/18	SO7775-6	11/16/2021 2:24:47 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	163.428	mg/L	Total Alkalinity	
			R3 =	6.844	pH	pH	
			R4 =	13.8	oC	TEMPERATURE	
12/18	SO7775-7	11/16/2021 2:28:05 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	136.299	mg/L	Total Alkalinity	
			R3 =	6.285	pH	pH	
			R4 =	13.9	oC	TEMPERATURE	
13/18	SO7775-8	11/16/2021 2:30:47 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	127.218	mg/L	Total Alkalinity	
			R3 =	6.455	pH	pH	
			R4 =	14.1	oC	TEMPERATURE	
14/18	SO7775-9	11/16/2021 2:33:41 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	148.087	mg/L	Total Alkalinity	
			R3 =	7.074	pH	pH	
			R4 =	14.5	oC	TEMPERATURE	
15/18	SO7775-10	11/16/2021 2:36:54 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	142.235	mg/L	Total Alkalinity	
			R3 =	6.898	pH	pH	
			R4 =	14.7	oC	TEMPERATURE	
16/18	SO7775-11	11/16/2021 2:40:05 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	139.508	mg/L	Total Alkalinity	
			R3 =	6.813	pH	pH	
			R4 =	15	oC	TEMPERATURE	
17/18	SO7775-12	11/16/2021 2:43:16 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	148.547	mg/L	Total Alkalinity	
			R3 =	6.794	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
18/18	SO7775-13	11/16/2021 2:46:11 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	281.21	mg/L	Total Alkalinity	
			R3 =	7.036	pH	pH	

			R4 =	15.4	oC	TEMPERATURE	
1/11	SO7775-14	11/16/2021 2:53:44 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	62.784	mg/L	Total Alkalinity	
			R3 =	6.175	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
2/11	SO7775015	11/16/2021 2:56:21 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	40.264	mg/L	Total Alkalinity	
			R3 =	5.803	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
3/11	CCV	11/16/2021 2:58:34 PM	R1 =	9.562	mg/L	P Alkalinity- pH8.2	
			R2 =	128.556	mg/L	Total Alkalinity	102.84%
			R3 =	8.534	pH	pH	
			R4 =	18.9	oC	TEMPERATURE	
4/11	CCB	11/16/2021 3:01:56 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.56	mg/L	Total Alkalinity	
			R3 =	5.558	pH	pH	
			R4 =	19.6	oC	TEMPERATURE	
5/11	SO7775-16	11/16/2021 3:03:47 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	46.388	mg/L	Total Alkalinity	
			R3 =	5.989	pH	pH	
			R4 =	15.7	oC	TEMPERATURE	
6/11	SO7775-17	11/16/2021 3:06:00 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	46.774	mg/L	Total Alkalinity	
			R3 =	6.06	pH	pH	
			R4 =	15.5	oC	TEMPERATURE	
7/11	SO7788-1	11/16/2021 3:08:12 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	21.276	mg/L	Total Alkalinity	
			R3 =	5.835	pH	pH	
			R4 =	16.2	oC	TEMPERATURE	
8/11	SO7788-2	11/16/2021 3:10:25 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	14.13	mg/L	Total Alkalinity	
			R3 =	5.777	pH	pH	
			R4 =	16.2	oC	TEMPERATURE	
9/11	SO7788-3	11/16/2021 3:12:37 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	40.713	mg/L	Total Alkalinity	
			R3 =	6.022	pH	pH	
			R4 =	16.9	oC	TEMPERATURE	
10/11	CCV	11/16/2021 3:14:46 PM	R1 =	9.739	mg/L	P Alkalinity- pH8.2	
			R2 =	128.953	mg/L	Total Alkalinity	103.16%
			R3 =	8.457	pH	pH	
			R4 =	19.3	oC	TEMPERATURE	
11/11	CCB	11/16/2021 3:17:59 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.132	mg/L	Total Alkalinity	
			R3 =	5.528	pH	pH	
			R4 =	19.9	oC	TEMPERATURE	
Calibration data							
	Number of segmen	1					
	Slope	-58.78 mV/pH					
	Zero point	6.929 pH					
	Calibration tempera	25.0 oC					

WET CHEMISTRY BATCH REPORT
Nov 17 2021, 10:56 am
Batch: WG309743 Run ID 1: R580984 Run ID 2: NONE

Parameter: Solids-Filterable Residue

Prep Date: 11-NOV-21

Date Analyzed: 15-NOV-21

Prep Method: SM 2540C

Analyst Initials: JJ

Prep Chemist: JJ

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7677-8	SAMP	STDM 2540C	100.00mL	87.38390g	1	486	490 mg/L	NA	10	5.02	10.		
SO7679-1	SAMP	STDM 2540C	100.00mL	78.44820g	1	475	480 mg/L	NA	10	5.02	10.		
SO7679-2	SAMP	STDM 2540C	100.00mL	77.51230g	1	-3	U10. mg/L	NA	10	5.02	10.		
SO7680-1	SAMP	STDM 2540C	100.00mL	94.08080g	1	141	140 mg/L	NA	10	5.02	10.		
SO7680-2	SAMP	STDM 2540C	100.00mL	91.82080g	1	518	520 mg/L	NA	10	5.02	10.		
SO7680-3	SAMP	STDM 2540C	100.00mL	91.38210g	1	149	150 mg/L	NA	10	5.02	10.		
SO7737-1	SAMP	STDM 2540C	100.00mL	90.31330g	1	203	200 mg/L	NA	10	5.0	10.		
SO7737-3	SAMP	STDM 2540C	100.00mL	73.51420g	1	201	200 mg/L	NA	10	5.0	10.		
SO7737-5	SAMP	STDM 2540C	100.00mL	73.77390g	1	269	270 mg/L	NA	10	5.0	10.		
SO7737-7	SAMP	STDM 2540C	100.00mL	84.05590g	1	178	180 mg/L	NA	10	5.0	10.		
SO7737-9	SAMP	STDM 2540C	100.00mL	93.38910g	1	173	170 mg/L	NA	10	5.0	10.		
SO7737-11	SAMP	STDM 2540C	100.00mL	91.32100g	1	174	170 mg/L	NA	10	5.0	10.		
SO7737-13	SAMP	STDM 2540C	100.00mL	89.41150g	1	244	240 mg/L	NA	10	5.0	10.		
SO7737-15	SAMP	STDM 2540C	100.00mL	88.85780g	1	243	240 mg/L	NA	10	5.0	10.		
SO7737-17	SAMP	STDM 2540C	100.00mL	92.13610g	1	233	230 mg/L	NA	10	5.0	10.		
SO7737-19	SAMP	STDM 2540C	100.00mL	80.90730g	1	206	210 mg/L	NA	10	5.0	10.		
SO7745-1	SAMP	STDM 2540C	100.00mL	85.55760g	1	213	210 mg/L	NA	10	5.02	10.		
SO7745-2	SAMP	STDM 2540C	100.00mL	86.54090g	1	110	110 mg/L	NA	10	5.02	10.		
SO7745-3	SAMP	STDM 2540C	100.00mL	80.64170g	1	95	95. mg/L	NA	10	5.02	10.		
SO7745-4	SAMP	STDM 2540C	100.00mL	82.90260g	1	3123	3100 mg/L	NA	10	5.02	10.		
WG309743-1	MBLANK	STDM 2540C	100.00mL	93.03790g	1	1	U8.0 mg/L	NA	10	5.0	10.		
WG309743-2	LCS	STDM 2540C	100.00mL	80.18750g	1	706	710 mg/L	NA	10	5.0	10.		94
WG309743-4	DUP	STDM 2540C	100.00mL	85.73900g	1	59	59. mg/L	NA	10	5.02	10.	47	

Comments:

SO7737-1	Verbal is for metals only.
SO7737-3	Verbal is for metals only.
WG309743-1	SO7737-5
WG309743-2	SO7737-5
WG309743-3	SO7737-5
WG309743-4	SO7745-3

Entered by: JJ Date: 11/17/21 Accepted by: [signature] Date: 11/17/21

Katahdin Analytical Services 5000041

WG309743
R580984

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2____ Total Suspended Solids: SM 2540D____ PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W2438

Filter Lot # SWL4878

ASTM Class Weights

Balance ID: 01

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.0996	0.1001
1.0000	0.9999	0.9997
10.0000	10.0000	10.0000
100.0000	100.0000	100.0001

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 01

In Temp. 180	Date: 11/11/21	Time: 19:00
Out Temp. 180	Date: 11/12/21	Time: 6:15
In Temp. 180	Date: 11/12/21	Time: 9:55
Out Temp. 180	Date: 11/12/21	Time: 16:00
In Temp.	Date:	Time:
Out Temp.	Date:	Time:

Notes:
First DUP did not pass, only reporting second DUP.

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis) 11/15
Blank	100	15:45	ARK	93.0378	93.0376	93.0379	7:41
LCS			00046	80.1169	80.1881	80.1875	
S07677-8			10	87.3353	87.3829	87.3839	
S07679-1			158	77.5126	77.5128	77.5123	
-2			77	78.4007	78.4484	78.4482	
S07680-1			206	94.0667	94.0802	94.0808	
-2			213	91.7690	91.8208	91.8208	
-3			217	91.3672	91.3827	91.3821	
S07737-1			219	90.2930	90.3133	90.3133	
-3			404	73.4941	73.5139	73.5142	
-5			413	73.7470	73.7729	73.7739	
-7			BP9	84.0381	84.0556	84.0559	
-9			003	93.3718	93.3890	93.3891	
-11			004	91.3036	91.3208	91.3210	
-13			005	89.3871	89.4125	89.4115	
-15			AL2	88.8335	88.8575	88.8578	
-17			AL5	92.1128	92.1365	92.1361	
-19			AL6	80.8867	80.9068	80.9073	
S07745-1			AL8	85.5363	85.5571	85.5576	
-2			AL9	86.5299	86.5404	86.5409	
-3			AL11	80.6322	80.6407	80.6417	
-4			AL12	82.5903	82.9036	82.9026	
~~S07737-5 DUP~~			~~AL13~~	~~88.2700~~	~~88.2744~~	~~88.2745~~	
S07745-3 DUP		16:24	AL14	85.7331	85.7390	85.7390	7:51

Analyst: JJ

Checked By: [signature] Date: 11/11/21

Date: 11/12/21

WET CHEMISTRY BATCH REPORT
Nov 10 2021, 03:01 pm
Batch: WG309423 Run ID 1: R580406 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Prep Date: 05-NOV-21

Date Analyzed: 10-NOV-21

Prep Method: SM 5210B

Analyst Initials: JL

Prep Chemist: JL/ZF

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO7737-1	SAMP	SM5210B	300.00mL	300.00mL	1	3.25	3.2 mg/L	NA	2	0.23	2.0		
SO7737-3	SAMP	SM5210B	300.00mL	300.00mL	1	-.2	U2.0 mg/L	NA	2	0.23	2.0		
SO7737-17	SAMP	SM5210B	300.00mL	300.00mL	1	.81	J0.81 mg/L	NA	2	0.23	2.0		
SO7737-19	SAMP	SM5210B	300.00mL	300.00mL	1	4.19	4.2 mg/L	NA	2	0.23	2.0		
SO7744-2	SAMP	SM5210B	3.5000mL	300.00mL	86	3.655	310 mg/L	NA	2	20.	170		
WG309423-1	MBLANK	SM5210B	300.00mL	300.00mL	1	.03	U1.0 mg/L	NA	2	0.23	2.0		
WG309423-2	LCS	SM5210B	6.0000mL	300.00mL	50	4.485	220 mg/L	NA	2	12.	100		113
WG309423-3	MS	SM5210B	25.000mL	300.00mL	12	4.43	53. mg/L	NA	2	2.8	24.		105

Comments:

SO7737-1	Verbal is for metals only.
SO7737-3	Verbal is for metals only.
WG309423-1	SO7737-1
WG309423-2	SO7737-1
WG309423-3	SO7737-1

Entered by: JR Date: 11/10/21 Accepted by: [signature] Date: 11/11/21

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: [JL]

W3T09423
R580406

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = [2]

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	8.32	8.53	-0.21	N/A	No
Blank 2	0	8.43	8.40	0.03	N/A	Yes
Blank 3	0	8.54	8.59	-0.05	N/A	Yes
Seed Control 1	2	8.53	8.19	0.34	0.34	No
Seed Control 2	4	8.58	7.52	1.06	0.53	No
Seed Control 3	8	8.51	6.76	1.75	0.44	No
Seed Control 4	12	8.48	5.87	2.61	0.44	0.44
				Mean Seed Correction Factor (SCF):		**0.44**

Blank: 1647 1407
LCS: 1653 1414

LCS Recovery Calculations

GGA Added (mL):	**6**		**LCS True Value (mg/L):**	**198**
LCS ID	**Calc mg/L**	**% Recovery**	**Recovery Acceptance Limits (%): 84.6 TO 115.4**	
LCS 1	220.75	111.5	LCS Within Criteria ?	Yes
LCS 2	221.25	111.7	LCS Within Criteria ?	Yes
LCS 3	230.75	116.5	LCS Within Criteria ?	No
Mean	224.25	113.3	LCS Within Criteria ?	Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
7737	25.00	3.25	53.10	6	47.52	104.9
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:

LCS 1
LCS 2
LCS 3
Blank 1 D7
Blank 2

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
LCS 1	6.000	8.52	3.67	4.85	4.42	220.75	Yes	100.0
LCS 2	6.000	8.42	3.56	4.86	4.43	221.25	Yes	100.0
LCS 3	6.000	8.46	3.41	5.05	4.62	230.75	Yes	100.0
Mean LCS Result	6.000	8.467	3.547	4.920	4.485	224.250	Yes	100.0
1656 **7737** 1471	25.000	8.27	7.70	0.57	0.14	1.62	No	24.0
1D	50.000	8.53	7.44	1.09	0.65	3.93	No	12.0
-1	100.000	8.59	6.85	1.74	1.31	3.92	No	6.0
	300.000	9.31	5.63	3.68	3.25	3.25	Yes	2.0
1701 **MS** 1472	25.000	8.31	3.45	4.86	4.43	53.10	Yes	24.0
DUP	100.000	8.25	6.56	1.69	1.26	3.77	No	6.0
1709 **7737** 1473	25.000	7.93	7.23	0.70	0.27	3.18	No	24.0
2D	50.000	7.76	6.76	1.00	0.57	3.39	No	12.0
-19	100.000	7.16	5.20	1.96	1.53	4.58	No	6.0
	300.000	8.85	4.23	4.62	4.19	4.19	Yes	2.0
1713 **7737** 1476	25.000	8.77	8.31	0.46	0.02	0.30	No	24.0
1S	50.000	9.18	8.73	0.45	0.01	0.09	No	12.0
-15	100.000	8.90	8.63	0.27	-0.17	-0.50	No	6.0
	300.000	9.04	8.80	0.24	-0.20	-0.20	Yes	2.0
1720 **7737** 1480	25.000	8.38	8.03	0.35	-0.08	-1.02	No	24.0
2S	50.000	8.19	7.96	0.23	-0.21	-1.23	No	12.0
-17	100.000	8.28	7.15	1.13	0.69	2.09	No	6.0
	300.000	9.42	8.18	1.24	0.81	0.81	Yes	2.0
1807 **B+M** 1433	1.000	8.29	6.98	1.31	0.87	262.50	No	600.0
7744-C	2.000 1.35	8.47	5.94	2.53	2.10 1.3655	314.25	Yes	300.0
	5.000	8.46	2.82	5.64	5.21	312.30	Yes	120.0
	10.000	8.05	<1	7.05	6.62	198.45	No	60.0
	25.000	7.76	<1	6.76	6.33	75.90	No	24.0
	50.000	7.14	<1	6.14	5.71	34.23	No	12.0
	100.000	5.68	<1	4.68	4.25	12.74	No	6.0
	300.000	0.28	<1	-0.72	-1.16	-1.16	No	2.0
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!
				0.00	-0.44	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG309423

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.		
Total BOD: SM5210B EPA 405.1		**PQL: 2.0 mg/L**	
Carbonaceous BOD: SM5210B		**PQL: 2.0 mg/L**	
Glutamic Acid Std (GGA) ID: GGA 110521	GGA Preparation:	Seed Used Source ID and Amount:	
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA: ✓	1 mL (2)
Phosphate Bffr Soln. ID: W20367	SWL4207	SSD:	1 mL
$H_{14}MgO_{11}S$ ID: SWL4791	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:	
Ferric Chloride Soln. ID: SWL4770	SWL4623	Starch Indicator ID:	
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:	
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):	

pH Meter Calibration		Probe ID:		
True Value	Lot ID	Actual Value	Accept? ± 0.05	
4.01				
7.00				
10.01				

DO Meter ID: B27869	DO Probe ID: 086030MD
KI Paper ID: 14-860	pH Paper ID: 6102002
Carboy ID: U J	1:50 H_2SO_4 ID:
Pipet IDs: W3,7,10,13	
Base 2 ID (B2):	INC ID:

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
Blank		1647					1568		8.32	8.53	1407	
↓		48					6007		8.43	8.40	08	
		48					429		8.54	8.59	08	
2		1649					R40		8.53	8.19	1410	
4		50					789		8.58	7.52	11	
8		51					826		8.51	6.86	12	
12		52					136		8.48	5.87	13	
LCS		1653					108		8.52	3.67	1414	
↓		53					91		8.42	3.56	15	
		54					211		8.46	3.41	16	
S07131	Arcadis	1656	↓			N	AC	25	8.27	7.70	1417	
-1	1D	57					3000	50	8.53	7.44	18	
		58					1009	100	8.59	6.85	19	
		1700					10K	300	8.31	~~8.31~~	20	5.163
	MS	01					2D	25	8.31	3.45	1421	
	DUP	02					P3	100	8.25	6.56	22	

WL-013 - Revision 10 - 09/23/2021

Katahdin Analytical Services 5000046

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
SO 7737-19	Arcadis	1709	✓			N	MR	25 ~~7.93~~	7.93	7.23	1423	
	20	10					083	50	4.76	6.76	24	
		11					466	100	7.16	5.20	25	
		12					470	~~8.85~~ 300	8.85	4.23	25	
SO7737	Arcadis	1713	✓			N	302J	25	8.77	8.31	1426	
-2	15	14					024	50	9.18	8.73	27	
		17					146	100	8.90	8.63	28	
		27	✓				BP34	300	9.04	8.80	29	
SO7737	Arcadis	1720				N	D1	25	8.38	8.03	1430	
-17	25	21					42R	50	8.19	7.96	30	
		22					1234	100	8.28	7.15	31	
		35					399	300	9.42	8.18	31	
SG7744-2	B+M	18:07	✓			N	85E	1	8.29	6.98	1433	
		09					2009	2	8.47	5.94	34	
		10					444	5	8.46	2.82	34	
		11					134T	10	8.05	<1	34	
		12					H7	25	7.76	<1	34	
		13					A22	50	7.14	<1	35	
		14					39D	100	5.68	<1	35	
		15					BP22	300	0.28	<1	35	

JR 11/10/21

NOTES:

ANALYST 1 JR / ~~ZE~~	DATE 11/5/21
ANALYST 2 JR	DATE 11/10/21
CHECKED BY: [signature]	DATE 11/10/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

SERES ENGINEERING
& SERVICES, LLC
FORT DEVENS 2021 LTM
30048392.07F
SO8631

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM 30048392.07F
SO8631

Sample Receipt

The following samples were received on December 14, 2021 and were logged in under Katahdin Analytical Services work order number SO8631 for a hardcopy due date of January 04, 2022.

KATAHDIN Sample No.	SERES Sample Identification
SO8631-1	SHM-10-06-EVENT#3
SO8631-2	SHM-10-06-FF-EVENT#3
SO8631-3	MW-21-4S-EVENT#3
SO8631-4	MW-21-4S-FF-EVENT#3
SO8631-5	MW-21-4D-EVENT#3
SO8631-6	MW-21-4D-FF-EVENT#3
SO8631-7	MW-21-3S-EVENT#3
SO8631-8	MW-21-3S-FF-EVENT#3
SO8631-9	MW-21-1D-EVENT#3
SO8631-10	MW-21-1D-FF-EVENT#3
SO8631-11	MW-21-1S-EVENT#3
SO8631-12	MW-21-1S-FF-EVENT#3
SO8631-13	MW-21-2D-EVENT#3
SO8631-14	MW-21-2D-FF-EVENT#3
SO8631-15	AS-DUP-EVENT#3
SO8631-16	AS-DUP-FF-EVENT#3
SO8631-17	MW-21-2S-EVENT#3
SO8631-18	MW-21-2S-FF-EVENT#3
SO8631-19	MW-21-3D-EVENT#3
SO8631-20	MW-21-3D-FF-EVENT#3

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Metals Analysis

The samples associated with Katahdin Work Order SO8631 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic **Analysis**

Aqueous-matrix Katahdin Sample Numbers SO8631-(1-7) were digested for ICP analysis on 12/17/21 (QC Batch OL17ICW1) in accordance USEPA Method 3010A.

Aqueous-matrix Katahdin Sample Numbers SO8631-(8-20) were digested for ICP analysis on 12/17/21 (QC Batch OL17ICW2) in accordance USEPA Method 3010A. Katahdin Sample Number SO8631-8 was prepped with duplicate matrix spiked aliquots.

ICP analyses of Katahdin Work Order SO8631 samples were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all applicable analytical run QC criteria were met.

Matrix QC Summary

All matrix QC was within laboratory acceptance limits.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I, preparation blanks on Form IIIP, and matrix QC samples on Forms VA, VD, and VI have been reported using the laboratory's Practical Quantitation Limits (PQL). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the PQL are flagged with "U" in the C-qualifier column, and the PQL is listed in the concentration column. Results that fall between the MDL and the PQL are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. These PQLs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VB and IX for client samples, analysis QC samples (serial dilutions and post-digestion spikes) have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted MDL is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, and PQLs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of SO8631 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for solids filterable residue, total biological oxygen demand and alkalinity were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOD", where "LOD" is the numerical value of the Limit of Detection.

All analyses were performed within analytical holding times and all quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond *Jan 10, 2022*

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: Arcadis	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GN	Delivered By: ~~Fedex~~ KAS
KAS Work Order#: 508631	KIMS Review By: HHM	Received By: GN
	Labeled By: GN	
SDG #:	Cooler: 1 of 2	Date/Time Rec.: 12-14-21/16:00

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?					
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 0.9 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: Arcadis	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GN	Delivered By: ~~Fedex~~ KAS
KAS Work Order#: S08631	KIMS Review By: HHM	Received By: GN
	Labeled By: GN/JR	
SDG #:	Cooler: 2 of 2	Date/Time Rec.: 12-14-21/16:00

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 0.1 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cbol?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓			✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Heather Manz

From: Sheckler, Grace <Grace.Sheckler@arcadis.com>
Sent: Thursday, December 23, 2021 1:33 PM
To: Heather Manz
Cc: Therriault, Brian; halevesque@seres-es.com; Bedard, Desmond
Subject: Re: Amending Lab Report Client IDs

Follow Up Flag: Follow up
Flag Status: Flagged

Yes, I'm sorry. I did not realize we switched the order on that.

Thank you for your help.
Grace

Get Outlook for iOS

From: Heather Manz <hmanz@katahdinlab.com>
Sent: Thursday, December 23, 2021 1:29:35 PM
To: Sheckler, Grace <Grace.Sheckler@arcadis.com>
Cc: Therriault, Brian <Brian.Therriault@arcadis.com>; halevesque@seres-es.com <halevesque@seres-es.com>; Bedard, Desmond <Desmond.Bedard@arcadis.com>
Subject: RE: Amending Lab Report Client IDs

Hi Grace,

We can correct the field ID for SO8173-4 for the final report. I've attached a revised login here.

Will you need all the field filtered IDs corrected for the attached SO8631 COC?

Thanks
Heather

From: Sheckler, Grace <Grace.Sheckler@arcadis.com>
Sent: Thursday, December 23, 2021 12:12 PM
To: Heather Manz <hmanz@katahdinlab.com>
Cc: Therriault, Brian <Brian.Therriault@arcadis.com>; halevesque@seres-es.com; Bedard, Desmond <Desmond.Bedard@arcadis.com>
Subject: Amending Lab Report Client IDs

Hello Heather,

I hope you are having a happy holiday season. I wanted to contact you in the hopes that we would be able to amend this email to the next lab report issued. Some of the sample IDs on the latest preliminary results from the November 22nd/23rd sampling event seem to have been mislabeled, and we wanted to change them before the full report is issued. Specifically, we want the IDs that contain FF to be in this format:
well name-FF-Event #

For example, MW-21-##-FF-Event #. On the latest preliminary results, I believe the only ID we would need amended is MW-21-4S. This would be changed from MW-21-4S-Event #2-FF to MW-21-4S-FF-Event #2.

If possible, we would like to make sure future reports are in this format. We will make sure all future samples are labeled properly and apologize if any of our samples were labeled incorrectly. Please let me know if we can make these changes.

Thank you for your help and I hope you have happy holidays.

Regards,
Grace

Grace Sheckler (she/her)
Environmental Engineer Specialist 1
Arcadis U.S., Inc.
One Executive Drive, Suite 303 | Chelmsford, MA | 01824 | USA
www.arcadis.com

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Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page ____ of ____

Client: Arcadis & Sercs
Contact:
Phone #: ( )
Fax #: ( )
Address:
City:
State:
Zip Code:
Purchase Order #:
Proj. Name / No.:
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign): Grace Sheckler & Desmond Bechard Grace Sheckler
Copies To:

LAB USE ONLY
WORK ORDER #: 508631
KATAHDIN PROJECT NUMBER:
REMARKS:
SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	250 ml HDPE Total Metals (HNO3) Filt. ☐Y ☒N	250ml (HNO3) HDPE Dissolved Metals Filt. ☒Y ☐N	1000 ml HDPE Alkalinity & TDS Filt. ☐Y ☒N	1000 ml HDPE BOD Filt. ☐Y ☒N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	SHM-10-06-Event#3	12/13/21/10:35	GW	2	✓		✓							
	SHM-10-06-Event#3-FF	12/13/21/10:35	GW	1		✓								
	MW-21-4S-Event#3	12/13/21/13:21	GW	2	✓		✓							
	MW-21-4S-Event#3-FF	12/13/21/13:21	GW	1		✓								
	MW-21-4D-Event#3	12/13/21/12:23	GW	2	✓		✓							
	MW-21-4D-Event#3-FF	12/13/21/12:23	GW	1		✓								
	MW-21-3S-Event#3	12/13/21/14:25	GW	2	✓		✓							
	MW-21-3S-Event#3-FF	12/13/21/14:25	GW	1		✓								
	MW-21-1D-Event#3	12/14/10:47	GW	3	✓		✓	✓						
	MW-21-1D-Event#3-FF	12/14/10:47	GW	1		✓								
	MW-21-1S-Event#3	12/14/12:09	GW	3	✓		✓	✓						
	MW-21-1S-Event#3-FF	12/14/12:09	GW	1		✓								
	MW-21-2D-EVENT#3	12/14/21/11:15	GW	3	✓		✓	✓						
	MW-21-2D-EVENT#3-FF	12/14/21/11:15	GW	1		✓								
	AS-DUP-EVENT#3	12/14/21/12:00	GW	3	✓		✓	✓						
	AS-DUP-EVENT#3-FF	12/14/21/12:00	GW	1		✓								

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Grace Sheckler	12/14/2021 14:02	[signature]	[signature]	12/14 16:00	[signature]
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

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Page ____ of ____

Client: Arcadis & Sevus
Contact:
Phone #: ( )
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Address:
City:
State:
Zip Code:

Purchase Order #:
Proj. Name / No.:
Katahdin Quote #:

Bill (if different than above):
Address:

Sampler (Print / Sign): Grace Sheckler [signature]
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LAB USE ONLY
WORK ORDER #: 508631
KATAHDIN PROJECT NUMBER:

REMARKS:

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ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Total Metals 250 ml HDPE (HNO3)	Dissolved Metals 250 ml HDPE (HNO3)	Alkalinity & TDS 1000 ml HDPE	BOD 1000 ml HDPE						
	MW-21-2S-Event#3	12/14/21 / 13:10	GW	3	✓		✓	✓						
	MW-21-2S-Event#3-FF	12/14/21 / 13:10	GW	1		✓								
	MW-21-3D-Event#3	12/14 / 13:30	GW	3	✓		✓	✓						
	MW-21-3D-Event#3-FF	12/14 / 13:30	GW	1		✓								
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COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Grace Sheckler	12/14 14:02	[signature]	[signature]	12/14 16:00	[signature]
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

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ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Dec. 23, 2021
01:51 PM

Login Number: SO8631

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:
Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston, SC 29492
USA
halevesque@seres-es.com

Primary Invoice Address:
Accounts Payable
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA
metunstall@seres-es.com

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information:

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	0.9, 0.1
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	ECC-091317-TXT
LOGIN INITIALS	:	JCB
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM 30048392.07F
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

HHM

1:52 pm, Dec 23, 2021

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Dec. 23, 2021
01:51 PM

Login Number: SO8631

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

1:52 pm, Dec 23, 2021

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO8631-1	SHM-10-06-EVENT#3	13-DEC-21 10:35	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Service	S	COURIER-BILLING				
Aqueous	S	SM2320B-ALKALINITY	27-DEC-21			
Aqueous	S	SM2540C-TDS	20-DEC-21	250mL Plastic		
Aqueous	S	SW3010-PREP	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	11-JUN-22	250mL Plastic+HNO3		

SO8631-2	SHM-10-06-FF-EVENT#3	13-DEC-21 10:35	14-DEC-21			04-JAN-22

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	11-JUN-22	250mL Plastic+HNO3		

SO8631-3	MW-21-4S-EVENT#3	13-DEC-21 13:21	14-DEC-21			04-JAN-22

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	27-DEC-21			
Aqueous	S	SM2540C-TDS	20-DEC-21	250mL Plastic		
Aqueous	S	SW3010-PREP	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	11-JUN-22	250mL Plastic+HNO3		

SO8631-4	MW-21-4S-FF-EVENT#3	13-DEC-21 13:21	14-DEC-21			04-JAN-22

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	11-JUN-22	250mL Plastic+HNO3		

SO8631-5	MW-21-4D-EVENT#3	13-DEC-21 12:23	14-DEC-21			04-JAN-22

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	27-DEC-21			
Aqueous	S	SM2540C-TDS	20-DEC-21	250mL Plastic		
Aqueous	S	SW3010-PREP	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	11-JUN-22	250mL Plastic+HNO3		

SO8631-6	MW-21-4D-FF-EVENT#3	13-DEC-21 12:23	14-DEC-21			04-JAN-22

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	11-JUN-22	250mL Plastic+HNO3		

SO8631-7	MW-21-3S-EVENT#3	13-DEC-21 14:25	14-DEC-21			04-JAN-22

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	27-DEC-21			
Aqueous	S	SM2540C-TDS	20-DEC-21	250mL Plastic		
Aqueous	S	SW3010-PREP	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	11-JUN-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	11-JUN-22	250mL Plastic+HNO3		

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Dec. 23, 2021
01:51 PM

Login Number: SO8631

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

1:52 pm, Dec 23, 2021

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO8631-8	MW-21-3S-FF-EVENT#3	13-DEC-21 14:25	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	11-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	11-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	11-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	11-JUN-22		250mL Plastic+HNO3		

SO8631-9	MW-21-1D-EVENT#3	14-DEC-21 10:47	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	28-DEC-21				
Aqueous	S	SM2540C-TDS	21-DEC-21		250mL Plastic		
Aqueous	S	SM5210B-TBOD	16-DEC-21	SHORT	250mL Plastic		
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	12-JUN-22		250mL Plastic+HNO3		

SO8631-10	MW-21-1D-FF-EVENT#3	14-DEC-21 10:47	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	12-JUN-22		250mL Plastic+HNO3		

SO8631-11	MW-21-1S-EVENT#3	14-DEC-21 12:09	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	28-DEC-21				
Aqueous	S	SM2540C-TDS	21-DEC-21		250mL Plastic		
Aqueous	S	SM5210B-TBOD	16-DEC-21	SHORT	250mL Plastic		
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	12-JUN-22		250mL Plastic+HNO3		

SO8631-12	MW-21-1S-FF-EVENT#3	14-DEC-21 12:09	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	12-JUN-22		250mL Plastic+HNO3		

SO8631-13	MW-21-2D-EVENT#3	14-DEC-21 11:15	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	28-DEC-21				
Aqueous	S	SM2540C-TDS	21-DEC-21		250mL Plastic		
Aqueous	S	SM5210B-TBOD	16-DEC-21	SHORT	250mL Plastic		
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	12-JUN-22		250mL Plastic+HNO3		

SO8631-14	MW-21-2D-FF-EVENT#3	14-DEC-21 11:15	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	12-JUN-22		250mL Plastic+HNO3		

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Dec. 23, 2021
01:51 PM

Login Number: SO8631

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO8631-15	AS-DUP-EVENT#3	14-DEC-21 12:00	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	28-DEC-21				
Aqueous	S	SM2540C-TDS	21-DEC-21		250mL Plastic		
Aqueous	S	SM5210B-TBOD	16-DEC-21	SHORT	250mL Plastic		
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	12-JUN-22		250mL Plastic+HNO3		

SO8631-16	AS-DUP-FF-EVENT#3	14-DEC-21 12:00	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	12-JUN-22		250mL Plastic+HNO3		

SO8631-17	MW-21-2S-EVENT#3	14-DEC-21 13:10	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	28-DEC-21				
Aqueous	S	SM2540C-TDS	21-DEC-21		250mL Plastic		
Aqueous	S	SM5210B-TBOD	16-DEC-21	SHORT	250mL Plastic		
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	12-JUN-22		250mL Plastic+HNO3		

SO8631-18	MW-21-2S-FF-EVENT#3	14-DEC-21 13:10	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	12-JUN-22		250mL Plastic+HNO3		

SO8631-19	MW-21-3D-EVENT#3	14-DEC-21 13:30	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SM2320B-ALKALINITY	28-DEC-21				
Aqueous	S	SM2540C-TDS	21-DEC-21		250mL Plastic		
Aqueous	S	SM5210B-TBOD	16-DEC-21	SHORT	250mL Plastic		
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	12-JUN-22		250mL Plastic+HNO3		

SO8631-20	MW-21-3D-FF-EVENT#3	14-DEC-21 13:30	14-DEC-21			04-JAN-22	

Matrix		Product	Hold Date (shortest)		Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	12-JUN-22		250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	12-JUN-22		250mL Plastic+HNO3		

Total Samples: 20 ***Total Analyses: 107***

1:52 pm, Dec 23, 2021

SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as “U” MDL have a 50% rate for false negatives compared to those results reported as “U” PQL LOQ or “U” LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results <u>may</u> not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results <u>may</u> not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-001

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	1040			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	80100			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	2660			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	988			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	77400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2550			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	4.6	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	7200			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	1440			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	4.3	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	4190			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1470			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1900			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	63300			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	1680			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1990			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	66200			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1850			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	6.3	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	2600			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	421			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	4.2	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	1400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	427			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	37.3			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	1900			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	5370			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	11			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	942			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	5270			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-011

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	20	J		P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	552			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1.4	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	8.8	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	552			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	234			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	9160			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	965			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	85.6			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2420			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	965			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-015

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	230			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	9300			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	947			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-016

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	76.8			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2210			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	934			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	12			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	5200			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	933			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	3.8	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3420			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	926			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-019

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	2060			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	54200			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	3320			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-020

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2070			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	55700			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3440			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-1
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT#3	AQ	13-DEC-21 10:35:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 18:49:08	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-3
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT#3	AQ	13-DEC-21 13:21:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	200 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 18:58:26	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-5
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#3	AQ	13-DEC-21 12:23:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	160 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:05:39	N/A	N/A	
Solids-Filterable Residue	250 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-7
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#3	AQ	13-DEC-21 14:25:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	80. mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:13:56	N/A	N/A	
Solids-Filterable Residue	110 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-9
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#3	AQ	14-DEC-21 10:47:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:16:57	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:22:00	SM 5210B	15-DEC-21 0900	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-11
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#3	AQ	14-DEC-21 12:09:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:19:43	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:32:00	SM 5210B	15-DEC-21 0928	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-13
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT#3	AQ	14-DEC-21 11:15:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	41. mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:22:42	N/A	N/A	
Solids-Filterable Residue	110 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J0.35 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:25:00	SM 5210B	15-DEC-21 0916	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-15
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-EVENT#3	AQ	14-DEC-21 12:00:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	40. mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:24:49	N/A	N/A	
Solids-Filterable Residue	120 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J0.65 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:39:00	SM 5210B	15-DEC-21 0941	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-17
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT#3	AQ	14-DEC-21 13:10:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	120 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:26:55	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J1.1 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:35:00	SM 5210B	15-DEC-21 0935	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-19
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#3	AQ	14-DEC-21 13:30:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:29:34	N/A	N/A	
Solids-Filterable Residue	220 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J4.3 mg/L	6.0	0.70	1	SM5210B	WG311546	20-DEC-21 14:29:00	SM 5210B	15-DEC-21 0920	

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO8631 **SOW No.** SW846

Client Field ID	Lab Sample ID
AS-DUP-EVENT#3	SO8631-015
AS-DUP-FF-EVENT#3	SO8631-016
MW-21-1D-EVENT#3	SO8631-009
MW-21-1D-FF-EVENT#3	SO8631-010
MW-21-1S-EVENT#3	SO8631-011
MW-21-1S-FF-EVENT#3	SO8631-012
MW-21-2D-EVENT#3	SO8631-013
MW-21-2D-FF-EVENT#3	SO8631-014
MW-21-2S-EVENT#3	SO8631-017
MW-21-2S-FF-EVENT#3	SO8631-018
MW-21-3D-EVENT#3	SO8631-019
MW-21-3D-FF-EVENT#3	SO8631-020
MW-21-3S-EVENT#3	SO8631-007
MW-21-3S-FF-EVENT#3	SO8631-008
MW-21-3S-FF-EVENT#3P	SO8631-008P
MW-21-3S-FF-EVENT#3S	SO8631-008S
MW-21-4D-EVENT#3	SO8631-005
MW-21-4D-FF-EVENT#3	SO8631-006
MW-21-4S-EVENT#3	SO8631-003
MW-21-4S-FF-EVENT#3	SO8631-004
SHM-10-06-EVENT#3	SO8631-001
SHM-10-06-FF-EVENT#3	SO8631-002

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Emily Pelletier Name: Emily Pelletier

Date: 1/6/22 Title: Analyst

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-001

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	1040			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	80100			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	2660			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	988			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	77400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2550			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	4.6	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	7200			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	1440			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	4.3	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	4190			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1470			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-005

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	1900			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	63300			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	1680			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1990			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	66200			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1850			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	6.3	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	2600			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	421			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	4.2	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	1400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	427			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	37.3			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	1900			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	5370			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	11			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	942			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	5270			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	20	J		P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	552			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1.4	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	8.8	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	552			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-013

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	234			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	9160			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	965			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	85.6			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2420			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	965			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-015

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	230			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	9300			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	947			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-016

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	76.8			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	2210			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	934			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	12			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	5200			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	933			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	3.8	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3420			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	926			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-019

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, TOTAL	2060			P	1	8.0	1.4	5.0
7439-89-6	IRON, TOTAL	54200			P	1	100	5.4	80
7439-96-5	MANGANESE, TOTAL	3320			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-020

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2070			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	55700			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3440			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

QC Summary Section

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: ICV

File: IOL20B Dec 20, 2021 23:19

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9968.00	99.7
ARSENIC	400.0	382.60	95.7
CALCIUM	10000.0	10120.00	101.2
IRON	10000.0	10330.00	103.3
MAGNESIUM	10000.0	9797.00	98.0
MANGANESE	400.0	393.90	98.5

SAMPLE: CCV

File: IOL20B Dec 20, 2021 23:40

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12960.00	103.7
ARSENIC	500.0	508.40	101.7
CALCIUM	12500.0	13100.00	104.8
IRON	12500.0	13420.00	107.4
MAGNESIUM	12500.0	12740.00	101.9
MANGANESE	500.0	518.90	103.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCV

File: IOL20B Dec 20, 2021 23:58

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13050.00	104.4
ARSENIC	500.0	509.70	101.9
CALCIUM	12500.0	13160.00	105.3
IRON	12500.0	13450.00	107.6
MAGNESIUM	12500.0	12840.00	102.7
MANGANESE	500.0	517.40	103.5

SAMPLE: CCV

File: IOL20B Dec 21, 2021 00:49

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12840.00	102.7
ARSENIC	500.0	502.00	100.4
CALCIUM	12500.0	12930.00	103.4
IRON	12500.0	13050.00	104.4
MAGNESIUM	12500.0	12560.00	100.5
MANGANESE	500.0	510.40	102.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCV

File: IOL20B Dec 21, 2021 01:41

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13080.00	104.6
ARSENIC	500.0	493.60	98.7
CALCIUM	12500.0	13240.00	105.9
IRON	12500.0	13250.00	106.0
MAGNESIUM	12500.0	12370.00	99.0
MANGANESE	500.0	515.70	103.1

SAMPLE: CCV

File: IOL20B Dec 21, 2021 02:33

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12960.00	103.7
ARSENIC	500.0	499.60	99.9
CALCIUM	12500.0	13180.00	105.4
IRON	12500.0	13300.00	106.4
MAGNESIUM	12500.0	12360.00	98.9
MANGANESE	500.0	512.50	102.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCV

File: IOL20B Dec 21, 2021 03:25

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12920.00	103.4
ARSENIC	500.0	493.40	98.7
CALCIUM	12500.0	13090.00	104.7
IRON	12500.0	13080.00	104.6
MAGNESIUM	12500.0	12370.00	99.0
MANGANESE	500.0	507.70	101.5

SAMPLE: CCV

File: IOL20B Dec 21, 2021 04:17

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13100.00	104.8
ARSENIC	500.0	491.40	98.3
CALCIUM	12500.0	13310.00	106.5
IRON	12500.0	13260.00	106.1
MAGNESIUM	12500.0	12260.00	98.1
MANGANESE	500.0	514.00	102.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCV

File: IOL20B Dec 21, 2021 05:09

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12880.00	103.0
ARSENIC	500.0	499.10	99.8
CALCIUM	12500.0	13130.00	105.0
IRON	12500.0	13120.00	105.0
MAGNESIUM	12500.0	12380.00	99.0
MANGANESE	500.0	504.90	101.0

SAMPLE: CCV

File: IOL20B Dec 21, 2021 06:01

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13000.00	104.0
ARSENIC	500.0	506.20	101.2
CALCIUM	12500.0	13230.00	105.8
IRON	12500.0	13130.00	105.0
MAGNESIUM	12500.0	12530.00	100.2
MANGANESE	500.0	514.10	102.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCV

File: IOL20B Dec 21, 2021 06:53

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12790.00	102.3
ARSENIC	500.0	513.00	102.6
CALCIUM	12500.0	12860.00	102.9
IRON	12500.0	13310.00	106.5
MAGNESIUM	12500.0	12690.00	101.5
MANGANESE	500.0	512.60	102.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: PQL

File: IOL20B Dec 20, 2021 23:27

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	306.50	102.2
ARSENIC	8.0	8.35	104.4
CALCIUM	100.0	101.50	101.5
IRON	100.0	108.30	108.3
MAGNESIUM	100.0	102.40	102.4
MANGANESE	5.0	4.99	99.8

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: ICB

File: IOL20B Dec 20, 2021 23:23

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	16.590	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U

SAMPLE: CCB

File: IOL20B Dec 20, 2021 23:45

Analyte	Result	C
ALUMINUM	28.290	J
ARSENIC	1.400	U
CALCIUM	32.000	J
IRON	29.700	J
MAGNESIUM	9.626	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOL20B Dec 21, 2021 00:02

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.569	J
CALCIUM	11.000	U
IRON	23.420	J
MAGNESIUM	6.264	J
MANGANESE	0.870	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCB

File: IOL20B Dec 21, 2021 00:54

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	13.050	J
MAGNESIUM	3.916	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOL20B Dec 21, 2021 01:45

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	19.360	J
MAGNESIUM	4.307	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOL20B Dec 21, 2021 02:37

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	23.340	J
MAGNESIUM	4.733	J
MANGANESE	0.870	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCB

File: IOL20B Dec 21, 2021 03:29

Analyte	Result	C
ALUMINUM	11.520	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	27.470	J
MAGNESIUM	6.380	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOL20B Dec 21, 2021 04:21

Analyte	Result	C
ALUMINUM	11.380	J
ARSENIC	1.400	U
CALCIUM	12.740	J
IRON	21.600	J
MAGNESIUM	3.816	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOL20B Dec 21, 2021 05:13

Analyte	Result	C
ALUMINUM	15.620	J
ARSENIC	1.788	J
CALCIUM	11.000	U
IRON	20.470	J
MAGNESIUM	4.991	J
MANGANESE	0.870	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: CCB

File: IOL20B Dec 21, 2021 06:05

Analyte	Result	C
ALUMINUM	12.890	J
ARSENIC	1.577	J
CALCIUM	11.000	U
IRON	23.020	J
MAGNESIUM	5.608	J
MANGANESE	0.870	U

SAMPLE: CCB

File: IOL20B Dec 21, 2021 06:57

Analyte	Result	C
ALUMINUM	15.420	J
ARSENIC	2.349	J
CALCIUM	13.380	J
IRON	27.880	J
MAGNESIUM	6.211	J
MANGANESE	0.971	J

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOL17ICW1

Matrix: WATER **SDG Name:** SO8631

QC Batch ID: OL17ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
IRON	6.6	J
MANGANESE	5.0	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOL17ICW2

Matrix: WATER **SDG Name:** SO8631

QC Batch ID: OL17ICW2

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	1.7	J
IRON	100	U
MANGANESE	5.0	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Concentration Units: ug/L

SAMPLE: ICSA

File: IOL20B Dec 20, 2021 23:32

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	526200.00	105.2
ARSENIC	0	-1.19	
CALCIUM	500000.00	501600.00	100.3
IRON	200000.00	202800.00	101.4
MAGNESIUM	500000.00	478000.00	95.6
MANGANESE	0	-1.17	

SAMPLE: ICSAB

File: IOL20B Dec 20, 2021 23:36

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	529300.00	105.9
ARSENIC	100.00	103.90	104.0
CALCIUM	500000.00	504700.00	100.9
IRON	200000.00	203300.00	101.6
MAGNESIUM	500000.00	479800.00	96.0
MANGANESE	500.00	496.50	99.4

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#3P

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-008P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	105		4.2	J	100	100.5		87	113	P
IRON, DISSOLVED	2540		1400		1000	114.1		87	115	P
MANGANESE, DISSOLVED	945		427		500	103.6		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#3S

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-008S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	103		4.2	J	100	98.7		87	113	P
IRON, DISSOLVED	2460		1400		1000	106.5		87	115	P
MANGANESE, DISSOLVED	926		427		500	99.7		90	114	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#3A

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-008A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	462		4.2	J	500	91.6		80	120	P
IRON, DISSOLVED	7020		1400		5500	102.1		80	120	P
MANGANESE, DISSOLVED	891		427		500	92.9		80	120	P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#3

Matrix: WATER **SDG Name:** SO8631

Percent Solids: 0.00 **Lab Sample ID:** SO8631-008

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, DISSOLVED		103		105		1.7		P
IRON, DISSOLVED		2460		2540		3.0		P
MANGANESE, DISSOLVED		926		945		2.1		P

Comments:

FORM VD - IN

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOL17ICW1

Matrix: WATER **SDG Name:** SO8631

QC Batch ID: OL17ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	101	100.9	87	113
IRON	1000	1050	104.8	87	115
MANGANESE	500	512	102.3	90	114

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOL17ICW2

Matrix: WATER **SDG Name:** SO8631

QC Batch ID: OL17ICW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	103	103.0	87	113
IRON	1000	1080	108.1	87	115
MANGANESE	500	521	104.2	90	114

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Matrix: WATER

Client Field ID: MW-21-3S-FF-EVENT#3L

SDG Name: SO8631

Lab Sample ID: SO8631-008L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, DISSOLVED	4.2	J	11	J	161.9		P
IRON, DISSOLVED	1400		1430		2.1		P
MANGANESE, DISSOLVED	427		429		0.5		P

FORM IX - IN

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OL17ICW1

Matrix: WATER **SDG Name:** SO8631

Method: P **Prep Date:** 12/17/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOL17ICW1	LCSWOL17ICW1	0.05	0.05	
PBWOL17ICW1	PBWOL17ICW1	0.05	0.05	
SHM-10-06-EVENT#3	SO8631-001	0.05	0.05	C
SHM-10-06-FF-EVENT#3	SO8631-002	0.05	0.05	A
MW-21-4S-EVENT#3	SO8631-003	0.05	0.05	C
MW-21-4S-FF-EVENT#3	SO8631-004	0.05	0.05	A
MW-21-4D-EVENT#3	SO8631-005	0.05	0.05	C
MW-21-4D-FF-EVENT#3	SO8631-006	0.05	0.05	A
MW-21-3S-EVENT#3	SO8631-007	0.05	0.05	C

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OL17ICW2

Matrix: WATER **SDG Name:** SO8631

Method: P **Prep Date:** 12/17/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOL17ICW2	LCSWOL17ICW2	0.05	0.05	
PBWOL17ICW2	PBWOL17ICW2	0.05	0.05	
MW-21-3S-FF-EVENT#3	SO8631-008	0.05	0.05	A
MW-21-3S-FF-EVENT#3P	SO8631-008P	0.05	0.05	A
MW-21-3S-FF-EVENT#3S	SO8631-008S	0.05	0.05	A
MW-21-1D-EVENT#3	SO8631-009	0.05	0.05	C
MW-21-1D-FF-EVENT#3	SO8631-010	0.05	0.05	A
MW-21-1S-EVENT#3	SO8631-011	0.05	0.05	C
MW-21-1S-FF-EVENT#3	SO8631-012	0.05	0.05	A
MW-21-2D-EVENT#3	SO8631-013	0.05	0.05	C
MW-21-2D-FF-EVENT#3	SO8631-014	0.05	0.05	A
AS-DUP-EVENT#3	SO8631-015	0.05	0.05	C
AS-DUP-FF-EVENT#3	SO8631-016	0.05	0.05	A
MW-21-2S-EVENT#3	SO8631-017	0.05	0.05	C
MW-21-2S-FF-EVENT#3	SO8631-018	0.05	0.05	A
MW-21-3D-EVENT#3	SO8631-019	0.05	0.05	C
MW-21-3D-FF-EVENT#3	SO8631-020	0.05	0.05	A

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Instrument ID: THERMO ICAP 6500 **File Name:** IOL20B

Date: 12/20/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
Blank		1	23:10	AL	AS	CA	FE	MG MN
Std 1		1	23:14	AL	AS	CA	FE	MG MN
ICV		1	23:19	AL	AS	CA	FE	MG MN
ICB		1	23:23	AL	AS	CA	FE	MG MN
PQL		1	23:27	AL	AS	CA	FE	MG MN
ICSA		1	23:32	AL	AS	CA	FE	MG MN
ICSAB		1	23:36	AL	AS	CA	FE	MG MN
CCV		1	23:40	AL	AS	CA	FE	MG MN
CCB		1	23:45	AL	AS	CA	FE	MG MN
ZZZZZZ		1	23:49					
ZZZZZZ		1	23:53					
CCV		1	23:58	AL	AS	CA	FE	MG MN
CCB		1	00:02	AL	AS	CA	FE	MG MN
ZZZZZZ		1	00:06					
ZZZZZZ		1	00:11					
ZZZZZZ		1	00:15					
ZZZZZZ		1	00:19					
ZZZZZZ		1	00:24					
ZZZZZZ		1	00:28					
ZZZZZZ		1	00:32					
LCSWOL17ICW1		1	00:37		AS		FE	MN
PBWOL17ICW1		1	00:41		AS		FE	MN
LCSWOL17ICW2		1	00:45		AS		FE	MN
CCV		1	00:49	AL	AS	CA	FE	MG MN
CCB		1	00:54	AL	AS	CA	FE	MG MN
PBWOL17ICW2		1	00:58		AS		FE	MN
ZZZZZZ		2	01:02					

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Instrument ID: THERMO ICAP 6500 **File Name:** IOL20B

Date: 12/21/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
ZZZZZZ		2	01:07					
ZZZZZZ		5	01:11					
ZZZZZZ		5	01:15					
ZZZZZZ		5	01:20					
ZZZZZZ		5	01:24					
ZZZZZZ		25	01:28					
ZZZZZZ		5	01:33					
ZZZZZZ		5	01:37					
CCV		1	01:41	AL	AS	CA	FE	MG MN
CCB		1	01:45	AL	AS	CA	FE	MG MN
ZZZZZZ		5	01:50					
ZZZZZZ		5	01:54					
ZZZZZZ		5	01:58					
ZZZZZZ		5	02:03					
ZZZZZZ		5	02:07					
ZZZZZZ		5	02:11					
ZZZZZZ		5	02:16					
ZZZZZZ		5	02:20					
ZZZZZZ		5	02:24					
ZZZZZZ		5	02:29					
CCV		1	02:33	AL	AS	CA	FE	MG MN
CCB		1	02:37	AL	AS	CA	FE	MG MN
ZZZZZZ		5	02:41					
ZZZZZZ		1	02:46					
ZZZZZZ		5	02:50					
ZZZZZZ		1	02:54					
ZZZZZZ		5	02:59					

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Instrument ID: THERMO ICAP 6500 **File Name:** IOL20B

Date: 12/21/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
ZZZZZZ		1	03:03					
ZZZZZZ		1	03:07					
ZZZZZZ		1	03:12					
ZZZZZZ		1	03:16					
ZZZZZZ		1	03:20					
CCV		1	03:25	AL	AS	CA	FE	MG MN
CCB		1	03:29	AL	AS	CA	FE	MG MN
ZZZZZZ		1	03:33					
ZZZZZZ		5	03:38					
ZZZZZZ		1	03:42					
ZZZZZZ		1	03:46					
ZZZZZZ		1	03:51					
ZZZZZZ		1	03:55					
ZZZZZZ		1	03:59					
ZZZZZZ		1	04:04					
ZZZZZZ		1	04:08					
ZZZZZZ		1	04:12					
CCV		1	04:17	AL	AS	CA	FE	MG MN
CCB		1	04:21	AL	AS	CA	FE	MG MN
ZZZZZZ		1	04:25					
ZZZZZZ		1	04:30					
ZZZZZZ		1	04:34					
ZZZZZZ		1	04:39					
SO8631-001	SHM-10-06-EVENT#3	1	04:43		AS		FE	MN
SO8631-002	SHM-10-06-FF-EVENT#3	1	04:48		AS		FE	MN
SO8631-003	MW-21-4S-EVENT#3	1	04:52		AS		FE	MN
SO8631-004	MW-21-4S-FF-EVENT#3	1	04:56		AS		FE	MN

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Instrument ID: THERMO ICAP 6500 **File Name:** IOL20B

Date: 12/21/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements					
SO8631-005	MW-21-4D-EVENT#3	1	05:01		AS		FE	MN	
SO8631-006	MW-21-4D-FF-EVENT#3	1	05:05		AS		FE	MN	
CCV		1	05:09	AL	AS	CA	FE	MG	MN
CCB		1	05:13	AL	AS	CA	FE	MG	MN
SO8631-007	MW-21-3S-EVENT#3	1	05:18		AS		FE	MN	
SO8631-008	MW-21-3S-FF-EVENT#3	1	05:22		AS		FE	MN	
SO8631-008L	MW-21-3S-FF-EVENT#3L	5	05:26		AS		FE	MN	
SO8631-008A	MW-21-3S-FF-EVENT#3A	1	05:31		AS		FE	MN	
SO8631-008P	MW-21-3S-FF-EVENT#3P	1	05:35		AS		FE	MN	
SO8631-008S	MW-21-3S-FF-EVENT#3S	1	05:39		AS		FE	MN	
SO8631-009	MW-21-1D-EVENT#3	1	05:44		AS		FE	MN	
SO8631-010	MW-21-1D-FF-EVENT#3	1	05:48		AS		FE	MN	
SO8631-011	MW-21-1S-EVENT#3	1	05:52		AS		FE	MN	
SO8631-012	MW-21-1S-FF-EVENT#3	1	05:57		AS		FE	MN	
CCV		1	06:01	AL	AS	CA	FE	MG	MN
CCB		1	06:05	AL	AS	CA	FE	MG	MN
SO8631-013	MW-21-2D-EVENT#3	1	06:10		AS		FE	MN	
SO8631-014	MW-21-2D-FF-EVENT#3	1	06:14		AS		FE	MN	
SO8631-015	AS-DUP-EVENT#3	1	06:18		AS		FE	MN	
SO8631-016	AS-DUP-FF-EVENT#3	1	06:23		AS		FE	MN	
SO8631-017	MW-21-2S-EVENT#3	1	06:27		AS		FE	MN	
SO8631-018	MW-21-2S-FF-EVENT#3	1	06:31		AS		FE	MN	
SO8631-019	MW-21-3D-EVENT#3	1	06:36		AS		FE	MN	
SO8631-020	MW-21-3D-FF-EVENT#3	1	06:40		AS		FE	MN	
ZZZZZZ		1	06:44						
ZZZZZZ		1	06:49						
CCV		1	06:53	AL	AS	CA	FE	MG	MN

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO8631

Instrument ID: THERMO ICAP 6500 **File Name:** IOL20B

Date: 12/21/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
CCB		1	06:57	AL	AS	CA	FE	MG MN

FORM XIV - IN

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST:** EP **ANALYSIS DATE:** 12/20/2021

METHOD: ICP
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOL20B

REVIEWED
EP 12-21-21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed
to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by
EP (initals) on 12/20/21 (date). Client ID verified

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20733	12/20/2021	12/20/2022	0 ug/L
Standard 1	MW20722	12/14/2021	02/04/2022	Varies by Element
ICV	MW20710	12/09/2021	01/27/2022	Varies by Element
PQL	MW20712	12/14/2021	12/21/2021	Varies by Element
LRS1	MW20704	12/07/2021	12/24/2021	Varies by Element
LRS2	MW20724	12/17/2021	03/17/2022	Varies by Element
ICSA	MW20647	11/09/2021	02/09/2022	Varies by Element
ICSAB	MW20648	11/09/2021	01/26/2022	Varies by Element
CCV	MW20723	12/17/2021	02/04/2022	Varies by Element
Internal Standard	MW20661	11/16/2021	02/16/2022	5.0 mg/L Yttrium

Additional Comments and Notes:

ICSA failed high for nickel, zinc. Closing ICSA failed low for nickel.

Initial CCV warned high for chromium, iron, and lithium. Non-200.7 BQC accepted.

LRS1 failed low for all analytes. Since passing LRS is only needed every 6 months, LRS1 was disregarded.

EP 12-21-21

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20693 (pipet M29)

25x Serial dil'n.: 2.0 mL of 5X sample (pipet M25) + 8.0 mL of MW19493 (pipet M22)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOL20B	12/20/2021	23:10	EP
Std 1	1.000	IOL20B	12/20/2021	23:14	EP
ICV	1.000	IOL20B	12/20/2021	23:19	EP
ICB	1.000	IOL20B	12/20/2021	23:23	EP
PQL	1.000	IOL20B	12/20/2021	23:27	EP
ICSA	1.000	IOL20B	12/20/2021	23:32	EP
ICSAB	1.000	IOL20B	12/20/2021	23:36	EP
CCV	1.000	IOL20B	12/20/2021	23:40	EP
CCB	1.000	IOL20B	12/20/2021	23:45	EP
LRS1	1.000	IOL20B	12/20/2021	23:49	EP
LRS2	1.000	IOL20B	12/20/2021	23:53	EP
CCV	1.000	IOL20B	12/20/2021	23:58	EP
CCB	1.000	IOL20B	12/21/2021	00:02	EP
LCSOOK16ICS2	1.000	IOL20B	12/21/2021	00:06	EP
PBSOK16ICS2	1.000	IOL20B	12/21/2021	00:11	EP
LC2WOK23ICW2	1.000	IOL20B	12/21/2021	00:15	EP
LCSWOK23ICW2	1.000	IOL20B	12/21/2021	00:19	EP
PBWOK23ICW2	1.000	IOL20B	12/21/2021	00:24	EP
LCSOOL17ICS1	1.000	IOL20B	12/21/2021	00:28	EP
PBSOL17ICS1	1.000	IOL20B	12/21/2021	00:32	EP
LCSWOL17ICW1	1.000	IOL20B	12/21/2021	00:37	EP
PBWOL17ICW1	1.000	IOL20B	12/21/2021	00:41	EP
LCSWOL17ICW2	1.000	IOL20B	12/21/2021	00:45	EP
CCV	1.000	IOL20B	12/21/2021	00:49	EP
CCB	1.000	IOL20B	12/21/2021	00:54	EP
PBWOL17ICW2	1.000	IOL20B	12/21/2021	00:58	EP
SO7746-001	2.000	IOL20B	12/21/2021	01:02	EP
SO7746-002	2.000	IOL20B	12/21/2021	01:07	EP
SO7746-005	5.000	IOL20B	12/21/2021	01:11	EP
SO7746-006	5.000	IOL20B	12/21/2021	01:15	EP
SO7746-010	5.000	IOL20B	12/21/2021	01:20	EP
SO7746-013	5.000	IOL20B	12/21/2021	01:24	EP
SO7746-013L	25.00	IOL20B	12/21/2021	01:28	EP
SO7746-013A	5.000	IOL20B	12/21/2021	01:33	EP
SO7746-013P	5.000	IOL20B	12/21/2021	01:37	EP
CCV	1.000	IOL20B	12/21/2021	01:41	EP
CCB	1.000	IOL20B	12/21/2021	01:45	EP
SO7746-013S	5.000	IOL20B	12/21/2021	01:50	EP
SO7746-014	5.000	IOL20B	12/21/2021	01:54	EP
SO7746-017	5.000	IOL20B	12/21/2021	01:58	EP
SO7746-018	5.000	IOL20B	12/21/2021	02:03	EP
SO7746-019	5.000	IOL20B	12/21/2021	02:07	EP
SO7746-023	5.000	IOL20B	12/21/2021	02:11	EP
SO7746-026	5.000	IOL20B	12/21/2021	02:16	EP

Katahdin Analytical Services 4000061

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO7772-001	5.000	IOL20B	12/21/2021	02:20	EP
SO7772-002	5.000	IOL20B	12/21/2021	02:24	EP
SO7772-003	5.000	IOL20B	12/21/2021	02:29	EP
CCV	1.000	IOL20B	12/21/2021	02:33	EP
CCB	1.000	IOL20B	12/21/2021	02:37	EP
SO7772-004	5.000	IOL20B	12/21/2021	02:41	EP
SO7772-066	1.000	IOL20B	12/21/2021	02:46	EP
SO8492-002	5.000	IOL20B	12/21/2021	02:50	EP
SO8595-001	1.000	IOL20B	12/21/2021	02:54	EP
SO8595-001L	5.000	IOL20B	12/21/2021	02:59	EP
SO8595-001A	1.000	IOL20B	12/21/2021	03:03	EP
SO8595-001P	1.000	IOL20B	12/21/2021	03:07	EP
SO8595-001S	1.000	IOL20B	12/21/2021	03:12	EP
SO8619-001	1.000	IOL20B	12/21/2021	03:16	EP
SO8550-001	1.000	IOL20B	12/21/2021	03:20	EP
CCV	1.000	IOL20B	12/21/2021	03:25	EP
CCB	1.000	IOL20B	12/21/2021	03:29	EP
SO8592-001	1.000	IOL20B	12/21/2021	03:33	EP
SO8592-001L	5.000	IOL20B	12/21/2021	03:38	EP
SO8592-001A	1.000	IOL20B	12/21/2021	03:42	EP
SO8592-001P	1.000	IOL20B	12/21/2021	03:46	EP
SO8592-001S	1.000	IOL20B	12/21/2021	03:51	EP
SO8592-002	1.000	IOL20B	12/21/2021	03:55	EP
SO8592-003	1.000	IOL20B	12/21/2021	03:59	EP
SO8592-004	1.000	IOL20B	12/21/2021	04:04	EP
SO8616-001	1.000	IOL20B	12/21/2021	04:08	EP
SO8616-002	1.000	IOL20B	12/21/2021	04:12	EP
CCV	1.000	IOL20B	12/21/2021	04:17	EP
CCB	1.000	IOL20B	12/21/2021	04:21	EP
SO8616-003	1.000	IOL20B	12/21/2021	04:25	EP
SO8616-004	1.000	IOL20B	12/21/2021	04:30	EP
SO8616-005	1.000	IOL20B	12/21/2021	04:34	EP
SO8624-001	1.000	IOL20B	12/21/2021	04:39	EP
SO8631-001	1.000	IOL20B	12/21/2021	04:43	EP
SO8631-002	1.000	IOL20B	12/21/2021	04:48	EP
SO8631-003	1.000	IOL20B	12/21/2021	04:52	EP
SO8631-004	1.000	IOL20B	12/21/2021	04:56	EP
SO8631-005	1.000	IOL20B	12/21/2021	05:01	EP
SO8631-006	1.000	IOL20B	12/21/2021	05:05	EP
CCV	1.000	IOL20B	12/21/2021	05:09	EP
CCB	1.000	IOL20B	12/21/2021	05:13	EP
SO8631-007	1.000	IOL20B	12/21/2021	05:18	EP
SO8631-008	1.000	IOL20B	12/21/2021	05:22	EP
SO8631-008L	5.000	IOL20B	12/21/2021	05:26	EP
SO8631-008A	1.000	IOL20B	12/21/2021	05:31	EP
SO8631-008P	1.000	IOL20B	12/21/2021	05:35	EP
SO8631-008S	1.000	IOL20B	12/21/2021	05:39	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO8631-009	1.000	IOL20B	12/21/2021	05:44	EP
SO8631-010	1.000	IOL20B	12/21/2021	05:48	EP
SO8631-011	1.000	IOL20B	12/21/2021	05:52	EP
SO8631-012	1.000	IOL20B	12/21/2021	05:57	EP
CCV	1.000	IOL20B	12/21/2021	06:01	EP
CCB	1.000	IOL20B	12/21/2021	06:05	EP
SO8631-013	1.000	IOL20B	12/21/2021	06:10	EP
SO8631-014	1.000	IOL20B	12/21/2021	06:14	EP
SO8631-015	1.000	IOL20B	12/21/2021	06:18	EP
SO8631-016	1.000	IOL20B	12/21/2021	06:23	EP
SO8631-017	1.000	IOL20B	12/21/2021	06:27	EP
SO8631-018	1.000	IOL20B	12/21/2021	06:31	EP
SO8631-019	1.000	IOL20B	12/21/2021	06:36	EP
SO8631-020	1.000	IOL20B	12/21/2021	06:40	EP
SO8636-001	1.000	IOL20B	12/21/2021	06:44	EP
SO8636-002	1.000	IOL20B	12/21/2021	06:49	EP
CCV	1.000	IOL20B	12/21/2021	06:53	EP
CCB	1.000	IOL20B	12/21/2021	06:57	EP
SO8636-003	1.000	IOL20B	12/21/2021	07:02	EP
SO8685-001	2.000	IOL20B	12/21/2021	07:06	EP
CCV	1.000	IOL20B	12/21/2021	07:11	EP
CCB	1.000	IOL20B	12/21/2021	07:15	EP
PQL	1.000	IOL20B	12/21/2021	07:19	EP
ICSA	1.000	IOL20B	12/21/2021	07:23	EP
ICSAB	1.000	IOL20B	12/21/2021	07:28	EP
CCV	1.000	IOL20B	12/21/2021	07:32	EP
CCB	1.000	IOL20B	12/21/2021	07:36	EP

Intensity Report

Author:

Published: 12/21/2021 8:56:10AM

Notes:

Blank

Method Name: FAST-2016_NO_AU

Method Revision: 1,068

Analyst Name: EP

Acquire Date: 12/20/2021 11:10:34PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001560	Cts/S	0.00001400	9.086	-24.67
Al3961_R		-0.0003200	Cts/S	0.0002200	68.57	-5.630
As1891_A		-0.0004470	Cts/S	0.00002000	4.385	-4.417
B_2089_A		0.0004630	Cts/S	0.00003900	8.329	4.577
Ba4554_R		0.003047	Cts/S	0.0003350	10.99	53.25
Be3130_R		-0.0001650	Cts/S	0.0002670	161.2	-2.860
Ca3158_R		-0.0008750	Cts/S	0.0002160	24.70	-15.28
Cd2265_A		-0.0004320	Cts/S	0.00004700	10.92	-4.270
Co2286_A		0.0004340	Cts/S	0.00005700	13.15	4.290
Cr2677_A		0.00002200	Cts/S	0.00002400	108.6	3.527
Cu3273_A		0.0006860	Cts/S	0.00002400	3.480	108.9
Fe2599_R		0.001070	Cts/S	0.0002860	26.70	18.75
K_7664_R		-0.004084	Cts/S	0.0009590	23.48	-71.30
Li6707_R		0.0004720	Cts/S	0.0009890	209.4	8.136
Mg2025_A		-0.001073	Cts/S	0.00003500	3.296	-10.61
Mn2576_R		-0.0001150	Cts/S	0.0001070	93.44	-1.993
Mo2020_A		0.0001140	Cts/S	0.00002200	19.67	1.128
Na5895_R		0.0008510	Cts/S	0.0002670	31.41	14.92
Ni2316_A		-0.00006200	Cts/S	0.00005300	85.35	-0.6169
Pb2203_A		-0.00001700	Cts/S	0.00003700	214.2	-0.1700
Sb2068_A		0.00008200	Cts/S	0.00004000	48.47	0.8108
Se1960_A		0.0003110	Cts/S	0.00003300	10.67	3.076
Si2516_R		0.002790	Cts/S	0.0005080	18.22	48.85
Sn1899_A		0.00009800	Cts/S	0.00002500	25.89	0.9683
Sr4215_R		-0.0004010	Cts/S	0.0003370	84.02	-7.053
Ti3349_A		-0.00001700	Cts/S	0.00004000	234.1	-2.732
Tl1908_A		-0.0001670	Cts/S	0.00001700	10.01	-1.649
V_2924_A		-0.00001000	Cts/S	0.00002300	239.9	-1.498
Zn2062_A		0.00008100	Cts/S	0.00005100	63.64	0.7969
Y_3600_R		17,489	Cts/S	242.68	1.3876	17,489
Y_2243_A		9,889.1	Cts/S	23.107	0.23366	9,889.1
Y_3600_A		158,580	Cts/S	875.47	0.55207	158,580

Std 1

Method Name: FAST-2016_NO_AU

Method Revision: 1,068

Analyst Name: EP

Acquire Date: 12/20/2021 11:14:58PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1424	Cts/S	0.0007050	0.4951	22,050
Al3961_R		1.435	Cts/S	0.02799	1.951	25,200
As1891_A		0.04761	Cts/S	0.0001890	0.3970	459.0
B_2089_A		0.1642	Cts/S	0.0003560	0.2168	1,582
Ba4554_R		2.322	Cts/S	0.01378	0.5931	40,780
Be3130_R		5.394	Cts/S	0.04758	0.8822	94,710
Ca3158_R		1.885	Cts/S	0.03087	1.637	33,100
Cd2265_A		1.606	Cts/S	0.001833	0.1141	15,480
Co2286_A		0.4841	Cts/S	0.001006	0.2077	4,667
Cr2677_A		0.08119	Cts/S	0.0004230	0.5209	12,570
Cu3273_A		0.07448	Cts/S	0.0004180	0.5614	11,530
Fe2599_R		2.776	Cts/S	0.04790	1.726	48,740
K_7664_R		0.8289	Cts/S	0.01667	2.011	14,560
Li6707_R		0.5611	Cts/S	0.006078	1.083	9,853

Katahdin Analytical Services 4000064

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:14:58PM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.026	Cts/S	0.002299	0.2240	9,893
Mn2576_R		0.6383	Cts/S	0.01053	1.649	11,210
Mo2020_A		0.3973	Cts/S	0.001923	0.4840	3,830
Na5895_R		2.635	Cts/S	0.05792	2.198	46,270
Ni2316_A		0.2439	Cts/S	0.0007150	0.2931	2,351
Pb2203_A		0.1188	Cts/S	0.0003480	0.2929	1,145
Sb2068_A		0.06625	Cts/S	0.00008900	0.1343	638.7
Se1960_A		0.03654	Cts/S	0.0001040	0.2834	352.2
Si2516_R		0.7647	Cts/S	0.005512	0.7208	13,430
Sn1899_A		0.06579	Cts/S	0.0002360	0.3595	634.2
Sr4215_R		4.010	Cts/S	0.08886	2.216	70,420
Ti3349_A		0.1923	Cts/S	0.001615	0.8398	29,790
Tl1908_A		0.07408	Cts/S	0.0002330	0.3146	714.1
V_2924_A		0.07741	Cts/S	0.0003550	0.4588	11,990
Zn2062_A		0.3971	Cts/S	0.0008440	0.2127	3,828
Y_3600_R		17,560	Cts/S	66.916	0.38107	17,560
Y_2243_A		9,639.9	Cts/S	9.9286	0.10299	9,639.9
Y_3600_A		154,880	Cts/S	557.70	0.36010	154,880

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:19:06PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		394.4	ug/L	2.303	0.5839	8,828
Al3961_R		9,968	ug/L	109.3	1.097	10,080
As1891_A		382.6	ug/L	3.768	0.9848	176.6
B_2089_A		390.3	ug/L	4.542	1.164	633.7
Ba4554_R		402.2	ug/L	4.492	1.117	16,490
Be3130_R		406.1	ug/L	5.006	1.232	38,600
Ca3158_R		10,120	ug/L	91.52	0.9042	13,440
Cd2265_A		395.9	ug/L	4.671	1.180	6,258
Co2286_A		399.1	ug/L	4.930	1.235	1,904
Cr2677_A		402.5	ug/L	1.711	0.4249	5,151
Cu3273_A		400.4	ug/L	4.227	1.056	4,763
Fe2599_R		10,330	ug/L	82.08	0.7948	20,210
K_7664_R		13,400	ug/L	156.1	1.165	7,794
Li6707_R		417.3	ug/L	8.116	1.945	4,130
Mg2025_A		9,797	ug/L	112.0	1.144	3,953
Mn2576_R		393.9	ug/L	3.811	0.9676	4,428
Mo2020_A		400.9	ug/L	5.539	1.382	1,568
Na5895_R		10,000	ug/L	103.9	1.039	18,580
Ni2316_A		400.0	ug/L	5.305	1.326	960.5
Pb2203_A		399.5	ug/L	5.303	1.327	467.1
Sb2068_A		392.0	ug/L	5.535	1.412	256.1
Se1960_A		394.9	ug/L	4.954	1.255	143.9
Si2516_R		9,999	ug/L	13.79	0.1380	5,313
Sn1899_A		401.2	ug/L	4.465	1.113	260.4
Sr4215_R		399.7	ug/L	4.181	1.046	28,240
Ti3349_A		397.2	ug/L	2.106	0.5301	12,040
Tl1908_A		401.1	ug/L	5.887	1.468	291.5
V_2924_A		404.5	ug/L	2.114	0.5226	4,932
Zn2062_A		396.7	ug/L	4.910	1.238	1,551
Y_3600_R		17,619	Cts/S	68.607	0.38939	17,619
Y_2243_A		9,844.0	Cts/S	81.425	0.82716	9,844.0
Y_3600_A		157,540	Cts/S	422.93	0.26845	157,540

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:23:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2991	ug/L	0.01872	6.256	-18.19
Al3961_R		1.148	ug/L	7.104	619.0	-4.428
As1891_A		1.012	ug/L	0.4386	43.32	-3.983
B_2089_A		0.8426	ug/L	0.1130	13.42	6.006
Ba4554_R		0.02412	ug/L	0.1591	659.7	54.60
Be3130_R		0.2198	ug/L	0.04323	19.66	17.92
Ca3158_R		5.808	ug/L	2.838	48.87	-7.670
Cd2265_A		0.08061	ug/L	0.006038	7.490	-3.014
Co2286_A		-0.1034	ug/L	0.09755	94.38	3.851
Cr2677_A		0.2851	ug/L	0.3104	108.9	7.294
Cu3273_A		-0.4596	ug/L	0.02791	6.072	104.7
Fe2599_R		16.59	ug/L	3.109	18.74	51.22
K_7664_R		7.554	ug/L	4.684	62.01	-67.39
Li6707_R		1.241	ug/L	1.581	127.4	20.60
Mg2025_A		-0.0003340	ug/L	1.262	377,500	-10.75
Mn2576_R		0.02967	ug/L	0.09537	321.4	-1.685
Mo2020_A		0.5984	ug/L	0.03113	5.202	3.521
Na5895_R		3.708	ug/L	2.719	73.32	21.86
Ni2316_A		0.1639	ug/L	0.04944	30.16	-0.1965
Pb2203_A		0.7621	ug/L	0.2748	36.06	0.7358
Sb2068_A		0.6844	ug/L	0.006044	0.8832	1.277
Se1960_A		-0.2582	ug/L	0.2771	107.3	3.021
Si2516_R		36.78	ug/L	26.62	72.38	68.44
Sn1899_A		0.1538	ug/L	0.5642	366.9	1.081
Sr4215_R		0.2015	ug/L	0.1171	58.12	7.138
Ti3349_A		0.7475	ug/L	0.1702	22.78	20.32
Tl1908_A		-0.1074	ug/L	0.4607	429.2	-1.750
V_2924_A		0.1186	ug/L	0.2689	226.8	-0.08530
Zn2062_A		0.006600	ug/L	0.03801	575.9	0.8310
Y_3600_R		17,589	Cts/S	117.12	0.66590	17,589
Y_2243_A		10,011	Cts/S	18.158	0.18139	10,011
Y_3600_A		160,440	Cts/S	126.36	0.078760	160,440

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:27:38PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.949	ug/L	0.07106	0.7142	202.3
Al3961_R		306.5	ug/L	13.15	4.289	306.1
As1891_A		8.350	ug/L	1.530	18.33	-0.4497
B_2089_A		46.49	ug/L	0.08673	0.1866	79.25
Ba4554_R		5.202	ug/L	0.07343	1.412	268.0
Be3130_R		5.101	ug/L	0.09902	1.941	484.6
Ca3158_R		101.5	ug/L	7.775	7.662	120.2
Cd2265_A		5.133	ug/L	0.02491	0.4853	77.92
Co2286_A		9.778	ug/L	0.003225	0.03298	51.53
Cr2677_A		9.765	ug/L	0.1247	1.277	129.9
Cu3273_A		25.88	ug/L	0.3114	1.203	413.5
Fe2599_R		108.3	ug/L	0.4602	0.4248	232.2
K_7664_R		971.8	ug/L	3.953	0.4067	501.8
Li6707_R		107.1	ug/L	2.761	2.578	1,073
Mg2025_A		102.4	ug/L	1.399	1.366	31.61
Mn2576_R		4.991	ug/L	0.2291	4.590	54.43
Mo2020_A		9.948	ug/L	0.09487	0.9537	40.54
Na5895_R		1,011	ug/L	4.856	0.4801	1,905
Ni2316_A		10.49	ug/L	0.04461	0.4252	24.65

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:27:38PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.614	ug/L	0.7731	13.77	6.461
Sb2068_A		8.421	ug/L	0.1085	1.288	5.728
Se1960_A		8.965	ug/L	1.639	18.28	6.338
Si2516_R		215.2	ug/L	14.60	6.787	163.5
Sn1899_A		101.6	ug/L	0.1455	0.1432	67.52
Sr4215_R		10.16	ug/L	0.2728	2.683	715.7
Ti3349_A		14.95	ug/L	0.07769	0.5197	455.6
Tl1908_A		15.65	ug/L	1.209	7.725	9.913
V_2924_A		10.07	ug/L	0.2629	2.612	122.8
Zn2062_A		19.88	ug/L	0.09194	0.4624	79.57
Y_3600_R		17,732	Cts/S	128.49	0.72458	17,732
Y_2243_A		9,972.1	Cts/S	6.8661	0.068853	9,972.1
Y_3600_A		159,400	Cts/S	1,566.3	0.98263	159,400

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:32:01PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.397	ug/L	0.5594	40.04	-1,433
Al3961_R		526,200	ug/L	8,426	1.601	504,700
As1891_A		-1.187	ug/L	0.4479	37.74	-12.57
B_2089_A		-0.09297	ug/L	0.5444	585.6	3.782
Ba4554_R		1.623	ug/L	0.1232	7.591	114.0
Be3130_R		-0.02976	ug/L	0.03577	120.2	-5.368
Ca3158_R		501,600	ug/L	6,243	1.245	633,100
Cd2265_A		0.3981	ug/L	0.06499	16.32	138.9
Co2286_A		-0.4320	ug/L	0.04771	11.04	5.801
Cr2677_A		2.800	ug/L	0.3803	13.58	55.70
Cu3273_A		0.7180	ug/L	0.4292	59.78	127.5
Fe2599_R		202,800	ug/L	2,527	1.246	376,600
K_7664_R		0.9052	ug/L	14.28	1,578	-67.81
Li6707_R		11.73	ug/L	0.8508	7.251	117.9
Mg2025_A		478,000	ug/L	1,044	0.2183	166,800
Mn2576_R		-1.171	ug/L	0.3880	33.14	17.25
Mo2020_A		-1.517	ug/L	0.1965	12.95	-4.174
Na5895_R		65.99	ug/L	2.096	3.176	130.6
Ni2316_A	F	144.0	ug/L	409.3	284.2	568.0
Pb2203_A		0.1198	ug/L	2.824	2,358	-45.06
Sb2068_A		-1.008	ug/L	2.279	226.0	6.784
Se1960_A		-3.557	ug/L	0.4548	12.79	9.234
Si2516_R		8.092	ug/L	11.18	138.2	33.79
Sn1899_A		3.307	ug/L	0.2644	7.995	2.692
Sr4215_R	W	5.404	ug/L	0.1591	2.944	355.9
Ti3349_A		1.617	ug/L	0.2219	13.73	40.17
Tl1908_A		-0.3559	ug/L	1.394	391.7	-0.8425
V_2924_A		2.950	ug/L	0.4143	14.04	24.73
Zn2062_A	F	72.91	ug/L	99.02	135.8	248.0
Y_3600_R		16,731	Cts/S	51.045	0.30510	16,731
Y_2243_A		8,542.6	Cts/S	11.709	0.13706	8,542.6
Y_3600_A		136,860	Cts/S	92.122	0.067312	136,860

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:36:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:36:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		229.7	ug/L	0.4897	0.2132	3,032
Al3961_R		529,300	ug/L	11,700	2.210	504,200
As1891_A		103.9	ug/L	2.787	2.682	30.62
B_2089_A		508.3	ug/L	0.3703	0.07284	713.8
Ba4554_R		533.6	ug/L	4.341	0.8134	20,620
Be3130_R		532.2	ug/L	2.280	0.4283	47,700
Ca3158_R		504,700	ug/L	12,680	2.512	632,700
Cd2265_A		982.5	ug/L	2.050	0.2087	13,580
Co2286_A		484.1	ug/L	0.9450	0.1952	2,005
Cr2677_A		523.2	ug/L	3.116	0.5954	5,794
Cu3273_A		563.9	ug/L	2.358	0.4182	5,766
Fe2599_R		203,300	ug/L	3,431	1.688	374,900
K_7664_R		21,870	ug/L	38.32	0.1752	12,040
Li6707_R		581.8	ug/L	0.1964	0.03376	5,428
Mg2025_A		479,800	ug/L	1,006	0.2097	167,200
Mn2576_R		496.5	ug/L	2.647	0.5331	5,298
Mo2020_A		510.9	ug/L	0.3236	0.06334	1,732
Na5895_R		21,970	ug/L	2.481	0.01129	38,480
Ni2316_A		837.1	ug/L	4.623	0.5522	1,985
Pb2203_A		46.10	ug/L	0.6327	1.372	1.098
Sb2068_A		635.1	ug/L	2.004	0.3155	366.0
Se1960_A		50.03	ug/L	1.122	2.242	25.85
Si2516_R		2,097	ug/L	22.18	1.058	1,074
Sn1899_A		496.1	ug/L	2.593	0.5228	278.8
Sr4215_R		534.2	ug/L	0.5010	0.09379	35,600
Ti3349_A		530.3	ug/L	1.850	0.3488	13,860
Tl1908_A		91.70	ug/L	0.2852	0.3110	58.06
V_2924_A		534.5	ug/L	1.659	0.3104	5,619
Zn2062_A		973.5	ug/L	1.931	0.1983	3,300
Y_3600_R		16,617	Cts/S	34.549	0.20792	16,617
Y_2243_A		8,531.2	Cts/S	17.780	0.20841	8,531.2
Y_3600_A		135,880	Cts/S	534.25	0.39318	135,880

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:40:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		517.4	ug/L	0.4959	0.09584	11,570
Al3961_R		12,960	ug/L	151.1	1.166	13,040
As1891_A		508.4	ug/L	2.648	0.5209	236.1
B_2089_A		504.2	ug/L	1.329	0.2637	817.2
Ba4554_R		517.5	ug/L	5.455	1.054	21,080
Be3130_R		523.6	ug/L	6.082	1.161	49,490
Ca3158_R		13,100	ug/L	192.8	1.472	17,300
Cd2265_A		510.8	ug/L	2.266	0.4436	8,075
Co2286_A		515.0	ug/L	2.402	0.4664	2,456
Cr2677_A	W	528.2	ug/L	0.04145	0.007848	6,744
Cu3273_A		520.4	ug/L	1.174	0.2256	6,145
Fe2599_R	W	13,420	ug/L	199.4	1.486	26,130
K_7664_R		12,830	ug/L	83.82	0.6535	7,417
Li6707_R	W	529.0	ug/L	8.238	1.557	5,205
Mg2025_A		12,740	ug/L	56.60	0.4443	5,143
Mn2576_R		518.9	ug/L	6.237	1.202	5,802
Mo2020_A		512.1	ug/L	2.303	0.4498	2,003
Na5895_R		12,940	ug/L	132.9	1.027	23,910
Ni2316_A		518.6	ug/L	2.051	0.3956	1,245

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:40:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		513.8	ug/L	0.09356	0.01821	600.6
Sb2068_A		506.0	ug/L	1.325	0.2619	330.4
Se1960_A		505.0	ug/L	3.929	0.7781	183.1
Si2516_R		13,250	ug/L	5.883	0.04439	6,987
Sn1899_A		515.6	ug/L	2.005	0.3888	334.3
Sr4215_R		516.2	ug/L	6.232	1.207	36,270
Ti3349_A		512.5	ug/L	2.716	0.5298	15,500
Tl1908_A		515.4	ug/L	3.472	0.6736	375.0
V_2924_A		524.2	ug/L	1.382	0.2637	6,380
Zn2062_A		512.5	ug/L	2.174	0.4243	2,003
Y_3600_R		17,523	Cts/S	33.797	0.19288	17,523
Y_2243_A		9,842.8	Cts/S	33.512	0.34048	9,842.8
Y_3600_A		157,220	Cts/S	30.080	0.019132	157,220

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:45:04PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2968	ug/L	0.06285	21.18	-18.15
Al3961_R		28.29	ug/L	18.95	66.99	22.76
As1891_A		0.6454	ug/L	0.8244	127.7	-4.183
B_2089_A		0.5911	ug/L	0.02098	3.550	5.629
Ba4554_R		0.2335	ug/L	0.1984	84.98	62.60
Be3130_R		0.2670	ug/L	0.007343	2.750	22.21
Ca3158_R		32.00	ug/L	2.776	8.674	26.86
Cd2265_A		0.04541	ug/L	0.02277	50.14	-3.588
Co2286_A		-0.1953	ug/L	0.04083	20.91	3.423
Cr2677_A		0.1799	ug/L	0.04188	23.28	5.862
Cu3273_A		0.1546	ug/L	0.2659	172.0	110.8
Fe2599_R		29.70	ug/L	5.530	18.62	76.19
K_7664_R		-16.27	ug/L	4.469	27.47	-80.71
Li6707_R		-0.8112	ug/L	0.3519	43.38	0.3071
Mg2025_A		9.626	ug/L	2.625	27.27	-6.853
Mn2576_R		0.5564	ug/L	0.4129	74.20	4.181
Mo2020_A		0.4624	ug/L	0.003010	0.6511	2.996
Na5895_R		4.358	ug/L	2.633	60.43	22.87
Ni2316_A		-0.09441	ug/L	0.2500	264.7	-0.7977
Pb2203_A		0.3054	ug/L	1.580	517.3	0.1874
Sb2068_A		0.8228	ug/L	0.1918	23.31	1.383
Se1960_A		-2.008	ug/L	0.8818	43.90	2.401
Si2516_R		26.21	ug/L	29.43	112.3	62.35
Sn1899_A		-0.6227	ug/L	0.02634	4.230	0.5735
Sr4215_R		0.3669	ug/L	0.06173	16.82	18.67
Ti3349_A		0.4649	ug/L	0.2992	64.35	11.45
Tl1908_A		0.2458	ug/L	0.4404	179.2	-1.497
V_2924_A		0.04445	ug/L	0.003521	7.920	-0.9962
Zn2062_A		0.06842	ug/L	0.01003	14.67	1.083
Y_3600_R		17,446	Cts/S	58.639	0.33611	17,446
Y_2243_A		10,065	Cts/S	24.833	0.24672	10,065
Y_3600_A		158,750	Cts/S	1,008.9	0.63550	158,750

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:49:28PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:49:28PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A	F	3.946	ug/L	0.04687	1.188	65.35
Al3961_R		4.080	ug/L	10.06	246.6	-1.334
As1891_A	F	22.56	ug/L	0.4940	2.190	6.343
B_2089_A	F	1.479	ug/L	0.2239	15.14	7.033
Ba4554_R	F	0.3293	ug/L	0.05924	17.99	66.16
Be3130_R	F	0.06486	ug/L	0.02023	31.18	2.097
Ca3158_R		1.155	ug/L	0.2209	19.12	-13.68
Cd2265_A	F	0.06781	ug/L	0.03730	55.01	-3.172
Co2286_A	F	-0.1322	ug/L	0.1126	85.21	3.865
Cr2677_A	F	3.402	ug/L	0.08582	2.523	47.60
Cu3273_A	F	0.3576	ug/L	0.4356	121.8	113.5
Fe2599_R		1.823	ug/L	4.658	255.6	22.15
K_7664_R		-40.49	ug/L	19.46	48.05	-94.38
Li6707_R	F	0.8158	ug/L	0.3329	40.81	16.16
Mg2025_A		3.427	ug/L	1.179	34.40	-9.244
Mn2576_R	F	0.2322	ug/L	0.3426	147.5	0.5566
Mo2020_A	F	2.720	ug/L	0.1341	4.930	11.84
Na5895_R		0.4925	ug/L	8.380	1,701	15.57
Ni2316_A	F	0.3140	ug/L	0.05632	17.93	0.1718
Pb2203_A	F	0.05498	ug/L	0.1582	287.8	-0.1098
Sb2068_A	F	21.58	ug/L	0.3195	1.481	15.03
Se1960_A	F	14.34	ug/L	1.142	7.963	8.222
Si2516_R		-5.403	ug/L	6.985	129.3	45.78
Sn1899_A	F	5.632	ug/L	0.7985	14.18	4.640
Sr4215_R	F	0.01616	ug/L	0.06976	431.7	-5.868
Ti3349_A	F	23.06	ug/L	0.4747	2.059	704.3
Tl1908_A	F	0.7908	ug/L	0.02467	3.120	-1.087
V_2924_A	F	5.660	ug/L	0.3995	7.058	68.85
Zn2062_A	F	0.02828	ug/L	0.1396	493.7	0.8966
Y_3600_R		17,357	Cts/S	240.67	1.3866	17,357
Y_2243_A		9,917.0	Cts/S	20.342	0.20512	9,917.0
Y_3600_A		159,540	Cts/S	6.1835	0.0038760	159,540

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:53:51PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.046	ug/L	4.519	220.9	-1,740
Al3961_R		508,700	ug/L	14,970	2.943	490,200
As1891_A		0.8080	ug/L	0.09138	11.31	-13.01
B_2089_A		1.162	ug/L	0.08751	7.528	5.628
Ba4554_R		1.111	ug/L	0.1460	13.14	94.53
Be3130_R		-0.002710	ug/L	0.08328	3,073	-2.894
Ca3158_R		483,700	ug/L	10,650	2.201	613,400
Cd2265_A		-0.07918	ug/L	0.07858	99.24	165.4
Co2286_A		1.178	ug/L	0.2692	22.85	13.33
Cr2677_A		-2.461	ug/L	0.02365	0.9610	1.857
Cu3273_A		-1.513	ug/L	1.108	73.26	138.4
Fe2599_R		245,500	ug/L	4,393	1.789	458,000
K_7664_R		310,400	ug/L	1,067	0.3437	173,800
Li6707_R		6.753	ug/L	1.738	25.74	71.59
Mg2025_A		193,100	ug/L	75.51	0.03910	68,870
Mn2576_R		8.746	ug/L	0.07814	0.8935	22.43
Mo2020_A		-1.357	ug/L	0.1086	8.008	-3.713
Na5895_R		207,700	ug/L	3,015	1.451	368,000
Ni2316_A		-173.1	ug/L	3.063	1.769	-19.40

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:53:51PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.3555	ug/L	1.437	404.2	-44.18
Sb2068_A		-2.439	ug/L	1.758	72.07	7.165
Se1960_A		-7.158	ug/L	0.8147	11.38	8.876
Si2516_R		50,370	ug/L	202.9	0.4027	25,310
Sn1899_A		3.930	ug/L	0.5631	14.33	3.109
Sr4215_R		6.592	ug/L	0.2123	3.221	437.7
Ti3349_A		1.936	ug/L	0.09395	4.853	49.02
Tl1908_A		-1.367	ug/L	0.2676	19.58	-1.600
V_2924_A		3.939	ug/L	0.1246	3.164	34.60
Zn2062_A		5.614	ug/L	0.08591	1.530	20.19
Y_3600_R		16,808	Cts/S	47.326	0.28156	16,808
Y_2243_A		8,732.8	Cts/S	4.6319	0.053040	8,732.8
Y_3600_A		138,260	Cts/S	2,879.6	2.0827	138,260

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/20/2021 11:58:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		521.9	ug/L	1.559	0.2987	11,500
Al3961_R		13,050	ug/L	62.02	0.4752	13,050
As1891_A		509.7	ug/L	0.2773	0.05441	232.7
B_2089_A		504.8	ug/L	1.997	0.3957	804.4
Ba4554_R		514.5	ug/L	7.461	1.450	20,850
Be3130_R		522.2	ug/L	6.616	1.267	49,080
Ca3158_R		13,160	ug/L	67.79	0.5151	17,290
Cd2265_A		508.1	ug/L	1.089	0.2144	7,897
Co2286_A		514.6	ug/L	0.5647	0.1097	2,413
Cr2677_A	W	535.4	ug/L	1.627	0.3038	6,736
Cu3273_A		521.3	ug/L	1.645	0.3155	6,067
Fe2599_R	W	13,450	ug/L	133.5	0.9927	26,030
K_7664_R		13,000	ug/L	116.4	0.8955	7,476
Li6707_R	W	528.4	ug/L	7.835	1.483	5,170
Mg2025_A		12,840	ug/L	3.990	0.03108	5,094
Mn2576_R		517.4	ug/L	7.462	1.442	5,754
Mo2020_A		514.2	ug/L	0.4193	0.08155	1,977
Na5895_R		13,060	ug/L	131.3	1.005	23,990
Ni2316_A		520.5	ug/L	0.01324	0.002543	1,229
Pb2203_A		511.2	ug/L	0.7055	0.1380	587.6
Sb2068_A		505.2	ug/L	1.645	0.3257	324.3
Se1960_A		504.0	ug/L	3.482	0.6908	179.7
Si2516_R	W	13,670	ug/L	10.47	0.07657	7,167
Sn1899_A		512.7	ug/L	3.431	0.6693	326.9
Sr4215_R		515.9	ug/L	6.356	1.232	36,050
Ti3349_A		515.8	ug/L	0.8504	0.1649	15,370
Tl1908_A		515.6	ug/L	0.3786	0.07342	368.9
V_2924_A	W	528.2	ug/L	0.3370	0.06380	6,335
Zn2062_A		505.4	ug/L	1.340	0.2652	1,943
Y_3600_R		17,424	Cts/S	63.960	0.36707	17,424
Y_2243_A		9,677.3	Cts/S	8.3777	0.086571	9,677.3
Y_3600_A		154,940	Cts/S	310.29	0.20027	154,940

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:02:33AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:02:33AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1734	ug/L	0.03430	19.78	-20.95
Al3961_R		9.408	ug/L	4.157	44.19	3.804
As1891_A		1.569	ug/L	0.3195	20.37	-3.668
B_2089_A		0.5377	ug/L	0.05962	11.09	5.445
Ba4554_R		0.1450	ug/L	0.1181	81.48	58.77
Be3130_R		0.2189	ug/L	0.1036	47.33	17.55
Ca3158_R		9.580	ug/L	1.848	19.29	-2.652
Cd2265_A		0.09893	ug/L	0.003785	3.826	-2.680
Co2286_A		-0.07482	ug/L	0.1863	249.0	3.937
Cr2677_A		0.2408	ug/L	0.1074	44.59	6.651
Cu3273_A		0.1639	ug/L	0.2359	143.9	111.0
Fe2599_R		23.42	ug/L	2.132	9.105	63.70
K_7664_R		30.86	ug/L	6.096	19.75	-53.04
Li6707_R		0.3301	ug/L	2.565	777.1	11.31
Mg2025_A		6.264	ug/L	0.02503	0.3995	-8.081
Mn2576_R		0.5940	ug/L	0.01684	2.835	4.589
Mo2020_A		0.5130	ug/L	0.07923	15.45	3.141
Na5895_R		28.23	ug/L	0.8893	3.150	66.45
Ni2316_A		0.3900	ug/L	0.1647	42.23	0.3469
Pb2203_A		-0.4029	ug/L	0.9997	248.1	-0.6424
Sb2068_A		0.9696	ug/L	0.4869	50.22	1.454
Se1960_A		-0.6280	ug/L	0.3135	49.92	2.851
Si2516_R		37.48	ug/L	29.88	79.73	67.94
Sn1899_A		-0.4444	ug/L	0.3314	74.57	0.6796
Sr4215_R		0.2855	ug/L	0.07008	24.55	12.90
Ti3349_A		0.7720	ug/L	0.2521	32.65	20.86
Tl1908_A		0.4755	ug/L	0.2737	57.57	-1.301
V_2924_A		0.1728	ug/L	0.08427	48.76	0.5916
Zn2062_A		0.1100	ug/L	0.08569	77.92	1.226
Y_3600_R		17,364	Cts/S	136.62	0.78682	17,364
Y_2243_A		9,884.9	Cts/S	55.376	0.56021	9,884.9
Y_3600_A		158,860	Cts/S	34.248	0.021558	158,860

LCSOOK16ICS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:06:57AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.72	ug/L	0.1623	0.3138	1,116
Al3961_R		2,202	ug/L	34.17	1.552	2,171
As1891_A		104.2	ug/L	0.3579	0.3434	44.66
B_2089_A		486.1	ug/L	0.5941	0.1222	769.8
Ba4554_R		2,126	ug/L	34.06	1.602	84,890
Be3130_R		54.51	ug/L	0.9122	1.673	5,057
Ca3158_R		2,706	ug/L	44.71	1.652	3,498
Cd2265_A		261.6	ug/L	0.5519	0.2110	4,101
Co2286_A		532.5	ug/L	1.250	0.2347	2,522
Cr2677_A		220.5	ug/L	0.05134	0.02328	2,792
Cu3273_A		271.8	ug/L	1.677	0.6169	3,227
Fe2599_R		1,173	ug/L	8.973	0.7652	2,258
K_7664_R		10,560	ug/L	116.5	1.104	5,982
Li6707_R		554.8	ug/L	8.629	1.555	5,361
Mg2025_A		5,075	ug/L	8.477	0.1670	2,047
Mn2576_R		528.8	ug/L	7.759	1.467	5,809
Mo2020_A		108.2	ug/L	0.02707	0.02501	421.2
Na5895_R		8,068	ug/L	136.6	1.694	14,650
Ni2316_A		549.3	ug/L	1.142	0.2079	1,283

LCSOOK16ICS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:06:57AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		106.8	ug/L	0.7397	0.6926	123.9
Sb2068_A		104.2	ug/L	0.7190	0.6901	65.02
Se1960_A		101.4	ug/L	0.8181	0.8069	39.00
Si2516_R		1,088	ug/L	9.604	0.8829	610.2
Sn1899_A		568.9	ug/L	1.847	0.3246	366.3
Sr4215_R		535.4	ug/L	7.638	1.427	36,950
Ti3349_A		530.3	ug/L	3.588	0.6767	15,880
Tl1908_A		104.5	ug/L	0.3136	0.3001	74.96
V_2924_A		542.3	ug/L	2.029	0.3741	6,580
Zn2062_A		520.6	ug/L	1.584	0.3043	2,023
Y_3600_R		17,209	Cts/S	5.6428	0.032790	17,209
Y_2243_A		9,777.2	Cts/S	13.487	0.13795	9,777.2
Y_3600_A		155,790	Cts/S	317.24	0.20364	155,790

PBSOK16ICS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:11:11AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2371	ug/L	0.4340	183.1	-19.66
Al3961_R		20.61	ug/L	5.945	28.84	15.01
As1891_A		1.278	ug/L	0.6024	47.13	-3.839
B_2089_A		0.4316	ug/L	0.2183	50.59	5.308
Ba4554_R		0.8076	ug/L	0.1964	24.32	85.91
Be3130_R		0.06031	ug/L	0.03070	50.91	2.702
Ca3158_R		13.45	ug/L	0.4649	3.455	2.444
Cd2265_A		0.08208	ug/L	0.02430	29.60	-2.965
Co2286_A		-0.08268	ug/L	0.1289	155.9	3.937
Cr2677_A		0.4558	ug/L	0.1440	31.60	9.479
Cu3273_A		1.065	ug/L	0.02263	2.124	122.3
Fe2599_R		30.91	ug/L	4.187	13.55	78.58
K_7664_R		48.02	ug/L	37.65	78.40	-43.52
Li6707_R		0.8251	ug/L	1.098	133.1	16.39
Mg2025_A		10.88	ug/L	1.956	17.98	-6.268
Mn2576_R		0.6565	ug/L	0.1415	21.55	5.302
Mo2020_A		0.1901	ug/L	0.1207	63.52	1.888
Na5895_R		23.37	ug/L	1.834	7.848	57.92
Ni2316_A		0.6984	ug/L	0.04278	6.126	1.090
Pb2203_A		0.4816	ug/L	0.7113	147.7	0.3993
Sb2068_A		0.05321	ug/L	0.1959	368.1	0.5148
Se1960_A		-0.3088	ug/L	0.7144	231.4	2.990
Si2516_R		17.14	ug/L	24.16	140.9	57.60
Sn1899_A		48.98	ug/L	0.6940	1.417	33.04
Sr4215_R		0.09384	ug/L	0.09804	104.5	-0.3883
Ti3349_A		1.093	ug/L	0.1217	11.13	30.84
Tl1908_A		-0.8195	ug/L	0.08299	10.13	-2.268
V_2924_A		-0.06909	ug/L	0.0007330	1.061	-2.405
Zn2062_A		3.266	ug/L	0.05765	1.765	13.74
Y_3600_R		17,469	Cts/S	209.09	1.1969	17,469
Y_2243_A		9,965.4	Cts/S	20.843	0.20915	9,965.4
Y_3600_A		159,870	Cts/S	693.94	0.43406	159,870

LC2WOK23ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:15:35AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LC2WOK23ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:15:35AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.56	ug/L	0.2172	0.4132	1,146
Al3961_R		2,115	ug/L	50.96	2.409	2,120
As1891_A		103.5	ug/L	0.8134	0.7860	44.87
B_2089_A		487.8	ug/L	1.653	0.3389	782.2
Ba4554_R		2,072	ug/L	37.96	1.832	84,120
Be3130_R		53.05	ug/L	0.9552	1.800	5,003
Ca3158_R		2,649	ug/L	54.73	2.067	3,480
Cd2265_A		255.5	ug/L	0.2717	0.1063	4,055
Co2286_A		523.7	ug/L	0.5095	0.09729	2,512
Cr2677_A		216.7	ug/L	0.4217	0.1946	2,769
Cu3273_A		267.1	ug/L	0.1932	0.07233	3,202
Fe2599_R		1,100	ug/L	21.26	1.933	2,153
K_7664_R		10,490	ug/L	247.3	2.357	6,042
Li6707_R		543.8	ug/L	10.24	1.883	5,341
Mg2025_A		5,029	ug/L	4.208	0.08368	2,053
Mn2576_R		519.9	ug/L	11.02	2.120	5,806
Mo2020_A		107.0	ug/L	0.2102	0.1965	421.6
Na5895_R		7,959	ug/L	160.0	2.010	14,690
Ni2316_A		543.5	ug/L	0.8100	0.1490	1,285
Pb2203_A		102.9	ug/L	0.8150	0.7924	120.9
Sb2068_A		101.1	ug/L	0.4032	0.3988	64.07
Se1960_A		101.3	ug/L	1.102	1.087	39.47
Si2516_R		1,079	ug/L	5.492	0.5088	615.9
Sn1899_A		528.2	ug/L	2.748	0.5202	344.5
Sr4215_R		532.1	ug/L	11.78	2.214	37,320
Ti3349_A		526.8	ug/L	1.198	0.2274	15,920
Tl1908_A		103.6	ug/L	0.8398	0.8107	75.23
V_2924_A		534.9	ug/L	2.425	0.4533	6,549
Zn2062_A		514.7	ug/L	1.028	0.1998	2,025
Y_3600_R		17,493	Cts/S	95.234	0.54441	17,493
Y_2243_A		9,900.5	Cts/S	13.800	0.13939	9,900.5
Y_3600_A		157,200	Cts/S	901.84	0.57367	157,200

LCSWOK23ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:19:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.92	ug/L	0.4912	0.9461	1,138
Al3961_R		2,115	ug/L	19.63	0.9282	2,100
As1891_A		102.0	ug/L	0.4103	0.4023	44.01
B_2089_A		485.1	ug/L	1.897	0.3910	775.2
Ba4554_R		2,070	ug/L	21.99	1.062	83,260
Be3130_R		53.24	ug/L	0.5607	1.053	4,974
Ca3158_R		2,647	ug/L	22.48	0.8495	3,446
Cd2265_A		253.3	ug/L	0.9581	0.3782	4,007
Co2286_A		522.8	ug/L	1.703	0.3257	2,499
Cr2677_A		212.8	ug/L	2.097	0.9851	2,735
Cu3273_A		264.0	ug/L	3.434	1.301	3,184
Fe2599_R		1,100	ug/L	13.76	1.251	2,135
K_7664_R		10,430	ug/L	62.35	0.5980	5,950
Li6707_R		540.0	ug/L	5.945	1.101	5,254
Mg2025_A		4,981	ug/L	17.05	0.3423	2,027
Mn2576_R		520.4	ug/L	3.670	0.7052	5,758
Mo2020_A		105.7	ug/L	0.3231	0.3056	415.2
Na5895_R		7,929	ug/L	40.97	0.5167	14,490
Ni2316_A		542.0	ug/L	1.553	0.2865	1,277

LCSWOK23ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:19:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		102.4	ug/L	0.9519	0.9294	119.9
Sb2068_A		99.66	ug/L	0.7187	0.7212	62.92
Se1960_A		100.0	ug/L	1.145	1.145	38.87
Si2516_R		1,091	ug/L	44.38	4.068	615.8
Sn1899_A		523.8	ug/L	1.740	0.3321	340.5
Sr4215_R		529.1	ug/L	4.484	0.8475	36,770
Ti3349_A		515.4	ug/L	5.084	0.9862	15,670
Tl1908_A		103.0	ug/L	0.4556	0.4424	74.53
V_2924_A		526.4	ug/L	6.466	1.228	6,483
Zn2062_A		514.6	ug/L	2.150	0.4178	2,018
Y_3600_R		17,331	Cts/S	336.40	1.9410	17,331
Y_2243_A		9,866.3	Cts/S	18.649	0.18901	9,866.3
Y_3600_A		158,120	Cts/S	1,017.5	0.64352	158,120

PBWOK23ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:24:02AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.05617	ug/L	0.004245	7.558	-26.03
Al3961_R		14.55	ug/L	1.275	8.760	8.938
As1891_A		1.843	ug/L	1.247	67.66	-3.542
B_2089_A		0.2242	ug/L	0.5441	242.7	4.939
Ba4554_R		0.6660	ug/L	0.01470	2.208	79.94
Be3130_R		0.03374	ug/L	0.06053	179.4	0.2676
Ca3158_R		1.566	ug/L	3.865	246.8	-13.17
Cd2265_A		0.08656	ug/L	0.03768	43.53	-2.889
Co2286_A		-0.04336	ug/L	0.1508	347.9	4.086
Cr2677_A		-0.1323	ug/L	0.06751	51.03	1.841
Cu3273_A		1.355	ug/L	0.1396	10.30	124.9
Fe2599_R		3.333	ug/L	2.144	64.35	25.07
K_7664_R		23.21	ug/L	20.43	88.05	-57.61
Li6707_R		1.051	ug/L	0.3625	34.49	18.48
Mg2025_A		7.110	ug/L	0.7392	10.40	-7.744
Mn2576_R		0.5618	ug/L	0.05730	10.20	4.246
Mo2020_A		0.06460	ug/L	0.04790	74.15	1.382
Na5895_R		7.802	ug/L	2.281	29.23	29.13
Ni2316_A		0.05431	ug/L	0.1288	237.1	-0.4837
Pb2203_A		0.1605	ug/L	0.01468	9.148	0.01760
Sb2068_A		0.9093	ug/L	0.1012	11.13	1.408
Se1960_A		-0.7683	ug/L	0.7658	99.68	2.800
Si2516_R		2.993	ug/L	18.84	629.3	50.11
Sn1899_A		0.1085	ug/L	0.3192	294.1	1.037
Sr4215_R		0.1328	ug/L	0.03555	26.77	2.288
Ti3349_A		0.7859	ug/L	0.2955	37.60	21.27
Tl1908_A		0.7388	ug/L	0.5038	68.19	-1.106
V_2924_A		0.2940	ug/L	0.1796	61.10	2.141
Zn2062_A		0.5941	ug/L	0.002164	0.3642	3.131
Y_3600_R		17,410	Cts/S	61.063	0.35073	17,410
Y_2243_A		9,886.9	Cts/S	121.83	1.2322	9,886.9
Y_3600_A		158,860	Cts/S	474.91	0.29895	158,860

LCSOOL17ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:28:26AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSOOL17ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:28:26AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.50	ug/L	0.1443	0.2858	1,093
Al3961_R		2,238	ug/L	79.40	3.548	2,233
As1891_A		100.7	ug/L	0.5106	0.5070	43.19
B_2089_A		472.1	ug/L	0.4624	0.09794	751.1
Ba4554_R		1,974	ug/L	56.95	2.885	79,820
Be3130_R		50.50	ug/L	1.075	2.129	4,741
Ca3158_R		2,644	ug/L	68.81	2.602	3,461
Cd2265_A		246.8	ug/L	0.03982	0.01614	3,887
Co2286_A		510.1	ug/L	0.5770	0.1131	2,427
Cr2677_A		204.7	ug/L	1.740	0.8501	2,610
Cu3273_A		260.1	ug/L	2.972	1.143	3,116
Fe2599_R	F	1,633	ug/L	32.79	2.008	3,176
K_7664_R		10,120	ug/L	315.7	3.118	5,804
Li6707_R		505.5	ug/L	11.25	2.225	4,945
Mg2025_A		4,887	ug/L	10.42	0.2132	1,979
Mn2576_R		503.3	ug/L	13.97	2.775	5,597
Mo2020_A		104.3	ug/L	0.1064	0.1019	407.9
Na5895_R		7,756	ug/L	215.7	2.781	14,250
Ni2316_A		528.8	ug/L	0.1794	0.03393	1,241
Pb2203_A		104.2	ug/L	0.6644	0.6378	121.5
Sb2068_A		99.17	ug/L	0.4635	0.4674	62.23
Se1960_A		98.94	ug/L	0.1516	0.1532	38.31
Si2516_R		916.8	ug/L	6.718	0.7328	528.6
Sn1899_A		538.4	ug/L	0.1961	0.03643	348.3
Sr4215_R		514.8	ug/L	17.82	3.461	35,960
Ti3349_A		510.1	ug/L	4.360	0.8548	15,380
Tl1908_A		101.3	ug/L	0.3748	0.3699	72.95
V_2924_A		498.9	ug/L	4.208	0.8434	6,097
Zn2062_A		511.8	ug/L	0.7929	0.1549	1,998
Y_3600_R		17,423	Cts/S	227.82	1.3076	17,423
Y_2243_A		9,821.7	Cts/S	24.457	0.24901	9,821.7
Y_3600_A		156,920	Cts/S	484.83	0.30896	156,920

PBSOL17ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:32:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.02665	ug/L	0.3098	1,162	-26.10
Al3961_R		19.83	ug/L	2.822	14.23	14.28
As1891_A		1.874	ug/L	0.008653	0.4616	-3.577
B_2089_A		0.5126	ug/L	0.04103	8.005	5.476
Ba4554_R		1.032	ug/L	0.3764	36.47	95.08
Be3130_R		0.004281	ug/L	0.03162	738.5	-2.547
Ca3158_R		13.86	ug/L	4.858	35.06	2.968
Cd2265_A		0.05896	ug/L	0.05680	96.35	-3.327
Co2286_A		0.1093	ug/L	0.04422	40.45	4.896
Cr2677_A		0.6056	ug/L	0.2221	36.67	11.44
Cu3273_A		1.678	ug/L	0.2430	14.48	129.6
Fe2599_R	W	71.26	ug/L	2.210	3.101	157.0
K_7664_R		37.48	ug/L	7.453	19.88	-49.57
Li6707_R		0.8584	ug/L	0.2398	27.93	16.67
Mg2025_A		9.494	ug/L	2.890	30.44	-6.865
Mn2576_R		0.9774	ug/L	0.006315	0.6461	8.887
Mo2020_A		0.2505	ug/L	0.09746	38.91	2.141
Na5895_R		16.82	ug/L	4.691	27.89	45.85
Ni2316_A		0.5868	ug/L	0.1755	29.90	0.8966

PBSOL17ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:32:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9877	ug/L	0.2962	29.99	1.007
Sb2068_A		0.1664	ug/L	0.4339	260.7	0.6450
Se1960_A		-2.571	ug/L	0.4732	18.40	2.190
Si2516_R		8.558	ug/L	8.147	95.20	53.23
Sn1899_A		41.82	ug/L	0.1683	0.4024	28.54
Sr4215_R		0.2509	ug/L	0.03937	15.69	10.58
Ti3349_A		1.397	ug/L	0.1436	10.28	40.20
Tl1908_A		0.3874	ug/L	0.1006	25.97	-1.386
V_2924_A		0.3890	ug/L	0.1607	41.31	3.301
Zn2062_A		1.838	ug/L	0.02517	1.370	8.134
Y_3600_R		17,482	Cts/S	65.117	0.37247	17,482
Y_2243_A		10,032	Cts/S	31.292	0.31193	10,032
Y_3600_A		159,920	Cts/S	162.67	0.10172	159,920

LCSWOL17ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:37:05AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.32	ug/L	0.2643	0.5252	1,127
Al3961_R		2,083	ug/L	18.17	0.8719	2,113
As1891_A		100.9	ug/L	0.9884	0.9797	44.00
B_2089_A		498.9	ug/L	2.208	0.4426	806.3
Ba4554_R		1,997	ug/L	16.86	0.8444	82,050
Be3130_R		51.36	ug/L	0.08316	0.1619	4,902
Ca3158_R		2,645	ug/L	23.83	0.9009	3,518
Cd2265_A		254.4	ug/L	0.7400	0.2909	4,072
Co2286_A		519.6	ug/L	3.415	0.6572	2,513
Cr2677_A		202.8	ug/L	0.01841	0.009076	2,663
Cu3273_A		250.0	ug/L	0.3430	0.1372	3,087
Fe2599_R		1,048	ug/L	7.332	0.6998	2,078
K_7664_R		10,370	ug/L	75.18	0.7248	6,048
Li6707_R		520.5	ug/L	3.028	0.5818	5,175
Mg2025_A		5,089	ug/L	33.78	0.6638	2,095
Mn2576_R		511.6	ug/L	3.400	0.6646	5,784
Mo2020_A		102.7	ug/L	0.6860	0.6677	408.3
Na5895_R		7,919	ug/L	59.06	0.7457	14,790
Ni2316_A		540.0	ug/L	4.388	0.8125	1,288
Pb2203_A		103.7	ug/L	1.625	1.568	122.8
Sb2068_A		101.2	ug/L	0.6433	0.6360	65.29
Se1960_A		103.3	ug/L	0.7985	0.7733	40.49
Si2516_R		1,068	ug/L	6.467	0.6056	617.2
Sn1899_A	F	431.9	ug/L	0.08493	0.01967	284.2
Sr4215_R		529.0	ug/L	6.779	1.281	37,560
Ti3349_A		506.3	ug/L	1.386	0.2738	15,720
Tl1908_A		104.4	ug/L	0.9242	0.8855	76.43
V_2924_A		498.0	ug/L	1.867	0.3749	6,265
Zn2062_A		513.9	ug/L	2.110	0.4106	2,039
Y_3600_R		17,708	Cts/S	211.64	1.1952	17,708
Y_2243_A		9,984.0	Cts/S	50.903	0.50984	9,984.0
Y_3600_A		161,550	Cts/S	42.862	0.026532	161,550

PBWOL17ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:41:18AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOL17ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:41:18AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1299	ug/L	0.3475	267.5	-27.85
Al3961_R		17.57	ug/L	4.840	27.55	12.10
As1891_A		0.9809	ug/L	0.3418	34.84	-3.957
B_2089_A		0.6792	ug/L	0.4164	61.31	5.659
Ba4554_R		0.8840	ug/L	0.2636	29.82	89.96
Be3130_R		-0.001159	ug/L	0.01367	1,179	-3.085
Ca3158_R		1.684	ug/L	2.229	132.4	-13.20
Cd2265_A		0.06692	ug/L	0.03176	47.46	-3.212
Co2286_A		-0.07987	ug/L	0.04338	54.31	3.927
Cr2677_A		0.3749	ug/L	0.07691	20.52	8.408
Cu3273_A		0.5959	ug/L	0.08851	14.85	116.4
Fe2599_R		6.563	ug/L	1.966	29.96	31.75
K_7664_R		23.44	ug/L	18.07	77.10	-58.29
Li6707_R		0.5255	ug/L	1.988	378.4	13.55
Mg2025_A		5.142	ug/L	0.3578	6.959	-8.561
Mn2576_R		0.6147	ug/L	0.4274	69.52	4.896
Mo2020_A		-0.09370	ug/L	0.1227	130.9	0.7641
Na5895_R		19.57	ug/L	1.720	8.792	51.42
Ni2316_A		0.4426	ug/L	0.01490	3.366	0.4363
Pb2203_A		0.4147	ug/L	1.100	265.1	0.3099
Sb2068_A		-0.5812	ug/L	0.06042	10.40	0.4321
Se1960_A		-1.338	ug/L	0.5449	40.71	2.605
Si2516_R		11.27	ug/L	13.80	122.5	55.18
Sn1899_A		-0.1174	ug/L	0.4064	346.2	0.8922
Sr4215_R		0.1288	ug/L	0.2606	202.4	2.020
Ti3349_A		0.9068	ug/L	0.3119	34.40	25.06
Tl1908_A		0.2820	ug/L	0.1136	40.27	-1.447
V_2924_A		0.07042	ug/L	0.3362	477.4	-0.6388
Zn2062_A		0.2615	ug/L	0.06956	26.60	1.825
Y_3600_R		17,651	Cts/S	36.976	0.20948	17,651
Y_2243_A		9,910.5	Cts/S	112.06	1.1307	9,910.5
Y_3600_A		159,440	Cts/S	170.01	0.10663	159,440

LCSWOL17ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:45:43AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.97	ug/L	0.08942	0.1721	1,133
Al3961_R		2,116	ug/L	26.41	1.248	2,120
As1891_A		103.0	ug/L	1.123	1.091	44.50
B_2089_A		494.3	ug/L	2.181	0.4413	790.0
Ba4554_R		2,044	ug/L	42.12	2.060	82,960
Be3130_R		52.13	ug/L	0.8896	1.707	4,912
Ca3158_R		2,671	ug/L	44.86	1.679	3,509
Cd2265_A		255.0	ug/L	0.2696	0.1057	4,036
Co2286_A		528.2	ug/L	1.059	0.2005	2,526
Cr2677_A		211.0	ug/L	1.477	0.7003	2,695
Cu3273_A		261.6	ug/L	0.06407	0.02449	3,138
Fe2599_R		1,081	ug/L	11.65	1.077	2,117
K_7664_R		10,500	ug/L	147.9	1.408	6,049
Li6707_R		527.3	ug/L	10.29	1.952	5,177
Mg2025_A		5,037	ug/L	7.128	0.1415	2,051
Mn2576_R		520.8	ug/L	9.426	1.810	5,814
Mo2020_A		107.5	ug/L	0.2040	0.1897	422.3
Na5895_R		8,039	ug/L	107.9	1.342	14,830
Ni2316_A		547.3	ug/L	1.520	0.2777	1,291

LCSWOL17ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:45:43AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		104.7	ug/L	1.340	1.280	122.7
Sb2068_A		102.6	ug/L	1.303	1.270	64.93
Se1960_A		102.8	ug/L	0.5934	0.5771	39.88
Si2516_R		1,087	ug/L	4.687	0.4313	619.4
Sn1899_A		520.9	ug/L	0.7990	0.1534	338.8
Sr4215_R		538.1	ug/L	6.687	1.243	37,730
Ti3349_A		529.1	ug/L	3.261	0.6163	15,980
Tl1908_A		104.7	ug/L	1.265	1.208	75.85
V_2924_A		520.6	ug/L	2.863	0.5500	6,372
Zn2062_A		517.3	ug/L	1.368	0.2644	2,030
Y_3600_R		17,486	Cts/S	23.921	0.13680	17,486
Y_2243_A		9,871.4	Cts/S	8.0981	0.082036	9,871.4
Y_3600_A		157,160	Cts/S	423.35	0.26937	157,160

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:49:56AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		511.9	ug/L	1.518	0.2966	11,410
Al3961_R		12,840	ug/L	180.2	1.404	12,920
As1891_A		502.0	ug/L	0.1079	0.02149	233.9
B_2089_A		495.2	ug/L	1.171	0.2365	805.9
Ba4554_R		498.4	ug/L	5.762	1.156	20,330
Be3130_R		507.1	ug/L	8.163	1.610	47,960
Ca3158_R		12,930	ug/L	159.0	1.229	17,090
Cd2265_A		498.5	ug/L	1.311	0.2630	7,909
Co2286_A		511.1	ug/L	1.082	0.2117	2,446
Cr2677_A		515.0	ug/L	0.09916	0.01926	6,553
Cu3273_A		501.8	ug/L	0.02402	0.004788	5,909
Fe2599_R		13,050	ug/L	223.3	1.710	25,420
K_7664_R		12,840	ug/L	96.88	0.7546	7,429
Li6707_R		508.1	ug/L	8.591	1.691	5,003
Mg2025_A		12,560	ug/L	41.29	0.3288	5,088
Mn2576_R		510.4	ug/L	5.376	1.053	5,712
Mo2020_A		509.0	ug/L	0.1791	0.03519	1,998
Na5895_R		12,950	ug/L	203.6	1.572	23,950
Ni2316_A		521.0	ug/L	1.144	0.2197	1,255
Pb2203_A		504.2	ug/L	2.281	0.4525	591.5
Sb2068_A		496.6	ug/L	1.900	0.3825	325.5
Se1960_A		500.3	ug/L	1.819	0.3635	182.1
Si2516_R		13,040	ug/L	72.07	0.5526	6,883
Sn1899_A		504.7	ug/L	1.973	0.3910	328.5
Sr4215_R		516.8	ug/L	6.529	1.263	36,340
Ti3349_A		516.2	ug/L	0.06883	0.01333	15,550
Tl1908_A		507.4	ug/L	0.2393	0.04715	370.6
V_2924_A		505.8	ug/L	0.5824	0.1151	6,134
Zn2062_A		501.7	ug/L	0.9338	0.1861	1,969
Y_3600_R		17,535	Cts/S	109.12	0.62230	17,535
Y_2243_A		9,879.2	Cts/S	10.425	0.10552	9,879.2
Y_3600_A		156,690	Cts/S	442.62	0.28249	156,690

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:54:03AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:54:03AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1960	ug/L	0.07872	40.17	-20.46
Al3961_R		4.236	ug/L	4.539	107.1	-1.296
As1891_A		1.372	ug/L	0.7496	54.64	-3.798
B_2089_A		0.6706	ug/L	0.09298	13.87	5.710
Ba4554_R		0.06672	ug/L	0.01296	19.43	55.42
Be3130_R		0.09139	ug/L	0.01296	14.18	5.634
Ca3158_R		0.9742	ug/L	2.368	243.1	-13.89
Cd2265_A		0.09053	ug/L	0.05211	57.56	-2.848
Co2286_A		-0.1308	ug/L	0.03024	23.12	3.706
Cr2677_A		-0.06400	ug/L	0.1274	199.1	2.731
Cu3273_A		0.9894	ug/L	0.06877	6.951	121.3
Fe2599_R		13.05	ug/L	3.314	25.40	43.64
K_7664_R		4.583	ug/L	32.22	703.1	-67.92
Li6707_R		-0.07217	ug/L	0.4877	675.8	7.441
Mg2025_A		3.916	ug/L	0.5157	13.17	-9.118
Mn2576_R		0.1529	ug/L	0.3076	201.2	-0.2764
Mo2020_A		0.5397	ug/L	0.03924	7.270	3.277
Na5895_R		8.123	ug/L	4.505	55.45	29.50
Ni2316_A		0.3823	ug/L	0.04348	11.37	0.3170
Pb2203_A		-0.1636	ug/L	0.2991	182.8	-0.3671
Sb2068_A		0.9734	ug/L	0.6079	62.45	1.468
Se1960_A		-1.868	ug/L	0.7672	41.07	2.431
Si2516_R		24.99	ug/L	22.55	90.25	61.28
Sn1899_A		-0.3829	ug/L	0.1903	49.70	0.7259
Sr4215_R		0.03081	ug/L	0.1306	423.9	-4.742
Ti3349_A		0.5928	ug/L	0.1186	20.00	15.47
Tl1908_A		0.06207	ug/L	0.4782	770.4	-1.619
V_2924_A		-0.09641	ug/L	0.02453	25.45	-2.752
Zn2062_A		0.1139	ug/L	0.003443	3.022	1.256
Y_3600_R		17,310	Cts/S	225.32	1.3017	17,310
Y_2243_A		9,979.1	Cts/S	11.592	0.11617	9,979.1
Y_3600_A		159,790	Cts/S	1,110.2	0.69479	159,790

PBWOL17ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:58:28AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1121	ug/L	0.03297	29.41	-27.80
Al3961_R		8.605	ug/L	9.148	106.3	3.048
As1891_A		1.665	ug/L	0.6017	36.14	-3.734
B_2089_A		0.3049	ug/L	0.3523	115.5	5.216
Ba4554_R		0.07929	ug/L	0.3139	395.9	56.96
Be3130_R		0.01583	ug/L	0.01411	89.15	-1.424
Ca3158_R		5.133	ug/L	5.032	98.05	-8.599
Cd2265_A		0.07914	ug/L	0.01372	17.34	-3.104
Co2286_A		-0.08930	ug/L	0.09735	109.0	3.983
Cr2677_A		-0.06360	ug/L	0.04008	63.02	2.776
Cu3273_A		0.8359	ug/L	0.004422	0.5290	121.0
Fe2599_R		2.694	ug/L	4.448	165.1	24.14
K_7664_R		-15.53	ug/L	6.222	40.07	-81.12
Li6707_R		0.2814	ug/L	0.5433	193.1	11.10
Mg2025_A		8.006	ug/L	0.5583	6.973	-7.611
Mn2576_R		0.3733	ug/L	0.02383	6.384	2.180
Mo2020_A		0.03093	ug/L	0.03142	101.6	1.288
Na5895_R		3.598	ug/L	14.25	396.2	21.69
Ni2316_A		0.07531	ug/L	0.3001	398.5	-0.4472

PBWOL17ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 12:58:28AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.6911	ug/L	0.4017	58.13	0.6625
Sb2068_A		0.2130	ug/L	0.01121	5.264	0.9831
Se1960_A		-0.9998	ug/L	0.4947	49.48	2.802
Si2516_R		13.84	ug/L	10.37	74.92	56.47
Sn1899_A		-0.3740	ug/L	0.4856	129.8	0.7471
Sr4215_R		0.04934	ug/L	0.01669	33.82	-3.579
Ti3349_A		0.02370	ug/L	0.1640	691.7	-2.033
Tl1908_A		-0.1153	ug/L	0.2197	190.6	-1.787
V_2924_A		-0.1816	ug/L	0.05823	32.07	-3.833
Zn2062_A		0.2801	ug/L	0.1691	60.36	1.955
Y_3600_R		17,630	Cts/S	2.2712	0.012883	17,630
Y_2243_A		10,191	Cts/S	1.9693	0.019324	10,191
Y_3600_A		161,810	Cts/S	35.434	0.021899	161,810

SO7746-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:02:52AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		6.306	ug/L	2.875	45.59	-1,273
Al3961_R	W	201,700	ug/L	1,612	0.7991	106,700
As1891_A		18.75	ug/L	0.7353	3.921	-5.352
B_2089_A		18.29	ug/L	0.8396	4.590	19.69
Ba4554_R		994.7	ug/L	3.877	0.3898	21,360
Be3130_R		6.308	ug/L	0.2054	3.255	226.1
Ca3158_R	W	70,140	ug/L	423.7	0.6041	48,840
Cd2265_A		-1.600	ug/L	0.3260	20.37	110.1
Co2286_A		53.44	ug/L	0.1831	0.3427	153.4
Cr2677_A		7.607	ug/L	0.2427	3.190	75.18
Cu3273_A		91.19	ug/L	0.9291	1.019	736.0
Fe2599_R	W	309,400	ug/L	8,184	2.645	317,100
K_7664_R		7,294	ug/L	162.0	2.221	2,169
Li6707_R		41.59	ug/L	0.6745	1.622	224.0
Mg2025_A	W	61,900	ug/L	31.59	0.05103	12,920
Mn2576_R	W	4,868	ug/L	37.52	0.7708	28,650
Mo2020_A		-2.064	ug/L	0.2096	10.15	-3.374
Na5895_R		1,743	ug/L	7.791	0.4469	1,712
Ni2316_A	F	-214.7	ug/L	5.962	2.777	-10.34
Pb2203_A		304.5	ug/L	0.9370	0.3077	177.3
Sb2068_A		-3.305	ug/L	0.7801	23.60	4.287
Se1960_A		-19.02	ug/L	2.141	11.26	4.180
Si2516_R		35,240	ug/L	244.7	0.6945	9,763
Sn1899_A		42.11	ug/L	1.549	3.678	15.15
Sr4215_R		784.8	ug/L	7.716	0.9831	29,060
Ti3349_A	W	3,106	ug/L	0.6751	0.02174	48,030
Tl1908_A		-4.166	ug/L	1.893	45.46	-6.074
V_2924_A		618.0	ug/L	1.291	0.2089	3,877
Zn2062_A		846.6	ug/L	0.9997	0.1181	1,722
Y_3600_R		18,466	Cts/S	90.549	0.49035	18,466
Y_2243_A		10,229	Cts/S	4.0966	0.040051	10,229
Y_3600_A		160,920	Cts/S	307.02	0.19079	160,920

SO7746-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:07:15AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7746-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:07:15AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.869	ug/L	0.8520	17.50	-1,186
Al3961_R	W	360,200	ug/L	287.9	0.07992	186,600
As1891_A		19.53	ug/L	2.807	14.37	-5.407
B_2089_A		20.39	ug/L	0.2569	1.260	21.06
Ba4554_R		932.4	ug/L	1.669	0.1790	19,610
Be3130_R		3.779	ug/L	0.05810	1.537	104.4
Ca3158_R		27,370	ug/L	28.54	0.1043	18,660
Cd2265_A		-1.903	ug/L	0.3430	18.02	99.40
Co2286_A		20.01	ug/L	0.2160	1.079	67.75
Cr2677_A		7.052	ug/L	0.2506	3.553	66.77
Cu3273_A		63.88	ug/L	1.426	2.233	534.8
Fe2599_R	W	293,700	ug/L	3,714	1.264	294,900
K_7664_R		9,577	ug/L	94.78	0.9897	2,812
Li6707_R		48.24	ug/L	1.991	4.127	253.0
Mg2025_A	W	59,970	ug/L	408.3	0.6808	12,320
Mn2576_R		1,300	ug/L	2.873	0.2210	7,450
Mo2020_A		-2.311	ug/L	0.1226	5.306	-3.611
Na5895_R		9,044	ug/L	1.589	0.01757	8,635
Ni2316_A	F	-197.3	ug/L	0.8205	0.4158	-1.934
Pb2203_A		15.18	ug/L	1.731	11.40	-7.704
Sb2068_A		-3.939	ug/L	1.687	42.84	4.169
Se1960_A		-13.39	ug/L	2.111	15.76	5.413
Si2516_R		37,530	ug/L	92.12	0.2455	10,180
Sn1899_A		46.18	ug/L	1.787	3.869	16.25
Sr4215_R		406.7	ug/L	0.2530	0.06220	14,740
Ti3349_A	W	2,684	ug/L	9.587	0.3572	40,360
Tl1908_A		-1.725	ug/L	1.564	90.66	-3.453
V_2924_A		380.3	ug/L	0.4725	0.1242	2,325
Zn2062_A		507.8	ug/L	1.727	0.3401	1,017
Y_3600_R		18,089	Cts/S	287.47	1.5892	18,089
Y_2243_A		10,065	Cts/S	61.759	0.61361	10,065
Y_3600_A		156,480	Cts/S	403.79	0.25805	156,480

SO7746-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:11:36AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		23.61	ug/L	3.607	15.28	-1,220
Al3961_R	W	525,300	ug/L	2,340	0.4454	105,800
As1891_A		12.78	ug/L	0.3347	2.619	-8.403
B_2089_A		85.55	ug/L	1.511	1.766	31.31
Ba4554_R		742.3	ug/L	2.229	0.3002	6,107
Be3130_R		3.127	ug/L	0.2065	6.604	-66.11
Ca3158_R	W	165,500	ug/L	278.2	0.1681	43,870
Cd2265_A		-4.323	ug/L	0.3561	8.237	106.7
Co2286_A		357.5	ug/L	0.7327	0.2050	366.6
Cr2677_A		157.1	ug/L	0.8122	0.5169	419.5
Cu3273_A		1,088	ug/L	12.23	1.125	2,664
Fe2599_R	W	781,100	ug/L	7,592	0.9720	304,800
K_7664_R		5,793	ug/L	107.3	1.853	606.9
Li6707_R		117.6	ug/L	11.30	9.605	240.1
Mg2025_A	W	140,200	ug/L	80.65	0.05754	11,200
Mn2576_R	W	12,200	ug/L	40.20	0.3294	27,350
Mo2020_A		-6.303	ug/L	0.01751	0.2778	-4.272
Na5895_R		28,580	ug/L	95.10	0.3327	10,610
Ni2316_A	F	-398.8	ug/L	6.352	1.593	56.79

SO7746-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:11:36AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		470.8	ug/L	2.562	0.5442	101.5
Sb2068_A		-8.993	ug/L	4.500	50.04	4.064
Se1960_A		-44.48	ug/L	12.02	27.03	4.278
Si2516_R		39,200	ug/L	54.13	0.1381	4,165
Sn1899_A		45.76	ug/L	1.271	2.777	6.841
Sr4215_R		718.5	ug/L	4.558	0.6344	10,120
Ti3349_A	W	12,710	ug/L	105.5	0.8301	75,660
Tl1908_A		0.06292	ug/L	3.240	5,149	-4.684
V_2924_A		3,307	ug/L	29.31	0.8863	7,995
Zn2062_A		844.9	ug/L	2.990	0.3539	657.8
Y_3600_R		17,579	Cts/S	133.10	0.75712	17,579
Y_2243_A		9,784.1	Cts/S	13.391	0.13687	9,784.1
Y_3600_A		154,820	Cts/S	1,107.4	0.71527	154,820

SO7746-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:15:56AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		20.91	ug/L	8.259	39.51	-1,162
Al3961_R	W	483,700	ug/L	1,133	0.2341	97,200
As1891_A		20.93	ug/L	0.7907	3.777	-7.469
B_2089_A		66.46	ug/L	0.9312	1.401	25.67
Ba4554_R		495.7	ug/L	4.097	0.8264	4,086
Be3130_R		2.535	ug/L	0.002757	0.1087	-76.87
Ca3158_R	W	153,700	ug/L	568.9	0.3701	40,650
Cd2265_A		-4.900	ug/L	0.09160	1.870	100.6
Co2286_A		318.4	ug/L	2.443	0.7673	333.5
Cr2677_A		95.30	ug/L	1.182	1.240	260.9
Cu3273_A		971.7	ug/L	11.28	1.161	2,375
Fe2599_R	W	744,900	ug/L	13,860	1.860	290,000
K_7664_R		1,306	ug/L	89.63	6.863	81.05
Li6707_R		103.4	ug/L	1.968	1.903	211.7
Mg2025_A	W	147,400	ug/L	1,535	1.042	11,930
Mn2576_R	W	12,160	ug/L	40.64	0.3342	27,190
Mo2020_A		-5.661	ug/L	0.6981	12.33	-3.798
Na5895_R		38,570	ug/L	150.5	0.3903	14,270
Ni2316_A	F	-448.4	ug/L	8.315	1.854	22.64
Pb2203_A		137.3	ug/L	6.146	4.478	24.84
Sb2068_A		-13.22	ug/L	0.7559	5.717	3.314
Se1960_A		-41.09	ug/L	7.195	17.51	4.362
Si2516_R		42,250	ug/L	160.7	0.3804	4,475
Sn1899_A		44.96	ug/L	2.959	6.581	6.829
Sr4215_R		429.3	ug/L	0.3824	0.08908	6,032
Ti3349_A	W	12,420	ug/L	136.8	1.101	73,250
Tl1908_A		0.05898	ug/L	8.099	13,730	-4.764
V_2924_A		3,031	ug/L	38.24	1.261	7,263
Zn2062_A		727.3	ug/L	7.029	0.9665	574.0
Y_3600_R		17,538	Cts/S	131.03	0.74715	17,538
Y_2243_A		9,916.1	Cts/S	67.038	0.67605	9,916.1
Y_3600_A		153,420	Cts/S	1,748.9	1.1399	153,420

SO7746-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:20:19AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7746-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:20:19AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		22.56	ug/L	5.133	22.75	-1,239
Al3961_R	W	639,000	ug/L	18,400	2.879	127,000
As1891_A		15.62	ug/L	0.1492	0.9547	-8.409
B_2089_A		97.14	ug/L	1.098	1.130	34.78
Ba4554_R		478.5	ug/L	14.83	3.098	3,903
Be3130_R		2.445	ug/L	0.5153	21.08	-55.05
Ca3158_R	W	185,000	ug/L	5,060	2.735	48,400
Cd2265_A		-5.140	ug/L	0.6548	12.74	107.5
Co2286_A		373.2	ug/L	0.1470	0.03940	376.8
Cr2677_A		188.9	ug/L	0.4220	0.2233	490.8
Cu3273_A		1,181	ug/L	1.004	0.08501	2,824
Fe2599_R	W	808,600	ug/L	15,040	1.861	311,300
K_7664_R		1,675	ug/L	48.92	2.920	122.8
Li6707_R		132.7	ug/L	12.21	9.203	266.1
Mg2025_A	W	178,100	ug/L	688.5	0.3865	14,160
Mn2576_R	W	13,130	ug/L	361.8	2.755	29,040
Mo2020_A		-5.792	ug/L	0.6018	10.39	-3.876
Na5895_R		61,650	ug/L	1,531	2.484	22,550
Ni2316_A	F	-474.7	ug/L	9.355	1.971	29.83
Pb2203_A		67.86	ug/L	0.8541	1.259	5.301
Sb2068_A		-8.734	ug/L	2.040	23.36	4.341
Se1960_A		-36.73	ug/L	0.01725	0.04698	5.155
Si2516_R		32,260	ug/L	897.3	2.781	3,389
Sn1899_A		48.44	ug/L	1.646	3.398	7.150
Sr4215_R		476.6	ug/L	15.51	3.254	6,625
Ti3349_A	W	11,000	ug/L	29.94	0.2723	64,190
Tl1908_A		-4.096	ug/L	2.725	66.52	-5.097
V_2924_A		3,381	ug/L	11.45	0.3386	8,014
Zn2062_A		830.0	ug/L	0.3923	0.04726	643.1
Y_3600_R		17,347	Cts/S	117.99	0.68017	17,347
Y_2243_A		9,737.4	Cts/S	47.951	0.49244	9,737.4
Y_3600_A		151,880	Cts/S	926.87	0.61028	151,880

SO7746-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:24:39AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		21.13	ug/L	4.955	23.45	-942.7
Al3961_R	W	409,800	ug/L	3,619	0.8831	82,030
As1891_A		24.22	ug/L	7.297	30.13	-6.179
B_2089_A		57.18	ug/L	0.1657	0.2897	22.46
Ba4554_R		666.6	ug/L	2.906	0.4360	5,452
Be3130_R		2.935	ug/L	0.01705	0.5808	-65.88
Ca3158_R	W	426,700	ug/L	3,572	0.8373	112,400
Cd2265_A		-4.068	ug/L	0.5630	13.84	80.59
Co2286_A		321.0	ug/L	0.1960	0.06105	329.9
Cr2677_A		110.6	ug/L	0.6789	0.6138	295.6
Cu3273_A		1,477	ug/L	20.17	1.366	3,503
Fe2599_R	W	608,900	ug/L	9,565	1.571	235,900
K_7664_R		2,143	ug/L	130.5	6.088	178.2
Li6707_R		84.80	ug/L	10.59	12.49	174.5
Mg2025_A		108,700	ug/L	56.42	0.05190	8,692
Mn2576_R	W	10,830	ug/L	75.63	0.6986	24,100
Mo2020_A		-3.538	ug/L	1.053	29.77	-2.024
Na5895_R		17,600	ug/L	146.0	0.8295	6,491
Ni2316_A	F	-339.4	ug/L	7.494	2.208	30.87

SO7746-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:24:39AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1,418	ug/L	0.6658	0.04695	324.4
Sb2068_A		-6.163	ug/L	4.105	66.60	3.459
Se1960_A		-31.49	ug/L	3.311	10.51	4.287
Si2516_R		36,010	ug/L	244.8	0.6797	3,806
Sn1899_A		43.57	ug/L	1.935	4.440	6.566
Sr4215_R		2,624	ug/L	19.00	0.7241	36,740
Ti3349_A	W	11,570	ug/L	58.12	0.5022	68,290
Tl1908_A		-1.259	ug/L	4.266	338.8	-4.624
V_2924_A		2,418	ug/L	23.58	0.9755	5,797
Zn2062_A		1,063	ug/L	0.5297	0.04984	828.1
Y_3600_R		17,459	Cts/S	402.21	2.3038	17,459
Y_2243_A		9,794.4	Cts/S	13.722	0.14010	9,794.4
Y_3600_A		153,500	Cts/S	29.352	0.019121	153,500

SO7746-013L

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:28:55AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		24.34	ug/L	3.981	16.35	-212.4
Al3961_R		410,500	ug/L	910.9	0.2219	16,360
As1891_A		68.85	ug/L	3.753	5.451	-3.983
B_2089_A		34.85	ug/L	6.931	19.89	6.846
Ba4554_R		657.5	ug/L	8.653	1.316	1,114
Be3130_R		3.176	ug/L	0.5992	18.87	-14.43
Ca3158_R		431,400	ug/L	1,155	0.2677	22,620
Cd2265_A		-2.408	ug/L	1.316	54.66	14.31
Co2286_A		325.3	ug/L	1.399	0.4301	71.60
Cr2677_A		109.8	ug/L	3.324	3.028	63.03
Cu3273_A		1,434	ug/L	18.64	1.300	785.0
Fe2599_R		617,000	ug/L	1,214	0.1968	47,640
K_7664_R		2,008	ug/L	1,071	53.34	-24.65
Li6707_R		114.0	ug/L	2.686	2.356	52.67
Mg2025_A		108,600	ug/L	198.1	0.1825	1,763
Mn2576_R		10,960	ug/L	12.16	0.1110	4,859
Mo2020_A		-10.38	ug/L	2.945	28.38	-0.5867
Na5895_R		17,490	ug/L	81.28	0.4647	1,297
Ni2316_A	F	-339.9	ug/L	5.443	1.601	6.259
Pb2203_A		1,447	ug/L	18.04	1.247	67.45
Sb2068_A		5.512	ug/L	8.193	148.6	1.684
Se1960_A		-89.26	ug/L	26.15	29.30	2.536
Si2516_R		36,170	ug/L	263.1	0.7272	800.2
Sn1899_A		38.26	ug/L	3.132	8.187	1.983
Sr4215_R		2,652	ug/L	14.21	0.5359	7,393
Ti3349_A		11,480	ug/L	29.09	0.2534	13,880
Tl1908_A		10.54	ug/L	29.20	277.1	-1.930
V_2924_A		2,363	ug/L	2.173	0.09194	1,160
Zn2062_A		1,075	ug/L	6.313	0.5871	171.7
Y_3600_R		17,389	Cts/S	255.04	1.4667	17,389
Y_2243_A		9,995.7	Cts/S	4.0459	0.040476	9,995.7
Y_3600_A		157,300	Cts/S	80.627	0.051258	157,300

SO7746-013A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:33:13AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7746-013A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:33:13AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,452	ug/L	2.262	0.09224	9,765
Al3961_R	W	454,100	ug/L	1,669	0.3676	90,450
As1891_A		2,366	ug/L	2.226	0.09408	212.8
B_2089_A		2,395	ug/L	7.157	0.2988	766.1
Ba4554_R		2,967	ug/L	5.656	0.1906	23,960
Be3130_R		2,446	ug/L	2.774	0.1134	45,730
Ca3158_R	W	444,000	ug/L	1,177	0.2651	116,400
Cd2265_A		2,321	ug/L	5.712	0.2462	7,323
Co2286_A		2,722	ug/L	6.498	0.2387	2,581
Cr2677_A		2,578	ug/L	3.721	0.1443	6,426
Cu3273_A		3,857	ug/L	29.98	0.7773	8,864
Fe2599_R	W	611,000	ug/L	3,007	0.4922	235,600
K_7664_R		52,710	ug/L	60.71	0.1152	6,031
Li6707_R		2,575	ug/L	5.337	0.2073	5,023
Mg2025_A	W	132,900	ug/L	325.9	0.2452	10,560
Mn2576_R	W	12,910	ug/L	38.73	0.3001	28,600
Mo2020_A		2,464	ug/L	9.351	0.3794	1,901
Na5895_R		45,800	ug/L	98.49	0.2151	16,780
Ni2316_A		2,159	ug/L	12.78	0.5921	1,195
Pb2203_A		3,718	ug/L	12.20	0.3281	851.9
Sb2068_A		2,356	ug/L	12.21	0.5180	306.6
Se1960_A		2,424	ug/L	23.69	0.9773	176.7
Si2516_R		36,630	ug/L	220.0	0.6005	3,855
Sn1899_A		2,444	ug/L	7.309	0.2991	312.6
Sr4215_R	W	5,109	ug/L	17.29	0.3383	71,190
Ti3349_A	W	13,800	ug/L	10.62	0.07699	81,210
Tl1908_A		2,360	ug/L	8.401	0.3560	335.8
V_2924_A		4,732	ug/L	36.12	0.7633	11,270
Zn2062_A		3,369	ug/L	7.803	0.2316	2,598
Y_3600_R		17,372	Cts/S	213.10	1.2267	17,372
Y_2243_A		9,707.4	Cts/S	11.709	0.12061	9,707.4
Y_3600_A		153,090	Cts/S	309.99	0.20249	153,090

SO7746-013P

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:37:23AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		71.32	ug/L	1.996	2.799	-819.2
Al3961_R	W	462,700	ug/L	5,859	1.266	93,360
As1891_A		95.69	ug/L	10.17	10.63	0.1611
B_2089_A		477.1	ug/L	2.188	0.4587	155.2
Ba4554_R		2,581	ug/L	12.90	0.4997	21,140
Be3130_R		51.73	ug/L	0.4795	0.9270	879.7
Ca3158_R	W	235,400	ug/L	3,565	1.514	62,520
Cd2265_A		227.6	ug/L	0.6784	0.2980	820.5
Co2286_A		841.0	ug/L	2.129	0.2532	823.3
Cr2677_A		331.6	ug/L	5.669	1.710	858.6
Cu3273_A		1,575	ug/L	25.70	1.632	3,781
Fe2599_R	W	666,400	ug/L	10,160	1.525	260,400
K_7664_R		11,810	ug/L	227.3	1.925	1,313
Li6707_R		595.6	ug/L	7.722	1.296	1,184
Mg2025_A		120,700	ug/L	234.5	0.1943	9,693
Mn2576_R	W	12,740	ug/L	157.6	1.237	28,600
Mo2020_A		48.51	ug/L	0.3169	0.6532	38.53
Na5895_R		22,220	ug/L	235.8	1.061	8,261
Ni2316_A		123.9	ug/L	7.598	6.130	266.3

SO7746-013P

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:37:23AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1,021	ug/L	1.249	0.1223	231.7
Sb2068_A		4.095	ug/L	0.9225	22.53	4.620
Se1960_A		51.99	ug/L	11.87	22.83	10.62
Si2516_R		42,470	ug/L	387.3	0.9120	4,516
Sn1899_A		484.4	ug/L	0.1402	0.02893	63.53
Sr4215_R		2,713	ug/L	45.76	1.687	38,300
Ti3349_A	W	10,690	ug/L	177.0	1.657	63,850
Tl1908_A		92.37	ug/L	3.589	3.885	9.181
V_2924_A		3,030	ug/L	57.32	1.892	7,351
Zn2062_A		1,351	ug/L	0.3367	0.02493	1,056
Y_3600_R		17,607	Cts/S	4.7814	0.027157	17,607
Y_2243_A		9,830.4	Cts/S	1.1519	0.011718	9,830.4
Y_3600_A		155,450	Cts/S	1,136.1	0.73081	155,450

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:41:37AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		513.1	ug/L	6.806	1.326	11,460
Al3961_R		13,080	ug/L	115.5	0.8836	12,880
As1891_A		493.6	ug/L	0.2172	0.04400	232.9
B_2089_A		483.7	ug/L	3.041	0.6287	797.6
Ba4554_R		487.8	ug/L	7.087	1.453	19,480
Be3130_R		504.0	ug/L	7.366	1.461	46,670
Ca3158_R	W	13,240	ug/L	147.0	1.110	17,140
Cd2265_A		486.9	ug/L	2.113	0.4340	7,825
Co2286_A		506.2	ug/L	2.415	0.4769	2,454
Cr2677_A		516.7	ug/L	6.563	1.270	6,592
Cu3273_A		492.2	ug/L	5.387	1.095	5,814
Fe2599_R	W	13,250	ug/L	174.2	1.314	25,260
K_7664_R		13,070	ug/L	85.48	0.6541	7,406
Li6707_R		507.5	ug/L	7.742	1.525	4,893
Mg2025_A		12,370	ug/L	40.34	0.3260	5,078
Mn2576_R		515.7	ug/L	6.761	1.311	5,651
Mo2020_A		505.4	ug/L	1.481	0.2931	2,010
Na5895_R	W	13,310	ug/L	143.5	1.079	24,090
Ni2316_A		518.6	ug/L	1.216	0.2346	1,266
Pb2203_A		494.2	ug/L	0.6768	0.1369	587.2
Sb2068_A		488.6	ug/L	2.190	0.4482	324.4
Se1960_A		493.7	ug/L	2.681	0.5431	182.1
Si2516_R		13,280	ug/L	94.30	0.7099	6,862
Sn1899_A		496.7	ug/L	2.139	0.4307	327.5
Sr4215_R	W	529.2	ug/L	5.105	0.9645	36,430
Ti3349_A		518.7	ug/L	6.815	1.314	15,670
Tl1908_A		502.2	ug/L	1.025	0.2040	371.4
V_2924_A		500.5	ug/L	5.973	1.193	6,085
Zn2062_A		491.8	ug/L	2.315	0.4706	1,955
Y_3600_R		17,168	Cts/S	34.777	0.20257	17,168
Y_2243_A		10,006	Cts/S	12.799	0.12791	10,006
Y_3600_A		157,110	Cts/S	1,650.3	1.0504	157,110

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:45:45AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:45:45AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2024	ug/L	0.08504	42.01	-20.09
Al3961_R		5.032	ug/L	4.743	94.24	-0.5243
As1891_A		1.242	ug/L	0.5350	43.09	-3.866
B_2089_A		0.2703	ug/L	0.2026	74.97	5.078
Ba4554_R		0.08753	ug/L	0.1445	165.1	55.73
Be3130_R		0.1659	ug/L	0.01543	9.298	12.46
Ca3158_R		6.370	ug/L	2.860	44.91	-6.761
Cd2265_A		0.1515	ug/L	0.05072	33.47	-1.874
Co2286_A		-0.02378	ug/L	0.04806	202.1	4.230
Cr2677_A		0.2394	ug/L	0.02201	9.190	6.584
Cu3273_A		2.109	ug/L	0.4205	19.94	132.8
Fe2599_R		19.36	ug/L	1.927	9.953	55.18
K_7664_R		-4.124	ug/L	35.85	869.3	-72.37
Li6707_R		0.6543	ug/L	0.1328	20.30	14.38
Mg2025_A		4.307	ug/L	0.2873	6.672	-8.966
Mn2576_R		0.08582	ug/L	0.1975	230.1	-1.032
Mo2020_A		0.5765	ug/L	0.2455	42.59	3.424
Na5895_R		16.78	ug/L	11.30	67.36	44.91
Ni2316_A		0.4198	ug/L	0.2209	52.62	0.4149
Pb2203_A		0.3054	ug/L	0.5815	190.4	0.1947
Sb2068_A		0.5057	ug/L	0.008880	1.756	1.160
Se1960_A		-1.443	ug/L	0.5848	40.52	2.587
Si2516_R		43.39	ug/L	33.91	78.13	70.05
Sn1899_A		-0.4021	ug/L	0.08607	21.41	0.7146
Sr4215_R		0.1748	ug/L	0.02145	12.27	5.146
Ti3349_A		0.7465	ug/L	0.1794	24.04	19.91
Tl1908_A		0.2209	ug/L	0.8551	387.2	-1.500
V_2924_A		0.02220	ug/L	0.1346	606.4	-1.275
Zn2062_A		0.2003	ug/L	0.006361	3.176	1.599
Y_3600_R		17,145	Cts/S	1.8959	0.011058	17,145
Y_2243_A		9,995.1	Cts/S	101.04	1.0109	9,995.1
Y_3600_A		157,660	Cts/S	1,206.2	0.76507	157,660

SO7746-013S

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:50:09AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		67.75	ug/L	1.750	2.583	-832.2
Al3961_R	W	476,400	ug/L	3,484	0.7314	95,390
As1891_A		97.85	ug/L	3.170	3.239	0.3599
B_2089_A		470.5	ug/L	0.5314	0.1130	154.7
Ba4554_R		2,543	ug/L	33.86	1.331	20,670
Be3130_R		50.78	ug/L	0.04756	0.09365	861.6
Ca3158_R	W	234,600	ug/L	1,868	0.7961	61,840
Cd2265_A		220.8	ug/L	0.8778	0.3975	807.2
Co2286_A		823.4	ug/L	3.758	0.4564	814.5
Cr2677_A		328.9	ug/L	2.359	0.7173	853.0
Cu3273_A		1,608	ug/L	6.492	0.4038	3,862
Fe2599_R	W	664,800	ug/L	5,734	0.8626	257,900
K_7664_R		11,520	ug/L	223.7	1.942	1,270
Li6707_R		578.6	ug/L	0.9440	0.1631	1,142
Mg2025_A		121,300	ug/L	526.9	0.4344	9,844
Mn2576_R	W	12,250	ug/L	112.0	0.9143	27,290
Mo2020_A		42.22	ug/L	0.9100	2.156	33.98
Na5895_R		21,270	ug/L	197.5	0.9285	7,848
Ni2316_A		110.7	ug/L	4.344	3.924	262.3

SO7746-013S

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:50:09AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1,006	ug/L	6.493	0.6455	230.4
Sb2068_A		1.735	ug/L	1.228	70.79	4.371
Se1960_A		45.54	ug/L	0.5800	1.274	10.27
Si2516_R		40,550	ug/L	206.8	0.5099	4,281
Sn1899_A		475.4	ug/L	3.785	0.7962	63.02
Sr4215_R		2,848	ug/L	15.30	0.5371	39,910
Ti3349_A	W	10,220	ug/L	61.57	0.6024	61,170
Tl1908_A		87.52	ug/L	2.034	2.324	8.708
V_2924_A		3,059	ug/L	7.406	0.2421	7,432
Zn2062_A		1,423	ug/L	3.680	0.2586	1,124
Y_3600_R		17,475	Cts/S	73.259	0.41923	17,475
Y_2243_A		9,935.6	Cts/S	13.003	0.13088	9,935.6
Y_3600_A		155,700	Cts/S	25.493	0.016373	155,700

SO7746-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:54:25AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		25.72	ug/L	3.411	13.26	-1,570
Al3961_R	W	672,600	ug/L	8,989	1.336	135,000
As1891_A		19.48	ug/L	5.892	30.25	-9.307
B_2089_A		102.0	ug/L	0.5723	0.5612	36.83
Ba4554_R		846.0	ug/L	13.27	1.569	6,927
Be3130_R		4.313	ug/L	0.1054	2.444	-127.2
Ca3158_R	W	250,700	ug/L	3,466	1.383	66,230
Cd2265_A		-8.820	ug/L	1.306	14.81	129.1
Co2286_A		441.7	ug/L	0.7007	0.1586	463.9
Cr2677_A		170.6	ug/L	4.143	2.428	455.9
Cu3273_A		1,378	ug/L	10.92	0.7920	3,315
Fe2599_R	W	995,800	ug/L	16,780	1.686	387,100
K_7664_R		2,629	ug/L	142.4	5.415	235.3
Li6707_R		131.7	ug/L	12.22	9.280	267.0
Mg2025_A	W	203,100	ug/L	86.93	0.04279	16,390
Mn2576_R	W	17,640	ug/L	258.2	1.463	39,400
Mo2020_A		-5.571	ug/L	1.325	23.78	-3.898
Na5895_R		72,620	ug/L	882.8	1.216	26,820
Ni2316_A	F	-571.2	ug/L	11.01	1.928	43.69
Pb2203_A		41.69	ug/L	0.1279	0.3069	-0.7904
Sb2068_A		-15.41	ug/L	0.8969	5.820	4.501
Se1960_A	F	-50.07	ug/L	4.564	9.115	5.222
Si2516_R		38,720	ug/L	486.9	1.258	4,104
Sn1899_A		50.38	ug/L	0.8472	1.682	7.507
Sr4215_R		790.8	ug/L	11.55	1.460	11,100
Ti3349_A	W	19,970	ug/L	119.5	0.5987	117,800
Tl1908_A		-5.996	ug/L	1.985	33.10	-7.344
V_2924_A		4,080	ug/L	35.83	0.8781	9,789
Zn2062_A		995.5	ug/L	0.6080	0.06107	782.6
Y_3600_R		17,516	Cts/S	6.0322	0.034438	17,516
Y_2243_A		9,880.9	Cts/S	1.0266	0.010389	9,880.9
Y_3600_A		153,540	Cts/S	912.22	0.59410	153,540

SO7746-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:58:47AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7746-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 1:58:47AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		19.10	ug/L	3.457	18.10	-1,136
Al3961_R	W	441,200	ug/L	5,877	1.332	89,300
As1891_A		18.75	ug/L	3.972	21.18	-7.488
B_2089_A		54.38	ug/L	0.2960	0.5443	21.97
Ba4554_R		746.4	ug/L	9.505	1.273	6,168
Be3130_R		3.071	ug/L	0.1192	3.882	-34.81
Ca3158_R	W	203,900	ug/L	3,117	1.529	54,310
Cd2265_A		-5.788	ug/L	0.02360	0.4078	92.96
Co2286_A		313.2	ug/L	0.8686	0.2773	326.1
Cr2677_A		147.0	ug/L	1.563	1.063	396.1
Cu3273_A		997.7	ug/L	4.800	0.4812	2,484
Fe2599_R	W	714,900	ug/L	5,422	0.7585	280,200
K_7664_R		1,775	ug/L	116.9	6.587	136.8
Li6707_R		107.4	ug/L	9.725	9.059	220.8
Mg2025_A	W	127,900	ug/L	298.0	0.2329	10,420
Mn2576_R	W	9,661	ug/L	138.9	1.438	21,750
Mo2020_A		-5.777	ug/L	0.3207	5.550	-3.868
Na5895_R		11,470	ug/L	245.5	2.141	4,283
Ni2316_A	F	-399.5	ug/L	6.509	1.630	36.56
Pb2203_A		2,623	ug/L	20.78	0.7923	616.8
Sb2068_A		-11.66	ug/L	0.1993	1.709	3.384
Se1960_A		-41.28	ug/L	5.658	13.71	4.083
Si2516_R		46,620	ug/L	379.6	0.8141	4,966
Sn1899_A		41.61	ug/L	0.6114	1.470	6.433
Sr4215_R		1,581	ug/L	27.19	1.719	22,400
Ti3349_A	W	9,874	ug/L	7.584	0.07681	59,400
Tl1908_A		-3.857	ug/L	6.285	162.9	-4.635
V_2924_A		2,969	ug/L	8.941	0.3011	7,255
Zn2062_A		729.5	ug/L	1.674	0.2295	579.5
Y_3600_R		17,660	Cts/S	125.40	0.71009	17,660
Y_2243_A		9,980.3	Cts/S	31.505	0.31567	9,980.3
Y_3600_A		156,520	Cts/S	450.13	0.28760	156,520

SO7746-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:03:07AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		14.94	ug/L	3.463	23.18	-1,186
Al3961_R	W	493,900	ug/L	8,687	1.759	100,900
As1891_A		19.69	ug/L	4.657	23.65	-7.520
B_2089_A		65.41	ug/L	1.755	2.683	25.37
Ba4554_R		648.0	ug/L	6.666	1.029	5,415
Be3130_R		3.543	ug/L	0.1439	4.061	-74.86
Ca3158_R	W	220,500	ug/L	4,530	2.054	59,320
Cd2265_A		-5.322	ug/L	0.03267	0.6139	97.32
Co2286_A		328.0	ug/L	2.957	0.9014	345.2
Cr2677_A		116.7	ug/L	0.8404	0.7203	317.6
Cu3273_A		1,055	ug/L	7.274	0.6894	2,593
Fe2599_R	W	730,000	ug/L	6,456	0.8843	289,000
K_7664_R		1,931	ug/L	115.5	5.985	156.6
Li6707_R		104.5	ug/L	3.113	2.978	217.4
Mg2025_A	W	138,300	ug/L	1,063	0.7689	11,210
Mn2576_R	W	10,310	ug/L	206.0	1.997	23,440
Mo2020_A		-5.730	ug/L	1.162	20.27	-3.830
Na5895_R		14,050	ug/L	259.9	1.849	5,297
Ni2316_A	F	-430.6	ug/L	3.784	0.8788	26.43

SO7746-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:03:07AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1,689	ug/L	8.661	0.5127	391.6
Sb2068_A		-12.06	ug/L	1.239	10.27	3.406
Se1960_A		-39.12	ug/L	3.555	9.087	4.397
Si2516_R		34,960	ug/L	518.3	1.483	3,776
Sn1899_A		45.15	ug/L	1.576	3.490	6.859
Sr4215_R		1,461	ug/L	24.06	1.646	20,900
Ti3349_A	W	13,710	ug/L	16.73	0.1220	81,950
Tl1908_A		0.6615	ug/L	1.800	272.2	-4.559
V_2924_A		3,101	ug/L	2.726	0.08790	7,533
Zn2062_A		761.1	ug/L	5.392	0.7084	601.3
Y_3600_R		17,833	Cts/S	82.658	0.46352	17,833
Y_2243_A		9,927.1	Cts/S	84.787	0.85410	9,927.1
Y_3600_A		155,470	Cts/S	778.91	0.50099	155,470

SO7746-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:07:26AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		20.77	ug/L	3.514	16.92	-1,085
Al3961_R	W	545,000	ug/L	8,801	1.615	107,600
As1891_A		12.01	ug/L	2.531	21.07	-8.110
B_2089_A		90.79	ug/L	0.7209	0.7940	33.26
Ba4554_R		442.7	ug/L	10.10	2.282	3,590
Be3130_R		2.636	ug/L	0.1110	4.210	-58.86
Ca3158_R	W	317,400	ug/L	3,971	1.251	82,490
Cd2265_A		-6.188	ug/L	0.3164	5.114	88.75
Co2286_A		285.9	ug/L	0.6391	0.2235	298.7
Cr2677_A		96.24	ug/L	0.5003	0.5199	261.5
Cu3273_A		4,875	ug/L	16.82	0.3450	11,170
Fe2599_R	W	700,300	ug/L	13,240	1.890	267,800
K_7664_R		1,792	ug/L	82.99	4.631	135.4
Li6707_R		105.7	ug/L	0.03826	0.03619	212.3
Mg2025_A	W	142,900	ug/L	29.93	0.02094	11,520
Mn2576_R	W	11,580	ug/L	155.5	1.342	25,440
Mo2020_A		-5.389	ug/L	0.2852	5.291	-3.547
Na5895_R		32,490	ug/L	507.5	1.562	11,810
Ni2316_A	F	-424.0	ug/L	7.328	1.728	20.05
Pb2203_A		1,371	ug/L	6.716	0.4900	313.6
Sb2068_A		-4.145	ug/L	4.623	111.5	4.318
Se1960_A		-38.43	ug/L	2.397	6.239	4.459
Si2516_R		34,680	ug/L	408.8	1.179	3,617
Sn1899_A		45.70	ug/L	2.597	5.684	6.895
Sr4215_R		2,715	ug/L	48.77	1.796	37,510
Ti3349_A	W	11,110	ug/L	16.63	0.1498	65,360
Tl1908_A		-2.204	ug/L	1.869	84.81	-4.730
V_2924_A		2,878	ug/L	16.98	0.5902	6,879
Zn2062_A		1,086	ug/L	2.495	0.2298	853.0
Y_3600_R		17,226	Cts/S	76.709	0.44532	17,226
Y_2243_A		9,874.6	Cts/S	3.1156	0.031552	9,874.6
Y_3600_A		153,090	Cts/S	200.82	0.13118	153,090

SO7746-023

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:11:41AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7746-023

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:11:41AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		17.31	ug/L	0.7975	4.607	-1,189
Al3961_R	W	422,900	ug/L	5,115	1.209	84,740
As1891_A		20.35	ug/L	6.653	32.68	-7.547
B_2089_A		64.16	ug/L	1.050	1.636	25.17
Ba4554_R		922.4	ug/L	16.43	1.781	7,536
Be3130_R		3.130	ug/L	0.04710	1.505	8.912
Ca3158_R		108,400	ug/L	1,335	1.231	28,600
Cd2265_A		-5.896	ug/L	0.4581	7.770	97.95
Co2286_A		452.9	ug/L	2.529	0.5584	457.1
Cr2677_A		90.52	ug/L	1.879	2.076	254.2
Cu3273_A		958.6	ug/L	6.464	0.6743	2,399
Fe2599_R	W	751,500	ug/L	5,350	0.7118	291,700
K_7664_R		2,120	ug/L	128.0	6.036	175.7
Li6707_R		97.30	ug/L	8.967	9.217	199.1
Mg2025_A	W	138,300	ug/L	380.7	0.2752	11,300
Mn2576_R	W	15,350	ug/L	207.8	1.354	34,240
Mo2020_A		-5.506	ug/L	0.3365	6.111	-3.788
Na5895_R		65,110	ug/L	648.9	0.9965	24,020
Ni2316_A	F	-461.6	ug/L	3.971	0.8603	18.70
Pb2203_A		40.28	ug/L	2.417	6.001	3.324
Sb2068_A		-9.391	ug/L	1.959	20.86	3.818
Se1960_A		-36.00	ug/L	12.09	33.59	4.800
Si2516_R		43,970	ug/L	426.9	0.9709	4,636
Sn1899_A		40.24	ug/L	0.4079	1.014	6.270
Sr4215_R		437.8	ug/L	4.681	1.069	6,134
Ti3349_A	W	6,921	ug/L	5.348	0.07727	41,530
Tl1908_A		-0.1875	ug/L	1.357	723.8	-4.457
V_2924_A		3,298	ug/L	0.9217	0.02794	8,029
Zn2062_A		751.2	ug/L	2.901	0.3861	598.3
Y_3600_R		17,488	Cts/S	21.497	0.12292	17,488
Y_2243_A		10,008	Cts/S	18.589	0.18575	10,008
Y_3600_A		156,100	Cts/S	113.58	0.072763	156,100

SO7746-026

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:16:01AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		24.00	ug/L	1.372	5.716	-1,123
Al3961_R	W	492,500	ug/L	2,737	0.5556	98,450
As1891_A		25.30	ug/L	3.150	12.45	-6.917
B_2089_A		85.32	ug/L	1.687	1.978	31.70
Ba4554_R		413.8	ug/L	3.867	0.9345	3,401
Be3130_R		3.376	ug/L	0.05286	1.566	-123.8
Ca3158_R	W	268,100	ug/L	902.5	0.3366	70,540
Cd2265_A		-7.073	ug/L	0.1393	1.969	90.85
Co2286_A		292.5	ug/L	0.3444	0.1177	316.8
Cr2677_A		104.7	ug/L	0.1061	0.1013	283.0
Cu3273_A		1,273	ug/L	2.048	0.1609	3,039
Fe2599_R	W	719,200	ug/L	5,229	0.7271	278,400
K_7664_R		2,925	ug/L	152.0	5.197	268.6
Li6707_R		105.9	ug/L	4.444	4.195	215.3
Mg2025_A	W	133,600	ug/L	88.85	0.06649	10,820
Mn2576_R	W	10,950	ug/L	35.64	0.3256	24,330
Mo2020_A		-3.738	ug/L	0.6122	16.38	-2.246
Na5895_R		48,620	ug/L	317.2	0.6524	17,890
Ni2316_A	F	-409.3	ug/L	1.346	0.3288	33.03

SO7746-026

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:16:01AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		901.3	ug/L	0.7820	0.08676	205.1
Sb2068_A		-10.60	ug/L	0.4311	4.068	3.553
Se1960_A		-37.26	ug/L	6.944	18.64	4.510
Si2516_R		37,230	ug/L	116.6	0.3132	3,933
Sn1899_A		45.53	ug/L	2.361	5.187	6.905
Sr4215_R		1,697	ug/L	12.87	0.7585	23,740
Ti3349_A	W	17,120	ug/L	55.18	0.3222	100,800
Tl1908_A		0.2064	ug/L	1.881	911.1	-5.257
V_2924_A		2,816	ug/L	4.652	0.1652	6,743
Zn2062_A		789.3	ug/L	0.3900	0.04942	623.2
Y_3600_R		17,440	Cts/S	206.72	1.1853	17,440
Y_2243_A		9,921.3	Cts/S	1.6600	0.016731	9,921.3
Y_3600_A		153,150	Cts/S	348.31	0.22743	153,150

SO7772-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:20:17AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		15.99	ug/L	0.6818	4.263	-956.7
Al3961_R	W	658,700	ug/L	11,190	1.698	131,600
As1891_A		19.40	ug/L	4.532	23.36	-6.895
B_2089_A		45.44	ug/L	0.1092	0.2403	18.57
Ba4554_R		133.8	ug/L	2.812	2.101	1,135
Be3130_R		2.261	ug/L	0.1693	7.488	-171.4
Ca3158_R	W	585,200	ug/L	8,360	1.429	153,900
Cd2265_A		-5.275	ug/L	0.5258	9.968	77.56
Co2286_A		217.2	ug/L	0.1728	0.07955	240.5
Cr2677_A		23.21	ug/L	1.551	6.683	74.85
Cu3273_A		1,199	ug/L	2.369	0.1975	2,758
Fe2599_R	W	608,300	ug/L	5,631	0.9258	235,300
K_7664_R		3,059	ug/L	263.2	8.603	284.3
Li6707_R		114.5	ug/L	10.10	8.821	232.0
Mg2025_A	W	187,900	ug/L	345.5	0.1839	14,860
Mn2576_R	W	8,335	ug/L	144.1	1.729	18,510
Mo2020_A		-3.939	ug/L	0.7651	19.43	-2.232
Na5895_R		37,610	ug/L	588.2	1.564	13,830
Ni2316_A	F	-392.6	ug/L	1.516	0.3861	5.776
Pb2203_A		21.62	ug/L	1.897	8.775	-6.620
Sb2068_A		-11.63	ug/L	2.010	17.28	2.910
Se1960_A		-36.42	ug/L	7.059	19.38	4.267
Si2516_R		33,690	ug/L	512.1	1.520	3,565
Sn1899_A		41.80	ug/L	0.4461	1.067	6.268
Sr4215_R		784.8	ug/L	11.75	1.497	10,960
Ti3349_A	W	18,350	ug/L	74.10	0.4037	104,700
Tl1908_A		-4.420	ug/L	9.272	209.8	-5.609
V_2924_A		1,959	ug/L	2.264	0.1156	4,555
Zn2062_A		657.4	ug/L	3.383	0.5146	507.0
Y_3600_R		17,428	Cts/S	142.94	0.82015	17,428
Y_2243_A		9,687.2	Cts/S	0.31354	0.0032370	9,687.2
Y_3600_A		148,400	Cts/S	195.38	0.13166	148,400

SO7772-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:24:34AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO7772-002

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:24:34AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		14.19	ug/L	2.156	15.19	-636.8
Al3961_R	W	286,600	ug/L	4,564	1.593	55,780
As1891_A		32.08	ug/L	2.421	7.546	-4.082
B_2089_A		89.28	ug/L	2.647	2.965	31.77
Ba4554_R		439.5	ug/L	4.131	0.9399	3,501
Be3130_R		1.919	ug/L	0.4158	21.66	-6.734
Ca3158_R	W	1,433,000	ug/L	21,890	1.528	365,800
Cd2265_A		-3.684	ug/L	0.01117	0.3033	49.77
Co2286_A		275.6	ug/L	0.6895	0.2502	268.2
Cr2677_A		109.1	ug/L	0.7298	0.6689	280.8
Cu3273_A		572.6	ug/L	1.601	0.2797	1,414
Fe2599_R	W	421,700	ug/L	3,626	0.8599	158,400
K_7664_R		1,691	ug/L	92.15	5.451	121.5
Li6707_R		93.44	ug/L	4.914	5.259	185.2
Mg2025_A		85,100	ug/L	139.6	0.1641	6,638
Mn2576_R	W	7,404	ug/L	103.7	1.400	15,970
Mo2020_A		-1.226	ug/L	0.5997	48.91	-0.1084
Na5895_R		28,550	ug/L	369.7	1.295	10,190
Ni2316_A	F	-244.1	ug/L	1.788	0.7326	16.57
Pb2203_A		127.6	ug/L	2.042	1.600	24.60
Sb2068_A		-6.469	ug/L	0.3931	6.077	2.302
Se1960_A		-27.70	ug/L	6.032	21.78	3.406
Si2516_R		39,200	ug/L	383.8	0.9793	4,007
Sn1899_A		40.26	ug/L	6.613	16.43	5.992
Sr4215_R	W	20,020	ug/L	296.8	1.483	271,700
Ti3349_A		4,861	ug/L	28.85	0.5935	28,080
Tl1908_A		2.062	ug/L	3.641	176.6	-2.717
V_2924_A		1,758	ug/L	7.160	0.4073	4,122
Zn2062_A		388.4	ug/L	1.715	0.4415	295.8
Y_3600_R		16,920	Cts/S	104.44	0.61726	16,920
Y_2243_A		9,559.1	Cts/S	6.3686	0.066624	9,559.1
Y_3600_A		150,300	Cts/S	674.60	0.44883	150,300

SO7772-003

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:29:04AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		16.98	ug/L	8.961	52.76	-1,046
Al3961_R	W	322,700	ug/L	8,100	2.510	65,140
As1891_A		38.71	ug/L	2.268	5.858	-5.127
B_2089_A		71.38	ug/L	1.104	1.546	27.42
Ba4554_R		1,646	ug/L	51.96	3.157	13,490
Be3130_R		4.456	ug/L	0.05165	1.159	41.09
Ca3158_R	W	505,800	ug/L	11,880	2.349	134,300
Cd2265_A		-3.109	ug/L	1.011	32.52	93.12
Co2286_A		614.4	ug/L	0.007910	0.001287	608.9
Cr2677_A		211.5	ug/L	1.148	0.5429	558.7
Cu3273_A		747.9	ug/L	4.520	0.6043	1,895
Fe2599_R	W	668,700	ug/L	20,140	3.012	261,300
K_7664_R		4,749	ug/L	35.05	0.7381	485.1
Li6707_R		92.86	ug/L	2.489	2.680	191.6
Mg2025_A		54,540	ug/L	35.23	0.06459	4,440
Mn2576_R	W	33,030	ug/L	790.5	2.393	74,210
Mo2020_A		-1.380	ug/L	0.3816	27.65	-0.7509
Na5895_R		22,050	ug/L	438.8	1.990	8,195
Ni2316_A	F	-339.1	ug/L	13.25	3.907	50.58

SO7772-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:29:04AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		577.9	ug/L	0.1077	0.01863	132.8
Sb2068_A		-11.07	ug/L	0.5112	4.617	3.150
Se1960_A		-29.77	ug/L	6.107	20.51	5.399
Si2516_R		47,450	ug/L	1,067	2.248	5,033
Sn1899_A		41.13	ug/L	0.03111	0.07563	6.364
Sr4215_R	W	7,106	ug/L	168.5	2.372	100,300
Ti3349_A	W	5,983	ug/L	18.04	0.3016	35,670
Tl1908_A		-2.354	ug/L	1.773	75.35	-7.316
V_2924_A		2,890	ug/L	2.269	0.07850	6,973
Zn2062_A		648.3	ug/L	0.8248	0.1272	514.5
Y_3600_R		17,602	Cts/S	54.031	0.30695	17,602
Y_2243_A		9,970.7	Cts/S	10.454	0.10485	9,970.7
Y_3600_A		155,130	Cts/S	1,084.9	0.69935	155,130

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:33:19AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		515.5	ug/L	2.907	0.5640	11,480
Al3961_R		12,960	ug/L	336.7	2.597	12,870
As1891_A		499.6	ug/L	4.423	0.8854	235.1
B_2089_A		479.9	ug/L	3.879	0.8082	789.5
Ba4554_R		479.3	ug/L	16.50	3.441	19,290
Be3130_R		503.7	ug/L	13.93	2.766	47,010
Ca3158_R	W	13,180	ug/L	296.3	2.249	17,190
Cd2265_A		484.8	ug/L	4.281	0.8831	7,770
Co2286_A		505.9	ug/L	4.473	0.8842	2,446
Cr2677_A		522.6	ug/L	2.404	0.4601	6,648
Cu3273_A		495.1	ug/L	3.173	0.6409	5,831
Fe2599_R	W	13,300	ug/L	302.4	2.273	25,570
K_7664_R		12,990	ug/L	310.6	2.390	7,420
Li6707_R		507.0	ug/L	13.38	2.639	4,926
Mg2025_A		12,360	ug/L	109.7	0.8878	5,058
Mn2576_R		512.5	ug/L	14.11	2.753	5,660
Mo2020_A		506.5	ug/L	4.416	0.8720	2,009
Na5895_R	W	13,320	ug/L	255.5	1.918	24,300
Ni2316_A		523.0	ug/L	5.536	1.058	1,273
Pb2203_A		487.9	ug/L	3.190	0.6539	578.2
Sb2068_A		487.0	ug/L	5.157	1.059	322.5
Se1960_A		497.5	ug/L	5.963	1.199	183.0
Si2516_R		13,150	ug/L	335.9	2.555	6,846
Sn1899_A		494.3	ug/L	3.361	0.6799	325.0
Sr4215_R	W	528.4	ug/L	12.91	2.444	36,660
Ti3349_A		515.4	ug/L	3.635	0.7053	15,530
Tl1908_A		500.0	ug/L	4.598	0.9196	368.8
V_2924_A		503.4	ug/L	1.700	0.3377	6,103
Zn2062_A		488.4	ug/L	4.185	0.8568	1,936
Y_3600_R		17,306	Cts/S	207.29	1.1978	17,306
Y_2243_A		9,980.2	Cts/S	87.026	0.87198	9,980.2
Y_3600_A		156,660	Cts/S	1,200.7	0.76645	156,660

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:37:27AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:37:27AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2495	ug/L	0.3182	127.5	-19.19
Al3961_R		8.194	ug/L	6.152	75.08	2.617
As1891_A		1.042	ug/L	1.056	101.3	-4.009
B_2089_A		-0.3264	ug/L	0.2336	71.57	4.167
Ba4554_R		0.3571	ug/L	0.3240	90.72	67.01
Be3130_R		0.2048	ug/L	0.02116	10.33	16.21
Ca3158_R		7.424	ug/L	1.324	17.83	-5.452
Cd2265_A		0.1967	ug/L	0.006819	3.466	-1.155
Co2286_A		0.09499	ug/L	0.1877	197.6	4.858
Cr2677_A		0.3613	ug/L	0.3603	99.70	8.205
Cu3273_A		2.232	ug/L	0.1275	5.713	135.1
Fe2599_R		23.34	ug/L	0.07578	0.3246	63.34
K_7664_R		-6.124	ug/L	28.89	471.8	-74.14
Li6707_R		0.7946	ug/L	0.02380	2.995	15.87
Mg2025_A		4.733	ug/L	1.174	24.81	-8.894
Mn2576_R		0.5714	ug/L	0.1771	30.99	4.328
Mo2020_A		0.4429	ug/L	0.1637	36.96	2.931
Na5895_R		7.053	ug/L	7.202	102.1	27.55
Ni2316_A		0.3050	ug/L	0.1465	48.02	0.1488
Pb2203_A		0.08426	ug/L	0.04062	48.21	-0.07287
Sb2068_A		0.5911	ug/L	0.09407	15.92	1.230
Se1960_A		-2.214	ug/L	0.5433	24.53	2.337
Si2516_R		56.84	ug/L	19.69	34.63	77.61
Sn1899_A		-0.05187	ug/L	0.002158	4.161	0.9557
Sr4215_R		-0.001175	ug/L	0.1832	15,600	-6.983
Ti3349_A		0.9214	ug/L	0.07007	7.605	25.40
Tl1908_A		0.07238	ug/L	1.155	1,596	-1.636
V_2924_A		0.09754	ug/L	0.01015	10.40	-0.3390
Zn2062_A		0.1641	ug/L	0.0008400	0.5121	1.473
Y_3600_R		17,301	Cts/S	95.352	0.55114	17,301
Y_2243_A		10,115	Cts/S	71.277	0.70465	10,115
Y_3600_A		158,750	Cts/S	350.67	0.22090	158,750

SO7772-004

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:41:52AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		12.16	ug/L	5.776	47.51	-1,032
Al3961_R	W	468,400	ug/L	13,040	2.783	93,550
As1891_A		13.46	ug/L	2.234	16.59	-7.625
B_2089_A		59.31	ug/L	1.560	2.630	23.37
Ba4554_R		323.7	ug/L	8.272	2.555	2,671
Be3130_R		1.830	ug/L	0.2007	10.97	7.097
Ca3158_R		72,330	ug/L	2,064	2.854	19,010
Cd2265_A		-5.986	ug/L	1.094	18.28	80.97
Co2286_A		250.9	ug/L	2.242	0.8938	253.8
Cr2677_A		106.1	ug/L	1.337	1.261	285.3
Cu3273_A		888.5	ug/L	1.813	0.2041	2,189
Fe2599_R	W	656,900	ug/L	22,230	3.384	254,200
K_7664_R		1,184	ug/L	174.8	14.77	66.42
Li6707_R		87.51	ug/L	3.818	4.364	179.3
Mg2025_A	W	141,000	ug/L	1,263	0.8958	11,390
Mn2576_R	W	9,039	ug/L	219.3	2.426	20,080
Mo2020_A		-1.001	ug/L	0.2900	28.98	-0.01534
Na5895_R		72,390	ug/L	2,258	3.118	26,610
Ni2316_A	F	-406.8	ug/L	13.50	3.318	14.52

SO7772-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:41:52AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		18.44	ug/L	2.416	13.10	-3.201
Sb2068_A		-8.051	ug/L	6.733	83.63	3.567
Se1960_A		-35.32	ug/L	7.582	21.47	4.283
Si2516_R		40,630	ug/L	980.5	2.413	4,273
Sn1899_A		38.90	ug/L	1.947	5.005	6.024
Sr4215_R		328.4	ug/L	10.93	3.327	4,585
Ti3349_A		4,227	ug/L	7.562	0.1789	24,960
Tl1908_A		-1.051	ug/L	0.8070	76.76	-3.347
V_2924_A		2,356	ug/L	12.32	0.5228	5,641
Zn2062_A		669.2	ug/L	5.036	0.7526	526.9
Y_3600_R		17,435	Cts/S	93.850	0.53830	17,435
Y_2243_A		9,890.4	Cts/S	50.870	0.51434	9,890.4
Y_3600_A		153,610	Cts/S	161.26	0.10498	153,610

SO7772-066

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:46:08AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.06476	ug/L	0.05941	91.74	-26.91
Al3961_R		34.27	ug/L	11.08	32.34	28.53
As1891_A		1.422	ug/L	0.4363	30.67	-3.921
B_2089_A		-0.9551	ug/L	0.2667	27.92	3.208
Ba4554_R		-0.1862	ug/L	0.03483	18.71	45.44
Be3130_R		0.06972	ug/L	0.04504	64.61	3.649
Ca3158_R		24.06	ug/L	1.579	6.564	16.33
Cd2265_A		0.03506	ug/L	0.02136	60.92	-3.849
Co2286_A		-0.1721	ug/L	0.1133	65.81	3.641
Cr2677_A		-0.1003	ug/L	0.1896	189.1	2.277
Cu3273_A		1.873	ug/L	0.06955	3.713	132.4
Fe2599_R		52.98	ug/L	4.856	9.165	120.8
K_7664_R		-0.06731	ug/L	5.327	7,915	-71.01
Li6707_R		-0.9529	ug/L	1.155	121.2	-1.046
Mg2025_A		9.613	ug/L	2.459	25.58	-7.066
Mn2576_R		0.6624	ug/L	0.03099	4.678	5.340
Mo2020_A		-0.08899	ug/L	0.07224	81.17	0.8153
Na5895_R		4.918	ug/L	9.718	197.6	23.85
Ni2316_A		0.3628	ug/L	0.09423	25.97	0.3359
Pb2203_A		0.5472	ug/L	0.3923	71.70	0.4955
Sb2068_A		0.09635	ug/L	0.1470	152.6	0.9190
Se1960_A		-1.635	ug/L	0.7353	44.98	2.613
Si2516_R		24.11	ug/L	22.80	94.60	61.02
Sn1899_A		-0.1167	ug/L	0.8545	732.5	0.9344
Sr4215_R		0.07811	ug/L	0.005806	7.433	-1.524
Ti3349_A		0.4835	ug/L	0.1211	25.06	12.16
Tl1908_A		0.4341	ug/L	0.2062	47.51	-1.396
V_2924_A		0.08931	ug/L	0.1154	129.2	-0.4024
Zn2062_A		0.4520	ug/L	0.05461	12.08	2.697
Y_3600_R		17,377	Cts/S	107.01	0.61579	17,377
Y_2243_A		10,365	Cts/S	26.423	0.25492	10,365
Y_3600_A		160,540	Cts/S	807.90	0.50324	160,540

SO8492-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:50:33AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8492-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:50:33AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.589	ug/L	0.8586	54.05	-28.38
Al3961_R		314.2	ug/L	26.06	8.294	58.44
As1891_A		9.713	ug/L	2.262	23.29	-3.605
B_2089_A		66.33	ug/L	0.8765	1.321	26.47
Ba4554_R		5.583	ug/L	0.1632	2.924	97.89
Be3130_R		0.1013	ug/L	0.3550	350.6	-30.69
Ca3158_R		8,294	ug/L	55.59	0.6702	2,158
Cd2265_A		-0.01137	ug/L	0.1796	1,580	-3.643
Co2286_A		0.8760	ug/L	0.08807	10.05	9.366
Cr2677_A		22.18	ug/L	0.3545	1.598	60.88
Cu3273_A		17.81	ug/L	0.5841	3.280	147.4
Fe2599_R		1,190	ug/L	23.99	2.016	477.3
K_7664_R		3,266	ug/L	68.08	2.084	307.1
Li6707_R		-0.6408	ug/L	3.016	470.7	6.940
Mg2025_A		36,500	ug/L	29.87	0.08182	3,027
Mn2576_R		57.74	ug/L	3.045	5.273	128.5
Mo2020_A		13.17	ug/L	0.3241	2.462	11.82
Na5895_R		48,950	ug/L	552.2	1.128	17,930
Ni2316_A		18.51	ug/L	0.06109	0.3301	8.786
Pb2203_A		-0.3017	ug/L	0.9507	315.2	-0.2651
Sb2068_A		0.5635	ug/L	0.3362	59.67	0.9331
Se1960_A		-7.711	ug/L	9.867	128.0	2.610
Si2516_R		22,760	ug/L	92.05	0.4044	2,412
Sn1899_A		0.01694	ug/L	1.330	7,850	0.9997
Sr4215_R		54.82	ug/L	1.226	2.237	756.7
Ti3349_A		2,322	ug/L	0.9563	0.04118	14,200
Tl1908_A		3.918	ug/L	0.7473	19.07	-1.461
V_2924_A		2.509	ug/L	0.06844	2.728	8.364
Zn2062_A		119.7	ug/L	0.05252	0.04387	97.78
Y_3600_R		17,366	Cts/S	61.871	0.35629	17,366
Y_2243_A		10,191	Cts/S	12.218	0.11990	10,191
Y_3600_A		159,120	Cts/S	54.424	0.034203	159,120

SO8595-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:54:55AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-2.580	ug/L	2.863	111.0	-5,598
Al3961_R	W	218,700	ug/L	696.5	0.3185	226,300
As1891_A		475.9	ug/L	1.462	0.3072	200.9
B_2089_A		329.6	ug/L	0.4124	0.1251	587.6
Ba4554_R	W	2,486	ug/L	13.48	0.5425	104,100
Be3130_R		20.28	ug/L	0.07364	0.3631	1,555
Ca3158_R	W	94,760	ug/L	153.9	0.1624	129,000
Cd2265_A		6.046	ug/L	0.4419	7.310	628.4
Co2286_A		263.3	ug/L	0.5072	0.1927	1,332
Cr2677_A	W	1,061	ug/L	2.404	0.2266	13,350
Cu3273_A	W	7,660	ug/L	11.38	0.1485	87,540
Fe2599_R	F	675,000	ug/L	4,366	0.6469	1,352,000
K_7664_R	W	26,640	ug/L	55.09	0.2068	15,950
Li6707_R		194.3	ug/L	1.037	0.5336	1,975
Mg2025_A		19,470	ug/L	36.10	0.1854	7,893
Mn2576_R	W	4,862	ug/L	12.75	0.2623	55,840
Mo2020_A	W	1,788	ug/L	2.206	0.1234	7,021
Na5895_R		13,520	ug/L	29.40	0.2175	25,730
Ni2316_A		510.9	ug/L	2.037	0.3988	2,295

SO8595-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:54:55AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A	W	1,362	ug/L	2.319	0.1703	1,593
Sb2068_A		44.39	ug/L	0.8992	2.026	50.42
Se1960_A	F	-36.67	ug/L	0.7442	2.029	5.832
Si2516_R		2,824	ug/L	18.82	0.6665	1,556
Sn1899_A		244.8	ug/L	1.110	0.4536	159.9
Sr4215_R	W	2,323	ug/L	7.160	0.3082	168,200
Ti3349_A	W	6,734	ug/L	44.39	0.6591	199,500
Tl1908_A		-4.805	ug/L	0.1174	2.442	-12.53
V_2924_A		473.9	ug/L	0.007847	0.001656	5,559
Zn2062_A	W	8,606	ug/L	18.34	0.2131	33,810
Y_3600_R		18,053	Cts/S	175.39	0.97152	18,053
Y_2243_A		9,885.9	Cts/S	32.380	0.32754	9,885.9
Y_3600_A		154,080	Cts/S	1,271.7	0.82538	154,080

SO8595-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 2:59:13AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		25.31	ug/L	0.1234	0.4874	-1,227
Al3961_R	W	229,600	ug/L	2,725	1.187	46,130
As1891_A		497.0	ug/L	6.585	1.325	38.78
B_2089_A		343.3	ug/L	1.560	0.4544	128.9
Ba4554_R		2,616	ug/L	37.86	1.447	21,330
Be3130_R		21.61	ug/L	0.3629	1.679	320.3
Ca3158_R		102,300	ug/L	790.3	0.7722	27,060
Cd2265_A		4.783	ug/L	0.1327	2.775	139.2
Co2286_A		285.4	ug/L	0.4836	0.1695	298.2
Cr2677_A		1,141	ug/L	23.21	2.035	2,939
Cu3273_A	W	7,818	ug/L	135.2	1.729	18,360
Fe2599_R	W	790,000	ug/L	4,953	0.6270	307,400
K_7664_R		27,900	ug/L	429.5	1.539	3,188
Li6707_R		199.5	ug/L	5.795	2.905	400.3
Mg2025_A		20,460	ug/L	25.65	0.1254	1,685
Mn2576_R	W	5,298	ug/L	73.94	1.396	11,820
Mo2020_A		1,894	ug/L	1.304	0.06886	1,520
Na5895_R		14,120	ug/L	176.3	1.248	5,232
Ni2316_A		511.8	ug/L	1.046	0.2043	505.9
Pb2203_A		1,500	ug/L	4.218	0.2812	358.6
Sb2068_A		39.87	ug/L	2.407	6.036	11.02
Se1960_A	F	-51.99	ug/L	1.918	3.689	3.070
Si2516_R		2,967	ug/L	119.3	4.020	354.8
Sn1899_A		267.1	ug/L	0.9858	0.3690	36.41
Sr4215_R		2,430	ug/L	31.70	1.305	34,170
Ti3349_A	W	7,116	ug/L	77.60	1.091	43,080
Tl1908_A		-1.730	ug/L	1.867	107.9	-3.575
V_2924_A		505.4	ug/L	10.46	2.070	1,210
Zn2062_A	W	9,396	ug/L	29.51	0.3141	7,539
Y_3600_R		17,532	Cts/S	222.43	1.2687	17,532
Y_2243_A		10,093	Cts/S	14.621	0.14487	10,093
Y_3600_A		157,470	Cts/S	1,527.0	0.96971	157,470

SO8595-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:03:32AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8595-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:03:32AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		458.5	ug/L	5.027	1.096	4,605
Al3961_R	W	229,000	ug/L	3,028	1.322	234,200
As1891_A		923.4	ug/L	9.963	1.079	410.6
B_2089_A		759.1	ug/L	6.892	0.9079	1,273
Ba4554_R	W	2,910	ug/L	35.15	1.208	120,500
Be3130_R		477.0	ug/L	4.049	0.8490	45,490
Ca3158_R	W	100,200	ug/L	920.3	0.9181	134,900
Cd2265_A		431.4	ug/L	2.223	0.5153	7,316
Co2286_A		706.7	ug/L	6.594	0.9330	3,426
Cr2677_A	W	1,521	ug/L	3.035	0.1995	19,030
Cu3273_A	W	8,084	ug/L	0.7113	0.008798	91,940
Fe2599_R	F	674,500	ug/L	14,390	2.133	1,336,000
K_7664_R	W	36,640	ug/L	467.0	1.274	21,710
Li6707_R		671.0	ug/L	6.753	1.006	6,722
Mg2025_A		24,400	ug/L	210.0	0.8607	9,830
Mn2576_R	W	5,315	ug/L	58.44	1.100	60,350
Mo2020_A	W	2,241	ug/L	22.33	0.9963	8,730
Na5895_R		19,150	ug/L	260.5	1.360	36,030
Ni2316_A		970.0	ug/L	2.928	0.3018	3,357
Pb2203_A	W	1,771	ug/L	11.91	0.6727	2,057
Sb2068_A		486.7	ug/L	2.620	0.5384	336.8
Se1960_A		426.1	ug/L	4.110	0.9646	170.0
Si2516_R		3,580	ug/L	30.91	0.8636	1,945
Sn1899_A		680.6	ug/L	2.868	0.4213	439.4
Sr4215_R	W	2,813	ug/L	39.68	1.411	201,300
Ti3349_A	W	7,258	ug/L	18.65	0.2569	214,100
Tl1908_A		418.0	ug/L	1.443	0.3454	295.4
V_2924_A		925.4	ug/L	0.3445	0.03723	10,900
Zn2062_A	W	8,984	ug/L	54.96	0.6117	35,010
Y_3600_R		17,844	Cts/S	110.59	0.61978	17,844
Y_2243_A		9,807.2	Cts/S	78.770	0.80319	9,807.2
Y_3600_A		153,410	Cts/S	19.256	0.012552	153,410

SO8595-001P

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:07:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		41.77	ug/L	3.413	8.170	-3,753
Al3961_R	W	220,300	ug/L	2,682	1.217	225,300
As1891_A		496.1	ug/L	2.531	0.5102	215.5
B_2089_A		640.1	ug/L	3.396	0.5306	1,083
Ba4554_R	W	3,671	ug/L	41.81	1.139	152,000
Be3130_R		57.52	ug/L	0.6086	1.058	5,121
Ca3158_R	W	92,620	ug/L	1,199	1.294	124,700
Cd2265_A		178.6	ug/L	0.8655	0.4847	3,313
Co2286_A		588.7	ug/L	3.210	0.5453	2,912
Cr2677_A		962.7	ug/L	8.436	0.8763	12,040
Cu3273_A	W	6,695	ug/L	52.22	0.7800	76,060
Fe2599_R	F	569,000	ug/L	12,490	2.195	1,127,000
K_7664_R	W	34,010	ug/L	416.3	1.224	20,150
Li6707_R		584.2	ug/L	5.238	0.8966	5,853
Mg2025_A		21,340	ug/L	137.6	0.6447	8,739
Mn2576_R	W	3,283	ug/L	42.17	1.284	37,230
Mo2020_A	W	1,600	ug/L	10.12	0.6329	6,338
Na5895_R		19,290	ug/L	266.4	1.381	36,290
Ni2316_A		642.7	ug/L	15.53	2.416	2,458

SO8595-001P

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:07:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A	W	1,261	ug/L	2.983	0.2366	1,485
Sb2068_A		75.78	ug/L	0.8692	1.147	66.16
Se1960_A		44.83	ug/L	2.267	5.057	32.94
Si2516_R		4,201	ug/L	34.86	0.8297	2,283
Sn1899_A		553.3	ug/L	1.965	0.3551	363.6
Sr4215_R	W	2,687	ug/L	26.35	0.9809	192,300
Ti3349_A	W	7,077	ug/L	65.62	0.9273	208,400
Tl1908_A		66.79	ug/L	0.002413	0.003613	42.34
V_2924_A		825.6	ug/L	5.624	0.6812	9,761
Zn2062_A	W	7,675	ug/L	17.12	0.2230	30,430
Y_3600_R		17,845	Cts/S	53.433	0.29943	17,845
Y_2243_A		9,975.5	Cts/S	53.041	0.53172	9,975.5
Y_3600_A		153,220	Cts/S	682.09	0.44518	153,220

SO8595-001S

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:12:03AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		42.63	ug/L	3.500	8.211	-3,921
Al3961_R	W	228,800	ug/L	7,363	3.218	233,400
As1891_A		531.4	ug/L	3.410	0.6416	228.6
B_2089_A		671.0	ug/L	3.043	0.4534	1,121
Ba4554_R	W	3,772	ug/L	135.4	3.590	155,700
Be3130_R		58.13	ug/L	1.950	3.355	5,139
Ca3158_R	W	98,140	ug/L	3,081	3.140	131,700
Cd2265_A		175.3	ug/L	0.08138	0.04642	3,230
Co2286_A		605.1	ug/L	0.1642	0.02713	2,952
Cr2677_A		938.8	ug/L	8.244	0.8781	11,820
Cu3273_A	W	6,972	ug/L	67.64	0.9702	79,660
Fe2599_R	F	588,800	ug/L	12,680	2.153	1,163,000
K_7664_R	W	34,900	ug/L	1,112	3.186	20,620
Li6707_R		582.6	ug/L	22.33	3.832	5,821
Mg2025_A		22,990	ug/L	4.972	0.02163	9,282
Mn2576_R	W	2,968	ug/L	91.18	3.072	33,550
Mo2020_A	W	1,753	ug/L	1.218	0.06949	6,850
Na5895_R		19,700	ug/L	643.8	3.268	36,950
Ni2316_A		609.6	ug/L	10.16	1.666	2,379
Pb2203_A	W	1,401	ug/L	0.4023	0.02872	1,628
Sb2068_A		71.28	ug/L	0.3803	0.5335	62.73
Se1960_A		40.38	ug/L	3.130	7.752	31.28
Si2516_R		3,969	ug/L	111.5	2.810	2,154
Sn1899_A		555.7	ug/L	1.084	0.1952	360.0
Sr4215_R	W	2,771	ug/L	87.49	3.157	197,800
Ti3349_A	W	7,469	ug/L	84.69	1.134	221,200
Tl1908_A		65.59	ug/L	0.5127	0.7817	40.87
V_2924_A		812.5	ug/L	8.170	1.006	9,655
Zn2062_A	W	8,440	ug/L	34.45	0.4081	32,990
Y_3600_R		17,799	Cts/S	217.89	1.2242	17,799
Y_2243_A		9,834.1	Cts/S	24.601	0.25016	9,834.1
Y_3600_A		154,110	Cts/S	1,026.0	0.66577	154,110

SO8619-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:16:19AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8619-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:16:19AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5195	ug/L	0.3811	73.35	-81.54
Al3961_R		3,481	ug/L	30.13	0.8656	3,505
As1891_A		6.934	ug/L	0.1675	2.416	-1.401
B_2089_A		44.40	ug/L	0.7293	1.642	76.90
Ba4554_R		280.8	ug/L	1.797	0.6399	11,390
Be3130_R		0.1888	ug/L	0.06843	36.24	5.544
Ca3158_R	W	48,710	ug/L	335.3	0.6884	63,920
Cd2265_A		1.993	ug/L	0.07278	3.652	34.52
Co2286_A		3.289	ug/L	0.08950	2.721	21.88
Cr2677_A		14.20	ug/L	0.4010	2.824	188.5
Cu3273_A		78.25	ug/L	2.559	3.271	1,024
Fe2599_R		8,052	ug/L	65.04	0.8077	15,570
K_7664_R		10,660	ug/L	104.0	0.9753	6,112
Li6707_R		5.370	ug/L	0.8504	15.84	60.61
Mg2025_A		3,344	ug/L	38.07	1.138	1,367
Mn2576_R	W	1,940	ug/L	11.58	0.5972	21,550
Mo2020_A		14.16	ug/L	0.05048	0.3565	57.70
Na5895_R		889.7	ug/L	1.812	0.2036	1,646
Ni2316_A		10.27	ug/L	0.1937	1.887	37.21
Pb2203_A		30.69	ug/L	0.5224	1.702	36.47
Sb2068_A		-0.7804	ug/L	1.124	144.1	0.3308
Se1960_A		-0.8352	ug/L	0.1266	15.16	3.399
Si2516_R		745.5	ug/L	10.33	1.385	436.1
Sn1899_A		36.05	ug/L	0.9899	2.746	24.86
Sr4215_R		221.6	ug/L	2.017	0.9100	15,460
Ti3349_A		152.1	ug/L	2.949	1.938	4,615
Tl1908_A		0.2956	ug/L	0.5321	180.0	-3.056
V_2924_A		7.618	ug/L	0.2399	3.149	83.73
Zn2062_A		295.0	ug/L	3.610	1.224	1,183
Y_3600_R		17,398	Cts/S	96.409	0.55412	17,398
Y_2243_A		10,083	Cts/S	51.832	0.51403	10,083
Y_3600_A		157,920	Cts/S	1,258.1	0.79670	157,920

SO8550-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:20:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1748	ug/L	0.07730	44.23	-42.91
Al3961_R		8.057	ug/L	4.428	54.96	10.26
As1891_A		1.440	ug/L	1.189	82.53	-3.774
B_2089_A		4.508	ug/L	0.2372	5.261	11.72
Ba4554_R		25.01	ug/L	0.3527	1.410	1,023
Be3130_R		0.06577	ug/L	0.05085	77.32	3.035
Ca3158_R		9,485	ug/L	23.83	0.2513	11,980
Cd2265_A		-0.01314	ug/L	0.05167	393.3	-3.148
Co2286_A		1.242	ug/L	0.05118	4.121	10.27
Cr2677_A		0.6744	ug/L	0.03112	4.615	13.87
Cu3273_A		5.200	ug/L	0.3316	6.376	168.5
Fe2599_R		1,812	ug/L	17.34	0.9568	3,386
K_7664_R		629.5	ug/L	46.18	7.337	283.9
Li6707_R		1.584	ug/L	1.489	93.99	23.26
Mg2025_A		5,082	ug/L	60.02	1.181	2,036
Mn2576_R	W	1,540	ug/L	1.764	0.1145	16,480
Mo2020_A		1.058	ug/L	0.03330	3.148	5.143
Na5895_R	W	35,580	ug/L	68.09	0.1914	62,840
Ni2316_A		53.67	ug/L	74.26	138.4	129.0

SO8550-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:20:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.7421	ug/L	0.5176	69.76	0.7432
Sb2068_A		0.4265	ug/L	1.071	251.0	1.118
Se1960_A		-1.716	ug/L	0.2802	16.33	2.782
Si2516_R		3,843	ug/L	429.5	11.18	1,963
Sn1899_A		-0.02352	ug/L	0.5053	2,148	0.9485
Sr4215_R		25.17	ug/L	0.1674	0.6650	1,685
Ti3349_A		0.8729	ug/L	0.1017	11.65	23.54
Tl1908_A		-0.6357	ug/L	0.5164	81.24	-3.271
V_2924_A		1.168	ug/L	0.1462	12.52	6.131
Zn2062_A		15.80	ug/L	14.48	91.63	62.94
Y_3600_R		16,757	Cts/S	1,136.8	6.7839	16,757
Y_2243_A		9,858.9	Cts/S	76.623	0.77720	9,858.9
Y_3600_A		156,220	Cts/S	1,512.6	0.96830	156,220

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:25:01AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		516.9	ug/L	1.135	0.2196	11,540
Al3961_R		12,920	ug/L	181.0	1.401	13,030
As1891_A		493.4	ug/L	1.080	0.2189	234.8
B_2089_A		473.5	ug/L	1.667	0.3521	788.2
Ba4554_R	W	464.9	ug/L	3.999	0.8601	19,010
Be3130_R		493.5	ug/L	5.597	1.134	46,790
Ca3158_R		13,090	ug/L	216.2	1.652	17,340
Cd2265_A		475.4	ug/L	0.5185	0.1091	7,707
Co2286_A		502.1	ug/L	0.4632	0.09226	2,456
Cr2677_A		519.1	ug/L	3.779	0.7281	6,618
Cu3273_A		491.9	ug/L	0.8954	0.1820	5,805
Fe2599_R		13,080	ug/L	176.4	1.349	25,530
K_7664_R		13,000	ug/L	254.1	1.955	7,540
Li6707_R		500.1	ug/L	5.834	1.167	4,937
Mg2025_A		12,370	ug/L	43.51	0.3517	5,122
Mn2576_R		507.7	ug/L	8.964	1.766	5,695
Mo2020_A		504.7	ug/L	0.3553	0.07041	2,024
Na5895_R	W	13,410	ug/L	191.2	1.426	24,850
Ni2316_A		522.0	ug/L	0.1165	0.02232	1,285
Pb2203_A		481.6	ug/L	0.2454	0.05096	577.2
Sb2068_A		483.0	ug/L	1.062	0.2199	323.6
Se1960_A		494.3	ug/L	1.556	0.3148	183.9
Si2516_R		13,230	ug/L	235.8	1.783	6,996
Sn1899_A		486.6	ug/L	0.4741	0.09743	323.7
Sr4215_R	W	532.5	ug/L	8.447	1.586	37,530
Ti3349_A		513.7	ug/L	2.749	0.5352	15,510
Tl1908_A		498.0	ug/L	1.856	0.3727	371.5
V_2924_A		496.5	ug/L	2.610	0.5258	6,031
Zn2062_A		476.8	ug/L	1.165	0.2443	1,912
Y_3600_R		17,579	Cts/S	113.21	0.64404	17,579
Y_2243_A		10,094	Cts/S	9.5578	0.094686	10,094
Y_3600_A		156,980	Cts/S	195.75	0.12470	156,980

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:29:09AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:29:09AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2783	ug/L	0.04005	14.39	-18.76
Al3961_R		11.52	ug/L	1.683	14.61	5.953
As1891_A		1.376	ug/L	0.3780	27.47	-3.893
B_2089_A		0.1860	ug/L	0.06687	35.95	5.071
Ba4554_R		0.2355	ug/L	0.04401	18.68	62.68
Be3130_R		0.2845	ug/L	0.03230	11.35	23.85
Ca3158_R		7.229	ug/L	1.415	19.57	-5.743
Cd2265_A		0.1471	ug/L	0.01019	6.928	-1.980
Co2286_A		-0.2201	ug/L	0.009015	4.096	3.362
Cr2677_A		0.08005	ug/L	0.06232	77.84	4.623
Cu3273_A		2.631	ug/L	0.7376	28.04	141.2
Fe2599_R		27.47	ug/L	5.053	18.40	71.88
K_7664_R		21.91	ug/L	8.561	39.07	-58.49
Li6707_R		0.6132	ug/L	0.3803	62.03	14.24
Mg2025_A		6.380	ug/L	1.935	30.33	-8.325
Mn2576_R		0.4206	ug/L	0.02253	5.356	2.678
Mo2020_A		0.7984	ug/L	0.04184	5.240	4.413
Na5895_R		12.15	ug/L	12.24	100.8	37.25
Ni2316_A		0.1236	ug/L	0.08012	64.83	-0.2780
Pb2203_A		0.3551	ug/L	0.4741	133.5	0.2556
Sb2068_A		0.4031	ug/L	0.1515	37.59	1.115
Se1960_A		-1.608	ug/L	0.8508	52.92	2.590
Si2516_R		88.65	ug/L	45.81	51.68	94.93
Sn1899_A		-0.05157	ug/L	0.3005	582.7	0.9670
Sr4215_R		0.3514	ug/L	0.07614	21.66	17.58
Ti3349_A		0.9266	ug/L	0.1279	13.80	25.83
Tl1908_A		0.2569	ug/L	0.4720	183.7	-1.513
V_2924_A		0.1125	ug/L	0.1548	137.6	-0.1697
Zn2062_A		0.1622	ug/L	0.02275	14.02	1.484
Y_3600_R		17,445	Cts/S	110.03	0.63075	17,445
Y_2243_A		10,234	Cts/S	4.3791	0.042790	10,234
Y_3600_A		160,370	Cts/S	5.8989	0.0036780	160,370

SO8592-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:33:34AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2310	ug/L	0.008607	3.726	-23.44
Al3961_R		99.21	ug/L	9.177	9.250	112.2
As1891_A		1.909	ug/L	1.208	63.29	-3.464
B_2089_A		17.84	ug/L	0.1523	0.8538	33.45
Ba4554_R		15.29	ug/L	0.07903	0.5170	652.5
Be3130_R		0.03731	ug/L	0.07131	191.1	-0.5945
Ca3158_R		24,340	ug/L	264.6	1.087	31,110
Cd2265_A		0.08279	ug/L	0.001031	1.246	-2.417
Co2286_A		5.614	ug/L	0.2322	4.137	30.74
Cr2677_A		2.158	ug/L	0.1243	5.761	30.59
Cu3273_A		10.18	ug/L	0.4373	4.297	214.6
Fe2599_R		621.5	ug/L	3.889	0.6258	1,187
K_7664_R		2,838	ug/L	38.58	1.360	1,533
Li6707_R		6.813	ug/L	0.3411	5.006	72.73
Mg2025_A		2,121	ug/L	3.929	0.1852	831.6
Mn2576_R	W	1,072	ug/L	12.52	1.168	11,600
Mo2020_A		35.11	ug/L	0.04530	0.1290	136.5
Na5895_R	F	294,200	ug/L	6,894	2.343	525,500
Ni2316_A		10.89	ug/L	0.5484	5.038	26.13

SO8592-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:33:34AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.189	ug/L	0.2079	17.49	1.176
Sb2068_A		0.1089	ug/L	0.7854	721.3	0.8769
Se1960_A		-0.7972	ug/L	0.9523	119.5	2.955
Si2516_R		6,860	ug/L	86.54	1.261	3,520
Sn1899_A		-0.5717	ug/L	0.09222	16.13	0.5860
Sr4215_R		140.8	ug/L	2.343	1.664	9,561
Ti3349_A		21.80	ug/L	0.5596	2.568	623.0
Tl1908_A		0.05720	ug/L	0.1586	277.3	-2.378
V_2924_A		2.517	ug/L	0.2557	10.16	21.41
Zn2062_A		1.719	ug/L	0.1116	6.495	7.410
Y_3600_R		16,947	Cts/S	22.947	0.13541	16,947
Y_2243_A		9,714.1	Cts/S	9.2728	0.095457	9,714.1
Y_3600_A		149,180	Cts/S	2,070.4	1.3879	149,180

SO8592-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:38:02AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2310	ug/L	1.549	670.8	-26.43
Al3961_R		158.5	ug/L	9.784	6.173	29.87
As1891_A		12.47	ug/L	0.6352	5.094	-3.289
B_2089_A		15.88	ug/L	0.3173	1.998	10.02
Ba4554_R		16.70	ug/L	0.2882	1.726	184.2
Be3130_R		0.1417	ug/L	0.1751	123.5	-0.4293
Ca3158_R		24,660	ug/L	15.92	0.06453	6,338
Cd2265_A		0.2597	ug/L	0.1666	64.14	-3.402
Co2286_A		5.472	ug/L	0.4947	9.041	9.720
Cr2677_A		0.7169	ug/L	0.5693	79.41	5.534
Cu3273_A		19.59	ug/L	2.352	12.00	152.1
Fe2599_R		649.1	ug/L	26.73	4.119	264.1
K_7664_R		2,763	ug/L	123.2	4.458	244.6
Li6707_R		8.867	ug/L	0.7317	8.252	25.02
Mg2025_A		2,234	ug/L	23.05	1.032	172.8
Mn2576_R		1,089	ug/L	3.935	0.3612	2,373
Mo2020_A		34.58	ug/L	0.01364	0.03945	28.77
Na5895_R	W	299,400	ug/L	2,252	0.7523	107,700
Ni2316_A		11.83	ug/L	1.240	10.49	5.369
Pb2203_A		1.267	ug/L	1.726	136.2	0.1221
Sb2068_A		0.7600	ug/L	4.671	614.7	0.9310
Se1960_A		-8.525	ug/L	2.846	33.38	2.554
Si2516_R		6,994	ug/L	95.69	1.368	760.7
Sn1899_A		-1.419	ug/L	0.3979	28.04	0.7973
Sr4215_R		142.2	ug/L	0.5980	0.4205	1,940
Ti3349_A		21.45	ug/L	0.4135	1.927	126.1
Tl1908_A		0.6026	ug/L	3.094	513.5	-1.754
V_2924_A		3.250	ug/L	0.5063	15.58	5.066
Zn2062_A		4.516	ug/L	0.7822	17.32	4.419
Y_3600_R		17,069	Cts/S	150.43	0.88132	17,069
Y_2243_A		10,060	Cts/S	49.185	0.48892	10,060
Y_3600_A		155,920	Cts/S	560.56	0.35953	155,920

SO8592-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:42:25AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8592-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:42:25AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		475.9	ug/L	0.2955	0.06211	10,310
Al3961_R		10,740	ug/L	186.6	1.737	10,670
As1891_A		469.8	ug/L	2.398	0.5104	218.1
B_2089_A		464.0	ug/L	1.964	0.4232	754.6
Ba4554_R		464.0	ug/L	8.993	1.938	18,650
Be3130_R		479.2	ug/L	6.585	1.374	44,650
Ca3158_R	W	29,120	ug/L	535.4	1.838	37,950
Cd2265_A		450.1	ug/L	2.184	0.4853	7,114
Co2286_A		475.6	ug/L	2.624	0.5516	2,270
Cr2677_A		485.0	ug/L	0.02020	0.004165	5,973
Cu3273_A		466.4	ug/L	1.136	0.2437	5,318
Fe2599_R		6,175	ug/L	104.0	1.684	11,860
K_7664_R		12,990	ug/L	189.4	1.459	7,408
Li6707_R		489.5	ug/L	6.872	1.404	4,750
Mg2025_A		6,979	ug/L	50.78	0.7276	2,826
Mn2576_R	W	1,509	ug/L	29.64	1.964	16,650
Mo2020_A		522.9	ug/L	2.569	0.4913	2,046
Na5895_R	F	288,000	ug/L	8,294	2.880	524,400
Ni2316_A		502.5	ug/L	3.047	0.6064	1,197
Pb2203_A		446.4	ug/L	2.531	0.5670	522.0
Sb2068_A		458.4	ug/L	2.750	0.5999	299.4
Se1960_A		484.4	ug/L	3.386	0.6990	175.9
Si2516_R		7,049	ug/L	121.5	1.723	3,690
Sn1899_A		462.6	ug/L	2.393	0.5174	300.2
Sr4215_R		649.2	ug/L	11.53	1.776	44,990
Ti3349_A		514.2	ug/L	3.690	0.7177	14,990
Tl1908_A		450.1	ug/L	2.872	0.6382	326.7
V_2924_A		473.0	ug/L	1.286	0.2718	5,544
Zn2062_A		464.1	ug/L	1.864	0.4017	1,815
Y_3600_R		17,282	Cts/S	255.76	1.4799	17,282
Y_2243_A		9,848.2	Cts/S	54.615	0.55457	9,848.2
Y_3600_A		151,620	Cts/S	71.785	0.047346	151,620

SO8592-001P

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:46:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.50	ug/L	0.03360	0.06280	1,101
Al3961_R		2,214	ug/L	101.9	4.604	2,211
As1891_A		103.8	ug/L	1.649	1.588	44.10
B_2089_A		483.6	ug/L	1.265	0.2615	760.5
Ba4554_R	W	1,912	ug/L	87.28	4.565	76,620
Be3130_R		51.31	ug/L	2.240	4.366	4,774
Ca3158_R	W	26,640	ug/L	1,229	4.615	34,690
Cd2265_A		236.2	ug/L	0.6885	0.2915	3,673
Co2286_A		512.3	ug/L	1.763	0.3442	2,407
Cr2677_A		214.0	ug/L	1.300	0.6076	2,590
Cu3273_A		264.3	ug/L	0.8951	0.3386	3,002
Fe2599_R		1,697	ug/L	70.02	4.127	3,270
K_7664_R		13,420	ug/L	655.8	4.888	7,648
Li6707_R		505.1	ug/L	22.24	4.403	4,898
Mg2025_A		6,704	ug/L	4.527	0.06753	2,674
Mn2576_R	W	1,564	ug/L	74.90	4.787	17,250
Mo2020_A		139.9	ug/L	0.6502	0.4649	539.5
Na5895_R	F	296,200	ug/L	14,070	4.751	538,900
Ni2316_A		546.3	ug/L	2.475	0.4531	1,267

SO8592-001P

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:46:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		95.42	ug/L	0.2382	0.2496	109.7
Sb2068_A		98.49	ug/L	0.4025	0.4087	61.40
Se1960_A		103.0	ug/L	1.308	1.269	39.46
Si2516_R		7,887	ug/L	352.8	4.474	4,118
Sn1899_A		479.3	ug/L	1.522	0.3175	306.2
Sr4215_R		671.3	ug/L	30.57	4.553	46,480
Ti3349_A		545.9	ug/L	1.472	0.2697	15,620
Tl1908_A		93.93	ug/L	0.5671	0.6038	65.92
V_2924_A		519.1	ug/L	0.2535	0.04883	6,013
Zn2062_A		502.3	ug/L	2.885	0.5744	1,936
Y_3600_R		17,277	Cts/S	424.09	2.4547	17,277
Y_2243_A		9,696.0	Cts/S	20.186	0.20819	9,696.0
Y_3600_A		148,890	Cts/S	714.70	0.48004	148,890

SO8592-001S

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:51:00AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.33	ug/L	0.5168	0.9691	1,100
Al3961_R		2,273	ug/L	52.27	2.299	2,253
As1891_A		105.8	ug/L	1.177	1.113	44.61
B_2089_A		488.4	ug/L	2.069	0.4237	761.6
Ba4554_R	W	1,958	ug/L	37.56	1.918	77,880
Be3130_R		52.52	ug/L	0.9563	1.821	4,850
Ca3158_R	W	26,950	ug/L	463.6	1.720	34,830
Cd2265_A		239.2	ug/L	0.8987	0.3758	3,687
Co2286_A		519.1	ug/L	1.772	0.3413	2,418
Cr2677_A		214.2	ug/L	0.4599	0.2147	2,601
Cu3273_A		263.5	ug/L	0.01863	0.007067	3,002
Fe2599_R		1,719	ug/L	21.94	1.277	3,287
K_7664_R		13,640	ug/L	255.4	1.872	7,719
Li6707_R		520.8	ug/L	8.074	1.550	5,012
Mg2025_A		6,797	ug/L	33.95	0.4995	2,688
Mn2576_R	W	1,592	ug/L	24.62	1.547	17,410
Mo2020_A		141.3	ug/L	0.4560	0.3228	540.3
Na5895_R	F	300,400	ug/L	11,150	3.712	542,500
Ni2316_A		552.9	ug/L	0.1247	0.02255	1,271
Pb2203_A		96.22	ug/L	1.302	1.353	109.7
Sb2068_A		99.68	ug/L	0.2144	0.2150	61.58
Se1960_A		102.6	ug/L	2.839	2.768	38.96
Si2516_R		7,974	ug/L	139.9	1.754	4,132
Sn1899_A		487.5	ug/L	0.2726	0.05591	308.9
Sr4215_R		686.3	ug/L	13.28	1.936	47,160
Ti3349_A		546.2	ug/L	0.3274	0.05993	15,680
Tl1908_A		95.39	ug/L	0.6700	0.7024	66.39
V_2924_A		517.8	ug/L	1.477	0.2852	6,014
Zn2062_A		506.3	ug/L	1.160	0.2292	1,935
Y_3600_R		17,136	Cts/S	104.30	0.60868	17,136
Y_2243_A		9,614.4	Cts/S	36.563	0.38030	9,614.4
Y_3600_A		149,300	Cts/S	232.81	0.15593	149,300

SO8592-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:55:20AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8592-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:55:20AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1511	ug/L	0.08608	56.98	-21.07
Al3961_R		-20.89	ug/L	5.689	27.23	66.02
As1891_A		1.303	ug/L	0.6669	51.18	-3.730
B_2089_A		10.38	ug/L	0.2747	2.646	20.98
Ba4554_R		6.307	ug/L	0.3301	5.234	302.8
Be3130_R		0.03719	ug/L	0.01502	40.37	0.5574
Ca3158_R	W	110,300	ug/L	1,380	1.252	142,400
Cd2265_A		-0.04278	ug/L	0.008830	20.64	-4.788
Co2286_A		0.1344	ug/L	0.1322	98.35	4.846
Cr2677_A		1.590	ug/L	0.3062	19.26	23.27
Cu3273_A		7.216	ug/L	0.6060	8.398	185.2
Fe2599_R		94.34	ug/L	3.510	3.721	197.6
K_7664_R		5,055	ug/L	80.43	1.591	2,815
Li6707_R		51.76	ug/L	2.127	4.110	505.1
Mg2025_A		4,319	ug/L	13.77	0.3188	1,703
Mn2576_R		266.5	ug/L	3.909	1.467	2,914
Mo2020_A		9.600	ug/L	0.04842	0.5044	38.12
Na5895_R	W	69,650	ug/L	1,329	1.908	125,700
Ni2316_A		0.6865	ug/L	0.1011	14.72	1.284
Pb2203_A		0.2119	ug/L	0.3586	169.2	0.07420
Sb2068_A		-0.3776	ug/L	1.401	371.0	0.5522
Se1960_A		-3.007	ug/L	0.8706	28.96	2.017
Si2516_R		8,637	ug/L	90.51	1.048	4,466
Sn1899_A		0.8730	ug/L	0.4817	55.18	1.507
Sr4215_R		267.9	ug/L	4.577	1.709	18,390
Ti3349_A		0.05889	ug/L	0.1324	224.7	-0.6874
Tl1908_A		-0.6302	ug/L	0.3654	57.98	-2.271
V_2924_A		-0.5979	ug/L	0.2806	46.92	-10.31
Zn2062_A		3.138	ug/L	0.04643	1.480	12.89
Y_3600_R		17,126	Cts/S	120.72	0.70489	17,126
Y_2243_A		9,710.9	Cts/S	20.397	0.21004	9,710.9
Y_3600_A		151,950	Cts/S	112.50	0.074038	151,950

SO8592-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:59:42AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1660	ug/L	0.3086	185.9	-20.56
Al3961_R		-23.04	ug/L	11.59	50.31	72.41
As1891_A		0.6017	ug/L	0.04933	8.198	-4.016
B_2089_A		13.06	ug/L	0.3128	2.395	24.76
Ba4554_R		39.65	ug/L	0.1287	0.3245	1,603
Be3130_R		0.04355	ug/L	0.02092	48.03	1.240
Ca3158_R	W	122,000	ug/L	1,854	1.520	155,200
Cd2265_A		0.1750	ug/L	0.01147	6.553	-1.373
Co2286_A		1.150	ug/L	0.06170	5.366	9.505
Cr2677_A		0.9507	ug/L	0.4756	50.02	19.69
Cu3273_A		5.123	ug/L	0.3155	6.158	159.7
Fe2599_R		105.1	ug/L	0.9345	0.8893	214.7
K_7664_R		6,781	ug/L	110.9	1.635	3,742
Li6707_R		12.88	ug/L	0.7811	6.063	129.8
Mg2025_A		13,660	ug/L	70.93	0.5193	5,351
Mn2576_R	W	4,718	ug/L	73.13	1.550	50,810
Mo2020_A		6.051	ug/L	0.05765	0.9528	23.83
Na5895_R	W	106,000	ug/L	1,698	1.603	188,300
Ni2316_A		1.714	ug/L	0.1363	7.955	3.583

SO8592-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 3:59:42AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.7828	ug/L	1.257	160.6	0.7331
Sb2068_A		-0.4582	ug/L	0.2468	53.87	0.4950
Se1960_A		-2.476	ug/L	0.03591	1.450	3.004
Si2516_R		6,448	ug/L	122.1	1.893	3,295
Sn1899_A		0.5051	ug/L	0.01340	2.652	1.260
Sr4215_R		445.4	ug/L	7.575	1.701	30,130
Ti3349_A		-0.2468	ug/L	0.04261	17.27	-9.560
Tl1908_A		-0.4956	ug/L	0.5727	115.6	-5.433
V_2924_A		0.8755	ug/L	0.3892	44.46	-10.68
Zn2062_A		0.9462	ug/L	0.06455	6.822	4.384
Y_3600_R		16,867	Cts/S	41.273	0.24470	16,867
Y_2243_A		9,610.0	Cts/S	40.270	0.41904	9,610.0
Y_3600_A		149,970	Cts/S	189.95	0.12666	149,970

SO8592-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:04:05AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2817	ug/L	0.2122	75.32	-31.12
Al3961_R		10.45	ug/L	3.146	30.09	4.846
As1891_A		1.174	ug/L	0.2026	17.26	-3.926
B_2089_A		-0.1674	ug/L	0.04454	26.60	4.387
Ba4554_R		0.5006	ug/L	0.1794	35.84	72.76
Be3130_R		0.03780	ug/L	0.02695	71.31	0.6735
Ca3158_R		38.25	ug/L	2.131	5.572	34.77
Cd2265_A		0.03630	ug/L	0.01892	52.13	-3.755
Co2286_A		-0.1019	ug/L	0.01069	10.50	3.871
Cr2677_A		-0.2956	ug/L	0.06951	23.52	-0.2620
Cu3273_A		2.879	ug/L	0.1942	6.747	142.6
Fe2599_R		3.440	ug/L	4.331	125.9	25.11
K_7664_R		4.719	ug/L	9.569	202.8	-67.89
Li6707_R		0.3186	ug/L	0.9499	298.2	11.25
Mg2025_A		10.78	ug/L	0.1724	1.599	-6.376
Mn2576_R		1.732	ug/L	0.1319	7.614	17.14
Mo2020_A		-0.03385	ug/L	0.03569	105.4	1.013
Na5895_R		78.25	ug/L	7.596	9.707	157.3
Ni2316_A		0.08550	ug/L	0.1141	133.5	-0.4158
Pb2203_A		-0.1093	ug/L	0.9103	833.1	-0.2994
Sb2068_A		-0.2556	ug/L	0.2543	99.50	0.6533
Se1960_A		-2.025	ug/L	0.4303	21.24	2.395
Si2516_R		19.77	ug/L	17.78	89.93	58.44
Sn1899_A		-0.09486	ug/L	0.06624	69.83	0.9220
Sr4215_R		0.04030	ug/L	0.1386	343.8	-4.141
Ti3349_A		-0.09486	ug/L	0.1643	173.2	-5.603
Tl1908_A		-0.5912	ug/L	0.09342	15.80	-2.120
V_2924_A		0.01509	ug/L	0.2612	1,731	-1.322
Zn2062_A		0.3533	ug/L	0.05833	16.51	2.225
Y_3600_R		17,290	Cts/S	12.776	0.073890	17,290
Y_2243_A		10,062	Cts/S	93.972	0.93390	10,062
Y_3600_A		158,630	Cts/S	404.02	0.25470	158,630

SO8616-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:08:30AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8616-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:08:30AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01672	ug/L	0.3783	2,263	-32.98
Al3961_R		73.45	ug/L	1.459	1.987	81.40
As1891_A		1.584	ug/L	0.8108	51.18	-3.576
B_2089_A		8.480	ug/L	0.06348	0.7486	17.47
Ba4554_R		267.9	ug/L	1.047	0.3907	10,700
Be3130_R		0.05815	ug/L	0.001350	2.321	2.573
Ca3158_R		17,670	ug/L	40.93	0.2316	22,830
Cd2265_A		0.2171	ug/L	0.03440	15.85	0.1980
Co2286_A		2.584	ug/L	0.1595	6.173	16.09
Cr2677_A		2.177	ug/L	0.3064	14.08	29.66
Cu3273_A		7.141	ug/L	0.5578	7.811	180.1
Fe2599_R		1,356	ug/L	3.507	0.2587	2,597
K_7664_R		502.2	ug/L	26.77	5.331	216.7
Li6707_R		71.19	ug/L	0.2451	0.3443	692.1
Mg2025_A		449.8	ug/L	0.6941	0.1543	165.9
Mn2576_R		123.8	ug/L	0.1919	0.1550	1,353
Mo2020_A		2.189	ug/L	0.03956	1.807	9.386
Na5895_R	F	266,000	ug/L	19,260	7.242	480,400
Ni2316_A		17.87	ug/L	0.1130	0.6325	42.19
Pb2203_A		4.581	ug/L	0.4779	10.43	5.065
Sb2068_A		4.933	ug/L	0.4548	9.221	3.974
Se1960_A		-1.317	ug/L	0.6640	50.41	2.565
Si2516_R		285.6	ug/L	10.16	3.556	193.9
Sn1899_A		0.6047	ug/L	0.03476	5.747	1.314
Sr4215_R		61.41	ug/L	0.3990	0.6497	4,214
Ti3349_A		-0.5091	ug/L	0.1748	34.33	-16.93
Tl1908_A		-1.115	ug/L	0.1730	15.51	-2.466
V_2924_A		-0.003283	ug/L	0.5921	18,040	-2.185
Zn2062_A	W	1,084	ug/L	6.698	0.6179	4,116
Y_3600_R		17,138	Cts/S	74.548	0.43498	17,138
Y_2243_A		9,550.9	Cts/S	3.0396	0.031826	9,550.9
Y_3600_A		147,680	Cts/S	58.242	0.039437	147,680

SO8616-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:12:58AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05889	ug/L	0.2721	462.0	-29.86
Al3961_R		80.10	ug/L	1.998	2.494	87.71
As1891_A		1.631	ug/L	0.07977	4.891	-3.556
B_2089_A		9.582	ug/L	0.01440	0.1503	19.16
Ba4554_R		242.8	ug/L	5.269	2.170	9,615
Be3130_R		0.09539	ug/L	0.01624	17.02	5.989
Ca3158_R		18,460	ug/L	206.1	1.117	23,630
Cd2265_A		0.1645	ug/L	0.04323	26.28	-0.8416
Co2286_A		2.559	ug/L	0.1586	6.197	16.02
Cr2677_A		1.819	ug/L	0.08955	4.924	25.37
Cu3273_A		7.351	ug/L	0.7102	9.661	182.5
Fe2599_R		1,057	ug/L	16.73	1.583	2,010
K_7664_R		476.8	ug/L	1.533	0.3216	200.4
Li6707_R		21.57	ug/L	0.4292	1.990	213.3
Mg2025_A		464.2	ug/L	0.7666	0.1652	171.9
Mn2576_R		109.1	ug/L	0.9881	0.9055	1,181
Mo2020_A		0.7747	ug/L	0.07046	9.095	4.031
Na5895_R	F	253,000	ug/L	5,323	2.104	452,700
Ni2316_A		19.71	ug/L	0.09916	0.5031	46.01

SO8616-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:12:58AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.437	ug/L	0.3435	14.09	2.630
Sb2068_A		4.924	ug/L	0.2007	4.076	3.966
Se1960_A		-1.251	ug/L	0.8821	70.50	2.586
Si2516_R		272.3	ug/L	16.54	6.074	185.4
Sn1899_A		0.4377	ug/L	0.1909	43.61	1.213
Sr4215_R		60.96	ug/L	0.9648	1.583	4,144
Ti3349_A		-0.5029	ug/L	0.08046	16.00	-16.82
Tl1908_A		-0.7560	ug/L	0.1047	13.84	-2.207
V_2924_A		0.4315	ug/L	0.06923	16.04	3.000
Zn2062_A		852.7	ug/L	3.911	0.4587	3,247
Y_3600_R		16,980	Cts/S	43.340	0.25525	16,980
Y_2243_A		9,577.5	Cts/S	41.020	0.42830	9,577.5
Y_3600_A		147,980	Cts/S	102.20	0.069064	147,980

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:17:25AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		513.3	ug/L	3.349	0.6524	11,340
Al3961_R		13,100	ug/L	286.1	2.184	12,900
As1891_A		491.4	ug/L	0.6585	0.1340	231.9
B_2089_A	W	471.5	ug/L	0.6812	0.1445	778.4
Ba4554_R	W	470.4	ug/L	11.89	2.527	18,770
Be3130_R		498.7	ug/L	9.100	1.825	46,140
Ca3158_R	W	13,310	ug/L	215.4	1.618	17,210
Cd2265_A		473.8	ug/L	0.5228	0.1103	7,618
Co2286_A		502.2	ug/L	0.2154	0.04289	2,436
Cr2677_A		517.6	ug/L	5.090	0.9834	6,528
Cu3273_A		485.3	ug/L	2.364	0.4871	5,668
Fe2599_R	W	13,260	ug/L	209.3	1.578	25,270
K_7664_R	W	13,190	ug/L	209.3	1.587	7,468
Li6707_R		502.4	ug/L	7.591	1.511	4,840
Mg2025_A		12,260	ug/L	19.78	0.1614	5,033
Mn2576_R		514.0	ug/L	11.50	2.238	5,627
Mo2020_A		504.0	ug/L	0.9048	0.1795	2,005
Na5895_R	W	13,650	ug/L	232.8	1.706	24,690
Ni2316_A		523.8	ug/L	0.3246	0.06196	1,279
Pb2203_A		479.8	ug/L	2.005	0.4179	570.4
Sb2068_A		478.3	ug/L	0.8339	0.1743	317.8
Se1960_A		492.5	ug/L	0.2481	0.05038	181.8
Si2516_R		13,080	ug/L	235.2	1.798	6,754
Sn1899_A		486.0	ug/L	0.3274	0.06736	320.6
Sr4215_R	W	536.1	ug/L	9.190	1.714	36,870
Ti3349_A		512.4	ug/L	4.292	0.8376	15,310
Tl1908_A		494.9	ug/L	0.2762	0.05581	366.2
V_2924_A		494.2	ug/L	3.541	0.7165	5,940
Zn2062_A		477.1	ug/L	1.303	0.2731	1,897
Y_3600_R		17,156	Cts/S	118.37	0.68996	17,156
Y_2243_A		10,012	Cts/S	6.7621	0.067543	10,012
Y_3600_A		155,310	Cts/S	718.00	0.46230	155,310

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:21:32AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:21:32AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1253	ug/L	0.04164	33.23	-27.59
Al3961_R		11.38	ug/L	3.991	35.07	5.780
As1891_A		0.6184	ug/L	0.9534	154.2	-4.194
B_2089_A		0.04307	ug/L	0.02939	68.25	4.743
Ba4554_R		0.4893	ug/L	0.6227	127.3	72.54
Be3130_R		0.2988	ug/L	0.05174	17.31	25.04
Ca3158_R		12.74	ug/L	6.973	54.73	1.506
Cd2265_A		0.1265	ug/L	0.03796	30.00	-2.284
Co2286_A		0.05210	ug/L	0.07638	146.6	4.624
Cr2677_A		0.2166	ug/L	0.1612	74.45	6.306
Cu3273_A		2.943	ug/L	0.1696	5.762	142.6
Fe2599_R		21.60	ug/L	1.969	9.115	60.14
K_7664_R		-2.362	ug/L	1.149	48.67	-72.17
Li6707_R		1.248	ug/L	0.08411	6.741	20.31
Mg2025_A		3.816	ug/L	0.4133	10.83	-9.225
Mn2576_R		0.6534	ug/L	0.1278	19.55	5.241
Mo2020_A		0.4709	ug/L	0.1574	33.42	3.029
Na5895_R		82.37	ug/L	9.448	11.47	165.3
Ni2316_A		0.3168	ug/L	0.4533	143.1	0.1760
Pb2203_A		0.09802	ug/L	0.9620	981.5	-0.05538
Sb2068_A		0.7244	ug/L	0.2396	33.08	1.311
Se1960_A		-1.443	ug/L	0.4340	30.07	2.606
Si2516_R		45.64	ug/L	31.65	69.35	72.03
Sn1899_A		0.09412	ug/L	0.2115	224.7	1.047
Sr4215_R		0.2415	ug/L	0.04739	19.62	9.850
Ti3349_A		0.5532	ug/L	0.006167	1.115	14.09
Tl1908_A		-0.2181	ug/L	0.2558	117.3	-1.841
V_2924_A		-0.01205	ug/L	0.03699	307.0	-1.689
Zn2062_A		0.1367	ug/L	0.09168	67.08	1.356
Y_3600_R		17,339	Cts/S	38.798	0.22376	17,339
Y_2243_A		10,062	Cts/S	16.972	0.16867	10,062
Y_3600_A		157,870	Cts/S	884.19	0.56007	157,870

SO8616-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:25:57AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1153	ug/L	0.08649	75.03	-35.44
Al3961_R		80.61	ug/L	1.254	1.555	90.85
As1891_A		1.967	ug/L	0.2020	10.27	-3.404
B_2089_A		12.25	ug/L	0.01909	0.1559	23.23
Ba4554_R		228.2	ug/L	6.007	2.632	9,064
Be3130_R		0.1496	ug/L	0.06657	44.50	10.96
Ca3158_R		21,350	ug/L	622.8	2.917	27,410
Cd2265_A		0.1999	ug/L	0.01939	9.699	-0.1178
Co2286_A		2.385	ug/L	0.1861	7.802	15.21
Cr2677_A		1.983	ug/L	0.09216	4.646	27.35
Cu3273_A		7.141	ug/L	0.6241	8.740	180.1
Fe2599_R		1,309	ug/L	42.72	3.265	2,491
K_7664_R		479.7	ug/L	13.36	2.785	202.7
Li6707_R		20.02	ug/L	1.228	6.135	199.1
Mg2025_A		491.8	ug/L	3.990	0.8112	182.5
Mn2576_R		126.7	ug/L	2.871	2.267	1,375
Mo2020_A		0.8353	ug/L	0.09788	11.72	4.256
Na5895_R	F	283,800	ug/L	5,104	1.798	509,300
Ni2316_A		27.38	ug/L	0.04454	0.1627	63.84

SO8616-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:25:57AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.243	ug/L	0.1339	5.967	2.411
Sb2068_A		4.816	ug/L	0.1655	3.435	3.900
Se1960_A		-1.266	ug/L	1.197	94.58	2.587
Si2516_R		307.2	ug/L	9.939	3.235	203.6
Sn1899_A		-0.001081	ug/L	0.3443	31,840	0.9359
Sr4215_R		69.78	ug/L	2.029	2.908	4,758
Ti3349_A		-0.2455	ug/L	0.3048	124.1	-9.485
Tl1908_A		-0.5664	ug/L	0.1044	18.43	-2.084
V_2924_A		0.03224	ug/L	0.6719	2,084	-1.701
Zn2062_A		842.0	ug/L	2.027	0.2407	3,203
Y_3600_R		17,028	Cts/S	101.76	0.59760	17,028
Y_2243_A		9,567.4	Cts/S	7.5339	0.078745	9,567.4
Y_3600_A		147,720	Cts/S	328.88	0.22264	147,720

SO8616-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:30:25AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2152	ug/L	0.01181	5.485	-39.87
Al3961_R		84.71	ug/L	6.538	7.718	91.72
As1891_A		2.461	ug/L	0.3207	13.03	-3.191
B_2089_A		7.626	ug/L	0.1065	1.397	16.16
Ba4554_R		283.4	ug/L	3.822	1.349	11,180
Be3130_R		0.1026	ug/L	0.1059	103.2	6.535
Ca3158_R		18,210	ug/L	213.0	1.170	23,240
Cd2265_A		0.2860	ug/L	0.005536	1.936	1.476
Co2286_A		2.622	ug/L	0.007308	0.2787	16.33
Cr2677_A		2.546	ug/L	0.2642	10.38	33.92
Cu3273_A		10.86	ug/L	0.01862	0.1715	219.4
Fe2599_R		1,641	ug/L	16.13	0.9825	3,102
K_7664_R		562.7	ug/L	11.45	2.035	248.3
Li6707_R		15.58	ug/L	0.5108	3.278	155.9
Mg2025_A		467.7	ug/L	1.443	0.3085	173.5
Mn2576_R		123.3	ug/L	1.541	1.250	1,330
Mo2020_A		0.2930	ug/L	0.03412	11.65	2.199
Na5895_R	F	306,100	ug/L	7,155	2.337	546,100
Ni2316_A		18.00	ug/L	0.2507	1.393	43.02
Pb2203_A		3.833	ug/L	0.3889	10.15	4.236
Sb2068_A		4.349	ug/L	0.3507	8.063	3.629
Se1960_A		-1.841	ug/L	1.690	91.78	2.398
Si2516_R		313.3	ug/L	16.16	5.157	205.5
Sn1899_A		0.004395	ug/L	0.1191	2,709	0.9409
Sr4215_R		66.50	ug/L	1.141	1.716	4,509
Ti3349_A		-0.06268	ug/L	0.07408	118.2	-4.260
Tl1908_A		-0.2754	ug/L	0.4195	152.3	-1.878
V_2924_A		-0.04300	ug/L	0.1345	312.8	-2.517
Zn2062_A	W	1,079	ug/L	0.5361	0.04970	4,109
Y_3600_R		16,930	Cts/S	115.52	0.68235	16,930
Y_2243_A		9,583.3	Cts/S	7.4202	0.077428	9,583.3
Y_3600_A		146,810	Cts/S	704.75	0.48004	146,810

SO8616-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:34:53AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8616-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:34:53AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.008119	ug/L	0.4398	5,418	-33.58
Al3961_R		75.19	ug/L	0.6672	0.8874	83.29
As1891_A		1.530	ug/L	0.5659	37.00	-3.585
B_2089_A		9.576	ug/L	0.08887	0.9281	18.99
Ba4554_R		218.4	ug/L	0.6303	0.2886	8,580
Be3130_R		0.07660	ug/L	0.01286	16.79	4.203
Ca3158_R		19,780	ug/L	196.6	0.9940	25,110
Cd2265_A		0.4124	ug/L	0.006464	1.567	3.210
Co2286_A		2.523	ug/L	0.1738	6.891	15.74
Cr2677_A		1.899	ug/L	0.04494	2.366	26.35
Cu3273_A		9.232	ug/L	0.1878	2.035	203.0
Fe2599_R		1,409	ug/L	7.013	0.4979	2,650
K_7664_R		546.0	ug/L	56.18	10.29	237.5
Li6707_R		10.23	ug/L	0.7669	7.496	104.5
Mg2025_A		473.3	ug/L	2.818	0.5954	174.2
Mn2576_R		125.4	ug/L	1.204	0.9597	1,346
Mo2020_A		0.1089	ug/L	0.09256	85.00	1.487
Na5895_R	F	296,300	ug/L	8,054	2.718	525,800
Ni2316_A		21.62	ug/L	0.07523	0.3480	50.52
Pb2203_A		5.600	ug/L	0.8430	15.05	6.198
Sb2068_A		3.759	ug/L	0.5678	15.10	3.213
Se1960_A		-2.933	ug/L	0.7899	26.93	2.000
Si2516_R		291.7	ug/L	15.91	5.453	193.5
Sn1899_A		-0.03216	ug/L	0.1684	523.7	0.9109
Sr4215_R		66.22	ug/L	0.5322	0.8037	4,466
Ti3349_A		-0.6033	ug/L	0.09128	15.13	-19.65
Tl1908_A		-0.8152	ug/L	0.1674	20.54	-2.244
V_2924_A		-0.07732	ug/L	0.07859	101.6	-2.908
Zn2062_A		963.7	ug/L	12.48	1.295	3,642
Y_3600_R		16,838	Cts/S	68.727	0.40816	16,838
Y_2243_A		9,507.2	Cts/S	63.755	0.67059	9,507.2
Y_3600_A		147,760	Cts/S	94.213	0.063762	147,760

SO8624-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:39:21AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.005053	ug/L	0.1283	2,540	-34.17
Al3961_R		38.38	ug/L	7.701	20.06	39.36
As1891_A		3.063	ug/L	1.330	43.43	-2.899
B_2089_A		19.02	ug/L	0.1517	0.7977	33.55
Ba4554_R		40.35	ug/L	0.9379	2.325	1,634
Be3130_R		0.05683	ug/L	0.01114	19.60	2.337
Ca3158_R		9,370	ug/L	112.4	1.200	11,940
Cd2265_A		0.04896	ug/L	0.02741	55.98	-2.297
Co2286_A		0.06054	ug/L	0.04513	74.56	4.461
Cr2677_A		1.277	ug/L	0.1335	10.46	18.91
Cu3273_A		6.804	ug/L	0.5835	8.576	177.2
Fe2599_R		1,428	ug/L	35.29	2.470	2,698
K_7664_R		10,390	ug/L	79.85	0.7683	5,787
Li6707_R		2.187	ug/L	2.104	96.20	28.95
Mg2025_A		2,379	ug/L	5.004	0.2103	918.3
Mn2576_R		73.47	ug/L	1.421	1.935	791.7
Mo2020_A		-0.1250	ug/L	0.01733	13.86	0.6097
Na5895_R	F	307,600	ug/L	571.1	0.1857	548,200
Ni2316_A		2.686	ug/L	0.3070	11.43	7.694

SO8624-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:39:21AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.260	ug/L	0.4704	37.32	1.295
Sb2068_A		-0.4825	ug/L	0.03588	7.436	0.5235
Se1960_A		-0.9085	ug/L	0.6119	67.35	2.699
Si2516_R		120.3	ug/L	11.71	9.735	107.7
Sn1899_A		0.2993	ug/L	0.6210	207.5	1.123
Sr4215_R		58.88	ug/L	0.7835	1.331	3,987
Ti3349_A		0.5576	ug/L	0.02521	4.520	13.35
Tl1908_A		-0.6211	ug/L	0.1956	31.49	-2.088
V_2924_A		-0.06542	ug/L	0.1862	284.7	-2.540
Zn2062_A		332.7	ug/L	1.757	0.5279	1,264
Y_3600_R		16,912	Cts/S	388.66	2.2981	16,912
Y_2243_A		9,556.0	Cts/S	5.5306	0.057876	9,556.0
Y_3600_A		148,280	Cts/S	1,469.5	0.99103	148,280

SO8631-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:43:49AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.114	ug/L	0.001636	0.07738	-605.9
Al3961_R		6.530	ug/L	2.482	38.01	31.53
As1891_A	W	1,042	ug/L	7.207	0.6919	483.0
B_2089_A		146.8	ug/L	0.6507	0.4433	234.3
Ba4554_R		52.54	ug/L	0.5395	1.027	2,108
Be3130_R		-0.002984	ug/L	0.01877	629.1	-2.886
Ca3158_R	W	37,240	ug/L	35.75	0.09602	47,390
Cd2265_A		-0.8986	ug/L	0.003913	0.4354	43.80
Co2286_A		23.26	ug/L	0.08878	0.3817	115.5
Cr2677_A		-0.3254	ug/L	0.1301	39.97	11.50
Cu3273_A		-4.065	ug/L	0.007798	0.1919	117.3
Fe2599_R	W	80,090	ug/L	504.6	0.6301	150,000
K_7664_R		10,570	ug/L	65.85	0.6231	5,874
Li6707_R		3.837	ug/L	0.9909	25.83	44.24
Mg2025_A		5,274	ug/L	16.02	0.3037	2,095
Mn2576_R	W	2,659	ug/L	8.830	0.3321	28,630
Mo2020_A		2.989	ug/L	0.1278	4.274	12.50
Na5895_R		18,700	ug/L	60.02	0.3210	33,270
Ni2316_A	F	-52.68	ug/L	0.01445	0.02742	1.364
Pb2203_A		2.421	ug/L	0.3836	15.84	4.208
Sb2068_A		-1.214	ug/L	0.02833	2.332	2.223
Se1960_A		-6.004	ug/L	0.01977	0.3293	2.960
Si2516_R		9,811	ug/L	21.95	0.2238	4,985
Sn1899_A		0.7825	ug/L	0.9928	126.9	1.457
Sr4215_R		422.4	ug/L	0.7924	0.1876	28,590
Ti3349_A		-0.7119	ug/L	0.05606	7.874	-23.24
Tl1908_A		-0.6868	ug/L	0.5752	83.74	-4.154
V_2924_A		2.086	ug/L	0.1085	5.204	9.755
Zn2062_A		3.153	ug/L	0.1697	5.384	13.02
Y_3600_R		16,876	Cts/S	81.592	0.48348	16,876
Y_2243_A		9,765.5	Cts/S	27.224	0.27878	9,765.5
Y_3600_A		151,360	Cts/S	427.11	0.28219	151,360

SO8631-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:48:08AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8631-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:48:08AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.407	ug/L	0.6795	48.30	-598.9
Al3961_R		-1.119	ug/L	4.077	364.2	23.53
As1891_A		987.7	ug/L	1.018	0.1031	456.0
B_2089_A		145.3	ug/L	0.5802	0.3993	231.1
Ba4554_R		51.68	ug/L	1.242	2.402	2,099
Be3130_R		-0.004127	ug/L	0.06427	1,557	-3.015
Ca3158_R	W	36,210	ug/L	463.7	1.280	46,640
Cd2265_A		-0.9444	ug/L	0.01623	1.719	40.88
Co2286_A		22.41	ug/L	0.1307	0.5830	111.1
Cr2677_A		-0.7968	ug/L	0.05702	7.155	5.275
Cu3273_A		-4.009	ug/L	0.5983	14.92	115.6
Fe2599_R	W	77,450	ug/L	1,201	1.551	146,800
K_7664_R		10,320	ug/L	91.16	0.8830	5,804
Li6707_R		2.514	ug/L	0.4195	16.69	32.15
Mg2025_A		5,112	ug/L	27.00	0.5281	2,023
Mn2576_R	W	2,553	ug/L	34.46	1.350	27,810
Mo2020_A		2.872	ug/L	0.1839	6.403	12.01
Na5895_R		18,010	ug/L	232.0	1.288	32,430
Ni2316_A	F	-51.26	ug/L	0.6836	1.334	0.5682
Pb2203_A		3.054	ug/L	0.9575	31.35	4.872
Sb2068_A		-1.813	ug/L	0.08296	4.576	1.755
Se1960_A		-5.813	ug/L	0.3758	6.464	2.945
Si2516_R		9,472	ug/L	100.5	1.061	4,871
Sn1899_A		0.2194	ug/L	0.3556	162.0	1.093
Sr4215_R		410.0	ug/L	4.909	1.197	28,070
Ti3349_A		-0.6752	ug/L	0.1868	27.67	-22.12
Tl1908_A		-0.1523	ug/L	1.230	807.6	-3.676
V_2924_A		1.718	ug/L	0.2181	12.69	5.931
Zn2062_A		2.988	ug/L	0.01155	0.3864	12.34
Y_3600_R		17,077	Cts/S	232.76	1.3630	17,077
Y_2243_A		9,727.4	Cts/S	69.720	0.71674	9,727.4
Y_3600_A		150,940	Cts/S	156.66	0.10380	150,940

SO8631-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:52:27AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1418	ug/L	0.1934	136.4	-77.61
Al3961_R		133.1	ug/L	10.72	8.056	170.2
As1891_A		4.554	ug/L	0.1711	3.758	-2.449
B_2089_A		218.8	ug/L	1.154	0.5275	349.6
Ba4554_R		99.63	ug/L	5.858	5.880	4,092
Be3130_R		0.03285	ug/L	0.05475	166.7	-0.08663
Ca3158_R	W	50,180	ug/L	2,983	5.945	66,150
Cd2265_A		0.04447	ug/L	0.02811	63.22	2.076
Co2286_A		19.79	ug/L	0.1190	0.6012	98.50
Cr2677_A		0.6248	ug/L	0.2549	40.80	13.45
Cu3273_A		3.535	ug/L	0.04780	1.353	149.7
Fe2599_R		7,200	ug/L	397.8	5.525	13,990
K_7664_R		11,410	ug/L	702.7	6.157	6,575
Li6707_R		1.145	ug/L	0.5828	50.88	19.60
Mg2025_A		6,862	ug/L	50.05	0.7293	2,749
Mn2576_R	W	1,440	ug/L	83.70	5.813	16,070
Mo2020_A		0.05565	ug/L	0.02855	51.30	1.225
Na5895_R		18,110	ug/L	1,122	6.195	33,380
Ni2316_A		-0.02539	ug/L	0.1820	716.7	10.62

SO8631-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:52:27AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3997	ug/L	0.3020	75.56	0.4268
Sb2068_A		-0.07269	ug/L	0.3729	513.0	0.9589
Se1960_A		-2.083	ug/L	0.9411	45.17	2.731
Si2516_R		5,364	ug/L	299.9	5.591	2,848
Sn1899_A		-0.3256	ug/L	0.3315	101.8	0.7534
Sr4215_R		464.5	ug/L	28.61	6.158	32,560
Ti3349_A		3.663	ug/L	0.2178	5.945	104.8
Tl1908_A		0.2953	ug/L	0.2617	88.62	-2.472
V_2924_A		0.5232	ug/L	0.09004	17.21	-1.361
Zn2062_A		4.439	ug/L	0.008794	0.1981	18.16
Y_3600_R		17,497	Cts/S	612.53	3.5008	17,497
Y_2243_A		9,842.9	Cts/S	40.257	0.40899	9,842.9
Y_3600_A		152,540	Cts/S	1,559.8	1.0226	152,540

SO8631-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 4:56:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2413	ug/L	0.09674	40.09	-62.29
Al3961_R		-1.965	ug/L	5.512	280.5	34.96
As1891_A		4.343	ug/L	0.5156	11.87	-2.438
B_2089_A		219.1	ug/L	0.9432	0.4305	346.9
Ba4554_R		98.52	ug/L	1.251	1.270	3,965
Be3130_R		-0.02350	ug/L	0.03037	129.2	-4.955
Ca3158_R	W	50,970	ug/L	473.9	0.9297	65,840
Cd2265_A		0.01799	ug/L	0.02947	163.8	-0.6988
Co2286_A		19.14	ug/L	0.1056	0.5518	94.43
Cr2677_A		0.3690	ug/L	0.09204	24.94	10.00
Cu3273_A		3.651	ug/L	0.2038	5.584	149.3
Fe2599_R		4,186	ug/L	34.39	0.8215	7,973
K_7664_R		11,510	ug/L	189.1	1.643	6,497
Li6707_R		1.040	ug/L	1.333	128.1	18.06
Mg2025_A		6,880	ug/L	19.64	0.2855	2,731
Mn2576_R	W	1,472	ug/L	13.10	0.8900	16,100
Mo2020_A		0.03630	ug/L	0.07900	217.6	1.137
Na5895_R		18,330	ug/L	269.4	1.470	33,090
Ni2316_A		2.105	ug/L	0.09468	4.499	10.79
Pb2203_A		0.7638	ug/L	0.02001	2.620	0.8020
Sb2068_A		0.05140	ug/L	0.3261	634.4	0.9468
Se1960_A		-1.474	ug/L	0.9654	65.51	2.869
Si2516_R		5,254	ug/L	62.98	1.199	2,734
Sn1899_A		-0.1939	ug/L	0.4262	219.8	0.8297
Sr4215_R		472.8	ug/L	6.282	1.329	32,460
Ti3349_A		-0.6618	ug/L	0.01736	2.623	-22.07
Tl1908_A		-0.2720	ug/L	0.4057	149.1	-2.880
V_2924_A		0.1229	ug/L	0.4480	364.6	-6.211
Zn2062_A		3.868	ug/L	0.06697	1.732	15.78
Y_3600_R		17,123	Cts/S	26.554	0.15508	17,123
Y_2243_A		9,752.8	Cts/S	52.455	0.53784	9,752.8
Y_3600_A		152,970	Cts/S	332.28	0.21721	152,970

SO8631-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:01:08AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8631-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:01:08AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.156	ug/L	0.3493	30.22	-498.0
Al3961_R		117.7	ug/L	3.932	3.340	144.6
As1891_A	W	1,905	ug/L	7.945	0.4171	894.1
B_2089_A		66.53	ug/L	0.06488	0.09753	109.3
Ba4554_R		29.50	ug/L	0.8143	2.760	1,223
Be3130_R		0.05640	ug/L	0.01571	27.85	2.331
Ca3158_R	W	41,650	ug/L	673.3	1.616	53,780
Cd2265_A		-0.7350	ug/L	0.05664	7.706	33.50
Co2286_A		12.16	ug/L	0.05563	0.4575	63.23
Cr2677_A		-0.2425	ug/L	0.09352	38.57	9.605
Cu3273_A		-1.879	ug/L	0.8163	43.45	130.2
Fe2599_R	W	63,260	ug/L	1,158	1.831	120,200
K_7664_R		7,033	ug/L	107.2	1.524	3,942
Li6707_R		3.847	ug/L	1.961	50.97	45.02
Mg2025_A		5,937	ug/L	20.35	0.3427	2,372
Mn2576_R	W	1,678	ug/L	30.73	1.831	18,330
Mo2020_A		1.510	ug/L	0.1714	11.35	6.872
Na5895_R		18,590	ug/L	337.4	1.814	33,560
Ni2316_A	F	-40.35	ug/L	0.9237	2.289	3.881
Pb2203_A		2.088	ug/L	0.2690	12.88	3.502
Sb2068_A		-0.7630	ug/L	1.152	151.0	2.114
Se1960_A		-4.896	ug/L	1.968	40.20	2.898
Si2516_R		12,870	ug/L	246.3	1.913	6,622
Sn1899_A		0.8602	ug/L	0.1706	19.83	1.516
Sr4215_R		422.1	ug/L	6.945	1.645	28,980
Ti3349_A		2.372	ug/L	0.1880	7.926	66.89
Tl1908_A		0.03567	ug/L	0.8130	2,279	-2.923
V_2924_A		1.649	ug/L	0.04060	2.462	9.289
Zn2062_A		78.05	ug/L	0.4519	0.5789	305.4
Y_3600_R		17,118	Cts/S	31.802	0.18578	17,118
Y_2243_A		9,818.5	Cts/S	13.071	0.13313	9,818.5
Y_3600_A		152,360	Cts/S	545.18	0.35783	152,360

SO8631-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:05:27AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.888	ug/L	0.01257	0.6659	-506.9
Al3961_R		2.502	ug/L	7.248	289.7	33.39
As1891_A	W	1,990	ug/L	17.93	0.9014	926.9
B_2089_A		67.85	ug/L	0.9388	1.384	110.5
Ba4554_R		30.01	ug/L	0.2222	0.7405	1,227
Be3130_R		0.1163	ug/L	0.01601	13.77	7.945
Ca3158_R	W	44,340	ug/L	417.8	0.9422	56,480
Cd2265_A		-0.8973	ug/L	0.01272	1.418	32.96
Co2286_A		13.08	ug/L	0.1475	1.128	67.10
Cr2677_A		-0.6722	ug/L	0.04754	7.072	4.835
Cu3273_A		-2.383	ug/L	0.5918	24.83	127.2
Fe2599_R	W	66,180	ug/L	199.9	0.3020	124,100
K_7664_R		7,244	ug/L	43.85	0.6053	4,007
Li6707_R		4.866	ug/L	1.980	40.68	53.96
Mg2025_A		6,184	ug/L	42.25	0.6831	2,452
Mn2576_R	W	1,850	ug/L	22.84	1.234	19,940
Mo2020_A		1.542	ug/L	0.2907	18.86	6.926
Na5895_R		19,090	ug/L	171.5	0.8986	33,980
Ni2316_A	F	-41.82	ug/L	0.1486	0.3553	4.987

SO8631-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:05:27AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.308	ug/L	0.6140	26.60	3.797
Sb2068_A		-1.410	ug/L	0.001735	0.1231	1.766
Se1960_A		-6.155	ug/L	0.6211	10.09	2.520
Si2516_R		13,360	ug/L	107.3	0.8033	6,780
Sn1899_A		-0.03192	ug/L	0.07570	237.2	0.9334
Sr4215_R		442.8	ug/L	6.412	1.448	29,980
Ti3349_A		-0.7006	ug/L	0.3015	43.03	-23.23
Tl1908_A		-0.07577	ug/L	0.3247	428.5	-3.108
V_2924_A		1.586	ug/L	0.2279	14.37	7.767
Zn2062_A		85.44	ug/L	0.4608	0.5393	331.6
Y_3600_R		16,887	Cts/S	150.93	0.89376	16,887
Y_2243_A		9,742.7	Cts/S	64.359	0.66059	9,742.7
Y_3600_A		152,920	Cts/S	1,722.5	1.1264	152,920

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:09:43AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		520.0	ug/L	0.9625	0.1851	11,390
Al3961_R		12,880	ug/L	499.5	3.879	12,770
As1891_A		499.1	ug/L	5.894	1.181	232.7
B_2089_A		474.8	ug/L	4.059	0.8549	773.9
Ba4554_R	W	456.3	ug/L	17.58	3.854	18,340
Be3130_R		488.4	ug/L	20.38	4.172	45,520
Ca3158_R		13,130	ug/L	536.8	4.089	17,100
Cd2265_A		477.4	ug/L	4.019	0.8420	7,579
Co2286_A		506.5	ug/L	4.787	0.9451	2,426
Cr2677_A		522.3	ug/L	3.409	0.6526	6,530
Cu3273_A		488.4	ug/L	0.1755	0.03594	5,655
Fe2599_R		13,120	ug/L	564.1	4.300	25,180
K_7664_R		12,970	ug/L	490.0	3.778	7,397
Li6707_R		492.5	ug/L	22.15	4.498	4,780
Mg2025_A		12,380	ug/L	107.7	0.8696	5,021
Mn2576_R		504.9	ug/L	21.44	4.246	5,569
Mo2020_A		508.7	ug/L	4.610	0.9063	1,998
Na5895_R	W	13,390	ug/L	553.7	4.134	24,410
Ni2316_A	W	530.5	ug/L	6.851	1.291	1,278
Pb2203_A		481.1	ug/L	4.344	0.9028	564.7
Sb2068_A		482.8	ug/L	5.715	1.184	316.7
Se1960_A		497.3	ug/L	5.753	1.157	181.2
Si2516_R		12,890	ug/L	521.2	4.042	6,706
Sn1899_A		488.6	ug/L	4.150	0.8493	318.3
Sr4215_R	W	531.1	ug/L	21.04	3.962	36,800
Ti3349_A		519.9	ug/L	2.402	0.4620	15,400
Tl1908_A		498.3	ug/L	2.741	0.5500	364.0
V_2924_A		498.6	ug/L	0.1302	0.02611	5,940
Zn2062_A		480.1	ug/L	4.180	0.8707	1,885
Y_3600_R		17,289	Cts/S	342.97	1.9838	17,289
Y_2243_A		9,885.6	Cts/S	72.746	0.73588	9,885.6
Y_3600_A		153,960	Cts/S	214.91	0.13959	153,960

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:13:51AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:13:51AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02043	ug/L	0.1245	609.1	-24.12
Al3961_R		15.62	ug/L	0.7030	4.499	9.879
As1891_A		1.788	ug/L	0.1790	10.01	-3.628
B_2089_A		-0.03940	ug/L	0.08580	217.8	4.616
Ba4554_R		0.4384	ug/L	0.1200	27.37	69.67
Be3130_R		0.2011	ug/L	0.1025	50.94	15.71
Ca3158_R		10.11	ug/L	0.7285	7.208	-1.927
Cd2265_A		0.2052	ug/L	0.01435	6.993	-1.015
Co2286_A		0.009758	ug/L	0.08930	915.2	4.421
Cr2677_A		0.1578	ug/L	0.1118	70.85	5.511
Cu3273_A		3.029	ug/L	0.1750	5.778	142.7
Fe2599_R		20.47	ug/L	3.315	16.20	57.29
K_7664_R		3.703	ug/L	29.61	799.7	-67.90
Li6707_R		0.9324	ug/L	0.5950	63.82	17.06
Mg2025_A		4.991	ug/L	0.6465	12.95	-8.744
Mn2576_R		0.6992	ug/L	0.2741	39.19	5.683
Mo2020_A		0.6314	ug/L	0.1944	30.79	3.669
Na5895_R		23.27	ug/L	9.200	39.54	56.63
Ni2316_A		0.2366	ug/L	0.3114	131.6	-0.01754
Pb2203_A		0.5414	ug/L	0.2805	51.80	0.4738
Sb2068_A		0.8181	ug/L	0.5725	69.97	1.372
Se1960_A		-2.875	ug/L	0.1991	6.922	2.085
Si2516_R		52.27	ug/L	38.64	73.93	74.59
Sn1899_A		0.3549	ug/L	0.02232	6.290	1.219
Sr4215_R		0.05594	ug/L	0.08866	158.5	-3.030
Ti3349_A		0.8311	ug/L	0.1573	18.93	22.39
Tl1908_A		-0.2950	ug/L	0.1861	63.10	-1.898
V_2924_A		0.1555	ug/L	0.05724	36.81	0.3671
Zn2062_A		0.2483	ug/L	0.001418	0.5711	1.803
Y_3600_R		17,141	Cts/S	21.538	0.12565	17,141
Y_2243_A		10,061	Cts/S	32.481	0.32283	10,061
Y_3600_A		156,860	Cts/S	82.895	0.052847	156,860

SO8631-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:18:16AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1906	ug/L	0.3095	162.4	-49.36
Al3961_R		80.21	ug/L	2.767	3.450	90.61
As1891_A		6.287	ug/L	0.3424	5.447	-1.511
B_2089_A		161.0	ug/L	0.1615	0.1003	261.6
Ba4554_R		31.09	ug/L	0.2793	0.8983	1,294
Be3130_R		0.01814	ug/L	0.02802	154.4	-1.232
Ca3158_R		20,370	ug/L	308.2	1.513	26,440
Cd2265_A		0.08193	ug/L	0.02227	27.18	-0.9397
Co2286_A		1.872	ug/L	0.07760	4.145	13.40
Cr2677_A		0.1824	ug/L	0.0009070	0.4973	6.519
Cu3273_A		3.312	ug/L	0.03600	1.087	146.5
Fe2599_R		2,595	ug/L	47.61	1.835	4,977
K_7664_R		8,551	ug/L	116.0	1.356	4,836
Li6707_R		1.280	ug/L	3.760	293.6	20.60
Mg2025_A		2,951	ug/L	0.4015	0.01361	1,190
Mn2576_R		421.4	ug/L	4.766	1.131	4,632
Mo2020_A		0.1431	ug/L	0.1336	93.34	1.669
Na5895_R		16,130	ug/L	228.0	1.413	29,290
Ni2316_A		-0.1525	ug/L	0.1761	115.4	3.135

SO8631-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:18:16AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.233	ug/L	0.5368	43.54	1.335
Sb2068_A		0.3081	ug/L	0.4492	145.8	1.083
Se1960_A		-2.553	ug/L	0.3782	14.81	2.312
Si2516_R		4,976	ug/L	26.02	0.5228	2,607
Sn1899_A		1.456	ug/L	0.3332	22.88	1.928
Sr4215_R		190.6	ug/L	2.201	1.155	13,150
Ti3349_A		1.594	ug/L	0.1854	11.63	44.95
Tl1908_A		0.9246	ug/L	0.7325	79.22	-1.300
V_2924_A		0.3747	ug/L	0.01467	3.915	1.218
Zn2062_A		1.208	ug/L	0.004890	0.4049	5.584
Y_3600_R		17,219	Cts/S	106.28	0.61724	17,219
Y_2243_A		9,961.5	Cts/S	12.999	0.13049	9,961.5
Y_3600_A		155,380	Cts/S	116.08	0.074707	155,380

SO8631-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:22:37AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.4322	ug/L	0.3325	76.93	-45.02
Al3961_R		27.50	ug/L	4.870	17.71	38.78
As1891_A		4.201	ug/L	0.1541	3.669	-2.467
B_2089_A		162.8	ug/L	0.01039	0.006382	263.5
Ba4554_R		30.35	ug/L	0.4210	1.387	1,262
Be3130_R		0.07638	ug/L	0.009230	12.08	4.250
Ca3158_R		20,650	ug/L	248.8	1.205	26,750
Cd2265_A		0.00001200	ug/L	0.02611	212,500	-3.185
Co2286_A		2.135	ug/L	0.02502	1.172	14.56
Cr2677_A		0.2863	ug/L	0.1494	52.20	7.674
Cu3273_A		3.003	ug/L	0.4859	16.18	141.9
Fe2599_R		1,401	ug/L	10.33	0.7371	2,689
K_7664_R		8,692	ug/L	178.6	2.055	4,905
Li6707_R		0.8397	ug/L	1.512	180.0	16.20
Mg2025_A		2,980	ug/L	5.232	0.1756	1,198
Mn2576_R		426.9	ug/L	5.676	1.329	4,681
Mo2020_A		0.07988	ug/L	0.09285	116.2	1.412
Na5895_R		16,500	ug/L	222.0	1.345	29,880
Ni2316_A		0.5881	ug/L	0.02572	4.373	2.989
Pb2203_A		0.4523	ug/L	0.2603	57.55	0.3893
Sb2068_A		-0.1522	ug/L	0.5570	365.9	0.7512
Se1960_A		-2.948	ug/L	0.5421	18.39	2.139
Si2516_R		4,916	ug/L	28.99	0.5897	2,570
Sn1899_A		0.2155	ug/L	0.09571	44.42	1.112
Sr4215_R		194.2	ug/L	3.010	1.550	13,370
Ti3349_A		-0.1437	ug/L	0.2756	191.8	-6.949
Tl1908_A		0.1962	ug/L	0.2161	110.2	-1.832
V_2924_A		0.07822	ug/L	0.02529	32.33	-2.373
Zn2062_A		1.280	ug/L	0.02376	1.856	5.849
Y_3600_R		17,178	Cts/S	19.443	0.11319	17,178
Y_2243_A		9,925.8	Cts/S	9.0538	0.091215	9,925.8
Y_3600_A		155,100	Cts/S	441.44	0.28462	155,100

SO8631-008L

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:26:59AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8631-008L

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:26:59AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1748	ug/L	0.8800	503.5	-27.51
Al3961_R		35.23	ug/L	4.093	11.62	4.916
As1891_A		11.00	ug/L	0.2188	1.990	-3.437
B_2089_A		161.1	ug/L	2.066	1.283	56.59
Ba4554_R		32.00	ug/L	0.5478	1.712	309.4
Be3130_R		0.1994	ug/L	0.1925	96.51	0.8751
Ca3158_R		20,730	ug/L	341.4	1.646	5,394
Cd2265_A		0.1533	ug/L	0.08234	53.71	-3.622
Co2286_A		1.627	ug/L	0.1084	6.666	5.950
Cr2677_A		-0.3742	ug/L	1.487	397.2	2.670
Cu3273_A		11.27	ug/L	1.181	10.48	133.9
Fe2599_R		1,434	ug/L	17.03	1.188	568.7
K_7664_R		8,617	ug/L	36.26	0.4209	922.3
Li6707_R		2.890	ug/L	3.702	128.1	13.78
Mg2025_A		3,039	ug/L	21.21	0.6979	238.9
Mn2576_R		429.2	ug/L	4.340	1.011	945.8
Mo2020_A		-0.4683	ug/L	0.9210	196.7	0.7640
Na5895_R		16,630	ug/L	226.3	1.360	6,076
Ni2316_A		1.585	ug/L	1.092	68.92	0.5893
Pb2203_A		0.7569	ug/L	0.3207	42.38	0.01364
Sb2068_A		-0.3020	ug/L	1.090	361.0	0.7973
Se1960_A		-10.12	ug/L	1.202	11.88	2.417
Si2516_R		4,850	ug/L	34.00	0.7011	549.1
Sn1899_A		-2.926	ug/L	1.659	56.68	0.5974
Sr4215_R		193.9	ug/L	1.030	0.5312	2,683
Ti3349_A		-1.476	ug/L	0.07350	4.981	-11.58
Tl1908_A		-0.1521	ug/L	0.8749	575.2	-1.765
V_2924_A		-0.6919	ug/L	0.1529	22.09	-3.551
Zn2062_A		2.908	ug/L	0.4513	15.52	3.137
Y_3600_R		17,291	Cts/S	46.236	0.26740	17,291
Y_2243_A		10,062	Cts/S	60.931	0.60559	10,062
Y_3600_A		156,840	Cts/S	190.98	0.12177	156,840

SO8631-008A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:31:24AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		474.2	ug/L	1.469	0.3098	10,390
Al3961_R		10,570	ug/L	186.8	1.767	10,450
As1891_A		462.3	ug/L	3.267	0.7067	214.7
B_2089_A		605.3	ug/L	3.398	0.5613	977.1
Ba4554_R		477.7	ug/L	6.021	1.260	19,120
Be3130_R		481.3	ug/L	6.236	1.296	44,660
Ca3158_R	W	25,620	ug/L	607.5	2.371	33,240
Cd2265_A		450.7	ug/L	2.176	0.4828	7,129
Co2286_A		479.8	ug/L	1.854	0.3864	2,291
Cr2677_A		498.4	ug/L	2.656	0.5329	6,215
Cu3273_A		471.2	ug/L	4.695	0.9964	5,441
Fe2599_R		7,015	ug/L	101.0	1.440	13,410
K_7664_R		18,330	ug/L	481.1	2.625	10,440
Li6707_R		495.6	ug/L	4.737	0.9558	4,789
Mg2025_A		8,050	ug/L	38.21	0.4747	3,260
Mn2576_R		891.4	ug/L	18.75	2.103	9,790
Mo2020_A		488.7	ug/L	1.682	0.3442	1,914
Na5895_R		21,650	ug/L	474.7	2.192	39,260
Ni2316_A		504.0	ug/L	1.339	0.2657	1,202

SO8631-008A

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:31:24AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		451.9	ug/L	2.783	0.6159	528.9
Sb2068_A		454.0	ug/L	4.370	0.9626	296.8
Se1960_A		473.0	ug/L	1.750	0.3700	171.9
Si2516_R		5,099	ug/L	97.37	1.909	2,671
Sn1899_A		468.5	ug/L	2.497	0.5329	304.3
Sr4215_R		694.5	ug/L	12.83	1.848	47,920
Ti3349_A		488.4	ug/L	3.790	0.7759	14,420
Tl1908_A		469.6	ug/L	2.705	0.5761	341.7
V_2924_A		483.0	ug/L	3.947	0.8172	5,739
Zn2062_A		453.0	ug/L	1.696	0.3743	1,773
Y_3600_R		17,206	Cts/S	201.76	1.1726	17,206
Y_2243_A		9,856.1	Cts/S	40.941	0.41538	9,856.1
Y_3600_A		153,560	Cts/S	492.56	0.32076	153,560

SO8631-008P

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:35:34AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.84	ug/L	0.05346	0.1012	1,107
Al3961_R		2,158	ug/L	30.32	1.405	2,127
As1891_A		104.7	ug/L	0.9398	0.8977	45.04
B_2089_A		636.4	ug/L	1.793	0.2818	1,010
Ba4554_R	W	1,948	ug/L	48.05	2.466	77,160
Be3130_R		52.29	ug/L	1.198	2.291	4,809
Ca3158_R		23,490	ug/L	375.6	1.599	30,230
Cd2265_A		240.2	ug/L	0.8337	0.3471	3,783
Co2286_A		519.1	ug/L	1.487	0.2864	2,470
Cr2677_A		217.4	ug/L	1.562	0.7183	2,697
Cu3273_A		259.2	ug/L	1.014	0.3912	3,020
Fe2599_R		2,541	ug/L	51.31	2.019	4,830
K_7664_R		19,260	ug/L	304.8	1.583	10,880
Li6707_R		527.6	ug/L	12.33	2.337	5,056
Mg2025_A		7,876	ug/L	12.66	0.1608	3,178
Mn2576_R		944.8	ug/L	16.11	1.705	10,290
Mo2020_A		107.2	ug/L	0.1623	0.1513	419.2
Na5895_R		24,710	ug/L	323.6	1.310	44,450
Ni2316_A		551.9	ug/L	0.6267	0.1135	1,297
Pb2203_A		98.19	ug/L	0.6492	0.6612	114.5
Sb2068_A		99.49	ug/L	0.2279	0.2290	62.75
Se1960_A		102.2	ug/L	0.5323	0.5209	39.56
Si2516_R		6,038	ug/L	127.4	2.109	3,127
Sn1899_A		499.0	ug/L	1.954	0.3916	322.9
Sr4215_R		740.9	ug/L	7.414	1.001	50,700
Ti3349_A		530.8	ug/L	3.071	0.5785	15,570
Tl1908_A		100.1	ug/L	0.2004	0.2003	71.72
V_2924_A		524.2	ug/L	3.292	0.6280	6,229
Zn2062_A		491.5	ug/L	1.372	0.2792	1,919
Y_3600_R		17,065	Cts/S	111.81	0.65523	17,065
Y_2243_A		9,820.8	Cts/S	4.6945	0.047802	9,820.8
Y_3600_A		152,610	Cts/S	184.26	0.12074	152,610

SO8631-008S

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:39:49AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8631-008S

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:39:49AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.22	ug/L	0.2759	0.5284	1,111
Al3961_R		2,120	ug/L	33.43	1.577	2,123
As1891_A		102.9	ug/L	0.8555	0.8317	44.62
B_2089_A		625.2	ug/L	0.9230	0.1476	1,002
Ba4554_R	W	1,947	ug/L	27.11	1.393	78,350
Be3130_R		51.59	ug/L	0.9977	1.934	4,823
Ca3158_R		22,680	ug/L	307.2	1.354	29,670
Cd2265_A		237.3	ug/L	0.08490	0.03577	3,775
Co2286_A		514.4	ug/L	1.047	0.2035	2,472
Cr2677_A		213.4	ug/L	0.01628	0.007627	2,687
Cu3273_A		255.9	ug/L	0.9406	0.3676	3,028
Fe2599_R		2,465	ug/L	39.68	1.610	4,762
K_7664_R		18,690	ug/L	277.0	1.482	10,730
Li6707_R		516.9	ug/L	10.61	2.053	5,034
Mg2025_A		7,711	ug/L	0.7511	0.009741	3,143
Mn2576_R		925.5	ug/L	12.07	1.304	10,250
Mo2020_A		105.4	ug/L	0.1918	0.1820	416.0
Na5895_R		23,910	ug/L	355.5	1.486	43,720
Ni2316_A		546.2	ug/L	1.634	0.2992	1,296
Pb2203_A		96.00	ug/L	0.6745	0.7026	113.0
Sb2068_A		97.60	ug/L	0.7424	0.7606	62.17
Se1960_A		100.2	ug/L	0.5355	0.5346	39.23
Si2516_R		5,868	ug/L	67.10	1.143	3,091
Sn1899_A		491.7	ug/L	0.7242	0.1473	321.4
Sr4215_R		719.3	ug/L	10.99	1.528	50,020
Ti3349_A		516.4	ug/L	2.252	0.4361	15,370
Tl1908_A		98.76	ug/L	0.2800	0.2836	71.49
V_2924_A		514.4	ug/L	0.7397	0.1438	6,202
Zn2062_A		487.6	ug/L	2.060	0.4224	1,922
Y_3600_R		17,343	Cts/S	93.571	0.53954	17,343
Y_2243_A		9,919.5	Cts/S	17.621	0.17764	9,919.5
Y_3600_A		154,890	Cts/S	418.44	0.27016	154,890

SO8631-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:44:04AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2511	ug/L	0.1495	59.55	-33.63
Al3961_R		64.20	ug/L	10.48	16.32	93.50
As1891_A		37.33	ug/L	0.1288	0.3450	13.28
B_2089_A		68.50	ug/L	0.7176	1.048	113.0
Ba4554_R		20.55	ug/L	0.1553	0.7556	871.2
Be3130_R		0.02936	ug/L	0.04255	144.9	-0.2272
Ca3158_R	W	42,900	ug/L	579.6	1.351	55,590
Cd2265_A		0.05053	ug/L	0.008670	17.16	-1.992
Co2286_A		13.09	ug/L	0.2191	1.674	66.74
Cr2677_A		0.5759	ug/L	0.03797	6.594	16.43
Cu3273_A		3.072	ug/L	0.1225	3.986	142.1
Fe2599_R		1,902	ug/L	22.34	1.175	3,644
K_7664_R		6,373	ug/L	118.1	1.854	3,578
Li6707_R		4.937	ug/L	0.09140	1.851	55.66
Mg2025_A		6,274	ug/L	9.106	0.1451	2,520
Mn2576_R	W	5,367	ug/L	68.07	1.268	58,870
Mo2020_A		0.6222	ug/L	0.2020	32.46	3.137
Na5895_R		15,490	ug/L	300.8	1.941	28,060
Ni2316_A		12.15	ug/L	0.1805	1.486	30.97

SO8631-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:44:04AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.214	ug/L	0.4653	38.34	1.289
Sb2068_A		0.5191	ug/L	0.9571	184.4	1.201
Se1960_A		-2.587	ug/L	0.4958	19.16	3.206
Si2516_R		7,052	ug/L	83.43	1.183	3,666
Sn1899_A		-0.05861	ug/L	0.6242	1,065	0.9284
Sr4215_R		362.1	ug/L	5.057	1.397	24,940
Ti3349_A		2.746	ug/L	0.1159	4.221	78.69
Tl1908_A		-0.1329	ug/L	0.06024	45.33	-5.781
V_2924_A		0.9417	ug/L	0.5282	56.09	-12.56
Zn2062_A		1.763	ug/L	0.1064	6.037	7.713
Y_3600_R		17,179	Cts/S	70.381	0.40969	17,179
Y_2243_A		9,873.7	Cts/S	1.5068	0.015261	9,873.7
Y_3600_A		154,100	Cts/S	1,385.6	0.89911	154,100

SO8631-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:48:26AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2180	ug/L	0.3238	148.6	-26.79
Al3961_R		10.23	ug/L	8.984	87.80	39.92
As1891_A		10.63	ug/L	0.5394	5.075	0.6148
B_2089_A		67.84	ug/L	0.3677	0.5420	111.7
Ba4554_R		20.21	ug/L	0.1794	0.8876	860.5
Be3130_R		0.02957	ug/L	0.001723	5.826	-0.02578
Ca3158_R	W	42,230	ug/L	353.1	0.8362	54,900
Cd2265_A		0.05464	ug/L	0.02548	46.64	-2.675
Co2286_A		12.47	ug/L	0.1277	1.024	63.59
Cr2677_A		0.5411	ug/L	0.1898	35.08	15.87
Cu3273_A		3.402	ug/L	0.1999	5.875	146.0
Fe2599_R		941.7	ug/L	1.945	0.2066	1,820
K_7664_R		6,306	ug/L	81.59	1.294	3,552
Li6707_R		3.973	ug/L	1.380	34.74	46.57
Mg2025_A		6,157	ug/L	63.41	1.030	2,467
Mn2576_R	W	5,272	ug/L	35.60	0.6753	58,030
Mo2020_A		0.4999	ug/L	0.04699	9.401	2.660
Na5895_R		15,540	ug/L	159.1	1.024	28,240
Ni2316_A		12.35	ug/L	0.2341	1.895	29.87
Pb2203_A		0.7308	ug/L	0.4272	58.46	0.7039
Sb2068_A		0.1146	ug/L	0.4877	425.7	0.9020
Se1960_A		-1.473	ug/L	0.3857	26.19	3.558
Si2516_R		6,702	ug/L	4.763	0.07106	3,499
Sn1899_A		0.2196	ug/L	0.5895	268.4	1.105
Sr4215_R		356.1	ug/L	3.045	0.8551	24,620
Ti3349_A		-0.1172	ug/L	0.03608	30.79	-6.129
Tl1908_A		-0.5437	ug/L	0.2275	41.83	-5.994
V_2924_A		1.077	ug/L	0.03249	3.016	-10.55
Zn2062_A		1.058	ug/L	0.07303	6.900	4.937
Y_3600_R		17,239	Cts/S	82.493	0.47853	17,239
Y_2243_A		9,851.2	Cts/S	91.735	0.93120	9,851.2
Y_3600_A		155,000	Cts/S	785.14	0.50656	155,000

SO8631-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:52:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8631-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:52:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1164	ug/L	0.1697	145.8	-21.68
Al3961_R		11.84	ug/L	0.8305	7.013	34.76
As1891_A		1.236	ug/L	0.1182	9.565	-3.826
B_2089_A		202.2	ug/L	1.070	0.5293	324.8
Ba4554_R		50.61	ug/L	0.2657	0.5249	2,084
Be3130_R		0.002873	ug/L	0.03027	1,053	-2.511
Ca3158_R	W	33,900	ug/L	186.3	0.5495	44,250
Cd2265_A		0.06562	ug/L	0.006001	9.144	-3.214
Co2286_A		0.5944	ug/L	0.006444	1.084	7.122
Cr2677_A		0.5244	ug/L	0.1594	30.41	10.64
Cu3273_A		5.068	ug/L	0.4455	8.790	164.4
Fe2599_R		20.01	ug/L	4.143	20.71	56.91
K_7664_R		10,490	ug/L	49.36	0.4703	5,980
Li6707_R		-0.6068	ug/L	1.818	299.6	2.188
Mg2025_A		5,407	ug/L	6.689	0.1237	2,172
Mn2576_R		552.3	ug/L	3.331	0.6031	6,103
Mo2020_A		2.025	ug/L	0.04673	2.308	9.030
Na5895_R		22,770	ug/L	151.3	0.6645	41,540
Ni2316_A		1.551	ug/L	0.04903	3.160	3.103
Pb2203_A		0.6060	ug/L	0.8181	135.0	0.5423
Sb2068_A		2.260	ug/L	0.7471	33.06	2.295
Se1960_A		-1.076	ug/L	1.109	103.1	2.795
Si2516_R		4,437	ug/L	2.326	0.05242	2,341
Sn1899_A		0.3001	ug/L	0.1720	57.30	1.162
Sr4215_R		309.8	ug/L	2.056	0.6636	21,490
Ti3349_A		-0.2828	ug/L	0.1310	46.34	-11.04
Tl1908_A		0.5060	ug/L	0.2018	39.88	-1.694
V_2924_A		0.7908	ug/L	0.002911	0.3681	5.632
Zn2062_A		0.7339	ug/L	0.01427	1.945	3.676
Y_3600_R		17,305	Cts/S	183.44	1.0600	17,305
Y_2243_A		9,882.3	Cts/S	15.761	0.15949	9,882.3
Y_3600_A		155,110	Cts/S	278.51	0.17956	155,110

SO8631-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:57:11AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.03992	ug/L	0.3292	824.7	-25.08
Al3961_R		5.283	ug/L	2.107	39.88	28.78
As1891_A		1.432	ug/L	0.7330	51.20	-3.756
B_2089_A		206.3	ug/L	0.02908	0.01409	333.4
Ba4554_R		50.05	ug/L	0.7181	1.435	2,115
Be3130_R		0.02035	ug/L	0.007445	36.59	-0.9175
Ca3158_R	W	33,660	ug/L	632.7	1.880	45,070
Cd2265_A		0.06742	ug/L	0.02582	38.30	-3.214
Co2286_A		0.7180	ug/L	0.04837	6.737	7.760
Cr2677_A		0.4439	ug/L	0.2120	47.76	9.649
Cu3273_A		5.193	ug/L	0.4878	9.395	166.1
Fe2599_R		8.817	ug/L	3.463	39.27	36.41
K_7664_R		10,470	ug/L	207.8	1.985	6,119
Li6707_R		1.776	ug/L	0.9339	52.58	26.02
Mg2025_A		5,443	ug/L	1.858	0.03415	2,200
Mn2576_R		552.4	ug/L	10.46	1.895	6,262
Mo2020_A		1.994	ug/L	0.09985	5.007	8.966
Na5895_R		22,660	ug/L	423.2	1.868	42,410
Ni2316_A		1.675	ug/L	0.2001	11.95	3.396

SO8631-012

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 5:57:11AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.1286	ug/L	1.275	990.7	-0.3259
Sb2068_A		1.103	ug/L	0.3576	32.43	1.544
Se1960_A		-1.393	ug/L	0.6123	43.95	2.699
Si2516_R		4,412	ug/L	62.68	1.421	2,389
Sn1899_A		0.1836	ug/L	0.05954	32.43	1.093
Sr4215_R		309.0	ug/L	5.399	1.747	22,000
Ti3349_A		-0.3508	ug/L	0.3355	95.65	-13.13
Tl1908_A		0.2232	ug/L	0.7808	349.9	-1.912
V_2924_A		0.6851	ug/L	0.001015	0.1481	4.362
Zn2062_A		1.042	ug/L	0.06217	5.965	4.918
Y_3600_R		17,755	Cts/S	147.17	0.82891	17,755
Y_2243_A		9,943.8	Cts/S	17.499	0.17598	9,943.8
Y_3600_A		155,320	Cts/S	1,389.8	0.89481	155,320

CCV

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:01:32AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		515.2	ug/L	1.552	0.3013	11,450
Al3961_R		13,000	ug/L	91.05	0.7003	13,280
As1891_A		506.2	ug/L	6.575	1.299	238.7
B_2089_A		484.7	ug/L	4.403	0.9084	798.7
Ba4554_R		483.3	ug/L	7.045	1.458	20,010
Be3130_R		502.4	ug/L	6.261	1.246	48,240
Ca3158_R	W	13,230	ug/L	109.0	0.8241	17,750
Cd2265_A		488.9	ug/L	5.964	1.220	7,850
Co2286_A		510.1	ug/L	6.145	1.205	2,471
Cr2677_A		519.2	ug/L	0.006739	0.001298	6,588
Cu3273_A		494.0	ug/L	0.2133	0.04318	5,804
Fe2599_R		13,130	ug/L	168.7	1.285	25,950
K_7664_R		13,060	ug/L	29.65	0.2270	7,674
Li6707_R		501.2	ug/L	8.920	1.780	5,011
Mg2025_A		12,530	ug/L	146.0	1.165	5,136
Mn2576_R		514.1	ug/L	3.763	0.7320	5,841
Mo2020_A		511.7	ug/L	6.079	1.188	2,033
Na5895_R	W	13,360	ug/L	89.20	0.6677	25,080
Ni2316_A	W	529.2	ug/L	6.572	1.242	1,290
Pb2203_A		492.6	ug/L	4.233	0.8593	584.8
Sb2068_A		492.8	ug/L	7.008	1.422	326.8
Se1960_A		505.1	ug/L	5.517	1.092	186.0
Si2516_R		13,170	ug/L	35.19	0.2672	7,054
Sn1899_A		497.3	ug/L	6.104	1.227	327.5
Sr4215_R	W	536.8	ug/L	4.414	0.8222	38,320
Ti3349_A		518.1	ug/L	1.478	0.2852	15,570
Tl1908_A		504.8	ug/L	6.588	1.305	373.0
V_2924_A		501.8	ug/L	0.05921	0.01180	6,068
Zn2062_A		489.0	ug/L	5.742	1.174	1,942
Y_3600_R		17,802	Cts/S	159.67	0.89689	17,802
Y_2243_A		9,997.2	Cts/S	73.494	0.73515	9,997.2
Y_3600_A		156,250	Cts/S	238.47	0.15263	156,250

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:05:39AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:05:39AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3528	ug/L	0.3146	89.17	-16.88
Al3961_R		12.89	ug/L	4.257	33.03	7.322
As1891_A		1.577	ug/L	0.1150	7.292	-3.734
B_2089_A		0.9290	ug/L	0.06030	6.491	6.182
Ba4554_R		0.4371	ug/L	0.2701	61.79	70.81
Be3130_R		0.2292	ug/L	0.06366	27.77	18.63
Ca3158_R		5.347	ug/L	2.982	55.78	-8.209
Cd2265_A		0.1896	ug/L	0.02761	14.56	-1.264
Co2286_A		-0.03121	ug/L	0.09723	311.6	4.228
Cr2677_A		0.2185	ug/L	0.2673	122.3	6.378
Cu3273_A		2.129	ug/L	0.09989	4.691	134.3
Fe2599_R		23.02	ug/L	4.320	18.76	63.21
K_7664_R		-51.68	ug/L	9.913	19.18	-101.2
Li6707_R		-1.269	ug/L	0.3582	28.23	-4.177
Mg2025_A		5.608	ug/L	0.9935	17.71	-8.502
Mn2576_R		0.3812	ug/L	0.1971	51.69	2.243
Mo2020_A		0.5966	ug/L	0.1530	25.65	3.534
Na5895_R		14.25	ug/L	2.800	19.65	41.02
Ni2316_A		0.02979	ug/L	0.3936	1,321	-0.5111
Pb2203_A		-0.2092	ug/L	0.8763	418.9	-0.4275
Sb2068_A		0.6773	ug/L	0.2966	43.79	1.282
Se1960_A		-1.138	ug/L	1.681	147.7	2.719
Si2516_R		38.68	ug/L	26.38	68.20	68.80
Sn1899_A		0.07261	ug/L	0.3728	513.4	1.034
Sr4215_R		0.3009	ug/L	0.09606	31.92	14.03
Ti3349_A		0.8972	ug/L	0.1643	18.31	24.75
Tl1908_A		0.1916	ug/L	0.1937	101.1	-1.538
V_2924_A		0.09125	ug/L	0.06578	72.09	-0.4238
Zn2062_A		0.1825	ug/L	0.01484	8.134	1.541
Y_3600_R		17,430	Cts/S	92.883	0.53290	17,430
Y_2243_A		10,072	Cts/S	39.310	0.39027	10,072
Y_3600_A		159,230	Cts/S	48.261	0.030309	159,230

SO8631-013

Method Name: FAST-2016_NO_AU Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:10:04AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3081	ug/L	0.05120	16.62	-90.76
Al3961_R		96.08	ug/L	4.244	4.417	105.4
As1891_A		234.3	ug/L	0.2514	0.1073	106.6
B_2089_A		63.06	ug/L	0.09464	0.1501	104.3
Ba4554_R		16.62	ug/L	0.1671	1.005	725.4
Be3130_R		0.05676	ug/L	0.03151	55.51	2.334
Ca3158_R		17,680	ug/L	152.0	0.8600	23,240
Cd2265_A		-0.03748	ug/L	0.02327	62.08	2.314
Co2286_A		18.64	ug/L	0.01690	0.09067	93.24
Cr2677_A		0.3271	ug/L	0.2355	72.01	9.667
Cu3273_A		0.7267	ug/L	0.2374	32.66	121.4
Fe2599_R		9,164	ug/L	43.69	0.4768	17,750
K_7664_R		5,673	ug/L	18.63	0.3283	3,225
Li6707_R		2.016	ug/L	0.01300	0.6447	27.94
Mg2025_A		2,571	ug/L	3.798	0.1477	1,026
Mn2576_R		965.2	ug/L	7.407	0.7674	10,740
Mo2020_A		0.2655	ug/L	0.2212	83.29	2.088
Na5895_R		20,500	ug/L	279.8	1.365	37,680
Ni2316_A		1.585	ug/L	0.4000	25.24	17.51

SO8631-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:10:04AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4379	ug/L	0.6935	158.4	0.5150
Sb2068_A		-0.04356	ug/L	1.009	2,317	1.040
Se1960_A		-0.9948	ug/L	0.3819	38.39	3.080
Si2516_R		7,236	ug/L	64.73	0.8946	3,816
Sn1899_A		0.1279	ug/L	0.2852	223.0	1.048
Sr4215_R		164.0	ug/L	2.070	1.262	11,460
Ti3349_A		2.032	ug/L	0.03199	1.574	57.81
Tl1908_A		-0.7902	ug/L	0.6355	80.42	-2.916
V_2924_A		0.1530	ug/L	0.02586	16.91	-3.944
Zn2062_A		1.856	ug/L	0.07023	3.784	8.069
Y_3600_R		17,438	Cts/S	2.0553	0.011787	17,438
Y_2243_A		9,864.2	Cts/S	6.6556	0.067472	9,864.2
Y_3600_A		154,760	Cts/S	141.94	0.091714	154,760

SO8631-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:14:26AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4233	ug/L	0.04866	11.50	-34.21
Al3961_R		26.99	ug/L	5.328	19.74	37.01
As1891_A		85.61	ug/L	0.3988	0.4658	36.05
B_2089_A		65.44	ug/L	0.1671	0.2553	107.6
Ba4554_R		16.46	ug/L	0.1883	1.144	728.3
Be3130_R		0.08062	ug/L	0.01590	19.72	4.750
Ca3158_R		17,890	ug/L	311.8	1.743	23,820
Cd2265_A		-0.02131	ug/L	0.003835	18.00	-2.703
Co2286_A		19.45	ug/L	0.1130	0.5810	96.60
Cr2677_A		0.5918	ug/L	0.2615	44.18	12.22
Cu3273_A		0.8647	ug/L	0.1132	13.09	118.3
Fe2599_R		2,424	ug/L	21.38	0.8818	4,771
K_7664_R		5,689	ug/L	91.03	1.600	3,276
Li6707_R		1.589	ug/L	0.8880	55.90	24.11
Mg2025_A		2,650	ug/L	6.319	0.2385	1,054
Mn2576_R		965.2	ug/L	15.05	1.559	10,890
Mo2020_A		0.1149	ug/L	0.06382	55.53	1.493
Na5895_R		20,580	ug/L	335.5	1.630	38,320
Ni2316_A		6.557	ug/L	0.3682	5.616	18.55
Pb2203_A		0.8093	ug/L	0.03119	3.854	0.8232
Sb2068_A		-0.09389	ug/L	0.9679	1,031	0.8143
Se1960_A		-1.218	ug/L	0.7388	60.66	2.857
Si2516_R		7,008	ug/L	140.8	2.010	3,746
Sn1899_A		-0.08735	ug/L	0.2821	322.9	0.9057
Sr4215_R		164.4	ug/L	1.862	1.133	11,640
Ti3349_A		0.2493	ug/L	0.07537	30.23	4.791
Tl1908_A		-0.5011	ug/L	0.3430	68.45	-2.684
V_2924_A		0.002310	ug/L	0.2587	11,200	-5.592
Zn2062_A		1.968	ug/L	0.1670	8.485	8.478
Y_3600_R		17,665	Cts/S	146.62	0.82998	17,665
Y_2243_A		9,829.5	Cts/S	2.3737	0.024149	9,829.5
Y_3600_A		155,290	Cts/S	350.03	0.22540	155,290

SO8631-015

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:18:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8631-015

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:18:48AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5385	ug/L	0.008736	1.622	-85.89
Al3961_R		70.87	ug/L	8.623	12.17	80.14
As1891_A		230.5	ug/L	0.2526	0.1096	103.1
B_2089_A		63.52	ug/L	0.4143	0.6522	103.3
Ba4554_R		16.81	ug/L	0.2984	1.775	735.7
Be3130_R		-0.001605	ug/L	0.01982	1,234	-3.113
Ca3158_R		17,340	ug/L	112.9	0.6512	22,890
Cd2265_A		-0.04164	ug/L	0.02981	71.59	2.319
Co2286_A		18.58	ug/L	0.07238	0.3896	91.50
Cr2677_A		0.6722	ug/L	0.1671	24.86	13.87
Cu3273_A		-0.2663	ug/L	0.06693	25.13	109.1
Fe2599_R		9,301	ug/L	69.38	0.7459	18,090
K_7664_R		5,443	ug/L	129.4	2.377	3,103
Li6707_R		0.6103	ug/L	0.1731	28.36	14.24
Mg2025_A		2,593	ug/L	4.281	0.1651	1,019
Mn2576_R		947.2	ug/L	9.146	0.9655	10,580
Mo2020_A		0.3208	ug/L	0.1193	37.19	2.269
Na5895_R		19,710	ug/L	198.4	1.007	36,360
Ni2316_A		1.229	ug/L	0.4430	36.04	16.63
Pb2203_A		1.015	ug/L	0.5044	49.70	1.180
Sb2068_A		-0.006328	ug/L	0.2361	3,731	1.051
Se1960_A		-0.4527	ug/L	0.6129	135.4	3.221
Si2516_R		7,103	ug/L	73.48	1.034	3,761
Sn1899_A		0.3030	ug/L	0.2526	83.36	1.143
Sr4215_R		159.3	ug/L	2.319	1.456	11,170
Ti3349_A		1.513	ug/L	0.009984	0.6598	41.97
Tl1908_A		-1.181	ug/L	0.8630	73.08	-3.139
V_2924_A		0.2918	ug/L	0.2324	79.64	-2.190
Zn2062_A		2.190	ug/L	0.006888	0.3145	9.231
Y_3600_R		17,505	Cts/S	242.42	1.3849	17,505
Y_2243_A		9,708.3	Cts/S	34.952	0.36002	9,708.3
Y_3600_A		153,300	Cts/S	501.60	0.32722	153,300

SO8631-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:23:09AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2043	ug/L	0.03455	16.91	-37.42
Al3961_R		24.81	ug/L	0.09121	0.3676	34.18
As1891_A		76.76	ug/L	0.7776	1.013	31.64
B_2089_A		64.02	ug/L	0.1616	0.2524	104.6
Ba4554_R		17.42	ug/L	0.06934	0.3981	765.2
Be3130_R		0.01458	ug/L	0.01954	134.0	-1.523
Ca3158_R		17,300	ug/L	195.9	1.132	22,980
Cd2265_A		0.01000	ug/L	0.02571	257.0	-2.360
Co2286_A		18.23	ug/L	0.1650	0.9052	90.17
Cr2677_A		0.5418	ug/L	0.06289	11.61	11.56
Cu3273_A		0.1738	ug/L	0.4461	256.6	110.4
Fe2599_R		2,207	ug/L	24.67	1.118	4,334
K_7664_R		5,514	ug/L	45.81	0.8307	3,164
Li6707_R		1.027	ug/L	1.763	171.6	18.51
Mg2025_A		2,596	ug/L	11.20	0.4313	1,025
Mn2576_R		933.9	ug/L	13.39	1.434	10,500
Mo2020_A		-0.07649	ug/L	0.1039	135.9	0.7435
Na5895_R		19,750	ug/L	187.2	0.9482	36,670
Ni2316_A		6.027	ug/L	0.1139	1.890	16.84

SO8631-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:23:09AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.01044	ug/L	0.2046	1,961	-0.1399
Sb2068_A		-0.01647	ug/L	0.006119	37.17	0.8466
Se1960_A		-0.8587	ug/L	0.3284	38.24	2.954
Si2516_R		6,855	ug/L	66.32	0.9674	3,655
Sn1899_A		0.8244	ug/L	0.3296	39.98	1.484
Sr4215_R		158.0	ug/L	1.174	0.7430	11,150
Ti3349_A		0.03927	ug/L	0.2664	678.3	-1.410
Tl1908_A		-0.1820	ug/L	0.4302	236.4	-2.414
V_2924_A		0.02093	ug/L	0.2372	1,134	-5.191
Zn2062_A		1.908	ug/L	0.001211	0.06350	8.185
Y_3600_R		17,612	Cts/S	110.04	0.62481	17,612
Y_2243_A		9,761.0	Cts/S	25.662	0.26291	9,761.0
Y_3600_A		155,520	Cts/S	3,017.6	1.9404	155,520

SO8631-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:27:31AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3887	ug/L	0.04323	11.12	-57.40
Al3961_R		192.9	ug/L	2.549	1.321	216.6
As1891_A		11.70	ug/L	0.2025	1.731	0.9823
B_2089_A		139.6	ug/L	0.3761	0.2695	221.8
Ba4554_R		50.37	ug/L	2.649	5.259	2,065
Be3130_R		-0.008175	ug/L	0.01739	212.7	-3.826
Ca3158_R	W	37,830	ug/L	1,455	3.847	49,150
Cd2265_A		0.09763	ug/L	0.02158	22.11	1.343
Co2286_A		1.879	ug/L	0.1135	6.043	13.17
Cr2677_A		0.7399	ug/L	0.1805	24.40	14.38
Cu3273_A		1.310	ug/L	0.4438	33.87	125.4
Fe2599_R		5,204	ug/L	211.9	4.072	9,968
K_7664_R		8,648	ug/L	342.9	3.965	4,893
Li6707_R		-1.106	ug/L	0.9891	89.47	-2.640
Mg2025_A		3,627	ug/L	0.4173	0.01151	1,428
Mn2576_R		932.9	ug/L	35.35	3.790	10,260
Mo2020_A		1.464	ug/L	0.001302	0.08894	6.681
Na5895_R	W	34,440	ug/L	1,313	3.811	62,530
Ni2316_A		-1.457	ug/L	0.03401	2.335	4.096
Pb2203_A		0.3141	ug/L	0.01555	4.950	0.2759
Sb2068_A		0.3660	ug/L	0.6383	174.4	1.171
Se1960_A		-1.737	ug/L	1.429	82.29	2.686
Si2516_R		5,404	ug/L	202.8	3.754	2,828
Sn1899_A		0.6998	ug/L	0.3364	48.08	1.397
Sr4215_R		319.6	ug/L	11.89	3.721	22,080
Ti3349_A		3.925	ug/L	0.1259	3.207	114.5
Tl1908_A		0.2395	ug/L	0.8974	374.7	-2.146
V_2924_A		0.7842	ug/L	0.1154	14.72	3.870
Zn2062_A		1.874	ug/L	0.07566	4.037	8.014
Y_3600_R		17,233	Cts/S	338.71	1.9655	17,233
Y_2243_A		9,713.7	Cts/S	17.701	0.18223	9,713.7
Y_3600_A		155,220	Cts/S	163.78	0.10552	155,220

SO8631-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:31:53AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8631-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:31:53AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3314	ug/L	0.1100	33.20	-44.22
Al3961_R		27.86	ug/L	1.965	7.052	54.80
As1891_A		3.779	ug/L	0.7973	21.10	-2.663
B_2089_A		142.5	ug/L	0.1737	0.1219	225.8
Ba4554_R		48.53	ug/L	1.480	3.049	2,056
Be3130_R		-0.004895	ug/L	0.01865	381.0	-3.422
Ca3158_R	W	37,150	ug/L	1,241	3.340	49,830
Cd2265_A		0.08131	ug/L	0.01120	13.77	-0.2899
Co2286_A		1.596	ug/L	0.02344	1.469	11.74
Cr2677_A		0.4316	ug/L	0.2431	56.32	10.26
Cu3273_A		0.7885	ug/L	0.03926	4.979	118.0
Fe2599_R		3,422	ug/L	72.07	2.106	6,774
K_7664_R		8,535	ug/L	287.1	3.365	4,985
Li6707_R		1.941	ug/L	0.6731	34.67	27.71
Mg2025_A		3,704	ug/L	11.09	0.2994	1,455
Mn2576_R		926.5	ug/L	31.41	3.390	10,520
Mo2020_A		1.398	ug/L	0.02251	1.609	6.413
Na5895_R	W	34,190	ug/L	1,117	3.268	64,100
Ni2316_A		-0.1676	ug/L	0.08645	51.57	4.311
Pb2203_A		0.1995	ug/L	0.1261	63.20	0.1253
Sb2068_A		0.5305	ug/L	0.3033	57.17	1.228
Se1960_A		0.2937	ug/L	0.7885	268.5	3.353
Si2516_R		5,046	ug/L	190.2	3.769	2,729
Sn1899_A		0.1916	ug/L	0.6128	319.9	1.071
Sr4215_R		316.2	ug/L	10.37	3.281	22,550
Ti3349_A		0.1333	ug/L	0.1269	95.18	1.351
Tl1908_A		-0.2403	ug/L	0.08935	37.19	-2.477
V_2924_A		0.1599	ug/L	0.1949	121.9	-3.626
Zn2062_A		1.729	ug/L	0.03553	2.056	7.434
Y_3600_R		17,790	Cts/S	239.97	1.3489	17,790
Y_2243_A		9,687.6	Cts/S	37.321	0.38525	9,687.6
Y_3600_A		155,030	Cts/S	262.69	0.16944	155,030

SO8631-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:36:15AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.490	ug/L	0.04128	1.658	-404.6
Al3961_R		49.33	ug/L	1.394	2.826	78.75
As1891_A	W	2,058	ug/L	10.71	0.5204	951.7
B_2089_A		71.65	ug/L	0.2195	0.3063	115.5
Ba4554_R		29.84	ug/L	0.05543	0.1857	1,283
Be3130_R		0.03701	ug/L	0.02470	66.74	0.6203
Ca3158_R	W	39,690	ug/L	275.7	0.6946	53,160
Cd2265_A		-0.07185	ug/L	0.05731	79.75	36.29
Co2286_A		16.20	ug/L	0.07447	0.4597	80.91
Cr2677_A		0.07020	ug/L	0.02139	30.46	14.34
Cu3273_A		-4.241	ug/L	0.1864	4.395	98.79
Fe2599_R	W	54,180	ug/L	189.8	0.3503	106,800
K_7664_R		6,026	ug/L	75.07	1.246	3,493
Li6707_R		6.480	ug/L	1.225	18.91	72.82
Mg2025_A		6,052	ug/L	15.58	0.2575	2,380
Mn2576_R	W	3,316	ug/L	23.71	0.7148	37,590
Mo2020_A		0.9792	ug/L	0.08441	8.621	4.601
Na5895_R		15,330	ug/L	172.8	1.127	28,700
Ni2316_A	F	-30.97	ug/L	0.1587	0.5124	11.47

SO8631-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:36:15AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.916	ug/L	1.213	63.29	3.081
Sb2068_A		-1.220	ug/L	0.06604	5.414	1.550
Se1960_A		-3.599	ug/L	0.4295	11.93	3.446
Si2516_R		12,150	ug/L	87.93	0.7236	6,489
Sn1899_A		0.7868	ug/L	0.5209	66.21	1.446
Sr4215_R		370.9	ug/L	4.239	1.143	26,410
Ti3349_A		1.074	ug/L	0.1272	11.84	29.36
Tl1908_A		-0.3886	ug/L	0.5037	129.6	-4.375
V_2924_A		1.485	ug/L	0.4145	27.92	0.9527
Zn2062_A		2.913	ug/L	0.09377	3.219	11.97
Y_3600_R		17,758	Cts/S	201.79	1.1364	17,758
Y_2243_A		9,665.7	Cts/S	3.9411	0.040774	9,665.7
Y_3600_A		155,250	Cts/S	3,024.9	1.9484	155,250

SO8631-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:40:34AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.574	ug/L	0.3115	12.10	-415.0
Al3961_R		32.49	ug/L	9.004	27.71	62.88
As1891_A	W	2,070	ug/L	0.4052	0.01957	960.6
B_2089_A		73.13	ug/L	0.1088	0.1489	118.2
Ba4554_R		31.69	ug/L	0.04458	0.1406	1,355
Be3130_R		-0.006950	ug/L	0.03244	466.7	-3.521
Ca3158_R	W	41,300	ug/L	763.5	1.849	55,130
Cd2265_A		-0.2233	ug/L	0.08403	37.63	35.20
Co2286_A		16.54	ug/L	0.02550	0.1542	82.79
Cr2677_A		-0.2611	ug/L	0.09509	36.42	10.48
Cu3273_A		-4.373	ug/L	0.07452	1.704	98.46
Fe2599_R	W	55,680	ug/L	921.9	1.656	109,400
K_7664_R		6,253	ug/L	46.12	0.7375	3,616
Li6707_R		5.449	ug/L	1.346	24.69	62.56
Mg2025_A		6,108	ug/L	10.51	0.1721	2,410
Mn2576_R	W	3,444	ug/L	52.73	1.531	38,910
Mo2020_A		1.047	ug/L	0.1795	17.15	4.868
Na5895_R		15,920	ug/L	250.7	1.575	29,710
Ni2316_A	F	-31.53	ug/L	1.008	3.196	12.52
Pb2203_A		2.204	ug/L	0.8266	37.51	3.455
Sb2068_A		-1.454	ug/L	0.3870	26.61	1.443
Se1960_A		-4.650	ug/L	0.6680	14.37	3.142
Si2516_R		12,560	ug/L	171.3	1.364	6,684
Sn1899_A		0.8539	ug/L	0.1329	15.56	1.493
Sr4215_R		385.6	ug/L	7.468	1.937	27,370
Ti3349_A		-0.04834	ug/L	0.2262	467.9	-4.049
Tl1908_A		-0.9249	ug/L	0.02198	2.377	-4.870
V_2924_A		1.483	ug/L	0.008414	0.5673	0.3026
Zn2062_A		2.672	ug/L	0.07974	2.984	11.08
Y_3600_R		17,703	Cts/S	321.42	1.8156	17,703
Y_2243_A		9,697.7	Cts/S	10.863	0.11202	9,697.7
Y_3600_A		155,340	Cts/S	1,555.8	1.0016	155,340

SO8636-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:44:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO8636-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:44:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1868	ug/L	0.09276	49.67	-27.19
Al3961_R		5.716	ug/L	3.399	59.47	46.11
As1891_A		107.2	ug/L	0.06913	0.06446	45.58
B_2089_A		12.85	ug/L	0.04237	0.3298	24.40
Ba4554_R		67.23	ug/L	0.9525	1.417	2,793
Be3130_R		0.001700	ug/L	0.01922	1,131	-2.758
Ca3158_R	W	53,870	ug/L	675.8	1.254	71,400
Cd2265_A		0.05390	ug/L	0.04894	90.80	-2.633
Co2286_A		0.2465	ug/L	0.1736	70.41	5.364
Cr2677_A		0.5929	ug/L	0.06576	11.09	11.14
Cu3273_A		4.755	ug/L	1.195	25.14	160.7
Fe2599_R		918.4	ug/L	19.06	2.075	1,810
K_7664_R		3,843	ug/L	18.64	0.4850	2,178
Li6707_R		2.025	ug/L	1.035	51.10	28.28
Mg2025_A		10,560	ug/L	79.14	0.7493	4,161
Mn2576_R		162.5	ug/L	2.920	1.796	1,825
Mo2020_A		0.4693	ug/L	0.1206	25.70	2.892
Na5895_R	W	25,980	ug/L	366.3	1.410	48,120
Ni2316_A		-0.2458	ug/L	0.2475	100.7	0.2539
Pb2203_A		0.5866	ug/L	0.4439	75.68	0.5283
Sb2068_A		1.089	ug/L	0.7072	64.92	1.521
Se1960_A		-1.642	ug/L	1.851	112.7	2.484
Si2516_R		2,033	ug/L	16.76	0.8244	1,116
Sn1899_A		0.9455	ug/L	0.1672	17.68	1.547
Sr4215_R		108.5	ug/L	1.409	1.298	7,641
Ti3349_A		-0.05978	ug/L	0.09291	155.4	-4.407
Tl1908_A		0.8474	ug/L	0.2104	24.83	-1.127
V_2924_A		-0.1755	ug/L	0.2222	126.6	-4.330
Zn2062_A		4.251	ug/L	0.05663	1.332	17.12
Y_3600_R		17,571	Cts/S	121.48	0.69138	17,571
Y_2243_A		9,671.6	Cts/S	45.689	0.47240	9,671.6
Y_3600_A		154,260	Cts/S	646.59	0.41916	154,260

SO8636-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:49:18AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05359	ug/L	0.08377	156.3	-30.55
Al3961_R		11.62	ug/L	3.595	30.95	52.73
As1891_A		112.5	ug/L	0.7213	0.6414	47.93
B_2089_A		13.26	ug/L	0.3600	2.714	25.00
Ba4554_R		67.17	ug/L	0.9744	1.451	2,801
Be3130_R		0.001240	ug/L	0.05513	4,447	-2.820
Ca3158_R	W	54,460	ug/L	389.4	0.7150	72,430
Cd2265_A		0.06650	ug/L	0.05275	79.33	-2.388
Co2286_A		0.3690	ug/L	0.04980	13.50	5.928
Cr2677_A		0.5910	ug/L	0.007261	1.229	11.09
Cu3273_A		4.768	ug/L	0.5874	12.32	160.3
Fe2599_R		981.5	ug/L	10.88	1.109	1,940
K_7664_R		3,867	ug/L	16.60	0.4294	2,200
Li6707_R		0.8638	ug/L	0.2402	27.81	16.86
Mg2025_A		10,770	ug/L	4.222	0.03922	4,234
Mn2576_R		162.9	ug/L	1.094	0.6715	1,835
Mo2020_A		0.3076	ug/L	0.1356	44.10	2.269
Na5895_R	W	26,190	ug/L	177.5	0.6780	48,670
Ni2316_A		-0.3002	ug/L	0.2149	71.60	0.2226

SO8636-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:49:18AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3977	ug/L	0.4530	113.9	0.3087
Sb2068_A		0.6243	ug/L	0.8580	137.4	1.225
Se1960_A		-0.3092	ug/L	1.522	492.2	2.949
Si2516_R		2,052	ug/L	3.289	0.1603	1,130
Sn1899_A		0.01226	ug/L	0.4245	3,462	0.9522
Sr4215_R		109.7	ug/L	0.1941	0.1769	7,754
Ti3349_A		-0.01735	ug/L	0.09711	559.7	-3.145
Tl1908_A		0.4041	ug/L	0.6421	158.9	-1.440
V_2924_A		-0.1199	ug/L	0.07546	62.92	-3.642
Zn2062_A		4.568	ug/L	0.02113	0.4625	18.30
Y_3600_R		17,633	Cts/S	98.400	0.55803	17,633
Y_2243_A		9,654.1	Cts/S	39.962	0.41394	9,654.1
Y_3600_A		153,710	Cts/S	1,079.9	0.70258	153,710

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:53:40AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		511.2	ug/L	0.4287	0.08386	11,490
Al3961_R		12,790	ug/L	82.28	0.6434	13,080
As1891_A		513.0	ug/L	4.921	0.9592	238.5
B_2089_A		503.2	ug/L	2.119	0.4212	816.2
Ba4554_R		523.0	ug/L	2.096	0.4008	21,670
Be3130_R		523.0	ug/L	0.9217	0.1762	50,280
Ca3158_R		12,860	ug/L	73.15	0.5690	17,270
Cd2265_A		509.1	ug/L	2.780	0.5459	8,056
Co2286_A		510.1	ug/L	3.661	0.7177	2,435
Cr2677_A		522.8	ug/L	1.197	0.2289	6,711
Cu3273_A		516.8	ug/L	2.246	0.4347	6,136
Fe2599_R	W	13,310	ug/L	62.12	0.4669	26,340
K_7664_R		12,600	ug/L	107.4	0.8519	7,412
Li6707_R		525.1	ug/L	2.818	0.5367	5,255
Mg2025_A		12,690	ug/L	78.16	0.6157	5,129
Mn2576_R		512.6	ug/L	0.5388	0.1051	5,831
Mo2020_A		506.9	ug/L	2.832	0.5587	1,985
Na5895_R		12,750	ug/L	146.4	1.148	23,960
Ni2316_A		514.8	ug/L	3.787	0.7356	1,237
Pb2203_A		508.9	ug/L	4.141	0.8137	595.5
Sb2068_A		504.7	ug/L	2.651	0.5253	329.9
Se1960_A		508.7	ug/L	3.669	0.7213	184.6
Si2516_R		13,180	ug/L	11.05	0.08386	7,067
Sn1899_A		512.0	ug/L	1.720	0.3360	332.4
Sr4215_R		513.6	ug/L	4.842	0.9427	36,710
Ti3349_A		504.8	ug/L	0.2954	0.05851	15,350
Tl1908_A		511.8	ug/L	2.945	0.5754	372.8
V_2924_A		518.6	ug/L	2.109	0.4067	6,345
Zn2062_A		505.8	ug/L	3.159	0.6245	1,979
Y_3600_R		17,824	Cts/S	44.348	0.24881	17,824
Y_2243_A		9,852.6	Cts/S	27.102	0.27507	9,852.6
Y_3600_A		158,060	Cts/S	27.955	0.017687	158,060

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:57:48AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 6:57:48AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2549	ug/L	0.1730	67.88	-19.03
Al3961_R		15.42	ug/L	9.634	62.49	10.01
As1891_A		2.349	ug/L	0.8928	38.01	-3.281
B_2089_A		0.2085	ug/L	0.1029	49.36	4.893
Ba4554_R		0.4360	ug/L	0.02415	5.539	72.02
Be3130_R		0.4592	ug/L	0.03982	8.672	40.98
Ca3158_R		13.38	ug/L	0.9220	6.890	2.389
Cd2265_A		0.2044	ug/L	0.02290	11.21	-0.9993
Co2286_A		0.07691	ug/L	0.06727	87.46	4.638
Cr2677_A		0.3047	ug/L	0.06062	19.90	7.440
Cu3273_A		-0.2237	ug/L	0.06841	30.58	105.9
Fe2599_R		27.88	ug/L	4.970	17.82	73.91
K_7664_R		-6.538	ug/L	9.957	152.3	-76.34
Li6707_R		-0.3082	ug/L	1.458	473.0	5.316
Mg2025_A		6.211	ug/L	1.094	17.62	-8.053
Mn2576_R		0.9706	ug/L	0.3102	31.96	8.954
Mo2020_A		0.3923	ug/L	0.1125	28.69	2.653
Na5895_R		12.91	ug/L	7.222	55.95	39.24
Ni2316_A		0.3261	ug/L	0.1541	47.27	0.2008
Pb2203_A		0.3884	ug/L	0.07821	20.14	0.2840
Sb2068_A		0.2787	ug/L	0.5197	186.5	0.9897
Se1960_A		-0.6823	ug/L	0.4236	62.09	2.818
Si2516_R		47.96	ug/L	26.75	55.77	74.92
Sn1899_A		0.2299	ug/L	0.1350	58.74	1.111
Sr4215_R		0.3756	ug/L	0.07701	20.50	19.62
Ti3349_A		0.7631	ug/L	0.2121	27.80	20.50
Tl1908_A		-0.07166	ug/L	0.3311	462.1	-1.693
V_2924_A		0.1537	ug/L	0.04566	29.70	0.3580
Zn2062_A		0.2777	ug/L	0.1017	36.62	1.877
Y_3600_R		17,747	Cts/S	10.420	0.058714	17,747
Y_2243_A		9,833.1	Cts/S	36.891	0.37517	9,833.1
Y_3600_A		158,110	Cts/S	228.34	0.14442	158,110

SO8636-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,068
Analyst Name: EP
Acquire Date: 12/21/2021 7:02:13AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2594	ug/L	0.006205	2.392	-19.07
Al3961_R		81.68	ug/L	2.091	2.560	139.5
As1891_A		3.824	ug/L	0.7752	20.27	-2.519
B_2089_A		12.59	ug/L	0.5244	4.166	23.80
Ba4554_R		25.64	ug/L	0.007797	0.03041	1,099
Be3130_R		0.02032	ug/L	0.009170	45.14	-1.075
Ca3158_R	W	73,610	ug/L	1,053	1.430	97,620
Cd2265_A		0.05052	ug/L	0.01787	35.37	-3.286
Co2286_A		0.01698	ug/L	0.03955	232.9	4.250
Cr2677_A		1.194	ug/L	0.1605	13.44	18.45
Cu3273_A		2.151	ug/L	0.0004690	0.02182	130.7
Fe2599_R		97.02	ug/L	3.413	3.518	208.1
K_7664_R		3,764	ug/L	64.35	1.710	2,133
Li6707_R		0.7927	ug/L	1.847	233.0	16.17
Mg2025_A		16,800	ug/L	17.07	0.1016	6,564
Mn2576_R		8.593	ug/L	0.08018	0.9331	100.2
Mo2020_A		1.073	ug/L	0.1127	10.50	5.178
Na5895_R		6,725	ug/L	84.26	1.253	12,470
Ni2316_A		0.5048	ug/L	0.2203	43.65	0.7205

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSR268 HCL: MSR269 Digestion Vessels: ML0026000024

1:1 HNO3: MR3228 1:1 HCL: MR3209

Pipet **LCS/Spiking Information:**

M11 CLPP-SPK-1 (ID/Vol): MS2369 / 0.05 mL

M41 CLPP-SPK-INT1 (ID/Vol): MW30719 / 0.5 mL

M41 CLPP-SPK-INT2 (ID/Vol): MW30678 / 0.5 mL

— — Spike (ID/Vol): — / — mL

Heat Source ID: A

Start Time: 720 /Temp. 90 °C

End Time: 13:52 /Temp. 95 °C

Thermometer ID/Pos: ALC30 /1,7

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LCSWOL17ICW1	OL17ICW1	0.05	L	0.05	L	AQ	IC	JT	12/17/2021	—	✓
PBWOL17ICW1	OL17ICW1	1	L		L	AQ	IC	JT	12/17/2021	—	
SO8550-001	OL17ICW1	0.010	L		L	AQ	IC	JT	12/17/2021	—	
SO8592-001	OL17ICW1	0.05	L		L	AQ	IC	JT	12/17/2021	C	
SO8592-001P	OL17ICW1		L		L	AQ	IC	JT	12/17/2021		
SO8592-001S	OL17ICW1		L		L	AQ	IC	JT	12/17/2021		
SO8592-002	OL17ICW1		L		L	AQ	IC	JT	12/17/2021		
SO8592-003	OL17ICW1		L		L	AQ	IC	JT	12/17/2021		
SO8592-004	OL17ICW1		L		L	AQ	IC	JT	12/17/2021		
SO8616-001	OL17ICW1	0.01	L		L	AQ	IC	JT	12/17/2021	—	
SO8616-002	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	—	
SO8616-003	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	—	
SO8616-004	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	—	
SO8616-005	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	—	
SO8624-001	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	—	
SO8631-001	OL17ICW1	0.05	L		L	AQ	IC	JT	12/17/2021	C	
SO8631-002	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-003	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-004	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-005	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-006	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-007	OL17ICW1		L		L	AQ	IC	JT	12/17/2021	C	

EA 12-20-21

REVIEWED
EA 12-20-21
KATAHDIN ANALYTICAL
METALS SECTION

Client IDs Verified
JT 12/17/21

QA-064-Revision 5 -12/07/2018 Digestion performed by: JT/IM On: 12/17/21 Page: OL058 Revision: 00

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSR268 HCL: MSR269 Digestion Vessels: MLD036000001214

1:1 HNO3: MR3228 1:1 HCL: MR3209

Pipet	LCS/Spiking Information:
M11	CLPP-SPK-1 (ID/Vol): MS3269 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW20719 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW20678 / 0.5 mL
–	– Spike (ID/Vol): – / – mL

Heat Source ID : A
Start Time: 720 /Temp. 90 °C
End Time: 1352 /Temp. 95 °C
Thermometer ID/Pos: ALC30 / 1,7

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWOL17ICW2	OL17ICW2	0.05	L	0.05	L	AQ	IC	JT	12/17/2021	–	✓
PBWOL17ICW2	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	–	
SO8631-008	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-008P	OL17ICW2		L		L	AQ	IC	JT	12/17/2021		
SO8631-008S	OL17ICW2		L		L	AQ	IC	JT	12/17/2021		
SO8631-009	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-010	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-011	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-012	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-013	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-014	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-015	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-016	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-017	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-018	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	
SO8631-019	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	C	
SO8631-020	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	
SO8636-001	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	C	
SO8636-002	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	F	
SO8636-003	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	F	
SO8644-001	OL17ICW2		L		L	AQ	IC	JT	12/17/2021	A	

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12-20-21
KATAHDIN ANALYTICAL
METALS SECTION

12-20-21

Client IDs Verified
JT 12/17/21

QA-064-Revision 5 -12/07/2018 Digestion performed by: JT/IM On: 12/17/21 Page: OL059 Revision: 00

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Alkalinity

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG312105	SM2320B	26-DEC-21	N/A	J 2.7 mg/L	5.0 mg/L	4.0

Solids-Filterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG311696	SM2540C	21-DEC-21	17-DEC-21	U 8.0 mg/L	10. mg/L	8.0

Total Biochemical Oxygen Demand

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG311546	SM5210B	20-DEC-21	15-DEC-21	U 1.0 mg/L	2.0 mg/L	1.0

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG312105-2	LCS	WG312105	26-DEC-21	N/A	mg/L	120	130	111	80-120	

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG311696-2	LCS	WG311696	21-DEC-21	17-DEC-21	mg/L	750	710	94	80-120	

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG311546-2	LCS	WG311546	20-DEC-21	15-DEC-21	mg/L	198	220	113	85-115	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Duplicate Sample Summary Report

Alkalinity

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG312105-3	SO8631-1	WG312105	26-DEC-21	mg/L	150	160	4	20

Solids-Filterable Residue

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG311696-3	SO8631-5	WG311696	21-DEC-21	mg/L	250	240	5	10

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Matrix Spike Sample Summary Report

Alkalinity

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG312105-4	MS	SO8631-1	WG312105	26-DEC-21	mg/L	120	150	240	90	75 - 125
WG312105-5	MS	SO8631-3	WG312105	26-DEC-21	mg/L	120	200	300	97	75 - 125

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-1
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT#3	AQ	13-DEC-21 10:35:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 18:49:08	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-3
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT#3	AQ	13-DEC-21 13:21:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	200 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 18:58:26	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-5
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#3	AQ	13-DEC-21 12:23:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	160 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:05:39	N/A	N/A	
Solids-Filterable Residue	250 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-7
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#3	AQ	13-DEC-21 14:25:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	80. mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:13:56	N/A	N/A	
Solids-Filterable Residue	110 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-9
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#3	AQ	14-DEC-21 10:47:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:16:57	N/A	N/A	
Solids-Filterable Residue	190 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:22:00	SM 5210B	15-DEC-21 0900	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-11
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#3	AQ	14-DEC-21 12:09:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:19:43	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:32:00	SM 5210B	15-DEC-21 0928	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-13
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT#3	AQ	14-DEC-21 11:15:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	41. mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:22:42	N/A	N/A	
Solids-Filterable Residue	110 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J0.35 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:25:00	SM 5210B	15-DEC-21 0916	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-15
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-EVENT#3	AQ	14-DEC-21 12:00:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	40. mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:24:49	N/A	N/A	
Solids-Filterable Residue	120 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J0.65 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:39:00	SM 5210B	15-DEC-21 0941	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-17
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT#3	AQ	14-DEC-21 13:10:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	120 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:26:55	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J1.1 mg/L	2.0	0.23	1	SM5210B	WG311546	20-DEC-21 14:35:00	SM 5210B	15-DEC-21 0935	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO8631-19
Report Date: 05-JAN-22
Project: Fort Devens 2021 LTM
SDG: SO8631

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#3	AQ	14-DEC-21 13:30:00	14-DEC-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	150 mg/L	5.0	0.23	4	STDM 2320B	WG312105	26-DEC-21 19:29:34	N/A	N/A	
Solids-Filterable Residue	220 mg/L	10.	5.0	8	STDM 2540C	WG311696	21-DEC-21 07:30:00	SM 2540C	17-DEC-21	
Total Biochemical Oxygen Demand	J4.3 mg/L	6.0	0.70	1	SM5210B	WG311546	20-DEC-21 14:29:00	SM 5210B	15-DEC-21 0920	

Raw Data Section

WET CHEMISTRY BATCH REPORT
Dec 21 2021, 08:23 am
Batch: WG311546 Run ID 1: R583293 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Date Analyzed: 20-DEC-21

Analyst Initials: JL

Prep Date: 15-DEC-21

Prep Method: SM 5210B

Prep Chemist: JL

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8622-1	SAMP	SM5210B	0.37500mL	300.00mL	800	3.305	2600 mg/L	NA	2	190	1600		
SO8631-9	SAMP	SM5210B	300.00mL	300.00mL	1	.04	U2.0 mg/L	NA	2	0.23	2.0		
SO8631-11	SAMP	SM5210B	300.00mL	300.00mL	1	-.01	U2.0 mg/L	NA	2	0.23	2.0		
SO8631-13	SAMP	SM5210B	300.00mL	300.00mL	1	.35	J0.35 mg/L	NA	2	0.23	2.0		
SO8631-15	SAMP	SM5210B	300.00mL	300.00mL	1	.65	J0.65 mg/L	NA	2	0.23	2.0		
SO8631-17	SAMP	SM5210B	300.00mL	300.00mL	1	1.13	J1.1 mg/L	NA	2	0.23	2.0		
SO8631-19	SAMP	SM5210B	100.00mL	300.00mL	3	1.42	J4.3 mg/L	NA	2	0.70	6.0		
SO8633-1	SAMP	SM5210B	50.000mL	300.00mL	6	2.06	12. mg/L	NA	2	1.4	12.		
SO8634-1	SAMP	SM5210B	17.500mL	300.00mL	17	2.55	44. mg/L	NA	2	4.0	34.		
SO8636-3	SAMP	SM5210B	300.00mL	300.00mL	1	-.33	U2.0 mg/L	NA	2	0.23	2.0		
SO8638-1	SAMP	SM5210B	0.17500mL	300.00mL	1700	3.92	6700 mg/L	NA	2	400	3400		
SO8652-1	SAMP	SM5210B	5.0000mL	300.00mL	60	.59	35 ~~U120~~ mg/L	NA	2	14.	120		
SO8652-2	SAMP	SM5210B	300.00mL	300.00mL	1	1.14	U2.0 mg/L	NA	2	0.23	2.0		
SO8664-1	SAMP	SM5210B	0.075000mL	300.00mL	4000	2.15	8600 mg/L	NA	2	930	8000		
WG311546-1	MBLANK	SM5210B	300.00mL	300.00mL	1	-.15	U1.0 mg/L	NA	2	0.23	2.0		
WG311546-2	LCS	SM5210B	6.0000mL	300.00mL	50	4.491	220 mg/L	NA	2	12.	100		113
WG311546-3	MS	SM5210B	0.050000mL	300.00mL	6000	4.4	26000 mg/L	NA	2	1400	12000		100
WG311546-4	DUP	SM5210B	0.50000mL	300.00mL	600	4.78	2900 mg/L	NA	2	140	1200	8	

Comments:

WG311546-1	SO8622-1
WG311546-2	SO8622-1
WG311546-3	SO8622-1
WG311546-4	SO8622-1

Entered by: JL Date: 12/21/21 Accepted by: [illegible] Date: 12/21/21

Katahdin Analytical Services 5000020

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

R583293
WG311546

Data Entry By: JL

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = 1

Blank: 0838 1407
LCS: 0843 1413

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	7.94	8.09	-0.15	N/A	Yes
Blank 2	0	8.11	7.87	0.24	N/A	No
Blank 3	0	8.21	7.82	0.39	N/A	No
Seed Control 1	1	8.14	6.62	1.52	1.52	No
Seed Control 2	2	8.19	5.26	2.93	1.47	1.47
Seed Control 3	4	8.21	2.77	5.44	1.36	1.36
Seed Control 4	6	8.18	0.55	7.63	1.27	No
			Mean Seed Correction Factor (SCF):			**1.41**

LCS Recovery Calculations

GGA Added (mL): 6 **LCS True Value (mg/L):** 198

LCS ID	Calc mg/L	% Recovery	Recovery Acceptance Limits (%): 84.6 TO 115.4	
LCS 1	228.38	115.3	LCS Within Criteria ?	Yes
LCS 2	223.88	113.1	LCS Within Criteria ?	Yes
LCS 3	221.38	111.8	LCS Within Criteria ?	Yes
Mean	224.54	113.4	LCS Within Criteria ?	Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
8622	0.05	2667.75	26385.00	6	23760	99.8
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:

LCS 1
LCS 2
LCS 3
Blank 1
Blank 2 D11

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
LCS 1	6.000	8.32	2.34	5.98	4.57	228.38	Yes	100.0
LCS 2	6.000	8.21	2.32	5.89	4.48	223.88	Yes	100.0
LCS 3	6.000	8.21	2.37	5.84	4.43	221.38	Yes	100.0
Mean LCS Result	6.000	8.247	2.343	5.903	4.491	224.542	Yes	100.0
8622	0.050	8.09	6.26	1.83	0.42	2505.00	No	12000.0
0849 1416	0.100	8.16	6.68	1.48	0.07	202.50	No	6000.0
	0.250 1.375	8.16	4.46	3.70	2.29 3.305	2745.00	Yes	2400.0
	0.500	8.12	2.39	5.73	4.32	2590.50	Yes	1200.0
	1.000	8.14	<1	7.14	5.73	1718.25	No	600.0
0852 **MS** 1420	0.050	8.21	2.40	5.81	4.40	26385.00	Yes	12000.0
0853 **DUP** 1421	0.500	8.19	2.00	6.19	4.78	2866.50	Yes	1200.0
8631-9	25.000	8.18	6.70	1.48	0.07	0.81	No	24.0
0900 **1D** 1422	50.000	8.26	6.66	1.60	0.19	1.13	No	12.0
	100.000	8.44	6.86	1.58	0.17	0.50	No	6.0
	300.000	9.49	8.04	1.45	0.04	0.04	Yes	2.0
8631-13	25.000	7.88	6.62	1.26	-0.15	-1.83	No	24.0
0916 **2D** 1425	50.000	8.05	6.71	1.34	-0.07	-0.43	No	12.0
	100.000	8.50	6.86	1.64	0.23	0.68	No	6.0
	300.000	9.50	7.74	1.76	0.35	0.35	Yes	2.0
8631-19	25.000	7.52	6.19	1.33	-0.08	-0.99	No	24.0
0920 **3D** 1429	50.000	7.63	5.72	1.91	0.50	2.99	No	12.0
	100.000	7.47	4.64	2.83	1.42	4.25	Yes	6.0
	300.000	5.97	<1	4.97	3.56	3.56	No	2.0
8631-11	25.000	8.03	6.97	1.06	-0.35	-4.23	No	24.0
0928 **1S** 1432	50.000	8.55	7.35	1.20	-0.21	-1.28	No	12.0
	100.000	9.50	8.07	1.43	0.02	0.05	No	6.0
	300.000	8.93	7.53	1.40	-0.01	-0.01	Yes	2.0
8631-17	25.000	7.57	6.50	1.07	-0.34	-4.11	No	24.0
0935 **2S** 1435	50.000	8.09	6.62	1.47	0.06	0.34	No	12.0
	100.000	7.97	6.40	1.57	0.16	0.47	No	6.0
	300.000	7.66	5.12	2.54	1.13	1.13	Yes	2.0
8631-15	25.000	7.86	6.79	1.07	-0.34	-4.11	No	24.0
0941 **DUP** 1439	50.000	8.08	6.76	1.32	-0.09	-0.55	No	12.0
	100.000	8.13	6.44	1.69	0.28	0.83	No	6.0
	300.000	7.78	5.72	2.06	0.65	0.65	Yes	2.0
8633	10.000	7.72	6.60	1.12	-0.29	-8.78	No	60.0
0951 1443	25.000	8.32	6.49	1.83	0.42	5.01	No	24.0
	50.000	8.51	5.04	3.47	2.06	12.35	Yes	12.0
	100.000	9.08	<1	8.08	6.67	20.00	No	6.0
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: [JL]

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
8634	5.000	7.83	6.50	1.33	-0.08	-4.95	No	120.0
1003 1445	10.000 ,175	7.98	5.28	2.70	1.29 ,2.55	38.63	Yes	60.0
	25.000	7.91	2.69	5.22	3.81	45.69	Yes	24.0
	50.000	7.55	<1	6.55	5.14	30.83	No	12.0
	100.000	6.50	<1	5.50	4.09	12.26	No	6.0
	300.000	8.43	<1	7.43	6.02	6.02	No	2.0
8638	0.100 ,175	8.50	4.61	3.89	2.48 ,3.92	7432.50	Yes	6000.0
1012 1448	0.250	7.91	1.14	6.77	5.36	6429.00	Yes	2400.0
	0.500	8.12	<1	7.12	5.71	3424.50	No	1200.0
	1.000	8.11	<1	7.11	5.70	1709.25	No	600.0
8636-3	1.000	8.13	7.35	0.78	-0.63	-189.75	No	600.0
1111 1430	2.000	8.13	7.25	0.88	-0.53	-79.87	No	300.0
	5.000	8.16	7.37	0.79	-0.62	-37.35	No	120.0
	10.000	8.10	7.26	0.84	-0.57	-17.18	No	60.0
	25.000	8.18	7.11	1.07	-0.34	-4.11	No	24.0
	50.000	8.17	7.16	1.01	-0.40	-2.42	No	12.0
	100.000	8.24	7.10	1.14	-0.27	-0.82	No	6.0
	300.000	9.44	8.36	1.08	-0.33	-0.33	Yes	2.0
8652-2	25.000	8.10	7.88	0.22	-1.19	-14.31	No	24.0
1441 **EFF** 1458	50.000	8.63	8.11	0.52	-0.89	-5.36	No	12.0
	100.000	9.50	8.55	0.95	-0.46	-1.39	No	6.0
	300.000	9.47	6.92	2.55	1.14	1.14	Yes	2.0
8652-1	0.250	7.77	7.68	0.09	-1.32	-1587.00	No	2400.0
1444 **INF** 1501	0.500	8.07	7.67	0.40	-1.01	-607.50	No	1200.0
	1.000	7.87	7.38	0.49	-0.92	-276.75	No	600.0
	2.000	8.15	7.20	0.95	-0.46	-69.38	No	300.0
	5.000	8.14	6.14	2.00	0.59	35.25	Yes	120.0
8664	0.050 ,075	7.80	5.35	2.45	1.04 ,2.15	6225.00	Yes	12000.0
1500 1506	0.100	7.90	3.23	4.67	3.26	9772.50	Yes	6000.0
	0.250	8.17	<1	7.17	5.76	6909.00	No	2400.0
	0.500	8.12	<1	7.12	5.71	3424.50	No	1200.0
	1.000	8.13	<1	7.13	5.72	1715.25	No	600.0
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!
				0.00	-1.41	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG311546

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration	Probe ID:
Total BOD: SM5210B EPA 405.1		PQL: 2.0 mg/L		True Value / Lot ID	Actual Value / Accept? ± 0.05
Carbonaceous BOD: SM5210B		PQL: 2.0 mg/L		4.01	
Glutamic Acid Std (GGA) ID: GGA 121521	GGA Preparation:	Seed Used Source ID and Amount:		7.00	
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA: ✓	1 mL	10.01	
Phosphate Bffr Soln. ID: W20367	SWL4207	SSD: ✓	1 mL ✓	DO Meter ID: B27869	DO Probe ID: D86030MD
$H_{14}MgO_{11}S$ ID: SWL4874	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID: 14-860	pH Paper ID: 610 2002
Ferric Chloride Soln. ID: SWL4770	SWL4623	Starch Indicator ID:		Carboy ID: K	1:50 H_2SO_4 ID:
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:		Pipet IDs: W3,7,11,13	
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):	INC ID:

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
Blank		0838					626m		7.94	8.09	1407	
↓		39					85E		8.11	7.87	08	
		40					463		8.21	7.82	09	
1		0840					10R		8.14	6.62	1410	
2		41					1R		8.19	5.26	11	
4		41					391		8.21	2.77	12	
6		42					A1		8.18	.55	12	
LCS		0843					021		8.32	~~2.34~~	1413	2.34
↓		43					470		8.21	2.32	14	
		44					1C		8.21	2.37	15	
S08622	SWK	0849	↓			N	046	.05	8.09	6.26	1416	
		50					026	.1	8.16	6.68	17	
		51					176	.25	8.16	4.46	17	
		51					135	.5	8.12	2.39	18	
		52					m1	1	8.14	<1	18	
	MS	0852					135	.05	8.21	2.40	1420	
	DUP	53					T23	.5	8.19	2.00	21	

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S086631-9	Seres	0900	✓			N	497	25	8.18	6.70	1422	
	MW-21-1D	00					DMS	50	8.26	6.66	22	
		01					123	100	8.44	6.86	23	
		04					132	300	9.49	8.04	24	
S086631-13	Seres	0916	✓			N	5167	25	7.88	6.62	1425	
	2D	17					146	50	8.05	6.71	26	
		17					999	100	8.50	6.86	27	
		19					131A	300	9.50	7.74	28	
S086631-19	Seres	0920	✓			N	210	25	7.52	6.19	1429	
	3D	21					170t	50	7.63	5.72	30	
		22					025	100	7.47	4.64	30	
		23	✓				27Q	300	5.97	<1	31	
S086631-11	Seres	0928	✓			N	T22	25	8.03	6.97	1432	
	1S	29					22C	50	8.55	7.35	33	
		29					5882	100	9.50	8.07	33	9.50
		45					270m	300	8.93	7.53	34	
S086631-17	Seres	0935	✓			N	17A	25	7.57	6.50	1435	
	2S	36					158	50	8.09	6.62	36	
		37					147	100	7.97	6.40	37	
		38	✓				6	300	7.66	5.12	37	

JR 12/16/21

NOTES:

ANALYST 1 JR	DATE 12/15/21
ANALYST 2 JR	DATE 12/20/21
CHECKED BY: [signature]	DATE 12/21/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

WL-013 - Revision 10 - 09/23/2021

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.					pH Meter Calibration		Probe ID:
Total BOD:	**SM5210B**	**EPA 405.1**		**PQL: 2.0 mg/L**		True Value	Lot ID	Actual Value / Accept? ± 0.05
Carbonaceous BOD:	**SM5210B**			**PQL: 2.0 mg/L**		4.01		
Glutamic Acid Std (GGA) ID: GGA	GGA Preparation:		Seed Used Source ID and Amount:			7.00		
Nitirification Inhibitor ID:	0.15g Glucose ID:		LAWPCA:	1 mL		10.01		
Phosphate Bffr Soln. ID:			SSD:	1 mL		DO Meter ID: B27869		DO Probe ID:
$H_{14}MgO_{11}S$ ID:	0.15 g Glutamic Acid ID:		$Na_2S_2O_3$ ID:			KI Paper ID:		pH Paper ID:
Ferric Chloride Soln. ID:			Starch Indicator ID:			Carboy ID:		1:50 H_2SO_4 ID:
Calcium Chloride Soln. ID:			Potassium Iodide Soln. ID:			Pipet IDs:		
Acid 1 ID (A1):	Acid 2 ID (A2):		Base1 ID (B1):			Base 2 ID (B2):		INC ID:

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *	
508631-15	Seres	0941	✓			N	267H	25	7.86	6.79	1439		
	Dup	42	↓			↓	T12	50	8.08	6.76	39		
		43					96996	100	8.13	6.44	40		
		44					BDP	300	7.78	5.72	41		
508633	Nestle	0951	✓			N	732	10	~~8.32~~	6.60	1443	~~8.32~~	7.72
		52					119	25	~~8.51~~	6.49	44	8.32	OL
		53					BPOS	50	8.51	5.04	44		12/15/2
		54					831	100	9.08	<1	44		
508634	TI	1003	✓				189	5	7.83	6.50	1445		
		04	↓			↓	116	10	7.98	5.28	46		
		05					T17	25	7.91	2.69	47		
		05					186	50	7.55	<1	47		
		06					1313	100	6.50	<1	47		
		06					E2	300	6.43	<1	47		
													OL 12/16/

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S086038	Clean	1012	✓			N	T13	.1	8.05	4.61	1446	
	H	12					204	.25	7.91	1.14	49	
		13					201	.5	8.12	<1	49	
		13					202A	1	8.11	<1	49	
S086036	Rockland	1111	✓			N	367	1	8.13	7.35	1450	
	Drumlin	12					043	2	8.13	7.25	51	
		13					049	5	8.16	7.37	52	
		14					3180	10	8.10	7.26	53	
		15					106	25	8.18	7.11	54	
		15					967	50	8.17	7.16	55	
		16					2	100	8.24	7.10	56	
		20					I2	300	8.44	8.36	57	
S086052-2	Sunday	1441	✓			N	R	25	8.10	7.88	1458	
	River	42					BP22	50	8.63	8.11	59	
	Eff	43					80m	100	9.50	8.55	59	
		57					456	300	9.47	16.92	1500	
S086052-1	Sunday	1444	✓			N	Q1	.25	7.77	7.68	1501	
	River inf	45					A22	.5	8.07	7.67	02	
		46					AC	1	7.87	7.38	03	
		46					444	2	8.15	7.20	04	
		47					108	5	8.14	6.14	05	

OR 12/16/21

NOTES:

ANALYST 1 OR	DATE 12/15/21
ANALYST 2 OR	DATE 12/20/21
CHECKED BY: [illegible]	DATE 12/21/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration		Probe ID:		
Total BOD: SM5210B EPA 405.1		**PQL: 2.0 mg/L**		True Value	Lot ID	Actual Value	Accept? ± 0.05	
Carbonaceous BOD: SM5210B		**PQL: 2.0 mg/L**		4.01				
Glutamic Acid Std (GGA) ID: GGA	GGA Preparation:	Seed Used Source ID and Amount:		7.00				
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01				
Phosphate Bffr Soln. ID:		SSD:	1 mL	DO Meter ID: B27869		DO Probe ID:		
$H_{14}MgO_{11}S$ ID:	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID:		pH Paper ID:		
Ferric Chloride Soln. ID:		Starch Indicator ID:		Carboy ID:		1:50 H_2SO_4 ID:		
Calcium Chloride Soln. ID:		Potassium Iodide Soln. ID:		Pipet IDs:				
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):		INC ID:		

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S08664	SWK	1500	✓			N	1009	.05	7.80	5.35	1506	
		01	↓			↓	340	.1	7.90	3.23	07	
		02	↓			↓	181	.25	8.17	<1	07	
		02	↓			↓	120	.5	8.12	<1	07	
		02	↓			↓	214	1	8.13	<1	08	

OR 12/16/2

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *

JR
12/10/21

NOTES:

ANALYST 1 JR	DATE 12/15/21
ANALYST 2 JR	DATE 12/20/21
CHECKED BY: [illegible]	DATE 12/21/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

WET CHEMISTRY BATCH REPORT
Dec 21 2021, 08:07 am
Batch: WG311696

Parameter: Solids-Filterable Residue

Date Analyzed: 21-DEC-21

Analyst Initials: JJ

Prep Date: 17-DEC-21

Prep Method: STDM 2540C

Prep Chemist: JJ

Sample	Samp Type	Method	Tare Amt.	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8631-1	SAMP	STDM 2540C	131.3361g		131.3541g	1	180	180 mg/L	NA	10	5.02	10.		
SO8631-11	SAMP	STDM 2540C	133.2632g		133.2790g	1	158	160 mg/L	NA	10	5.02	10.		
SO8631-13	SAMP	STDM 2540C	129.1202g		129.1315g	1	113	110 mg/L	NA	10	5.02	10.		
SO8631-15	SAMP	STDM 2540C	142.7611g		142.7726g	1	115	120 mg/L	NA	10	5.02	10.		
SO8631-17	SAMP	STDM 2540C	137.9213g		137.9389g	1	176	180 mg/L	NA	10	5.02	10.		
SO8631-19	SAMP	STDM 2540C	139.4092g		139.4314g	1	222	220 mg/L	NA	10	5.02	10.		
SO8631-3	SAMP	STDM 2540C	142.9468g		142.9671g	1	203	200 mg/L	NA	10	5.02	10.		
SO8631-5	SAMP	STDM 2540C	130.6888g		130.7137g	1	249	250 mg/L	NA	10	5.02	10.		
SO8631-7	SAMP	STDM 2540C	137.0139g		137.0249g	1	110	110 mg/L	NA	10	5.02	10.		
SO8631-9	SAMP	STDM 2540C	131.7967g		131.8155g	1	188	190 mg/L	NA	10	5.02	10.		
WG311696-1	MBLANK	STDM 2540C	91.44400g		91.44350g	1	-5	U8.0 mg/L	NA	10	5.02	10.		
WG311696-2	LCS	STDM 2540C	87.11640g		87.18700g	1	706	710 mg/L	NA	10	5.02	10.		94
WG311696-3	DUP	STDM 2540C	87.06600g		87.08970g	1	237	240 mg/L	NA	10	5.02	10.	5	

Comments:

WG311696-1 SO8631-1
WG311696-2 SO8631-1
WG311696-3 SO8631-5

Katahdin Analytical Services 5000030

Entered by: JJ Date: 12/21/21 Accepted by: [signature] Date: 12/21/21

WG311696
R583292

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2 Total Suspended Solids: SM 2540D PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W20526

Filter Lot # SWL 4878

ASTM Class Weights

Balance ID: 01

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.1001	0.1001
1.0000	0.9996	0.9998
10.0000	10.0001	10.0001
100.0000	100.0002	99.9995

Notes: Final weighing on 12/21 0.1000 | 9.9998
0.9997 | 100.0001

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 01, 03

In Temp. 180	Date: 12/17/21	Time: 13:15
Out Temp. 180	Date: 12/20/21	Time: 6:15
In Temp. 180	Date: 12/20/21	Time: 8:45
Out Temp. 180	Date: 12/20/21	Time: 9:45
In Temp.	Date:	Time:
Out Temp.	Date:	Time:

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis) 12/21
Blank	100	9:00	AL16	91.4440	91.4430	91.4435	7:30
LCS			AL22	87.1164	87.1860	87.1870	
S086 31-1			JF	131.3361	131.3531	131.3541	
-3			B31	142.9468	142.9661	~~149~~ 142.9671 JJ 12/21	
-5			BP67	130.6888	130.7128	130.7137	
-7			B11	137.0139	137.0239	137.0249	
-9			B12	131.7967	131.8145	131.8155	
-11		AC	JJ 12/17 ~~AG~~	133.2632	133.2780	133.2790	
-13			B13	129.1202	129.1305	129.1315	
-15			AG	142.7611	142.7716	142.7726	
-17			B10	137.9213	137.9379	137.9389	
-19			B14	139.4092	139.4304	139.4314	
S086 31-5 DUP		9:25	AL25	87.0660	87.0889	87.0897	7:36

JJ 12/17

Analyst: JJ Date: 12/17/21

Checked By: [signature] Date: 12/21/21

WET CHEMISTRY BATCH REPORT
Dec 27 2021, 12:02 pm
Batch: WG312105 Run ID 1: R583597 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 26-DEC-21

Analyst Initials: ZF

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8621-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	345.728	340 mg/L	NA	5	0.23	5.0		
SO8621-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	190.357	190 mg/L	NA	5	0.23	5.0		
SO8631-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	149.362	150 mg/L	NA	5	0.23	5.0		
SO8631-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	204.611	200 mg/L	NA	5	0.23	5.0		
SO8631-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	155.862	160 mg/L	NA	5	0.23	5.0		
SO8631-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	79.671	80. mg/L	NA	5	0.23	5.0		
SO8631-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	136.686	140 mg/L	NA	5	0.23	5.0		
SO8631-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	132.914	130 mg/L	NA	5	0.23	5.0		
SO8631-13	SAMP	STDM 2320B	50.0mL	50.0mL	1	41.351	41. mg/L	NA	5	0.23	5.0		
SO8631-15	SAMP	STDM 2320B	50.0mL	50.0mL	1	39.511	40. mg/L	NA	5	0.23	5.0		
SO8631-17	SAMP	STDM 2320B	50.0mL	50.0mL	1	122.746	120 mg/L	NA	5	0.23	5.0		
SO8631-19	SAMP	STDM 2320B	50.0mL	50.0mL	1	147.481	150 mg/L	NA	5	0.23	5.0		
SO8636-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	181.861	180 mg/L	NA	5	0.23	5.0		
SO8636-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	186.574	190 mg/L	NA	5	0.23	5.0		
SO8636-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	249.755	250 mg/L	NA	5	0.23	5.0		
SO8665-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	151.546	150 mg/L	NA	5	0.23	5.0		
SO8665-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	83.799	84. mg/L	NA	5	0.23	5.0		
SO8665-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	87.561	88. mg/L	NA	5	0.23	5.0		
SO8665-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	18.946	19. mg/L	NA	5	0.23	5.0		
WG312105-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.675	J2.7 mg/L	NA	5	0.23	5.0		
WG312105-2	LCS	STDM 2320B	50.0mL	50.0mL	1	133.301	130 mg/L	NA	5	0.23	5.0		111
WG312105-3	DUP	STDM 2320B	50.0mL	50.0mL	1	155.266	160 mg/L	NA	5	0.23	5.0	4	
WG312105-4	MS	STDM 2320B	50.0mL	50.0mL	1	239.608	240 mg/L	NA	5	0.23	5.0		90
WG312105-5	MS	STDM 2320B	50.0mL	50.0mL	1	295.996	300 mg/L	NA	5	0.23	5.0		97
WG312105-6	DUP	STDM 2320B	50.0mL	50.0mL	1	183.575	180 mg/L	NA	5	0.23	5.0	2	
WG312105-7	MS	STDM 2320B	50.0mL	50.0mL	1	292.454	290 mg/L	NA	5	0.23	5.0		107
WG312105-8	MS	STDM 2320B	50.0mL	50.0mL	1	332.216	330 mg/L	NA	5	0.23	5.0		94

Comments:

SO8665-2	Anions = Cl, SO4, NO3
SO8665-3	Anions = Cl, SO4, NO3
SO8665-4	Anions = Cl, SO4, NO3
SO8665-6	Anions = Cl, SO4, NO3
WG312105-1	SO8621-1
WG312105-2	SO8621-1
WG312105-3	SO8631-1
WG312105-4	SO8631-1
WG312105-5	SO8631-3
WG312105-6	SO8636-2
WG312105-7	SO8636-2
WG312105-8	SO8636-3

Entered by: ZF Date: 12/27/21 Accepted by: [signature] Date: 12/28/21

Katahdin Analytical Services 5000032

WET CHEMISTRY BATCH REPORT
Dec 27 2021, 12:02 pm
Batch: WG312106 Run ID 1: R583598 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 26-DEC-21

Analyst Initials: ZF

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8665-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	193.085	190 mg/L	NA	5	0.23	5.0		
SO8665-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	153.354	150 mg/L	NA	5	0.23	5.0		
SO8665-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	316.207	320 mg/L	NA	5	0.23	5.0		
SO8665-10	SAMP	STDM 2320B	50.0mL	50.0mL	1	266.151	270 mg/L	NA	5	0.23	5.0		
SO8665-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	148.212	150 mg/L	NA	5	0.23	5.0		
SO8681-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	324.556	320 mg/L	NA	5	0.23	5.0		
SO8681-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	385.114	380 mg/L	NA	5	0.23	5.0		
SO8704-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	491.514	490 mg/L	NA	5	0.23	5.0		
SO8704-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	104.782	100 mg/L	NA	5	0.23	5.0		
SO8704-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	177.451	180 mg/L	NA	5	0.23	5.0		
~~SO8704-4~~	~~SAMP~~	~~STDM 2320B~~	~~50.0mL~~	~~50.0mL~~	~~1~~	~~167.284~~	~~170 mg/L~~	~~NA~~	~~5~~	~~0.23~~	~~5.0~~ ZF 12/23/21		
SO8704-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	109.307	110 mg/L	NA	5	0.23	5.0		
SO8704-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	66.211	66. mg/L	NA	5	0.23	5.0		
SO8704-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	358.843	360 mg/L	NA	5	0.23	5.0		
SO8704-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	284.125	280 mg/L	NA	5	0.23	5.0		
SO8704-10	SAMP	STDM 2320B	50.0mL	50.0mL	1	64.884	65. mg/L	NA	5	0.23	5.0		
SO8704-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	64.226	64. mg/L	NA	5	0.23	5.0		
WG312106-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.738	J2.7 mg/L	NA	5	0.23	5.0		
WG312106-2	LCS	STDM 2320B	50.0mL	50.0mL	1	134.648	130 mg/L	NA	5	0.23	5.0		112

Comments:

SO8665-7	Anions = Cl, SO4, NO3
SO8665-8	Anions = Cl, SO4, NO3
SO8665-9	Anions = Cl, SO4, NO3
SO8665-10	Anions = Cl, SO4, NO3
SO8665-11	Anions = Cl, SO4, NO3
SO8704-1	Anions = Cl, SO4, NO3
SO8704-2	Anions = Cl, SO4, NO3
SO8704-3	Anions = Cl, SO4, NO3
SO8704-4	MS/MSD, Anions = Cl, SO4, NO3
SO8704-5	Anions = Cl, SO4, NO3
SO8704-6	Anions = Cl, SO4, NO3
SO8704-7	Anions = Cl, SO4, NO3
SO8704-9	Anions = Cl, SO4, NO3
SO8704-10	Anions = Cl, SO4, NO3
SO8704-11	Anions = Cl, SO4, NO3
WG312106-1	SO8665-10
WG312106-2	SO8665-10

Entered by: ZF Date: 12/27/21 Accepted by: [signature] Date: 12/28/21

Vaughn Analytical Services 5000033

WET CHEMISTRY BATCH REPORT
Dec 28 2021, 01:20 pm
Batch: WG312194

Parameter: Bicarbonate (As CaCO3)

Date Analyzed: 26-DEC-21

Analyst Initials: ZF

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO8636-3	SAMP	SM4500CO2 D	250.mg/L	6.37pH	1	249.69842	250 mg/L	NA	5	.497	5		
SO8681-1	SAMP	SM4500CO2 D	324.mg/L	6.95pH	1	324.27987	320 mg/L	NA	5	.497	5		
SO8681-2	SAMP	SM4500CO2 D	385.mg/L	6.66pH	1	384.94516	380 mg/L	NA	5	.497	5		
WG312194-1	MBLANK	SM4500CO2 D	2.68mg/L	5.65pH	1	2.67467	U5.0 mg/L	NA	5	.497	5		

Comments:

WG312194-1 SO8636-3

Entered by: ZF Date: 12/28/21 Accepted by: [signature] Date: 12/28/21

Katahdin Analytical Services 5000034

A: WG312105 →
A: WG312106 →

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DG111-SC	
Alkalinity Acid Reagent: W20501	**Buffer pH 4 ID:** SWL 4798
Acid Concentration: 0.02N	**Buffer pH 7 ID:** 4901
Alkalinity Check Standard: W20534 TV: 125 mg/L	**Buffer pH 10 ID:** 4898
Alkalinity MS: W20531 TV: 120 mg/L	**Pipette IDs:** W 11
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	CCV	3	50	
CCB	2	50	CCB	4	50	
LCS	3	44	S08636-2 MS	5	44	
LCS2	4	44	-3	6	50	
S08621-1	1	50	-3MS	7	44	
-3	2	50	S08665-1	8	50	ZF 12/26/21
S08631-1	3	50	S08665-2	9	50	
-1 Dup	4	50	-3	10	50	
-1 MS	5	44	-4	11	50	
-3	6	50	-6	12	50	
-3 MS	7	44	-7	13	50	
-5	8	50	-8	14	50	
CCV	9	50	CCV	15	50	
CCB	10	50	CCB	16	50	
S08631-7	11	50	S08665-9	17	50	
-9	12	50	-10	18	50	
-11	13	50	S08681-1	1	50	
-13	14	50	-2	2	50	
-15	15	50	-3	3	50	S08681-3 HL ALK
-17	16	50	-4	4	50	-4
-19	17	50	S08704-1	5	50	
S08636-1	18	50	-2	6	50	
-2	1	50	-3	7	50	
-2 Dup	2	50	-4	8	50	

Analyst: ZF **Date:** 12/26/21

Checked By: [signature] **Date:** 12/28/21

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: See pg 31 SS 12/27/21	
Alkalinity Acid Reagent:	**Buffer pH 4 ID:**
Acid Concentration:	**Buffer pH 7 ID:**
Alkalinity Check Standard:	**Buffer pH 10 ID:**
Alkalinity MS:	**Pipette IDs:**
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	9	50				
CCB	10	50				
508704-5	11	50				
-6	12	50				
-7	13	50				
-9	14	50				
-10	15	50				
-11	16	50				
CCV	17	50				
CCB	18	50				
						SS 12/26/21

Analyst: ZF	**Date:** 12/26/21
Checked By:	**Date:** 12/28/21

Start time: 12/26/2021 18:11

Results

No.	Comment / ID	Start time	Rx	Result	Unit	Name	% RECOVERY
1/4	CCV	12/26/2021 6:12:36 PM	R1 =	16.312	mg/L	P Alkalinity- pH8.2	
			R2 =	134.69	mg/L	Total Alkalinity	107.75%
			R3 =	8.757	pH	pH	
			R4 =	19.1	oC	TEMPERATURE	
2/4	CCB	12/26/2021 6:15:42 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.675	mg/L	Total Alkalinity	
			R3 =	5.646	pH	pH	
			R4 =	19.5	oC	TEMPERATURE	
3/4	LCS	12/26/2021 6:17:36 PM	R1 =	108.44	mg/L	P Alkalinity- pH8.2	
			R2 =	133.301	mg/L	Total Alkalinity	
			R3 =	10.623	pH	pH	
			R4 =	19.2	oC	TEMPERATURE	
4/4	LCS	12/26/2021 6:20:47 PM	R1 =	108.711	mg/L	P Alkalinity- pH8.2	
			R2 =	134.648	mg/L	Total Alkalinity	
			R3 =	10.62	pH	pH	
			R4 =	19.1	oC	TEMPERATURE	
1/18	SO8621-1	12/26/2021 6:40:59 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	345.728	mg/L	Total Alkalinity	
			R3 =	6.874	pH	pH	
			R4 =	10.5	oC	TEMPERATURE	
2/18	SO8621-3	12/26/2021 6:45:40 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	190.357	mg/L	Total Alkalinity	
			R3 =	6.393	pH	pH	
			R4 =	11.5	oC	TEMPERATURE	
3/18	SO8631-1	12/26/2021 6:49:08 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	149.362	mg/L	Total Alkalinity	
			R3 =	5.846	pH	pH	
			R4 =	11	oC	TEMPERATURE	
4/18	SO8631-1 DUP	12/26/2021 6:52:00 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	155.266	mg/L	Total Alkalinity	
			R3 =	5.867	pH	pH	
			R4 =	11	oC	TEMPERATURE	
5/18	SO8631-1 MS	12/26/2021 6:54:54 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	239.608	mg/L	Total Alkalinity	
			R3 =	6.114	pH	pH	
			R4 =	12.1	oC	TEMPERATURE	
6/18	SO8631-3	12/26/2021 6:58:26 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	204.611	mg/L	Total Alkalinity	
			R3 =	5.995	pH	pH	
			R4 =	11.5	oC	TEMPERATURE	
7/18	SO8631-3 MS	12/26/2021 7:01:38 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	295.996	mg/L	Total Alkalinity	
			R3 =	6.254	pH	pH	
			R4 =	12.3	oC	TEMPERATURE	
8/18	SO8631-5	12/26/2021 7:05:39 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	155.862	mg/L	Total Alkalinity	
			R3 =	5.939	pH	pH	
			R4 =	12.4	oC	TEMPERATURE	
9/18	CCV	12/26/2021 7:08:33 PM	R1 =	15.079	mg/L	P Alkalinity- pH8.2	
			R2 =	134.387	mg/L	Total Alkalinity	107.51%
			R3 =	8.638	pH	pH	
			R4 =	17.4	oC	TEMPERATURE	
10/18	CCB	12/26/2021 7:12:04 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.738	mg/L	Total Alkalinity	
			R3 =	5.664	pH	pH	
			R4 =	17.7	oC	TEMPERATURE	
11/18	SO8631-7	12/26/2021 7:13:56 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	79.671	mg/L	Total Alkalinity	
			R3 =	5.86	pH	pH	
			R4 =	13.3	oC	TEMPERATURE	
12/18	SO8631-9	12/26/2021 7:16:57 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	136.686	mg/L	Total Alkalinity	

			R3 =	5.959	pH	pH	
			R4 =	13.2	oC	TEMPERATURE	
13/18	SO8631-11	12/26/2021 7:19:43 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	132.914	mg/L	Total Alkalinity	
			R3 =	6.259	pH	pH	
			R4 =	13.4	oC	TEMPERATURE	
14/18	SO8631-13	12/26/2021 7:22:42 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	41.351	mg/L	Total Alkalinity	
			R3 =	5.751	pH	pH	
			R4 =	13.4	oC	TEMPERATURE	
15/18	SO8631-15	12/26/2021 7:24:49 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	39.511	mg/L	Total Alkalinity	
			R3 =	5.74	pH	pH	
			R4 =	13.5	oC	TEMPERATURE	
16/18	SO8631-17	12/26/2021 7:26:55 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	122.746	mg/L	Total Alkalinity	
			R3 =	6.021	pH	pH	
			R4 =	13.8	oC	TEMPERATURE	
17/18	SO8631-19	12/26/2021 7:29:34 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	147.481	mg/L	Total Alkalinity	
			R3 =	5.947	pH	pH	
			R4 =	13.9	oC	TEMPERATURE	
18/18	SO8636-1	12/26/2021 7:32:28 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	181.861	mg/L	Total Alkalinity	
			R3 =	6.531	pH	pH	
			R4 =	14.5	oC	TEMPERATURE	
1/18	SO8636-2	12/26/2021 7:38:40 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	186.574	mg/L	Total Alkalinity	
			R3 =	6.903	pH	pH	
			R4 =	11	oC	TEMPERATURE	
2/18	SO8636-2 DUP	12/26/2021 7:42:01 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	183.575	mg/L	Total Alkalinity	
			R3 =	6.618	pH	pH	
			R4 =	11.1	oC	TEMPERATURE	
3/18	CCV	12/26/2021 7:45:27 PM	R1 =	14.933	mg/L	P Alkalinity- pH8.2	
			R2 =	131.471	mg/L	Total Alkalinity	105.18%
			R3 =	8.672	pH	pH	
			R4 =	17.8	oC	TEMPERATURE	
4/18	CCB	12/26/2021 7:48:55 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.707	mg/L	Total Alkalinity	
			R3 =	5.666	pH	pH	
			R4 =	18.1	oC	TEMPERATURE	
5/18	SO8636-2 MS	12/26/2021 7:50:48 PM	R1 =	127.72	mg/L	P Alkalinity- pH8.2	
			R2 =	292.454	mg/L	Total Alkalinity	
			R3 =	9.532	pH	pH	
			R4 =	12.8	oC	TEMPERATURE	
6/18	SO8636-3	12/26/2021 7:54:54 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	249.755	mg/L	Total Alkalinity	
			R3 =	6.373	pH	pH	
			R4 =	11.8	oC	TEMPERATURE	
7/18	SO8636-3 MS	12/26/2021 7:58:31 PM	R1 =	89.358	mg/L	P Alkalinity- pH8.2	
			R2 =	332.216	mg/L	Total Alkalinity	
			R3 =	9.213	pH	pH	
			R4 =	12.5	oC	TEMPERATURE	
8/18	SO8665-11	12/26/2021 8:03:01 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	148.212	mg/L	Total Alkalinity	
			R3 =	7.372	pH	pH	
			R4 =	12.4	oC	TEMPERATURE	
9/18	SO8665-2	12/26/2021 8:06:14 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	151.546	mg/L	Total Alkalinity	
			R3 =	6.697	pH	pH	
			R4 =	12.6	oC	TEMPERATURE	
10/18	SO8665-3	12/26/2021 8:09:28 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	83.799	mg/L	Total Alkalinity	
			R3 =	5.816	pH	pH	

			R4 =	12.8	oC	TEMPERATURE	
11/18	SO8665-4	12/26/2021 8:11:59 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	87.561	mg/L	Total Alkalinity	
			R3 =	5.882	pH	pH	
			R4 =	12.8	oC	TEMPERATURE	
12/18	SO8665-6	12/26/2021 8:14:27 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	18.946	mg/L	Total Alkalinity	
			R3 =	5.526	pH	pH	
			R4 =	13	oC	TEMPERATURE	
13/18	SO8665-7	12/26/2021 8:16:25 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	193.085	mg/L	Total Alkalinity	
			R3 =	6.772	pH	pH	
			R4 =	13.1	oC	TEMPERATURE	
14/18	SO8665-8	12/26/2021 8:19:40 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	153.354	mg/L	Total Alkalinity	
			R3 =	6.153	pH	pH	
			R4 =	13.5	oC	TEMPERATURE	
15/18	CCV	12/26/2021 8:22:39 PM	R1 =	15.236	mg/L	P Alkalinity- pH8.2	
			R2 =	136.268	mg/L	Total Alkalinity	109.01%
			R3 =	8.617	pH	pH	
			R4 =	17.3	oC	TEMPERATURE	
16/18	CCB	12/26/2021 8:26:04 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.601	mg/L	Total Alkalinity	
			R3 =	5.618	pH	pH	
			R4 =	17.6	oC	TEMPERATURE	
17/18	SO8665-9	12/26/2021 8:27:57 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	316.207	mg/L	Total Alkalinity	
			R3 =	6.321	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
18/18	SO8665-10	12/26/2021 8:32:01 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	266.151	mg/L	Total Alkalinity	
			R3 =	6.149	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
1/18	SO8681-1	12/26/2021 8:39:09 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	324.556	mg/L	Total Alkalinity	
			R3 =	6.95	pH	pH	
			R4 =	14	oC	TEMPERATURE	
2/18	SO8681-2	12/26/2021 8:43:40 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	385.114	mg/L	Total Alkalinity	
			R3 =	6.663	pH	pH	
			R4 =	14.3	oC	TEMPERATURE	
3/18	SO8681-3	12/26/2021 8:48:30 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	6.893	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
4/18	SO8681-4	12/26/2021 8:58:05 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	NaN	mg/L	Total Alkalinity	
			R3 =	7.166	pH	pH	
			R4 =	15.3	oC	TEMPERATURE	
5/18	SO8704-1	12/26/2021 9:07:41 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	491.514	mg/L	Total Alkalinity	
			R3 =	6.394	pH	pH	
			R4 =	15.4	oC	TEMPERATURE	
6/18	SO8704-2	12/26/2021 9:13:33 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	104.782	mg/L	Total Alkalinity	
			R3 =	5.899	pH	pH	
			R4 =	15.5	oC	TEMPERATURE	
7/18	SO8704-3	12/26/2021 9:16:09 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	177.451	mg/L	Total Alkalinity	
			R3 =	6.11	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
8/18	SO8704-4	12/26/2021 9:19:11 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	167.284	mg/L	Total Alkalinity	
			R3 =	6.003	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	

9/18	CCV	12/26/2021 9:22:10 PM	R1 =	14.108	mg/L	P Alkalinity- pH8.2	
			R2 =	130.218	mg/L	Total Alkalinity	104.17%
			R3 =	8.584	pH	pH	
			R4 =	17.1	oC	TEMPERATURE	
10/18	CCB	12/26/2021 9:25:34 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.707	mg/L	Total Alkalinity	
			R3 =	5.666	pH	pH	
			R4 =	17.3	oC	TEMPERATURE	
11/18	SO8704-5	12/26/2021 9:27:29 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	109.307	mg/L	Total Alkalinity	
			R3 =	5.947	pH	pH	
			R4 =	15.6	oC	TEMPERATURE	
12/18	SO8704-6	12/26/2021 9:30:05 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	66.211	mg/L	Total Alkalinity	
			R3 =	5.803	pH	pH	
			R4 =	15.4	oC	TEMPERATURE	
13/18	SO8704-7	12/26/2021 9:32:22 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	358.843	mg/L	Total Alkalinity	
			R3 =	6.266	pH	pH	
			R4 =	15.4	oC	TEMPERATURE	
14/18	SO8704-9	12/26/2021 9:36:44 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	284.125	mg/L	Total Alkalinity	
			R3 =	6.266	pH	pH	
			R4 =	15.5	oC	TEMPERATURE	
15/18	SO8704-10	12/26/2021 9:40:38 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	64.884	mg/L	Total Alkalinity	
			R3 =	5.824	pH	pH	
			R4 =	15.5	oC	TEMPERATURE	
16/18	SO8704-11	12/26/2021 9:42:53 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	64.226	mg/L	Total Alkalinity	
			R3 =	5.809	pH	pH	
			R4 =	15.6	oC	TEMPERATURE	
17/18	CCV	12/26/2021 9:45:08 PM	R1 =	12.77	mg/L	P Alkalinity- pH8.2	
			R2 =	130.656	mg/L	Total Alkalinity	104.52%
			R3 =	8.566	pH	pH	
			R4 =	17.2	oC	TEMPERATURE	
18/18	CCB	12/26/2021 9:48:29 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.592	mg/L	Total Alkalinity	
			R3 =	5.644	pH	pH	
			R4 =	17.5	oC	TEMPERATURE	

Start time: 12/26/2021 17:17

Results

No.	Comment / ID	Start time	Rx	Result	Unit	Name

Calibration data

	Number of segments	1
	Slope	-58.18 mV/pH
	Zero point	6.962 pH
	Calibration temperature	25.0 oC

SERES ENGINEERING & SERVICES, LLC

FORT DEVENS 2021 LTM

SP0317

Ms. Leslie Dimond
207-874-2400

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SP0317

Sample Receipt

The following samples were received on January 20, 2021 and were logged in under Katahdin Analytical Services work order number SP0317 for a hardcopy due date of February 10, 2022.

KATAHDIN Sample No.	SERES Sample Identification
SP0317-1	MS-21-1D-EVENT#5
SP0317-2	MS-21-1D-FF-EVENT#5
SP0317-3	MS-21-1D-EVENT#5-DUP
SP0317-4	MS-21-1D-FF-EVENT#5-DUP
SP0317-5	MS-21-4D-EVENT#5
SP0317-6	MS-21-4D-FF-EVENT#5
SP0317-7	MS-21-1S-EVENT#5
SP0317-8	MS-21-1S-FF-EVENT#5
SP0317-9	MS-21-4S-EVENT#5
SP0317-10	MS-21-4S-FF-EVENT#5
SP0317-11	MS-10-06-EVENT#5
SP0317-12	MS-10-06-FF-EVENT#5
SP0317-13	MS-21-3S-EVENT#5
SP0317-14	MS-21-SS-FF-EVENT#5
SP0317-15	MS-21-3D-EVENT#5
SP0317-16	MS-21-3D-FF-EVENT#5
SP0317-17	MS-21-2S-EVENT#5
SP0317-18	MS-21-2S-FF-EVENT#5
SP0317-19	MS-21-2D-EVENT#5
SP0317-20	MS-21-2D-FF-EVENT#5

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Reissue 3/2/2022

The report is being reissued to include results for calcium, magnesium, sodium and potassium on samples SP0317-1, 3, 5, 7, 9, 11, 13, 15, 17 and 19.

Metals Analysis

The samples associated with Katahdin Work Order SP0317 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Aqueous-matrix Katahdin Sample Numbers SP0317-(1-5, 7-17) were digested for ICP analysis on 01/24/21 (QC Batch PA24ICW1) in accordance with USEPA Method 3010A. Per client request, Katahdin Sample Number SP0317-5 was prepared with duplicate matrix-spiked aliquots.

Aqueous-matrix Katahdin Sample Numbers SP0317-(6, 18-20) were digested for ICP analysis on 01/24/21 (QC Batch PA24ICW2) in accordance with USEPA Method 3010A. Per client request, Katahdin Sample Number SP0317-6 was prepared with duplicate matrix-spiked aliquots.

ICP analyses of Katahdin Work Order SP0317 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all analytical run QC criteria were met.

Matrix QC Summary

The measured recoveries of arsenic, calcium, iron, and manganese in one or both of the matrix-spiked aliquots of Katahdin Sample Number SP0317-5 are outside laboratory acceptance criteria. For arsenic, calcium, and iron, this can be attributed to the native sample concentration being much greater than the spiked amount.

The measured recoveries of arsenic and iron in the matrix-spiked aliquots of Katahdin Sample Number SP0317-6 are outside laboratory acceptance criteria. This can be attributed to the native sample concentration being much greater than the spiked amount.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I and preparation blanks on Form IIIP have been reported using the laboratory's limits of quantitation (LOQ). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the LOQ are flagged with "U" in

the C-qualifier column, and the LOQ is listed in the concentration column. The LOQs, MDLs and LODs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VA, VD, VII, and IX for client samples, matrix QC samples (duplicates and matrix spikes), and laboratory control samples have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted LOD is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, LODs, MDLs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of Work Order SP0317 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for alkalinity, filterable residue, and total biochemical oxygen demand were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOQ", where "LOQ" is the numerical value of the Limit of Quantitation.

All analyses were performed within analytical holding times. All quality control criteria were met, with the following exception:

The relative percent difference (16%) between duplicate analyses of Katahdin Sample Number SP0317-5 is greater than the laboratory's acceptance limit of 10%.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond *Mar 02, 2022*

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: Arcadis / SERES	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: JCB	Delivered By: KAS
KAS Work Order#: SP0317	KIMS Review By: HHM	Received By: MLV
	Labeled By: JCB	
SDG #:	Cooler: 1 of 2	Date/Time Rec.: 1/20/22 1554

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 3.4 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved?					
Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: Arcadis / SERES	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: JCB	Delivered By: RHS
KAS Work Order#: SP0317	KIMS Review By: HHM	Received By: MLV
	Labeled By: JCB	
SDG #:	Cooler: 2 of 2	Date/Time Rec.: 1/20/22 1554

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 2.9 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

QA-048 – Revision 8 – 09/11/2020

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page ____ of ____

Client: Arcadis | Contact: | Phone #: ( ) | Fax #: ( )

Address: | City: | State: | Zip Code:

Purchase Order #: | Proj. Name / No.: 36048392 | Katahdin Quote #:

Bill (if different than above): | Address:

Sampler (Print / Sign): Grace Sheckler Grace Sheckler | Copies To:

LAB USE ONLY | WORK ORDER #: SP0317

KATAHDIN PROJECT NUMBER ____

REMARKS: ____

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO: ____

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Total Metals HNO3 (Filt. ☐Y ☑N)	Dissolved Metals HNO3 (Filt. ☑Y ☐N)	Alkalinity, TDS (Filt. ☑Y ☐N)	BOD (Filt. ☑Y ☐N)	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	MW-21-1D-Event#5	1/19/22/11:48	GW	3	✓		✓	✓						
	MW-21-1D-FF-Event#5	1/19/22/11:48	GW	1		✓								
	MW-21-1D-Event#5 Dup	1/19/22/11:48	GW	3	✓		✓	✓						
	MW-21-1D-FF-Event#5 Dup	1/19/22/11:48	GW	1		✓								
	MW-21-4D-FF-EVENT#5	01/19/22/12:54	GW	1		✓								
	MW-21-4D-EVENT#5	01/19/22/12:54	GW	2	✓		✓							
	MW-21-4D-FF-EVENT#5-MS	01/19/22/12:54	GW	1		✓								
	MW-21-4D-EVENT#5-MS	01/19/22/12:54	GW	2	✓		✓							
	MW-21-4D-FF-EVENT#5-MSD	01/19/22/12:54	GW	1		✓								
	MW-21-4D-EVENT#5-MSD	01/19/22/12:54	GW	2	✓		✓							
	MW-21-1S-Event#5	1/19/22/13:29	GW	3	✓		✓	✓						
	MW-21-1S-FF-Event#5	1/19/22/13:29	GW	1		✓								
	MW-21-4S-FF-EVENT#5	01/19/22/15:05	GW	1		✓								
	MW-21-4S-EVENT#5	01/19/22/15:05	GW	2	✓		✓							
	SHM-10-06-Event#5	1/19/22/15:05	GW	2	✓		✓							
	SHM-10-06-FF-Event#5	1/19/22/15:05	GW	1		✓								

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Grace Shekler	1/20/22 14:00	01/20/2022 Buchanan 14:00	01/20/2022 Buchanan 15:54	1/20/22 1554	
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Page ____ of ____

Client: Arcadis
Contact:
Phone #: ( )
Fax #: ( )
Address:
City:
State:
Zip Code:
Purchase Order #:
Proj. Name / No.: 30048392
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign): Grace Sheckler Grace Sheckler
Copies To:

LAB USE ONLY
WORK ORDER #: SP0317
KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ❒ FED EX ❒ UPS ❒ CLIENT
AIRBILL NO:
TEMP°C ____ ❒ TEMP BLANK ❒ INTACT ❒ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Total Metals HNO3 (Filt. ❒Y ☒N)	Dissolved Metals HNO3 (Filt. ☒Y ❒N)	Alkalinity & TDS (Filt. ☒Y ❒N)	BOD (Filt. ☒Y ❒N)	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N
	MW-21-3S-Event#5	1/20/2022 10:33	GW	2	✓		✓							
	MW-21-3S-FF-Event#5	1/20/22 10:33	GW	1		✓								
	MW-21-3D-Event#5	1/20/22 11:31	GW	2	✓		✓							
	MW-21-3D-FF-Event#5	1/20/22 11:31	GW	1		✓								
	MW-21-2S-Event#5	1/20/22 12:35	GW	3	✓		✓	✓						
	MW-21-2S-FF-Event#5	1/20/22 12:35	GW	1		✓								
	MW-21-2D-Event#5	1/20/22 13:38	GW	3	✓		✓	✓						
	MW-21-2D-FF-Event#5	1/20/22 13:38	GW	1		✓								
		/												
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		/												

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Grace Sheckler	1/20/22 14:00	01/20/2022 TBuchanan 14:00	01/20/2022 TBuchanan 15:54	1/20/22 1557	
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Login Number: SP0317

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:
Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston, SC 29492
USA
halevesque@seres-es.com

Primary Invoice Address:
Accounts Payable
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA
metunstall@seres-es.com

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03, 30048392
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	3.4, 2.9
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	WESTMDLPWLLOD-XLS
ISM INSTRUCTIONS	:	
LOGIN INITIALS	:	JCB
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

HHM

11:22 am, Mar 02, 2022

Run Reports: Logindetail

Login Number: SP0317

Account: SERES001

SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS

Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SP0317-1	MW-21-1D-EVENT#5	19-JAN-22 11:48	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Service	S	COURIER-BILLING			
Aqueous	S	SM2320B-ALKALINITY	02-FEB-22		250mL Plastic
Aqueous	S	SM2540C-TDS	26-JAN-22		250mL Plastic
Aqueous	S	SM5210B-TBOD	21-JAN-22	SHORT	1000mL Plastic
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	18-JUL-22		250mL Plastic+HNO3

SP0317-2	MW-21-1D-FF-EVENT#5	19-JAN-22 11:48	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	18-JUL-22		250mL Plastic+HNO3

SP0317-3	MW-21-1D-EVENT#5-DUP	19-JAN-22 11:48	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SM2320B-ALKALINITY	02-FEB-22		250mL Plastic
Aqueous	S	SM2540C-TDS	26-JAN-22		250mL Plastic
Aqueous	S	SM5210B-TBOD	21-JAN-22	SHORT	1000mL Plastic
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	18-JUL-22		250mL Plastic+HNO3

SP0317-4	MW-21-1D-FF-EVENT#5-DUP	19-JAN-22 11:48	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	18-JUL-22		250mL Plastic+HNO3

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Login Number: SP0317

Account: SERES001

SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS

Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SP0317-9	MW-21-4S-EVENT#5	19-JAN-22 15:05	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SM2320B-ALKALINITY	02-FEB-22		250mL Plastic
Aqueous	S	SM2540C-TDS	26-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	18-JUL-22		250mL Plastic+HNO3

SP0317-10	MW-21-4S-FF-EVENT#5	19-JAN-22 15:05	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	18-JUL-22		250mL Plastic+HNO3

SP0317-11	SHM-10-06-EVENT#5	19-JAN-22 15:05	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SM2320B-ALKALINITY	02-FEB-22		250mL Plastic
Aqueous	S	SM2540C-TDS	26-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	18-JUL-22		250mL Plastic+HNO3

SP0317-12	SHM-10-06-FF-EVENT#5	19-JAN-22 15:05	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	18-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	18-JUL-22		250mL Plastic+HNO3

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Login Number: SP0317

Account: SERES001

SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS

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Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SP0317-13	MW-21-3S-EVENT#5	20-JAN-22 10:33	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SM2320B-ALKALINITY	03-FEB-22		250mL Plastic
Aqueous	S	SM2540C-TDS	27-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	19-JUL-22		250mL Plastic+HNO3

SP0317-14	MW-21-3S-FF-EVENT#5	20-JAN-22 10:33	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	19-JUL-22		250mL Plastic+HNO3

SP0317-15	MW-21-3D-EVENT#5	20-JAN-22 11:31	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SM2320B-ALKALINITY	03-FEB-22		250mL Plastic
Aqueous	S	SM2540C-TDS	27-JAN-22		250mL Plastic
Aqueous	S	SW3010-PREP	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	19-JUL-22		250mL Plastic+HNO3

SP0317-16	MW-21-3D-FF-EVENT#5	20-JAN-22 11:31	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)	Notes	Bottle Type
Aqueous	S	SW3010-PREP	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	19-JUL-22		250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	19-JUL-22		250mL Plastic+HNO3

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Login Number: SP0317

Account: SERES001

SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS

Former Fort Devens - Annual LTM

Quote/Incoming: SERES-FT-DEVENS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Due Date	Verbal Due Date	Mailed
SP0317-17	MW-21-2S-EVENT#5	20-JAN-22 12:35	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)		Notes	Bottle Type
Aqueous	S	SM2320B-ALKALINITY	03-FEB-22			250mL Plastic
Aqueous	S	SM2540C-TDS	27-JAN-22			250mL Plastic
Aqueous	S	SM5210B-TBOD	22-JAN-22	SHORT		1000mL Plastic
Aqueous	S	SW3010-PREP	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	19-JUL-22			250mL Plastic+HNO3

SP0317-18	MW-21-2S-FF-EVENT#5	20-JAN-22 12:35	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)		Notes	Bottle Type
Aqueous	S	SW3010-PREP	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	19-JUL-22			250mL Plastic+HNO3

SP0317-19	MW-21-2D-EVENT#5	20-JAN-22 13:38	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)		Notes	Bottle Type
Aqueous	S	SM2320B-ALKALINITY	03-FEB-22			250mL Plastic
Aqueous	S	SM2540C-TDS	27-JAN-22			250mL Plastic
Aqueous	S	SM5210B-TBOD	22-JAN-22	SHORT		1000mL Plastic
Aqueous	S	SW3010-PREP	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-CALCIUM	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-IRON	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-MAGNESIUM	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-POTASSIUM	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-SODIUM	19-JUL-22			250mL Plastic+HNO3

SP0317-20	MW-21-2D-FF-EVENT#5	20-JAN-22 13:38	20-JAN-22		10-FEB-22		07-FEB-22

Sample Comments:

Matrix		Product	Hold Date (shortest)		Notes	Bottle Type
Aqueous	S	SW3010-PREP	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-ARSENIC-DIS	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-IRON-DIS	19-JUL-22			250mL Plastic+HNO3
Aqueous	S	SW6010-MANGANESE-DIS	19-JUL-22			250mL Plastic+HNO3

Total Samples: ***20*** ***Total Analyses:*** ***146***

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SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as “U” MDL have a 50% rate for false negatives compared to those results reported as “U” PQL/LOQ or “U” LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results <u>may</u> not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results <u>may</u> not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	22.5			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	51800			P	1	100	11	80
7439-89-6	IRON, TOTAL	4040			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7220			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	8410			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6730			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15200			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	12			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3590			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	8730			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#5-DUP

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	32.7			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	57100			P	1	100	11	80
7439-89-6	IRON, TOTAL	7370			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	8120			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	11400			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7110			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15400			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#5-DUP

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	13			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	4000			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	10500			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1740		N	P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	29700		N	P	1	100	11	80
7439-89-6	IRON, TOTAL	42800		N	P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4200			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1370		N	P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	5540			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15000			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1820		N	P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	42500		N	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1400			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	21200			P	1	100	11	80
7439-89-6	IRON, TOTAL	16	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3230			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	448			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6750			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18800			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-008

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	26	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	441			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	50400			P	1	100	11	80
7439-89-6	IRON, TOTAL	702			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6940			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1310			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18600			P	1	1000	24	500

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-010

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	35	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1330			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1110			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	38300			P	1	100	11	80
7439-89-6	IRON, TOTAL	82200			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5580			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2720			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	17700			P	1	1000	24	500

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-012

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	1130			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	83700			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2840			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	2.5	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	23500			P	1	100	11	80
7439-89-6	IRON, TOTAL	417			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3670			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	222			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	8700			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19300			P	1	1000	24	500

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-014

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	139			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	222			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-015

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	2390			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	45800			P	1	100	11	80
7439-89-6	IRON, TOTAL	63400			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6680			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3900			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6690			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	16000			P	1	1000	24	500

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-016

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	2170			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	61400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3950			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	3.7	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	29800			P	1	100	11	80
7439-89-6	IRON, TOTAL	2550			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3940			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	718			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9160			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	24600			P	1	1000	24	500

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-018

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	1940			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	721			P	1	5.0	1.1	4.0

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-019

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	15.5			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	10100			P	1	100	11	80
7439-89-6	IRON, TOTAL	1300			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	1550			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1600			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	4460			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18000			P	1	1000	24	500

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-020

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	2.5	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	205			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1640			P	1	5.0	1.1	4.0

Comments:

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Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-1
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#5	AQ	19-JAN-22 11:48:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	170 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:00:36	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:18:00	SM 5210B	21-JAN-22 0956	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-3
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#5-DUP	AQ	19-JAN-22 11:48:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	160 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:08:37	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:22:00	SM 5210B	21-JAN-22 1007	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-5
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#5	AQ	19-JAN-22 12:54:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	100 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:11:41	N/A	N/A	
Solids-Filterable Residue	140 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	R1

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-7
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#5	AQ	19-JAN-22 13:29:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	44. mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:20:40	N/A	N/A	
Solids-Filterable Residue	130 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:25:00	SM 5210B	21-JAN-22 1021	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-9
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT#5	AQ	19-JAN-22 15:05:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	190 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:22:48	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

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ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-11
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT#5	AQ	19-JAN-22 15:05:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:25:54	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

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ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-13
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#5	AQ	20-JAN-22 10:33:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	76. mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:28:44	N/A	N/A	
Solids-Filterable Residue	100 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

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ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-15
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#5	AQ	20-JAN-22 11:31:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:31:10	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-17
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT#5	AQ	20-JAN-22 12:35:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:33:59	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	J1.8 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:28:00	SM 5210B	21-JAN-22 1030	

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ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-19
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT#5	AQ	20-JAN-22 13:38:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	21. mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:53:24	N/A	N/A	
Solids-Filterable Residue	93. mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:31:00	SM 5210B	21-JAN-22 1037	

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SP0317 **SOW No.** SW846

Client Field ID	Lab Sample ID
MW-21-1D-EVENT#5	SP0317-001
MW-21-1D-EVENT#5-DUP	SP0317-003
MW-21-1D-FF-EVENT#5	SP0317-002
MW-21-1D-FF-EVENT#5-DUP	SP0317-004
MW-21-1S-EVENT#5	SP0317-007
MW-21-1S-FF-EVENT#5	SP0317-008
MW-21-2D-EVENT#5	SP0317-019
MW-21-2D-FF-EVENT#5	SP0317-020
MW-21-2S-EVENT#5	SP0317-017
MW-21-2S-FF-EVENT#5	SP0317-018
MW-21-3D-EVENT#5	SP0317-015
MW-21-3D-FF-EVENT#5	SP0317-016
MW-21-3S-EVENT#5	SP0317-013
MW-21-3S-FF-EVENT#5	SP0317-014
MW-21-4D-EVENT#5	SP0317-005
MW-21-4D-EVENT#5P	SP0317-005P
MW-21-4D-EVENT#5S	SP0317-005S
MW-21-4D-FF-EVENT#5	SP0317-006
MW-21-4D-FF-EVENT#5P	SP0317-006P
MW-21-4D-FF-EVENT#5S	SP0317-006S
MW-21-4S-EVENT#5	SP0317-009
MW-21-4S-FF-EVENT#5	SP0317-010
SHM-10-06-EVENT#5	SP0317-011
SHM-10-06-FF-EVENT#5	SP0317-012

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Emily Pelletier Name: Emily Pelletier

Date: 2/1/22 Title: Analyst

COVER PAGE - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	22.5			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	51800			P	1	100	11	80
7439-89-6	IRON, TOTAL	4040			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7220			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	8410			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6730			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15200			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-002

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	12			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	3590			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	8730			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-EVENT#5-DUP

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	32.7			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	57100			P	1	100	11	80
7439-89-6	IRON, TOTAL	7370			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	8120			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	11400			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7110			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15400			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1D-FF-EVENT#5-DUP

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	13			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	4000			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	10500			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1740		N	P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	29700		N	P	1	100	11	80
7439-89-6	IRON, TOTAL	42800		N	P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4200			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1370		N	P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	5540			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	15000			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-006

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	1820		N	P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	42500		N	P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1400			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	21200			P	1	100	11	80
7439-89-6	IRON, TOTAL	16	J		P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3230			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	448			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6750			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18800			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-1S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-008

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	26	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	441			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	50400			P	1	100	11	80
7439-89-6	IRON, TOTAL	702			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6940			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1310			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18600			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-010

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	35	J		P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1330			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1110			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	38300			P	1	100	11	80
7439-89-6	IRON, TOTAL	82200			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5580			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2720			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	10600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	17700			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-012

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	1130			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	83700			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2840			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	2.5	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	23500			P	1	100	11	80
7439-89-6	IRON, TOTAL	417			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3670			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	222			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	8700			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19300			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-014

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	139			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	222			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-015

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	2390			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	45800			P	1	100	11	80
7439-89-6	IRON, TOTAL	63400			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6680			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3900			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6690			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	16000			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-016

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	2170			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	61400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3950			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	3.7	J		P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	29800			P	1	100	11	80
7439-89-6	IRON, TOTAL	2550			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	3940			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	718			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	9160			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	24600			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-018

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	1940			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	721			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-019

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	15.5			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	10100			P	1	100	11	80
7439-89-6	IRON, TOTAL	1300			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	1550			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1600			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	4460			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	18000			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-020

Concentration Units : ug/L

							ADJUSTED		
CAS No.	**Analyte**	**Concentration**	**C**	**Q**	**M**	**DF**	**LOQ**	**MDL**	**LOD**
7440-38-2	ARSENIC, DISSOLVED	2.5	J		P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	205			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1640			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

QC Summary Section

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: ICV

File: IPA25A Jan 25, 2022 14:27

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10290.00	102.9
ARSENIC	400.0	391.00	97.8
CALCIUM	10000.0	10380.00	103.8
IRON	10000.0	10320.00	103.2
MAGNESIUM	10000.0	10000.00	100.0
MANGANESE	400.0	408.70	102.2
POTASSIUM	13600.0	13910.00	102.3
SODIUM	10000.0	10260.00	102.6

SAMPLE: CCV

File: IPA25A Jan 25, 2022 14:49

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12970.00	103.8
ARSENIC	500.0	494.10	98.8
CALCIUM	12500.0	12940.00	103.5
IRON	12500.0	13000.00	104.0
MAGNESIUM	12500.0	12630.00	101.0
MANGANESE	500.0	514.10	102.8
POTASSIUM	12500.0	12830.00	102.6
SODIUM	12500.0	12870.00	103.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: CCV

File: IPA25A Jan 25, 2022 15:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12570.00	100.6
ARSENIC	500.0	501.50	100.3
CALCIUM	12500.0	12410.00	99.3
IRON	12500.0	12550.00	100.4
MAGNESIUM	12500.0	12800.00	102.4
MANGANESE	500.0	497.80	99.6
POTASSIUM	12500.0	12500.00	100.0
SODIUM	12500.0	12430.00	99.4

SAMPLE: CCV

File: IPA25A Jan 25, 2022 15:59

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12610.00	100.9
ARSENIC	500.0	493.30	98.7
CALCIUM	12500.0	13000.00	104.0
IRON	12500.0	12810.00	102.5
MAGNESIUM	12500.0	12240.00	97.9
MANGANESE	500.0	516.70	103.3
POTASSIUM	12500.0	12490.00	99.9
SODIUM	12500.0	12350.00	98.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: CCV

File: IPA25A Jan 25, 2022 16:51

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12620.00	101.0
ARSENIC	500.0	494.60	98.9
CALCIUM	12500.0	12910.00	103.3
IRON	12500.0	12710.00	101.7
MAGNESIUM	12500.0	12370.00	99.0
MANGANESE	500.0	516.20	103.2
POTASSIUM	12500.0	12510.00	100.1
SODIUM	12500.0	12310.00	98.5

SAMPLE: CCV

File: IPA25A Jan 25, 2022 17:43

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12490.00	99.9
ARSENIC	500.0	508.30	101.7
CALCIUM	12500.0	12720.00	101.8
IRON	12500.0	12320.00	98.6
MAGNESIUM	12500.0	12710.00	101.7
MANGANESE	500.0	511.70	102.3
POTASSIUM	12500.0	12410.00	99.3
SODIUM	12500.0	12050.00	96.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: CCV

File: IPA25A Jan 25, 2022 18:17

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12430.00	99.4
ARSENIC	500.0	497.60	99.5
CALCIUM	12500.0	12530.00	100.2
IRON	12500.0	12280.00	98.2
MAGNESIUM	12500.0	12620.00	101.0
MANGANESE	500.0	512.60	102.5
POTASSIUM	12500.0	12240.00	97.9
SODIUM	12500.0	12030.00	96.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: PQL

File: IPA25A Jan 25, 2022 14:36

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	310.00	103.3
ARSENIC	8.0	7.76	97.0
CALCIUM	100.0	104.20	104.2
IRON	100.0	105.60	105.6
MAGNESIUM	100.0	99.27	99.3
MANGANESE	5.0	5.16	103.2
POTASSIUM	1000.0	1017.00	101.7
SODIUM	1000.0	1025.00	102.5

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: ICB

File: IPA25A Jan 25, 2022 14:32

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.095	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IPA25A Jan 25, 2022 14:53

Analyte	Result	C
ALUMINUM	10.800	J
ARSENIC	1.400	U
CALCIUM	14.930	J
IRON	12.180	J
MAGNESIUM	8.392	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IPA25A Jan 25, 2022 15:11

Analyte	Result	C
ALUMINUM	20.400	J
ARSENIC	1.400	U
CALCIUM	16.650	J
IRON	14.230	J
MAGNESIUM	5.321	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: CCB

File: IPA25A Jan 25, 2022 16:04

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	7.523	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	33.640	J

SAMPLE: CCB

File: IPA25A Jan 25, 2022 16:55

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	13.390	J
IRON	9.312	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	22.140	J

SAMPLE: CCB

File: IPA25A Jan 25, 2022 17:47

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	11.070	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: CCB

File: IPA25A Jan 25, 2022 18:21

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.830	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	19.200	J

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWPA24ICW1

Matrix: WATER **SDG Name:** SP0317

QC Batch ID: PA24ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	14	J
IRON	100	U
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWPA24ICW2

Matrix: WATER **SDG Name:** SP0317

QC Batch ID: PA24ICW2

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	100	U
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Concentration Units: ug/L

SAMPLE: ICSA

File: IPA25A Jan 25, 2022 14:40

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	528000.00	105.6
ARSENIC	0	-1.06	
CALCIUM	500000.00	494900.00	99.0
IRON	200000.00	192600.00	96.3
MAGNESIUM	500000.00	458300.00	91.7
MANGANESE	0	0.37	
POTASSIUM	0	1.64	
SODIUM	0	81.85	

SAMPLE: ICSAB

File: IPA25A Jan 25, 2022 14:45

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	461100.00	92.2
ARSENIC	100.00	98.34	98.0
CALCIUM	500000.00	434500.00	86.9
IRON	200000.00	172000.00	86.0
MAGNESIUM	500000.00	412400.00	82.5
MANGANESE	500.00	473.80	94.8
POTASSIUM	20000.00	21170.00	105.8
SODIUM	20000.00	21180.00	105.9

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#5P

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-005P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	1840		1740		100	99.0		87	113	P
CALCIUM, TOTAL	31900		29700		2500	88.8		87	113	P
IRON, TOTAL	43400		42800		1000	55.0	N	87	115	P
MAGNESIUM, TOTAL	8860		4200		5000	93.2		85	113	P
MANGANESE, TOTAL	1870		1370		500	99.8		90	114	P
POTASSIUM, TOTAL	15800		5540		10000	102.4		86	114	P
SODIUM, TOTAL	22400		15000		7500	98.9		87	115	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#5S

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-005S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	1970		1740		100	227.0	N	87	113	P
CALCIUM, TOTAL	34000		29700		2500	170.0	N	87	113	P
IRON, TOTAL	46400		42800		1000	360.0	N	87	115	P
MAGNESIUM, TOTAL	9280		4200		5000	101.6		85	113	P
MANGANESE, TOTAL	1980		1370		500	121.4	N	90	114	P
POTASSIUM, TOTAL	16400		5540		10000	108.5		86	114	P
SODIUM, TOTAL	23500		15000		7500	113.7		87	115	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#5P

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-006P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	1890		1820		100	67.0	N	87	113	P
IRON, DISSOLVED	42300		42500		1000	-22.0	N	87	115	P
MANGANESE, DISSOLVED	1900		1400		500	100.8		90	114	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#5S

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-006S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	1870		1820		100	49.0	N	87	113	P
IRON, DISSOLVED	41400		42500		1000	-105.0	N	87	115	P
MANGANESE, DISSOLVED	1870		1400		500	94.0		90	114	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#5A

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-005A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, TOTAL	2220		1740		500	95.6		80	120	P
CALCIUM, TOTAL	35200		29700		5500	100.2		80	120	P
IRON, TOTAL	48100		42800		5500	97.1		80	120	P
MAGNESIUM, TOTAL	9370		4200		5500	93.9		80	120	P
MANGANESE, TOTAL	1860		1370		500	98.4		80	120	P
POTASSIUM, TOTAL	15600		5540		10000	100.9		80	120	P
SODIUM, TOTAL	20400		15000		5500	98.2		80	120	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#5A

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-006A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC, DISSOLVED	2250		1820		500	86.0		80	120	P
IRON, DISSOLVED	48200		42500		5500	104.4		80	120	P
MANGANESE, DISSOLVED	1930		1400		500	105.4		80	120	P

Comments:

FORM V (Part 2) - IN

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-005

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		1970		1840		6.7		P
CALCIUM, TOTAL		34000		31900		6.2		P
IRON, TOTAL		46400		43400		6.8		P
MAGNESIUM, TOTAL		9280		8860		4.6		P
MANGANESE, TOTAL		1980		1870		5.6		P
POTASSIUM, TOTAL		16400		15800		3.8		P
SODIUM, TOTAL		23500		22400		4.8		P

Comments:

FORM VD - IN

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-FF-EVENT#5

Matrix: WATER **SDG Name:** SP0317

Percent Solids: 0.00 **Lab Sample ID:** SP0317-006

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, DISSOLVED		1870		1890		1.0		P
IRON, DISSOLVED		41400		42300		2.0		P
MANGANESE, DISSOLVED		1870		1900		1.8		P

Comments:

FORM VD - IN

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWPA24ICW1

Matrix: WATER **SDG Name:** SP0317

QC Batch ID: PA24ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	103	103.3	87	113
CALCIUM	2500	2580	103.1	87	113
IRON	1000	977	97.7	87	115
MAGNESIUM	5000	5150	103.1	85	113
MANGANESE	500	476	95.3	90	114
POTASSIUM	10000	10400	103.6	86	114
SODIUM	7500	7860	104.9	87	115

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWPA24ICW2

Matrix: WATER **SDG Name:** SP0317

QC Batch ID: PA24ICW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	100	100.2	87	113
CALCIUM	2500	2530	101.0	87	113
IRON	1000	1060	105.9	87	115
MAGNESIUM	5000	5000	100.0	85	113
MANGANESE	500	521	104.1	90	114
POTASSIUM	10000	10200	101.8	86	114
SODIUM	7500	7720	103.0	87	115

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-EVENT#5L

Matrix: WATER **SDG Name:** SP0317

Lab Sample ID: SP0317-005L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, TOTAL	1740		1760		1.1		P
CALCIUM, TOTAL	29700		30400		2.4		P
IRON, TOTAL	42800		43900		2.6		P
MAGNESIUM, TOTAL	4200		4400		4.8		P
MANGANESE, TOTAL	1370		1390		1.5		P
POTASSIUM, TOTAL	5540		5610		1.3		P
SODIUM, TOTAL	15000		15300		2.0		P

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Matrix: WATER

Client Field ID: MW-21-4D-FF-EVENT#5L

SDG Name: SP0317

Lab Sample ID: SP0317-006L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ARSENIC, DISSOLVED	1820		1810		0.5		P
IRON, DISSOLVED	42500		45000		5.9		P
MANGANESE, DISSOLVED	1400		1480		5.7		P

FORM IX - IN

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P
POTASSIUM	1000	73	P
SODIUM	1000	12	P

FORM X - IN

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	80	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	500	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	500	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	11	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	7.8	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	41	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	24	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P
POTASSIUM	5.00	300000	P
SODIUM	5.00	200000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** PA24ICW1

Matrix: WATER **SDG Name:** SP0317

Method: P **Prep Date:** 01/24/2022

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWPA24ICW1	LCSWPA24ICW1	0.05	0.05	
PBWPA24ICW1	PBWPA24ICW1	0.05	0.05	
MW-21-1D-EVENT#5	SP0317-001	0.05	0.05	A
MW-21-1D-FF-EVENT#5	SP0317-002	0.05	0.05	A
MW-21-1D-EVENT#5-DUP	SP0317-003	0.05	0.05	A
MW-21-1D-FF-EVENT#5-DUP	SP0317-004	0.05	0.05	A
MW-21-4D-EVENT#5	SP0317-005	0.05	0.05	A
MW-21-4D-EVENT#5P	SP0317-005P	0.05	0.05	A
MW-21-4D-EVENT#5S	SP0317-005S	0.05	0.05	A
MW-21-1S-EVENT#5	SP0317-007	0.05	0.05	A
MW-21-1S-FF-EVENT#5	SP0317-008	0.05	0.05	A
MW-21-4S-EVENT#5	SP0317-009	0.05	0.05	A
MW-21-4S-FF-EVENT#5	SP0317-010	0.05	0.05	A
SHM-10-06-EVENT#5	SP0317-011	0.05	0.05	A
SHM-10-06-FF-EVENT#5	SP0317-012	0.05	0.05	A
MW-21-3S-EVENT#5	SP0317-013	0.05	0.05	A
MW-21-3S-FF-EVENT#5	SP0317-014	0.05	0.05	A
MW-21-3D-EVENT#5	SP0317-015	0.05	0.05	A
MW-21-3D-FF-EVENT#5	SP0317-016	0.05	0.05	A
MW-21-2S-EVENT#5	SP0317-017	0.05	0.05	A

FORM XIII - IN

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** PA24ICW2

Matrix: WATER **SDG Name:** SP0317

Method: P **Prep Date:** 01/24/2022

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWPA24ICW2	LCSWPA24ICW2	0.05	0.05	
PBWPA24ICW2	PBWPA24ICW2	0.05	0.05	
MW-21-4D-FF-EVENT#5	SP0317-006	0.05	0.05	A
MW-21-4D-FF-EVENT#5P	SP0317-006P	0.05	0.05	A
MW-21-4D-FF-EVENT#5S	SP0317-006S	0.05	0.05	A
MW-21-2S-FF-EVENT#5	SP0317-018	0.05	0.05	A
MW-21-2D-EVENT#5	SP0317-019	0.05	0.05	A
MW-21-2D-FF-EVENT#5	SP0317-020	0.05	0.05	A

FORM XIII - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Instrument ID: THERMO ICAP 6500 **File Name:** IPA25A

Date: 01/25/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	14:19	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	14:23	AL	AS	CA	FE	MG MN	K	NA
ICV		1	14:27	AL	AS	CA	FE	MG MN	K	NA
ICB		1	14:32	AL	AS	CA	FE	MG MN	K	NA
PQL		1	14:36	AL	AS	CA	FE	MG MN	K	NA
ICSA		1	14:40	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	14:45	AL	AS	CA	FE	MG MN	K	NA
CCV		1	14:49	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:53	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	14:58							
ZZZZZZ		1	15:03							
CCV		1	15:07	AL	AS	CA	FE	MG MN	K	NA
CCB		1	15:11	AL	AS	CA	FE	MG MN	K	NA
LCSWPA24ICW1		1	15:16		AS	CA	FE	MG MN	K	NA
PBWPA24ICW1		1	15:20		AS	CA	FE	MG MN	K	NA
LCSWPA24ICW2		1	15:25		AS	CA	FE	MG MN	K	NA
PBWPA24ICW2		1	15:29		AS	CA	FE	MG MN	K	NA
ZZZZZZ		5	15:33							
ZZZZZZ		10	15:38							
ZZZZZZ		1	15:42							
SP0317-001	MW-21-1D-EVENT#5	1	15:46		AS	CA	FE	MG MN	K	NA
SP0317-002	MW-21-1D-FF-EVENT#5	1	15:51		AS		FE	MN		
SP0317-003	MW-21-1D-EVENT#5-DUP	1	15:55		AS	CA	FE	MG MN	K	NA
CCV		1	15:59	AL	AS	CA	FE	MG MN	K	NA
CCB		1	16:04	AL	AS	CA	FE	MG MN	K	NA
SP0317-004	MW-21-1D-FF-EVENT#5-DUP	1	16:08		AS		FE	MN		
SP0317-005	MW-21-4D-EVENT#5	1	16:12		AS	CA	FE	MG MN	K	NA

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Instrument ID: THERMO ICAP 6500 **File Name:** IPA25A

Date: 01/25/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time		Elements					
SP0317-005L	MW-21-4D-EVENT#5L	5	16:17		AS	CA	FE	MG MN	K	NA
SP0317-005A	MW-21-4D-EVENT#5A	1	16:21		AS	CA	FE	MG MN	K	NA
SP0317-005P	MW-21-4D-EVENT#5P	1	16:25		AS	CA	FE	MG MN	K	NA
SP0317-005S	MW-21-4D-EVENT#5S	1	16:29		AS	CA	FE	MG MN	K	NA
SP0317-007	MW-21-1S-EVENT#5	1	16:34		AS	CA	FE	MG MN	K	NA
SP0317-008	MW-21-1S-FF-EVENT#5	1	16:38		AS		FE	MN		
SP0317-009	MW-21-4S-EVENT#5	1	16:42		AS	CA	FE	MG MN	K	NA
SP0317-010	MW-21-4S-FF-EVENT#5	1	16:47		AS		FE	MN		
CCV		1	16:51	AL	AS	CA	FE	MG MN	K	NA
CCB		1	16:55	AL	AS	CA	FE	MG MN	K	NA
SP0317-011	SHM-10-06-EVENT#5	1	16:59		AS	CA	FE	MG MN	K	NA
SP0317-012	SHM-10-06-FF-EVENT#5	1	17:04		AS		FE	MN		
SP0317-013	MW-21-3S-EVENT#5	1	17:08		AS	CA	FE	MG MN	K	NA
SP0317-014	MW-21-3S-FF-EVENT#5	1	17:12		AS		FE	MN		
SP0317-015	MW-21-3D-EVENT#5	1	17:17		AS	CA	FE	MG MN	K	NA
SP0317-016	MW-21-3D-FF-EVENT#5	1	17:21		AS		FE	MN		
SP0317-017	MW-21-2S-EVENT#5	1	17:25		AS	CA	FE	MG MN	K	NA
SP0317-006	MW-21-4D-FF-EVENT#5	1	17:30		AS		FE	MN		
SP0317-006L	MW-21-4D-FF-EVENT#5L	5	17:34		AS		FE	MN		
SP0317-006A	MW-21-4D-FF-EVENT#5A	1	17:38		AS		FE	MN		
CCV		1	17:43	AL	AS	CA	FE	MG MN	K	NA
CCB		1	17:47	AL	AS	CA	FE	MG MN	K	NA
SP0317-006P	MW-21-4D-FF-EVENT#5P	1	17:51		AS		FE	MN		
SP0317-006S	MW-21-4D-FF-EVENT#5S	1	17:55		AS		FE	MN		
SP0317-018	MW-21-2S-FF-EVENT#5	1	18:00		AS		FE	MN		
SP0317-019	MW-21-2D-EVENT#5	1	18:04		AS	CA	FE	MG MN	K	NA
SP0317-020	MW-21-2D-FF-EVENT#5	1	18:08		AS		FE	MN		

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SP0317

Instrument ID: THERMO ICAP 6500 **File Name:** IPA25A

Date: 01/25/2022 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	18:13							
CCV		1	18:17	AL	AS	CA	FE	MG MN	K	NA
CCB		1	18:21	AL	AS	CA	FE	MG MN	K	NA

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST:** JT **ANALYSIS DATE:** 01/25/2022

METHOD: ICP
- ☐ 200.7
- ☒ 6010
- ☒ DOD
- ☐ _____

FILE NAME: IPA25A

REVIEWED
EL 01-26-22
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by _____ (initals) on _____ (date).

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20765	01/11/2022	01/11/2023	0 ug/L
Standard 1	MW20764	01/11/2022	02/04/2022	Varies by Element
ICV	MW20769	01/12/2022	01/27/2022	Varies by Element
PQL	MW20737	12/22/2021	03/22/2022	Varies by Element
LRS1	MW20774	01/18/2022	02/12/2022	Varies by Element
LRS2	MW20775	01/18/2022	04/08/2022	Varies by Element
ICSA	MW20738	12/22/2021	03/22/2022	Varies by Element
ICSAB	MW20739	12/22/2021	01/26/2022	Varies by Element
CCV	MW20768	01/12/2022	02/04/2022	Varies by Element
Internal Standard	MW20759	01/10/2022	04/10/2022	5.0 mg/L Yttrium

Additional Comments and Notes:

PA3H ICW1 BQL put through for Pb, non-DOD. PB-non-DOD accepted for SP0317-010

EL 01-26-22

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20693 (pipet M29)

10x diln.: 1.0 mL of sample (pipet M25) + 9.0 mL of MW19407 (pipet M25)

Post Spike: 0.123mL MW20767 (pipet M27) to 6.0mL of sample (pipet M29)

ME-021 – Revision 1 – 01/20/2016

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IPA25A	01/25/2022	14:19	EP
Std 1	1.000	IPA25A	01/25/2022	14:23	EP
ICV	1.000	IPA25A	01/25/2022	14:27	EP
ICB	1.000	IPA25A	01/25/2022	14:32	EP
PQL	1.000	IPA25A	01/25/2022	14:36	EP
ICSA	1.000	IPA25A	01/25/2022	14:40	EP
ICSAB	1.000	IPA25A	01/25/2022	14:45	EP
CCV	1.000	IPA25A	01/25/2022	14:49	EP
CCB	1.000	IPA25A	01/25/2022	14:53	EP
LRS1	1.000	IPA25A	01/25/2022	14:58	EP
LRS2	1.000	IPA25A	01/25/2022	15:03	EP
CCV	1.000	IPA25A	01/25/2022	15:07	EP
CCB	1.000	IPA25A	01/25/2022	15:11	EP
LCSWPA24ICW1	1.000	IPA25A	01/25/2022	15:16	EP
PBWPA24ICW1	1.000	IPA25A	01/25/2022	15:20	EP
LCSWPA24ICW2	1.000	IPA25A	01/25/2022	15:25	EP
PBWPA24ICW2	1.000	IPA25A	01/25/2022	15:29	EP
SO6495-017	5.000	IPA25A	01/25/2022	15:33	EP
SO6495-017	10.00	IPA25A	01/25/2022	15:38	EP
SP0177-010	1.000	IPA25A	01/25/2022	15:42	EP
SP0317-001	1.000	IPA25A	01/25/2022	15:46	EP
SP0317-002	1.000	IPA25A	01/25/2022	15:51	EP
SP0317-003	1.000	IPA25A	01/25/2022	15:55	EP
CCV	1.000	IPA25A	01/25/2022	15:59	EP
CCB	1.000	IPA25A	01/25/2022	16:04	EP
SP0317-004	1.000	IPA25A	01/25/2022	16:08	EP
SP0317-005	1.000	IPA25A	01/25/2022	16:12	EP
SP0317-005L	5.000	IPA25A	01/25/2022	16:17	EP
SP0317-005A	1.000	IPA25A	01/25/2022	16:21	EP
SP0317-005P	1.000	IPA25A	01/25/2022	16:25	EP
SP0317-005S	1.000	IPA25A	01/25/2022	16:29	EP
SP0317-007	1.000	IPA25A	01/25/2022	16:34	EP
SP0317-008	1.000	IPA25A	01/25/2022	16:38	EP
SP0317-009	1.000	IPA25A	01/25/2022	16:42	EP
SP0317-010	1.000	IPA25A	01/25/2022	16:47	EP
CCV	1.000	IPA25A	01/25/2022	16:51	EP
CCB	1.000	IPA25A	01/25/2022	16:55	EP
SP0317-011	1.000	IPA25A	01/25/2022	16:59	EP
SP0317-012	1.000	IPA25A	01/25/2022	17:04	EP
SP0317-013	1.000	IPA25A	01/25/2022	17:08	EP
SP0317-014	1.000	IPA25A	01/25/2022	17:12	EP
SP0317-015	1.000	IPA25A	01/25/2022	17:17	EP
SP0317-016	1.000	IPA25A	01/25/2022	17:21	EP
SP0317-017	1.000	IPA25A	01/25/2022	17:25	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SP0317-006	1.000	IPA25A	01/25/2022	17:30	EP
SP0317-006L	5.000	IPA25A	01/25/2022	17:34	EP
SP0317-006A	1.000	IPA25A	01/25/2022	17:38	EP
CCV	1.000	IPA25A	01/25/2022	17:43	EP
CCB	1.000	IPA25A	01/25/2022	17:47	EP
SP0317-006P	1.000	IPA25A	01/25/2022	17:51	EP
SP0317-006S	1.000	IPA25A	01/25/2022	17:55	EP
SP0317-018	1.000	IPA25A	01/25/2022	18:00	EP
SP0317-019	1.000	IPA25A	01/25/2022	18:04	EP
SP0317-020	1.000	IPA25A	01/25/2022	18:08	EP
SP0324-001	1.000	IPA25A	01/25/2022	18:13	EP
CCV	1.000	IPA25A	01/25/2022	18:17	EP
CCB	1.000	IPA25A	01/25/2022	18:21	EP
PQL	1.000	IPA25A	01/25/2022	18:26	EP
ICSA	1.000	IPA25A	01/25/2022	18:30	EP
ICSAB	1.000	IPA25A	01/25/2022	18:35	EP
CCV	1.000	IPA25A	01/25/2022	18:39	EP
CCB	1.000	IPA25A	01/25/2022	18:43	EP

Intensity Report

Author:

Published: 1/26/2022 9:20:51AM

Notes:

Blank

Method Name: FAST-2016_NO_AU Method Revision: 1,089

Analyst Name: EP

Acquire Date: 1/25/2022 2:19:23PM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001650	Cts/S	0.00002800	16.71	-26.81
Al3961_R		-0.00007300	Cts/S	0.0003580	488.7	-1.189
As1891_A		-0.0001840	Cts/S	0.000009000	5.144	-1.539
B_2089_A		0.0004650	Cts/S	0.00003700	7.853	3.883
Ba4554_R		-0.0001960	Cts/S	0.00008400	42.55	-3.195
Be3130_R		-0.0002120	Cts/S	0.0001150	54.27	-3.459
Ca3158_R		-0.001176	Cts/S	0.00007000	5.913	-19.14
Cd2265_A		-0.0003550	Cts/S	0.00005500	15.42	-2.966
Co2286_A		0.0002180	Cts/S	0.00005900	27.13	1.820
Cr2677_A		0.00001800	Cts/S	0.00001400	78.69	2.984
Cu3273_A		0.00004900	Cts/S	0.00005600	115.5	7.915
Fe2599_R		0.0002450	Cts/S	0.00008900	36.37	3.991
K_7664_R		-0.004232	Cts/S	0.00003900	0.9320	-68.89
Li6707_R		-0.0007640	Cts/S	0.0002520	33.04	-12.43
Mg2025_A		-0.0009360	Cts/S	0.00005500	5.891	-7.815
Mn2576_R		0.00004400	Cts/S	0.00001300	30.58	0.7179
Mo2020_A		0.00005500	Cts/S	0.00006900	127.3	0.4543
Na5895_R		0.004753	Cts/S	0.0004560	9.595	77.37
Ni2316_A		-0.00005800	Cts/S	0.00004700	81.86	-0.4798
Pb2203_A		-0.00008000	Cts/S	0.00007600	95.25	-0.6671
Sb2068_A		0.00005500	Cts/S	0.00001000	18.11	0.4616
Se1960_A		0.0001350	Cts/S	0.00001700	12.34	1.124
Si2516_R		0.002923	Cts/S	0.0002930	10.04	47.57
Sn1899_A		0.0001090	Cts/S	0.00001300	11.85	0.9121
Sr4215_R		-0.0005490	Cts/S	0.00009900	17.94	-8.941
Ti3349_A		-0.00008800	Cts/S	0.00002100	23.48	-14.28
Tl1908_A		-0.0001560	Cts/S	0.00001500	9.529	-1.299
V_2924_A		-0.00004000	Cts/S	0.00001900	47.00	-6.471
Zn2062_A		-0.00004800	Cts/S	0.00004500	92.59	-0.4053
Y_3600_R		16,278	Cts/S	10.224	0.062809	16,278
Y_2243_A		8,352.1	Cts/S	46.068	0.55158	8,352.1
Y_3600_A		162,680	Cts/S	59.431	0.036533	162,680

Std 1

Method Name: FAST-2016_NO_AU Method Revision: 1,089

Analyst Name: EP

Acquire Date: 1/25/2022 2:23:46PM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1367	Cts/S	0.0001180	0.08631	21,370
Al3961_R		1.626	Cts/S	0.005335	0.3282	26,180
As1891_A		0.05003	Cts/S	0.0002370	0.4734	405.3
B_2089_A		0.1918	Cts/S	0.0006770	0.3528	1,553
Ba4554_R		3.496	Cts/S	0.01670	0.4777	56,310
Be3130_R		6.017	Cts/S	0.02613	0.4342	96,910
Ca3158_R		1.854	Cts/S	0.005576	0.3007	29,870
Cd2265_A		1.749	Cts/S	0.01197	0.6843	14,170
Co2286_A		0.5232	Cts/S	0.002621	0.5009	4,238
Cr2677_A		0.08317	Cts/S	0.0004340	0.5223	13,000
Cu3273_A		0.09364	Cts/S	0.0003540	0.3780	14,630
Fe2599_R		2.541	Cts/S	0.01675	0.6591	40,930
K_7664_R		0.9478	Cts/S	0.001845	0.1947	15,270
Li6707_R		0.6826	Cts/S	0.002640	0.3867	10,990

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:23:46PM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.191	Cts/S	0.005787	0.4857	9,651
Mn2576_R		0.6217	Cts/S	0.002895	0.4656	10,010
Mo2020_A		0.4225	Cts/S	0.001775	0.4200	3,422
Na5895_R		3.056	Cts/S	0.005392	0.1764	49,220
Ni2316_A		0.2544	Cts/S	0.001182	0.4644	2,061
Pb2203_A		0.1227	Cts/S	0.0007460	0.6075	994.2
Sb2068_A		0.07622	Cts/S	0.0004140	0.5429	617.4
Se1960_A		0.03876	Cts/S	0.0002570	0.6626	313.9
Si2516_R		0.7737	Cts/S	0.005836	0.7543	12,460
Sn1899_A		0.06496	Cts/S	0.0003980	0.6128	526.2
Sr4215_R		4.720	Cts/S	0.0001630	0.003449	76,030
Ti3349_A		0.1976	Cts/S	0.0003570	0.1809	30,880
Tl1908_A		0.07894	Cts/S	0.0004450	0.5636	639.4
V_2924_A		0.08651	Cts/S	0.0003070	0.3548	13,520
Zn2062_A		0.3470	Cts/S	0.001967	0.5667	2,811
Y_3600_R		16,106	Cts/S	8.0732	0.050124	16,106
Y_2243_A		8,100.3	Cts/S	17.683	0.21830	8,100.3
Y_3600_A		156,280	Cts/S	160.54	0.10273	156,280

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:27:52PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		404.2	ug/L	4.832	1.195	8,601
Al3961_R		10,290	ug/L	21.45	0.2085	10,590
As1891_A		391.0	ug/L	3.923	1.003	157.7
B_2089_A		400.3	ug/L	3.031	0.7572	625.6
Ba4554_R		411.9	ug/L	1.679	0.4075	22,800
Be3130_R		413.2	ug/L	1.208	0.2925	39,360
Ca3158_R		10,380	ug/L	1.092	0.01052	12,180
Cd2265_A		410.1	ug/L	3.797	0.9259	5,816
Co2286_A		414.4	ug/L	4.740	1.144	1,760
Cr2677_A		409.7	ug/L	0.2587	0.06314	5,316
Cu3273_A		412.2	ug/L	2.829	0.6862	6,024
Fe2599_R		10,320	ug/L	0.6216	0.006026	16,610
K_7664_R		13,910	ug/L	97.34	0.7000	8,319
Li6707_R		420.4	ug/L	4.167	0.9914	4,537
Mg2025_A		10,000	ug/L	98.92	0.9888	3,863
Mn2576_R		408.7	ug/L	1.597	0.3907	4,024
Mo2020_A		418.3	ug/L	4.261	1.019	1,434
Na5895_R		10,260	ug/L	43.88	0.4275	19,910
Ni2316_A		413.7	ug/L	4.032	0.9747	853.6
Pb2203_A		413.0	ug/L	4.416	1.069	410.8
Sb2068_A		402.9	ug/L	3.773	0.9363	249.3
Se1960_A		403.1	ug/L	1.048	0.2601	127.4
Si2516_R		10,310	ug/L	142.4	1.381	4,983
Sn1899_A		412.9	ug/L	3.173	0.7685	218.1
Sr4215_R		419.4	ug/L	2.671	0.6368	31,340
Ti3349_A		414.5	ug/L	3.095	0.7466	12,760
Tl1908_A		416.1	ug/L	2.538	0.6099	265.7
V_2924_A		415.1	ug/L	1.427	0.3438	5,597
Zn2062_A		409.4	ug/L	3.686	0.9002	1,152
Y_3600_R		15,835	Cts/S	3.8204	0.024127	15,835
Y_2243_A		8,111.4	Cts/S	64.576	0.79612	8,111.4
Y_3600_A		155,950	Cts/S	814.26	0.52214	155,950

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:32:01PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3284	ug/L	0.1375	41.87	-19.05
Al3961_R		-5.869	ug/L	1.648	28.08	-7.340
As1891_A		-0.9072	ug/L	0.1759	19.39	-1.917
B_2089_A		1.641	ug/L	0.3381	20.61	6.458
Ba4554_R		0.1686	ug/L	0.06282	37.25	6.375
Be3130_R		0.1249	ug/L	0.01853	14.84	8.723
Ca3158_R		2.366	ug/L	1.551	65.55	-16.22
Cd2265_A		0.08088	ug/L	0.02517	31.13	-1.776
Co2286_A		-0.03555	ug/L	0.07466	210.0	1.665
Cr2677_A		0.1475	ug/L	0.09763	66.19	4.870
Cu3273_A		-0.1456	ug/L	0.2371	162.8	5.592
Fe2599_R		6.095	ug/L	0.4617	7.574	14.03
K_7664_R		-20.36	ug/L	9.069	44.55	-81.26
Li6707_R		-0.2507	ug/L	0.7650	305.2	-15.15
Mg2025_A		-0.2839	ug/L	1.993	702.0	-7.904
Mn2576_R		0.07220	ug/L	0.3505	485.5	1.434
Mo2020_A		0.6853	ug/L	0.04765	6.952	2.867
Na5895_R		-3.567	ug/L	0.07357	2.063	70.05
Ni2316_A		0.3247	ug/L	0.05934	18.28	0.2144
Pb2203_A		-0.4423	ug/L	0.9762	220.7	-1.123
Sb2068_A		0.3985	ug/L	0.3369	84.54	0.7128
Se1960_A		0.8928	ug/L	1.656	185.4	1.409
Si2516_R		50.84	ug/L	20.53	40.38	72.33
Sn1899_A		0.3658	ug/L	0.4070	111.3	1.107
Sr4215_R		0.1079	ug/L	0.03461	32.07	-0.6513
Ti3349_A		0.5487	ug/L	0.1213	22.11	3.257
Tl1908_A		0.4030	ug/L	0.1526	37.88	-1.032
V_2924_A		0.2716	ug/L	0.2352	86.56	-2.631
Zn2062_A		0.2131	ug/L	0.004971	2.333	0.2132
Y_3600_R		16,226	Cts/S	66.745	0.41136	16,226
Y_2243_A		8,333.4	Cts/S	33.071	0.39685	8,333.4
Y_3600_A		158,840	Cts/S	2,285.8	1.4391	158,840

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:36:26PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.635	ug/L	0.09236	0.9586	184.1
Al3961_R		310.0	ug/L	1.799	0.5804	318.2
As1891_A		7.764	ug/L	0.002226	0.02867	1.693
B_2089_A		48.33	ug/L	0.4432	0.9171	78.55
Ba4554_R		5.328	ug/L	0.2137	4.010	292.3
Be3130_R		5.175	ug/L	0.01531	0.2958	490.0
Ca3158_R		104.2	ug/L	0.9506	0.9120	104.0
Cd2265_A		5.068	ug/L	0.02894	0.5711	69.93
Co2286_A		10.25	ug/L	0.2311	2.254	45.89
Cr2677_A		10.35	ug/L	0.1836	1.774	139.5
Cu3273_A		25.55	ug/L	0.1964	0.7687	386.9
Fe2599_R		105.6	ug/L	1.609	1.524	174.0
K_7664_R		1,017	ug/L	18.19	1.789	546.8
Li6707_R		103.3	ug/L	0.5147	0.4983	1,107
Mg2025_A		99.27	ug/L	0.8988	0.9054	31.61
Mn2576_R		5.161	ug/L	0.03725	0.7218	51.56
Mo2020_A		10.37	ug/L	0.09457	0.9120	36.45
Na5895_R		1,025	ug/L	11.29	1.102	2,059
Ni2316_A		10.48	ug/L	0.3802	3.628	21.45

PQL

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:36:26PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.565	ug/L	0.8766	19.20	3.935
Sb2068_A		7.914	ug/L	0.9090	11.49	4.786
Se1960_A		10.35	ug/L	2.160	20.86	4.387
Si2516_R		229.8	ug/L	12.95	5.637	156.5
Sn1899_A		102.5	ug/L	1.403	1.369	55.51
Sr4215_R		10.39	ug/L	0.2668	2.569	768.6
Ti3349_A		15.60	ug/L	0.1000	0.6411	475.4
Tl1908_A		15.30	ug/L	0.2477	1.619	8.661
V_2924_A		9.935	ug/L	0.08949	0.9008	130.2
Zn2062_A		20.63	ug/L	0.2204	1.068	58.48
Y_3600_R		15,856	Cts/S	98.274	0.61980	15,856
Y_2243_A		8,219.1	Cts/S	71.569	0.87076	8,219.1
Y_3600_A		158,730	Cts/S	443.97	0.27971	158,730

ICSA

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:40:49PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1553	ug/L	1.515	975.7	-1,291
Al3961_R		528,000	ug/L	3,156	0.5977	516,800
As1891_A		-1.059	ug/L	0.08171	7.719	-4.928
B_2089_A		-0.8953	ug/L	0.3415	38.15	2.050
Ba4554_R		1.468	ug/L	0.03388	2.308	74.44
Be3130_R		-0.07683	ug/L	0.01422	18.51	-10.08
Ca3158_R		494,900	ug/L	3,162	0.6388	553,700
Cd2265_A		2.146	ug/L	0.1445	6.731	185.6
Co2286_A		-0.1568	ug/L	0.01007	6.421	4.135
Cr2677_A		2.867	ug/L	0.3256	11.36	54.93
Cu3273_A		-1.093	ug/L	0.4371	39.97	16.68
Fe2599_R		192,600	ug/L	831.3	0.4317	295,100
K_7664_R		1.637	ug/L	2.357	144.0	-62.87
Li6707_R		3.798	ug/L	2.168	57.07	27.73
Mg2025_A		458,300	ug/L	5,256	1.147	152,000
Mn2576_R		0.3705	ug/L	0.4720	127.4	14.58
Mo2020_A		-1.161	ug/L	0.3874	33.35	-3.048
Na5895_R		81.85	ug/L	2.248	2.747	222.3
Ni2316_A		0.3434	ug/L	0.1787	52.04	-13.37
Pb2203_A		-2.197	ug/L	1.991	90.62	-39.97
Sb2068_A		-0.1923	ug/L	1.793	932.5	6.362
Se1960_A		-3.414	ug/L	1.114	32.62	6.015
Si2516_R		7.887	ug/L	14.07	178.4	32.98
Sn1899_A		9.480	ug/L	1.161	12.25	5.064
Sr4215_R	W	5.380	ug/L	0.1332	2.476	374.6
Ti3349_A		1.534	ug/L	0.05070	3.306	28.84
Tl1908_A		-1.812	ug/L	1.283	70.82	-1.369
V_2924_A		2.928	ug/L	0.1496	5.111	23.18
Zn2062_A		7.410	ug/L	0.4424	5.971	17.67
Y_3600_R		15,077	Cts/S	146.68	0.97286	15,077
Y_2243_A		6,999.1	Cts/S	65.240	0.93212	6,999.1
Y_3600_A		134,070	Cts/S	1,791.1	1.3359	134,070

ICSAB

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:45:22PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:45:22PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		218.2	ug/L	0.5239	0.2401	2,954
Al3961_R		461,100	ug/L	3,546	0.7692	458,300
As1891_A		98.34	ug/L	1.338	1.361	30.66
B_2089_A		492.0	ug/L	4.127	0.8388	667.7
Ba4554_R		507.9	ug/L	0.2254	0.04438	27,180
Be3130_R		494.0	ug/L	1.892	0.3830	45,500
Ca3158_R		434,500	ug/L	346.2	0.07969	493,600
Cd2265_A		945.4	ug/L	8.779	0.9286	11,800
Co2286_A		465.3	ug/L	4.250	0.9134	1,722
Cr2677_A		482.5	ug/L	0.2213	0.04586	5,533
Cu3273_A		536.0	ug/L	0.3515	0.06558	6,917
Fe2599_R		172,000	ug/L	908.5	0.5281	267,700
K_7664_R		21,170	ug/L	21.60	0.1020	12,280
Li6707_R		540.4	ug/L	2.746	0.5082	5,642
Mg2025_A		412,400	ug/L	2,707	0.6564	138,000
Mn2576_R		473.8	ug/L	3.293	0.6952	4,523
Mo2020_A		495.3	ug/L	5.053	1.020	1,477
Na5895_R		21,180	ug/L	22.38	0.1057	39,640
Ni2316_A		921.2	ug/L	9.309	1.011	1,638
Pb2203_A		44.19	ug/L	0.5445	1.232	4.625
Sb2068_A		617.4	ug/L	8.634	1.398	337.7
Se1960_A		49.57	ug/L	0.4497	0.9072	19.82
Si2516_R		1,953	ug/L	24.02	1.230	938.5
Sn1899_A		483.6	ug/L	4.845	1.002	222.1
Sr4215_R		513.5	ug/L	1.741	0.3390	37,110
Ti3349_A		502.1	ug/L	0.5544	0.1104	13,630
Tl1908_A		83.74	ug/L	0.2554	0.3050	46.78
V_2924_A		496.5	ug/L	0.2088	0.04206	5,895
Zn2062_A		932.2	ug/L	9.663	1.037	2,284
Y_3600_R		15,310	Cts/S	77.474	0.50603	15,310
Y_2243_A		7,057.7	Cts/S	33.261	0.47128	7,057.7
Y_3600_A		137,410	Cts/S	6.2967	0.0045820	137,410

CCV

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:49:51PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		498.9	ug/L	3.374	0.6762	10,690
Al3961_R		12,970	ug/L	261.3	2.016	13,330
As1891_A		494.1	ug/L	0.1717	0.03475	199.4
B_2089_A		493.5	ug/L	2.093	0.4241	768.8
Ba4554_R		514.9	ug/L	12.38	2.404	28,470
Be3130_R		513.1	ug/L	9.216	1.796	48,830
Ca3158_R		12,940	ug/L	240.8	1.860	15,180
Cd2265_A		502.1	ug/L	0.1145	0.02281	7,111
Co2286_A		507.0	ug/L	0.5343	0.1054	2,149
Cr2677_A		501.1	ug/L	3.864	0.7712	6,542
Cu3273_A		504.4	ug/L	1.290	0.2559	7,417
Fe2599_R		13,000	ug/L	242.8	1.868	20,900
K_7664_R		12,830	ug/L	266.0	2.072	7,664
Li6707_R		520.3	ug/L	13.15	2.527	5,611
Mg2025_A		12,630	ug/L	10.84	0.08580	4,870
Mn2576_R		514.1	ug/L	9.481	1.844	5,055
Mo2020_A		506.9	ug/L	0.9188	0.1813	1,735
Na5895_R		12,870	ug/L	289.2	2.247	24,930
Ni2316_A		506.7	ug/L	0.8504	0.1678	1,044

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:49:51PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		504.4	ug/L	0.9615	0.1906	501.0
Sb2068_A		492.6	ug/L	0.1413	0.02869	304.2
Se1960_A		491.1	ug/L	1.394	0.2838	154.7
Si2516_R		13,240	ug/L	437.9	3.306	6,378
Sn1899_A		507.6	ug/L	0.1622	0.03196	267.5
Sr4215_R		519.5	ug/L	10.32	1.987	38,780
Ti3349_A		503.6	ug/L	2.682	0.5326	15,610
Tl1908_A		510.8	ug/L	0.7675	0.1503	325.9
V_2924_A		503.1	ug/L	1.493	0.2968	6,827
Zn2062_A		496.6	ug/L	0.8102	0.1632	1,395
Y_3600_R		15,820	Cts/S	249.17	1.5751	15,820
Y_2243_A		8,098.0	Cts/S	11.275	0.13923	8,098.0
Y_3600_A		156,950	Cts/S	910.43	0.58007	156,950

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:53:59PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.07846	ug/L	0.01209	15.40	-28.22
Al3961_R		10.80	ug/L	3.276	30.33	10.13
As1891_A		0.5264	ug/L	0.3606	68.50	-1.286
B_2089_A		1.447	ug/L	0.06584	4.549	6.015
Ba4554_R		0.4619	ug/L	0.07582	16.41	22.83
Be3130_R		0.2232	ug/L	0.06097	27.32	18.17
Ca3158_R		14.93	ug/L	2.215	14.83	-1.082
Cd2265_A		0.08100	ug/L	0.0001860	0.2301	-1.726
Co2286_A		0.1499	ug/L	0.07729	51.57	2.417
Cr2677_A		-0.1302	ug/L	0.07282	55.94	1.206
Cu3273_A		0.08077	ug/L	0.2390	296.0	9.002
Fe2599_R		12.18	ug/L	0.3491	2.867	23.87
K_7664_R		14.82	ug/L	8.898	60.03	-59.03
Li6707_R		-0.4038	ug/L	0.7205	178.4	-16.76
Mg2025_A		8.392	ug/L	2.634	31.39	-4.368
Mn2576_R		0.02634	ug/L	0.07551	286.7	0.9672
Mo2020_A		0.6029	ug/L	0.1671	27.72	2.519
Na5895_R		4.007	ug/L	3.076	76.77	84.41
Ni2316_A		0.001380	ug/L	0.1757	12,730	-0.4585
Pb2203_A		-0.2074	ug/L	0.4674	225.4	-0.8612
Sb2068_A		0.3858	ug/L	0.01350	3.499	0.6894
Se1960_A		0.09790	ug/L	0.7182	733.7	1.127
Si2516_R		26.82	ug/L	15.90	59.27	60.12
Sn1899_A		0.1479	ug/L	0.1726	116.7	0.9673
Sr4215_R		0.2583	ug/L	0.08584	33.23	10.81
Ti3349_A		0.7524	ug/L	0.2221	29.51	9.730
Tl1908_A		0.2069	ug/L	0.2474	119.6	-1.134
V_2924_A		0.07504	ug/L	0.1499	199.8	-5.357
Zn2062_A		0.2341	ug/L	0.08441	36.05	0.2686
Y_3600_R		16,099	Cts/S	100.17	0.62224	16,099
Y_2243_A		8,144.7	Cts/S	5.8954	0.072384	8,144.7
Y_3600_A		160,030	Cts/S	652.34	0.40764	160,030

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:58:23PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 2:58:23PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,042	ug/L	4.840	0.2370	42,940
Al3961_R		-9.515	ug/L	1.421	14.94	194.2
As1891_A		20,810	ug/L	146.7	0.7050	8,010
B_2089_A		20,870	ug/L	144.9	0.6945	30,080
Ba4554_R		19,890	ug/L	314.4	1.580	1,112,000
Be3130_R		19,670	ug/L	231.5	1.177	1,892,000
Ca3158_R		0.9985	ug/L	1.886	188.9	-2.760
Cd2265_A		20,280	ug/L	55.27	0.2725	271,100
Co2286_A		21,080	ug/L	134.9	0.6398	84,360
Cr2677_A		20,030	ug/L	24.13	0.1205	255,600
Cu3273_A		20,300	ug/L	181.1	0.8920	291,300
Fe2599_R		-3.029	ug/L	1.350	44.57	-1.002
K_7664_R		-0.5844	ug/L	5.456	933.7	-68.01
Li6707_R		20,210	ug/L	44.35	0.2195	220,700
Mg2025_A		-938.6	ug/L	5.157	0.5494	759.5
Mn2576_R		19,650	ug/L	165.0	0.8398	195,400
Mo2020_A		5,347	ug/L	34.90	0.6527	17,280
Na5895_R		13.60	ug/L	2.380	17.50	102.5
Ni2316_A		21,110	ug/L	153.3	0.7263	40,940
Pb2203_A		21,420	ug/L	135.2	0.6311	20,170
Sb2068_A		21,200	ug/L	124.9	0.5892	12,350
Se1960_A		20,870	ug/L	122.9	0.5888	6,160
Si2516_R		376.7	ug/L	165.0	43.81	346.5
Sn1899_A		21,170	ug/L	128.5	0.6072	10,510
Sr4215_R		19,710	ug/L	129.9	0.6590	1,487,000
Ti3349_A		20,100	ug/L	77.36	0.3849	609,400
Tl1908_A		20,840	ug/L	112.7	0.5409	12,610
V_2924_A		20,160	ug/L	139.8	0.6935	268,900
Zn2062_A		20,320	ug/L	148.4	0.7307	53,970
Y_3600_R		15,985	Cts/S	18.674	0.11682	15,985
Y_2243_A		7,653.1	Cts/S	44.866	0.58625	7,653.1
Y_3600_A		153,490	Cts/S	303.57	0.19778	153,490

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:03:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.752	ug/L	0.4005	22.86	-1,539
Al3961_R		505,400	ug/L	8,742	1.730	510,600
As1891_A		0.2662	ug/L	1.221	458.5	-5.530
B_2089_A		32.18	ug/L	5.824	18.09	45.24
Ba4554_R		4.838	ug/L	3.819	78.95	261.2
Be3130_R		3.587	ug/L	3.633	101.3	334.1
Ca3158_R		464,900	ug/L	2,163	0.4653	536,900
Cd2265_A		4.073	ug/L	0.8302	20.39	240.0
Co2286_A		2.604	ug/L	0.4617	17.73	14.85
Cr2677_A		3.361	ug/L	0.7068	21.03	65.86
Cu3273_A		1.683	ug/L	1.261	74.91	90.48
Fe2599_R		230,900	ug/L	1,291	0.5593	365,100
K_7664_R		304,600	ug/L	3,196	1.049	180,400
Li6707_R		12.10	ug/L	3.381	27.94	117.0
Mg2025_A		192,200	ug/L	338.7	0.1762	63,440
Mn2576_R		13.99	ug/L	2.956	21.12	51.69
Mo2020_A		1.669	ug/L	0.9780	58.60	5.284
Na5895_R		203,200	ug/L	2,056	1.012	386,100
Ni2316_A		2.242	ug/L	0.07850	3.501	-12.60

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:03:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.3986	ug/L	2.960	742.7	-35.33
Sb2068_A		4.394	ug/L	0.3042	6.924	9.507
Se1960_A		-1.067	ug/L	0.4615	43.25	6.881
Si2516_R		48,580	ug/L	493.2	1.015	22,870
Sn1899_A		13.44	ug/L	1.650	12.28	6.826
Sr4215_R		10.02	ug/L	3.673	36.67	728.7
Ti3349_A		13.50	ug/L	1.155	8.556	352.6
Tl1908_A		-0.2085	ug/L	1.036	496.7	-0.5646
V_2924_A		9.193	ug/L	0.6311	6.865	97.11
Zn2062_A		5.345	ug/L	0.7227	13.52	12.58
Y_3600_R		15,562	Cts/S	160.77	1.0331	15,562
Y_2243_A		6,962.0	Cts/S	5.5003	0.079005	6,962.0
Y_3600_A		136,770	Cts/S	375.45	0.27451	136,770

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:07:50PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		497.6	ug/L	5.703	1.146	10,650
Al3961_R		12,570	ug/L	75.00	0.5968	13,400
As1891_A		501.5	ug/L	0.1337	0.02666	198.5
B_2089_A		513.3	ug/L	0.6544	0.1275	783.3
Ba4554_R		501.0	ug/L	1.471	0.2937	28,720
Be3130_R		498.7	ug/L	5.578	1.118	49,200
Ca3158_R		12,410	ug/L	107.2	0.8642	15,080
Cd2265_A		507.7	ug/L	1.987	0.3913	7,049
Co2286_A		510.1	ug/L	2.008	0.3936	2,120
Cr2677_A		498.7	ug/L	6.149	1.233	6,500
Cu3273_A		511.6	ug/L	5.058	0.9886	7,511
Fe2599_R		12,550	ug/L	77.04	0.6139	20,920
K_7664_R		12,500	ug/L	93.25	0.7461	7,735
Li6707_R		503.1	ug/L	3.912	0.7776	5,625
Mg2025_A		12,800	ug/L	23.48	0.1834	4,840
Mn2576_R		497.8	ug/L	5.278	1.060	5,074
Mo2020_A		509.6	ug/L	1.910	0.3748	1,710
Na5895_R		12,430	ug/L	44.17	0.3553	24,960
Ni2316_A		506.2	ug/L	1.619	0.3198	1,022
Pb2203_A		502.0	ug/L	0.8238	0.1641	488.8
Sb2068_A		506.0	ug/L	2.027	0.4007	306.4
Se1960_A		496.2	ug/L	1.259	0.2537	153.2
Si2516_R		12,980	ug/L	43.68	0.3364	6,483
Sn1899_A		510.7	ug/L	2.246	0.4398	263.9
Sr4215_R		502.5	ug/L	2.557	0.5088	38,890
Ti3349_A		507.0	ug/L	5.147	1.015	15,690
Tl1908_A		515.2	ug/L	1.231	0.2388	322.3
V_2924_A		503.3	ug/L	4.430	0.8801	6,820
Zn2062_A		490.6	ug/L	2.804	0.5717	1,351
Y_3600_R		16,397	Cts/S	101.04	0.61617	16,397
Y_2243_A		7,939.8	Cts/S	25.906	0.32628	7,939.8
Y_3600_A		156,700	Cts/S	1,008.0	0.64324	156,700

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:11:59PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:11:59PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2071	ug/L	0.4124	199.1	-22.07
Al3961_R		20.40	ug/L	6.421	31.48	20.49
As1891_A		0.02203	ug/L	0.4678	2,123	-1.478
B_2089_A	W	10.20	ug/L	0.6554	6.423	19.20
Ba4554_R		0.3185	ug/L	0.04969	15.60	14.99
Be3130_R		0.2696	ug/L	0.01647	6.110	22.92
Ca3158_R		16.65	ug/L	1.126	6.764	0.9814
Cd2265_A		0.1756	ug/L	0.01616	9.207	-0.3749
Co2286_A		0.1334	ug/L	0.05287	39.63	2.329
Cr2677_A		0.1631	ug/L	0.07892	48.40	5.139
Cu3273_A		0.1090	ug/L	0.05525	50.68	9.472
Fe2599_R		14.23	ug/L	0.8420	5.916	27.62
K_7664_R		20.67	ug/L	45.78	221.5	-56.35
Li6707_R		1.107	ug/L	0.4051	36.61	-0.1349
Mg2025_A		5.321	ug/L	1.335	25.08	-5.498
Mn2576_R		0.1915	ug/L	0.4227	220.7	2.675
Mo2020_A		1.041	ug/L	0.2174	20.89	3.988
Na5895_R		7.392	ug/L	7.855	106.3	92.26
Ni2316_A		0.3525	ug/L	0.1664	47.20	0.2679
Pb2203_A		-0.7267	ug/L	0.2136	29.40	-1.369
Sb2068_A		0.9768	ug/L	0.1126	11.53	1.044
Se1960_A		1.062	ug/L	0.2479	23.35	1.416
Si2516_R		33.41	ug/L	27.77	83.12	64.15
Sn1899_A		0.8566	ug/L	0.04150	4.845	1.328
Sr4215_R		0.3379	ug/L	0.1198	35.45	17.04
Ti3349_A		1.373	ug/L	0.08060	5.870	29.56
Tl1908_A		0.5654	ug/L	0.1274	22.53	-0.8951
V_2924_A		0.1491	ug/L	0.03064	20.55	-4.387
Zn2062_A		0.3753	ug/L	0.01923	5.124	0.6607
Y_3600_R		16,325	Cts/S	127.46	0.78077	16,325
Y_2243_A		8,064.2	Cts/S	33.646	0.41723	8,064.2
Y_3600_A		161,070	Cts/S	6.0424	0.0037510	161,070

LCSWPA24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:16:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		46.34	ug/L	0.03089	0.06665	965.1
Al3961_R		1,933	ug/L	5.643	0.2920	2,054
As1891_A		103.3	ug/L	0.5818	0.5632	39.31
B_2089_A		491.3	ug/L	3.349	0.6818	729.1
Ba4554_R		1,947	ug/L	0.03627	0.001863	111,200
Be3130_R		47.94	ug/L	0.2234	0.4660	4,706
Ca3158_R		2,578	ug/L	10.44	0.4049	3,107
Cd2265_A		270.9	ug/L	2.470	0.9117	3,711
Co2286_A		508.5	ug/L	3.520	0.6922	2,089
Cr2677_A		194.0	ug/L	2.025	1.044	2,543
Cu3273_A		251.0	ug/L	2.632	1.048	3,700
Fe2599_R		976.6	ug/L	9.414	0.9639	1,626
K_7664_R		10,360	ug/L	23.09	0.2230	6,376
Li6707_R		524.6	ug/L	0.5668	0.1080	5,845
Mg2025_A		5,153	ug/L	37.39	0.7256	1,936
Mn2576_R		476.5	ug/L	0.8258	0.1733	4,844
Mo2020_A		112.9	ug/L	0.8004	0.7091	374.4
Na5895_R		7,865	ug/L	7.790	0.09905	15,760
Ni2316_A		502.9	ug/L	4.561	0.9070	999.2

LCSWPA24ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:16:23PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		105.5	ug/L	1.324	1.255	101.1
Sb2068_A		108.2	ug/L	0.6807	0.6289	62.35
Se1960_A		102.7	ug/L	1.089	1.061	32.21
Si2516_R		1,114	ug/L	23.09	2.073	600.8
Sn1899_A		533.7	ug/L	9.896	1.854	272.4
Sr4215_R		525.8	ug/L	1.895	0.3604	40,550
Ti3349_A		533.1	ug/L	5.652	1.060	16,560
Tl1908_A		106.8	ug/L	1.280	1.198	65.65
V_2924_A		495.1	ug/L	6.200	1.252	6,779
Zn2062_A		479.4	ug/L	3.706	0.7730	1,306
Y_3600_R		16,338	Cts/S	20.345	0.12452	16,338
Y_2243_A		7,846.5	Cts/S	24.851	0.31672	7,846.5
Y_3600_A		157,410	Cts/S	920.24	0.58461	157,410

PBWPA24ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:20:35PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01820	ug/L	0.03711	203.9	-26.50
Al3961_R		28.23	ug/L	4.486	15.89	29.22
As1891_A		-0.8773	ug/L	0.06226	7.097	-1.840
B_2089_A		5.942	ug/L	0.3610	6.076	12.72
Ba4554_R		0.7292	ug/L	0.1194	16.38	39.02
Be3130_R		0.08387	ug/L	0.04063	48.45	4.801
Ca3158_R		14.34	ug/L	1.191	8.307	-1.845
Cd2265_A		-0.08149	ug/L	0.03780	46.38	-3.998
Co2286_A		0.08120	ug/L	0.2698	332.3	2.100
Cr2677_A		-0.08814	ug/L	0.3062	347.4	1.803
Cu3273_A		0.1928	ug/L	0.2726	141.4	10.84
Fe2599_R		5.312	ug/L	0.8890	16.74	13.03
K_7664_R		36.82	ug/L	16.97	46.10	-46.92
Li6707_R		-1.525	ug/L	1.226	80.40	-29.92
Mg2025_A		-1.036	ug/L	1.141	110.2	-7.919
Mn2576_R		0.4967	ug/L	0.02007	4.040	5.852
Mo2020_A		0.5480	ug/L	0.00003400	0.006157	2.304
Na5895_R		-4.510	ug/L	1.864	41.34	69.70
Ni2316_A		0.2302	ug/L	0.07329	31.83	0.01306
Pb2203_A		-0.6827	ug/L	0.4735	69.36	-1.325
Sb2068_A		0.5930	ug/L	0.2508	42.30	0.7879
Se1960_A		0.3124	ug/L	0.1809	57.88	1.181
Si2516_R		23.44	ug/L	13.23	56.43	60.26
Sn1899_A		3.523	ug/L	0.1953	5.544	2.719
Sr4215_R		0.09313	ug/L	0.07631	81.93	-1.803
Ti3349_A		0.8514	ug/L	0.2007	23.58	13.09
Tl1908_A		-1.499	ug/L	0.8616	57.47	-2.204
V_2924_A		0.01835	ug/L	0.02090	113.9	-6.253
Zn2062_A		3.008	ug/L	0.01042	0.3463	8.027
Y_3600_R		16,590	Cts/S	83.144	0.50118	16,590
Y_2243_A		8,052.7	Cts/S	32.713	0.40624	8,052.7
Y_3600_A		162,880	Cts/S	642.27	0.39431	162,880

LCSWPA24ICW2

Method Name: FAST-2016_NO_AU Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:25:00PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSWPA24ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:25:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.33	ug/L	0.2788	0.5539	1,065
Al3961_R		2,117	ug/L	6.544	0.3092	2,265
As1891_A		100.2	ug/L	0.4292	0.4284	38.41
B_2089_A		478.2	ug/L	1.865	0.3900	716.1
Ba4554_R		2,134	ug/L	1.269	0.05949	122,700
Be3130_R		52.43	ug/L	0.4808	0.9171	5,187
Ca3158_R		2,526	ug/L	2.957	0.1171	3,065
Cd2265_A		262.6	ug/L	0.4411	0.1680	3,628
Co2286_A		547.2	ug/L	1.114	0.2036	2,267
Cr2677_A		210.8	ug/L	1.889	0.8962	2,796
Cu3273_A		273.0	ug/L	1.569	0.5745	4,075
Fe2599_R		1,059	ug/L	10.42	0.9839	1,774
K_7664_R		10,180	ug/L	69.60	0.6837	6,308
Li6707_R		521.3	ug/L	3.807	0.7302	5,849
Mg2025_A		5,001	ug/L	17.92	0.3584	1,898
Mn2576_R		520.6	ug/L	0.3389	0.06510	5,329
Mo2020_A		109.4	ug/L	0.1022	0.09343	366.0
Na5895_R		7,724	ug/L	35.15	0.4551	15,590
Ni2316_A		540.4	ug/L	1.718	0.3180	1,083
Pb2203_A		100.5	ug/L	0.2410	0.2399	97.07
Sb2068_A		105.0	ug/L	0.8809	0.8393	61.01
Se1960_A		100.2	ug/L	0.3851	0.3842	31.75
Si2516_R		1,090	ug/L	9.600	0.8811	592.7
Sn1899_A		521.0	ug/L	4.738	0.9093	268.3
Sr4215_R		521.4	ug/L	2.085	0.3999	40,490
Ti3349_A		524.2	ug/L	3.944	0.7525	16,490
Tl1908_A		102.7	ug/L	0.7914	0.7702	63.77
V_2924_A		537.8	ug/L	3.332	0.6196	7,459
Zn2062_A		515.8	ug/L	2.292	0.4444	1,418
Y_3600_R		16,452	Cts/S	81.470	0.49520	16,452
Y_2243_A		7,915.4	Cts/S	27.775	0.35090	7,915.4
Y_3600_A		159,390	Cts/S	751.27	0.47134	159,390

PBWPA24ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:29:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4407	ug/L	0.04773	10.83	-17.13
Al3961_R		0.1375	ug/L	3.706	2,695	-1.049
As1891_A		-1.444	ug/L	0.3122	21.62	-2.090
B_2089_A		4.420	ug/L	0.07637	1.728	10.53
Ba4554_R		0.7695	ug/L	0.06946	9.027	41.44
Be3130_R		0.04240	ug/L	0.01725	40.68	0.6760
Ca3158_R		3.589	ug/L	3.575	99.60	-15.11
Cd2265_A		-0.07217	ug/L	0.01083	15.01	-3.910
Co2286_A		0.1698	ug/L	0.08430	49.63	2.499
Cr2677_A		0.08703	ug/L	0.1307	150.2	4.211
Cu3273_A		0.08694	ug/L	0.07390	85.00	9.347
Fe2599_R		1.058	ug/L	0.1677	15.84	5.861
K_7664_R		0.1223	ug/L	18.83	15,390	-70.22
Li6707_R		-1.379	ug/L	0.9053	65.63	-28.35
Mg2025_A		-3.236	ug/L	0.9578	29.60	-8.842
Mn2576_R		0.1888	ug/L	0.06835	36.20	2.682
Mo2020_A		0.4657	ug/L	0.1802	38.70	2.047
Na5895_R		-5.935	ug/L	7.650	128.9	66.92
Ni2316_A		0.02132	ug/L	0.3294	1,546	-0.4208

PBWPA24ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:29:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.4727	ug/L	0.2885	61.05	-1.126
Sb2068_A		-0.1346	ug/L	0.2474	183.8	0.3417
Se1960_A		2.045	ug/L	0.7608	37.21	1.734
Si2516_R		7.965	ug/L	11.19	140.4	52.55
Sn1899_A		3.740	ug/L	1.405	37.56	2.864
Sr4215_R		0.1842	ug/L	0.08854	48.07	5.324
Ti3349_A		0.6542	ug/L	0.1645	25.15	6.840
Tl1908_A		-1.284	ug/L	0.1369	10.66	-2.089
V_2924_A		0.1419	ug/L	0.1856	130.8	-4.549
Zn2062_A		0.8041	ug/L	0.02532	3.149	1.878
Y_3600_R		16,614	Cts/S	25.068	0.15088	16,614
Y_2243_A		8,132.5	Cts/S	73.695	0.90617	8,132.5
Y_3600_A		164,710	Cts/S	283.12	0.17189	164,710

SO6495-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:33:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3322	ug/L	3.782	1,138	-1,267
Al3961_R		-14.34	ug/L	0.5258	3.666	155.1
As1891_A		20.96	ug/L	1.404	6.698	-5.093
B_2089_A	W	6,145	ug/L	55.60	0.9049	1,675
Ba4554_R		315.1	ug/L	2.768	0.8784	3,355
Be3130_R		0.1802	ug/L	0.1753	97.25	-0.04535
Ca3158_R	W	948,900	ug/L	12,860	1.355	214,600
Cd2265_A		7.585	ug/L	1.718	22.66	182.7
Co2286_A		42.26	ug/L	1.217	2.881	37.35
Cr2677_A		606.7	ug/L	1.940	0.3197	1,361
Cu3273_A		-73.05	ug/L	1.264	1.730	-18.42
Fe2599_R	W	958,800	ug/L	6,025	0.6284	297,000
K_7664_R	W	312,400	ug/L	2,245	0.7188	36,190
Li6707_R		225.4	ug/L	2.573	1.142	457.9
Mg2025_A	W	906,400	ug/L	12,360	1.364	62,390
Mn2576_R	W	12,030	ug/L	181.8	1.510	22,780
Mo2020_A		8.661	ug/L	0.8554	9.876	5.574
Na5895_R	F	7,405,000	ug/L	42,240	0.5704	2,755,000
Ni2316_A		4,025	ug/L	3.929	0.09760	1,465
Pb2203_A		2.814	ug/L	0.3667	13.03	5.543
Sb2068_A		-9.789	ug/L	0.1911	1.952	3.737
Se1960_A		-27.49	ug/L	0.5358	1.949	2.043
Si2516_R		29,570	ug/L	387.5	1.310	2,753
Sn1899_A		19.04	ug/L	0.1885	0.9900	2.587
Sr4215_R	W	10,200	ug/L	52.99	0.5195	146,800
Ti3349_A		28.06	ug/L	0.1738	0.6195	135.7
Tl1908_A		-0.5932	ug/L	0.5302	89.39	-2.798
V_2924_A		19.79	ug/L	1.462	7.390	21.46
Zn2062_A		46.82	ug/L	0.2405	0.5138	22.95
Y_3600_R		15,240	Cts/S	62.283	0.40868	15,240
Y_2243_A		7,262.3	Cts/S	118.59	1.6329	7,262.3
Y_3600_A		132,480	Cts/S	515.32	0.38896	132,480

SO6495-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:38:05PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6495-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:38:05PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		21.13	ug/L	1.250	5.915	-673.6
Al3961_R		63.73	ug/L	52.92	83.03	87.52
As1891_A		20.38	ug/L	9.003	44.18	-3.424
B_2089_A		6,344	ug/L	30.07	0.4739	888.9
Ba4554_R		302.4	ug/L	3.385	1.119	1,623
Be3130_R		0.1360	ug/L	0.3083	226.7	-2.065
Ca3158_R	W	972,600	ug/L	3,580	0.3681	111,000
Cd2265_A		4.570	ug/L	1.244	27.21	91.68
Co2286_A		43.17	ug/L	1.359	3.147	20.41
Cr2677_A		626.9	ug/L	3.406	0.5433	753.8
Cu3273_A		-80.46	ug/L	0.4088	0.5081	-13.13
Fe2599_R	W	994,600	ug/L	923.0	0.09280	155,400
K_7664_R	W	301,000	ug/L	2,360	0.7838	17,570
Li6707_R		232.2	ug/L	5.755	2.478	232.3
Mg2025_A	W	936,600	ug/L	1,755	0.1874	33,080
Mn2576_R	W	12,150	ug/L	33.02	0.2719	11,600
Mo2020_A		8.217	ug/L	2.573	31.31	2.926
Na5895_R	F	7,297,000	ug/L	176,200	2.414	1,370,000
Ni2316_A		4,216	ug/L	7.687	0.1823	786.9
Pb2203_A		2.428	ug/L	5.099	210.0	2.614
Sb2068_A		-5.794	ug/L	6.008	103.7	2.436
Se1960_A		-21.42	ug/L	9.466	44.20	1.767
Si2516_R		29,070	ug/L	8.998	0.03096	1,388
Sn1899_A		18.72	ug/L	2.719	14.53	1.717
Sr4215_R		9,882	ug/L	106.5	1.078	71,740
Ti3349_A		25.90	ug/L	0.09283	0.3584	60.35
Tl1908_A		-8.631	ug/L	7.671	88.88	-2.501
V_2924_A		16.67	ug/L	3.670	22.02	4.594
Zn2062_A		48.28	ug/L	0.1586	0.3285	11.97
Y_3600_R		15,379	Cts/S	31.030	0.20177	15,379
Y_2243_A		7,451.7	Cts/S	95.003	1.2749	7,451.7
Y_3600_A		141,770	Cts/S	1,170.6	0.82571	141,770

SP0177-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:42:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.06165	ug/L	0.08500	137.9	-27.48
Al3961_R		1.621	ug/L	0.5580	34.42	0.5379
As1891_A		-1.648	ug/L	0.6115	37.11	-2.226
B_2089_A		5.379	ug/L	0.1981	3.683	12.27
Ba4554_R		0.5682	ug/L	0.04400	7.745	27.75
Be3130_R		0.04724	ug/L	0.01331	28.18	1.115
Ca3158_R		42.05	ug/L	5.601	13.32	30.14
Cd2265_A		-0.04641	ug/L	0.05290	114.0	-3.597
Co2286_A		0.1397	ug/L	0.1119	80.15	2.424
Cr2677_A		0.07008	ug/L	0.1161	165.6	3.804
Cu3273_A		1.296	ug/L	0.07991	6.165	26.72
Fe2599_R		32.79	ug/L	5.330	16.26	55.42
K_7664_R		46.72	ug/L	21.62	46.28	-38.03
Li6707_R		-0.2337	ug/L	1.263	540.6	-14.29
Mg2025_A		0.1761	ug/L	3.573	2,029	-7.719
Mn2576_R		0.5062	ug/L	0.02670	5.274	5.548
Mo2020_A		0.1948	ug/L	0.1024	52.60	1.139
Na5895_R		313.4	ug/L	43.69	13.94	666.4
Ni2316_A		0.1707	ug/L	0.1066	62.45	-0.1205

SP0177-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:42:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.4009	ug/L	0.5169	128.9	-1.075
Sb2068_A		0.5211	ug/L	0.9806	188.2	0.7854
Se1960_A		1.479	ug/L	1.519	102.7	1.598
Si2516_R		10.78	ug/L	10.75	99.65	50.33
Sn1899_A		0.8571	ug/L	0.6778	79.08	1.371
Sr4215_R		0.2582	ug/L	0.04117	15.94	10.38
Ti3349_A		0.03334	ug/L	0.04362	130.8	-12.76
Tl1908_A		-0.6840	ug/L	0.4647	67.94	-1.744
V_2924_A		0.02992	ug/L	0.1143	381.9	-5.863
Zn2062_A		1.561	ug/L	0.1159	7.423	4.114
Y_3600_R		15,497	Cts/S	40.249	0.25972	15,497
Y_2243_A		8,330.1	Cts/S	66.514	0.79847	8,330.1
Y_3600_A		157,110	Cts/S	713.03	0.45385	157,110

SP0317-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:46:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9272	ug/L	0.2302	24.83	-36.46
Al3961_R		201.0	ug/L	5.660	2.816	245.7
As1891_A		22.51	ug/L	0.2141	0.9512	7.601
B_2089_A		73.37	ug/L	0.9053	1.234	115.9
Ba4554_R		22.92	ug/L	0.1890	0.8249	1,241
Be3130_R		0.03586	ug/L	0.02130	59.42	-0.5063
Ca3158_R	W	51,760	ug/L	210.3	0.4064	59,640
Cd2265_A		-0.001779	ug/L	0.01604	901.4	1.021
Co2286_A		10.33	ug/L	0.05461	0.5288	45.88
Cr2677_A		1.409	ug/L	0.1903	13.51	30.41
Cu3273_A		0.9451	ug/L	0.08270	8.750	24.88
Fe2599_R		4,036	ug/L	26.30	0.6517	6,374
K_7664_R		6,727	ug/L	5.506	0.08185	3,913
Li6707_R		3.216	ug/L	0.7308	22.72	22.30
Mg2025_A		7,215	ug/L	26.79	0.3714	2,781
Mn2576_R	W	8,413	ug/L	22.42	0.2665	81,280
Mo2020_A		1.730	ug/L	0.008554	0.4944	5.812
Na5895_R		15,220	ug/L	35.43	0.2328	28,920
Ni2316_A		13.43	ug/L	0.1302	0.9693	26.92
Pb2203_A		-0.03980	ug/L	0.1767	443.9	-0.5813
Sb2068_A		0.7666	ug/L	0.2114	27.57	1.021
Se1960_A		0.7674	ug/L	1.933	251.9	2.803
Si2516_R		7,150	ug/L	6.057	0.08471	3,401
Sn1899_A		1.900	ug/L	0.1431	7.532	1.894
Sr4215_R		370.3	ug/L	2.385	0.6441	27,150
Ti3349_A		9.483	ug/L	0.01405	0.1482	276.1
Tl1908_A		-1.562	ug/L	0.5494	35.18	-7.868
V_2924_A		0.8365	ug/L	0.04361	5.213	-34.31
Zn2062_A		2.438	ug/L	0.1584	6.496	6.508
Y_3600_R		15,532	Cts/S	74.150	0.47741	15,532
Y_2243_A		8,152.1	Cts/S	39.800	0.48822	8,152.1
Y_3600_A		154,670	Cts/S	115.33	0.074567	154,670

SP0317-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:51:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:51:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9961	ug/L	0.06901	6.927	-31.61
Al3961_R		3.263	ug/L	8.914	273.2	46.76
As1891_A		11.88	ug/L	0.3146	2.648	3.275
B_2089_A		71.67	ug/L	0.5800	0.8092	113.9
Ba4554_R		22.14	ug/L	0.006912	0.03122	1,212
Be3130_R		0.06077	ug/L	0.03748	61.67	2.439
Ca3158_R	W	51,610	ug/L	54.44	0.1055	60,120
Cd2265_A		0.01982	ug/L	0.007897	39.84	0.8875
Co2286_A		10.07	ug/L	0.05664	0.5623	44.96
Cr2677_A		0.9969	ug/L	0.1164	11.67	25.53
Cu3273_A		0.7577	ug/L	0.1168	15.41	22.02
Fe2599_R		3,592	ug/L	11.02	0.3067	5,735
K_7664_R		6,604	ug/L	33.97	0.5144	3,882
Li6707_R		2.949	ug/L	1.209	41.00	19.61
Mg2025_A		7,126	ug/L	52.02	0.7300	2,762
Mn2576_R	W	8,732	ug/L	8.154	0.09339	85,270
Mo2020_A		1.471	ug/L	0.05588	3.798	4.926
Na5895_R		14,900	ug/L	53.74	0.3607	28,630
Ni2316_A		13.03	ug/L	0.008393	0.06440	26.28
Pb2203_A		0.02761	ug/L	0.7514	2,721	-0.5092
Sb2068_A		0.6789	ug/L	0.1393	20.52	0.9631
Se1960_A		0.8266	ug/L	0.3837	46.42	2.881
Si2516_R		6,806	ug/L	10.77	0.1583	3,274
Sn1899_A		0.9865	ug/L	0.8694	88.13	1.418
Sr4215_R		371.2	ug/L	0.4187	0.1128	27,510
Ti3349_A		-0.2107	ug/L	0.08333	39.56	-20.09
Tl1908_A		-2.058	ug/L	0.1136	5.521	-8.441
V_2924_A		0.4839	ug/L	0.1365	28.20	-40.81
Zn2062_A		2.169	ug/L	0.02680	1.236	5.778
Y_3600_R		15,700	Cts/S	103.59	0.65979	15,700
Y_2243_A		8,198.0	Cts/S	48.109	0.58683	8,198.0
Y_3600_A		155,500	Cts/S	653.09	0.42000	155,500

SP0317-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:55:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.540	ug/L	0.4707	30.58	-48.12
Al3961_R		96.58	ug/L	4.249	4.400	144.7
As1891_A		32.74	ug/L	0.9602	2.932	11.42
B_2089_A		75.82	ug/L	0.6756	0.8911	116.8
Ba4554_R		28.89	ug/L	0.1940	0.6716	1,563
Be3130_R		0.02830	ug/L	0.02021	71.41	-0.8272
Ca3158_R	W	57,100	ug/L	392.9	0.6881	65,690
Cd2265_A		0.08209	ug/L	0.03083	37.55	5.338
Co2286_A		16.81	ug/L	0.2200	1.309	71.81
Cr2677_A		1.578	ug/L	0.1685	10.68	35.88
Cu3273_A		0.8015	ug/L	0.07132	8.898	25.82
Fe2599_R		7,374	ug/L	92.67	1.257	11,620
K_7664_R		7,114	ug/L	44.86	0.6306	4,136
Li6707_R		3.656	ug/L	0.8362	22.87	26.90
Mg2025_A		8,123	ug/L	90.83	1.118	3,060
Mn2576_R	W	11,450	ug/L	77.40	0.6762	110,400
Mo2020_A		0.6951	ug/L	0.02076	2.986	1.989
Na5895_R		15,420	ug/L	82.10	0.5323	29,270
Ni2316_A		19.64	ug/L	0.3026	1.541	38.53

SP0317-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:55:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.266	ug/L	0.8893	70.24	0.8339
Sb2068_A		-0.1047	ug/L	1.092	1,044	0.5559
Se1960_A		-0.4819	ug/L	0.2510	52.08	2.891
Si2516_R		8,873	ug/L	61.87	0.6973	4,202
Sn1899_A		1.025	ug/L	0.3199	31.22	1.399
Sr4215_R		460.6	ug/L	3.289	0.7140	33,710
Ti3349_A		3.631	ug/L	0.1114	3.068	96.42
Tl1908_A		-2.476	ug/L	0.8551	34.53	-10.22
V_2924_A		0.9056	ug/L	0.1755	19.38	-47.15
Zn2062_A		2.911	ug/L	0.01436	0.4932	7.665
Y_3600_R		15,507	Cts/S	10.628	0.068538	15,507
Y_2243_A		7,964.6	Cts/S	65.044	0.81666	7,964.6
Y_3600_A		153,180	Cts/S	183.59	0.11985	153,180

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 3:59:57PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		497.8	ug/L	0.2130	0.04279	10,640
Al3961_R		12,610	ug/L	72.67	0.5761	12,730
As1891_A		493.3	ug/L	1.988	0.4031	204.1
B_2089_A		480.6	ug/L	1.198	0.2492	767.9
Ba4554_R		495.1	ug/L	1.133	0.2289	26,860
Be3130_R		506.6	ug/L	3.371	0.6654	47,290
Ca3158_R		13,000	ug/L	50.78	0.3907	14,950
Cd2265_A		519.4	ug/L	1.857	0.3576	7,540
Co2286_A		511.9	ug/L	2.206	0.4309	2,224
Cr2677_A		516.8	ug/L	2.415	0.4672	6,732
Cu3273_A		499.7	ug/L	1.246	0.2494	7,331
Fe2599_R		12,810	ug/L	2.939	0.02295	20,200
K_7664_R		12,490	ug/L	89.64	0.7175	7,316
Li6707_R		481.3	ug/L	3.867	0.8035	5,092
Mg2025_A		12,240	ug/L	70.89	0.5790	4,842
Mn2576_R		516.7	ug/L	2.235	0.4325	4,984
Mo2020_A		503.7	ug/L	1.225	0.2431	1,767
Na5895_R		12,350	ug/L	26.78	0.2168	23,460
Ni2316_A		506.4	ug/L	1.411	0.2786	1,069
Pb2203_A		505.7	ug/L	1.722	0.3405	515.0
Sb2068_A		488.7	ug/L	0.9300	0.1903	309.3
Se1960_A		486.9	ug/L	0.9641	0.1980	157.2
Si2516_R		13,340	ug/L	78.20	0.5864	6,300
Sn1899_A		520.2	ug/L	2.684	0.5159	281.0
Sr4215_R		494.5	ug/L	2.244	0.4538	36,210
Ti3349_A		509.1	ug/L	0.7288	0.1431	15,740
Tl1908_A		509.5	ug/L	1.024	0.2010	333.3
V_2924_A		515.0	ug/L	1.496	0.2904	6,974
Zn2062_A		514.0	ug/L	1.895	0.3687	1,480
Y_3600_R		15,515	Cts/S	105.89	0.68249	15,515
Y_2243_A		8,301.7	Cts/S	27.399	0.33004	8,301.7
Y_3600_A		156,580	Cts/S	199.96	0.12771	156,580

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:04:06PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:04:06PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1793	ug/L	0.2475	138.0	-22.32
Al3961_R		8.397	ug/L	0.6133	7.305	7.407
As1891_A		0.08313	ug/L	0.4564	549.1	-1.497
B_2089_A		2.276	ug/L	0.2638	11.59	7.423
Ba4554_R		0.2218	ug/L	0.03399	15.33	9.071
Be3130_R		0.2244	ug/L	0.02186	9.743	17.80
Ca3158_R		6.772	ug/L	0.7958	11.75	-10.54
Cd2265_A		0.05716	ug/L	0.04795	83.88	-2.116
Co2286_A		0.2892	ug/L	0.08140	28.14	3.069
Cr2677_A		0.2032	ug/L	0.02190	10.78	5.601
Cu3273_A		-0.3465	ug/L	0.2479	71.54	2.583
Fe2599_R		7.523	ug/L	0.5547	7.373	15.81
K_7664_R		32.39	ug/L	30.98	95.66	-46.90
Li6707_R		-0.4072	ug/L	1.895	465.4	-16.27
Mg2025_A		1.896	ug/L	0.9449	49.84	-7.012
Mn2576_R		0.4816	ug/L	0.5003	103.9	5.366
Mo2020_A		0.4836	ug/L	0.1506	31.15	2.150
Na5895_R		33.64	ug/L	1.278	3.799	138.7
Ni2316_A		0.1577	ug/L	0.04571	28.99	-0.1409
Pb2203_A		-0.1052	ug/L	0.7956	756.0	-0.7773
Sb2068_A		0.2705	ug/L	0.8622	318.8	0.6244
Se1960_A		2.111	ug/L	0.7128	33.77	1.794
Si2516_R		34.09	ug/L	31.83	93.37	61.91
Sn1899_A		0.8584	ug/L	0.3719	43.33	1.370
Sr4215_R		0.1843	ug/L	0.03326	18.04	5.030
Ti3349_A		0.5981	ug/L	0.07724	12.91	4.832
Tl1908_A		-0.3373	ug/L	0.5113	151.6	-1.513
V_2924_A		0.3054	ug/L	0.03515	11.51	-2.129
Zn2062_A		0.3084	ug/L	0.01541	4.997	0.4878
Y_3600_R		15,654	Cts/S	63.512	0.40572	15,654
Y_2243_A		8,312.6	Cts/S	57.261	0.68885	8,312.6
Y_3600_A		158,950	Cts/S	214.49	0.13495	158,950

SP0317-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:08:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9781	ug/L	0.3615	36.96	-34.68
Al3961_R		5.280	ug/L	1.303	24.69	49.89
As1891_A		12.73	ug/L	0.6034	4.740	3.510
B_2089_A		73.34	ug/L	0.2116	0.2886	113.1
Ba4554_R		25.79	ug/L	0.01326	0.05143	1,396
Be3130_R		0.01709	ug/L	0.006383	37.36	-1.655
Ca3158_R	W	53,510	ug/L	150.2	0.2806	61,610
Cd2265_A		0.06547	ug/L	0.03454	52.75	1.885
Co2286_A		12.22	ug/L	0.03487	0.2855	52.62
Cr2677_A		1.248	ug/L	0.07904	6.332	30.32
Cu3273_A		0.7353	ug/L	0.02777	3.776	21.80
Fe2599_R		4,001	ug/L	23.66	0.5913	6,315
K_7664_R		6,790	ug/L	19.37	0.2852	3,947
Li6707_R		2.600	ug/L	0.4645	17.87	15.71
Mg2025_A		7,546	ug/L	11.52	0.1527	2,842
Mn2576_R	W	10,500	ug/L	36.35	0.3460	101,400
Mo2020_A		1.292	ug/L	0.09278	7.182	4.061
Na5895_R		15,060	ug/L	68.58	0.4553	28,610
Ni2316_A		15.68	ug/L	0.09554	0.6092	30.84

SP0317-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:08:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.4270	ug/L	0.3017	70.66	-0.9297
Sb2068_A		-0.4608	ug/L	0.7351	159.5	0.2495
Se1960_A		1.820	ug/L	0.9515	52.29	3.400
Si2516_R		7,568	ug/L	28.45	0.3759	3,594
Sn1899_A		1.108	ug/L	0.04998	4.511	1.442
Sr4215_R		410.3	ug/L	0.9943	0.2423	30,050
Ti3349_A		-0.1527	ug/L	0.1439	94.25	-18.08
Tl1908_A		-2.651	ug/L	0.2847	10.74	-9.724
V_2924_A		0.5665	ug/L	0.02577	4.550	-47.37
Zn2062_A		2.550	ug/L	0.02782	1.091	6.668
Y_3600_R		15,520	Cts/S	74.552	0.48036	15,520
Y_2243_A		7,965.0	Cts/S	11.872	0.14906	7,965.0
Y_3600_A		153,460	Cts/S	835.21	0.54424	153,460

SP0317-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:12:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.996	ug/L	0.4286	21.47	-306.2
Al3961_R		169.7	ug/L	2.668	1.572	195.9
As1891_A	W	1,745	ug/L	2.629	0.1507	702.8
B_2089_A		67.54	ug/L	0.1717	0.2542	105.5
Ba4554_R		22.83	ug/L	0.4959	2.172	1,240
Be3130_R		0.03336	ug/L	0.01379	41.35	-0.3757
Ca3158_R	W	29,660	ug/L	525.4	1.772	34,270
Cd2265_A		0.04876	ug/L	0.09125	187.1	39.19
Co2286_A		10.27	ug/L	0.1441	1.402	45.73
Cr2677_A		0.2178	ug/L	0.1571	72.11	12.29
Cu3273_A		-0.9110	ug/L	0.4400	48.30	34.79
Fe2599_R	W	42,830	ug/L	733.2	1.712	67,820
K_7664_R		5,538	ug/L	71.77	1.296	3,220
Li6707_R		2.059	ug/L	0.07006	3.403	10.02
Mg2025_A		4,196	ug/L	0.4646	0.01107	1,593
Mn2576_R	W	1,366	ug/L	24.48	1.792	13,220
Mo2020_A		2.083	ug/L	0.1295	6.216	7.421
Na5895_R		14,970	ug/L	344.5	2.301	28,540
Ni2316_A		3.770	ug/L	0.1945	5.160	3.772
Pb2203_A		-0.7297	ug/L	0.6879	94.27	-0.001945
Sb2068_A		-0.4622	ug/L	0.6443	139.4	1.316
Se1960_A		0.4858	ug/L	0.1505	30.98	2.069
Si2516_R		12,370	ug/L	217.7	1.760	5,863
Sn1899_A		1.575	ug/L	0.5254	33.36	1.699
Sr4215_R		274.8	ug/L	6.491	2.362	20,200
Ti3349_A		4.063	ug/L	0.04434	1.091	110.0
Tl1908_A		-1.227	ug/L	0.8386	68.33	-2.952
V_2924_A		1.201	ug/L	0.06722	5.595	2.090
Zn2062_A		72.63	ug/L	0.3173	0.4368	202.5
Y_3600_R		15,580	Cts/S	223.04	1.4316	15,580
Y_2243_A		8,041.8	Cts/S	7.6775	0.095470	8,041.8
Y_3600_A		153,840	Cts/S	481.36	0.31290	153,840

SP0317-005L

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:17:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-005L

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:17:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.642	ug/L	2.186	133.2	-86.48
Al3961_R		175.4	ug/L	38.75	22.10	39.66
As1891_A		1,757	ug/L	7.762	0.4417	145.1
B_2089_A		78.12	ug/L	1.778	2.276	28.20
Ba4554_R		24.06	ug/L	0.7622	3.167	259.9
Be3130_R		0.1297	ug/L	0.04700	36.24	-0.9283
Ca3158_R		30,380	ug/L	16.74	0.05509	7,028
Cd2265_A		0.08815	ug/L	0.1815	205.9	6.072
Co2286_A		10.62	ug/L	0.5311	5.002	11.20
Cr2677_A		-0.3783	ug/L	0.3222	85.18	3.296
Cu3273_A		-2.378	ug/L	0.5626	23.65	9.127
Fe2599_R		43,920	ug/L	74.38	0.1693	13,950
K_7664_R		5,606	ug/L	173.7	3.098	601.1
Li6707_R		1.541	ug/L	5.138	333.4	-8.656
Mg2025_A		4,396	ug/L	15.64	0.3558	338.9
Mn2576_R		1,394	ug/L	5.487	0.3935	2,707
Mo2020_A		2.264	ug/L	0.03695	1.632	2.024
Na5895_R		15,290	ug/L	9.242	0.06043	5,908
Ni2316_A		4.844	ug/L	0.5730	11.83	0.8309
Pb2203_A		-2.574	ug/L	1.900	73.82	-0.9032
Sb2068_A		-0.6624	ug/L	7.365	1,112	0.6149
Se1960_A		5.754	ug/L	2.964	51.52	1.664
Si2516_R		12,530	ug/L	14.90	0.1189	1,228
Sn1899_A		4.678	ug/L	0.9430	20.16	1.412
Sr4215_R		279.5	ug/L	0.8100	0.2898	4,115
Ti3349_A		4.556	ug/L	0.7269	15.96	14.51
Tl1908_A		-0.06698	ug/L	2.685	4,009	-1.496
V_2924_A		0.9454	ug/L	0.6644	70.28	-5.314
Zn2062_A		75.14	ug/L	0.09400	0.1251	43.00
Y_3600_R		15,626	Cts/S	46.015	0.29448	15,626
Y_2243_A		8,312.2	Cts/S	3.7784	0.045456	8,312.2
Y_3600_A		157,160	Cts/S	987.80	0.62854	157,160

SP0317-005A

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:21:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		382.9	ug/L	5.805	1.516	7,564
Al3961_R		11,030	ug/L	129.0	1.169	10,970
As1891_A	W	2,218	ug/L	10.19	0.4593	880.5
B_2089_A		517.4	ug/L	2.513	0.4857	788.0
Ba4554_R		522.2	ug/L	4.485	0.8589	27,850
Be3130_R		510.8	ug/L	4.264	0.8348	46,890
Ca3158_R	W	35,210	ug/L	513.6	1.458	39,850
Cd2265_A		521.5	ug/L	0.4850	0.09301	7,257
Co2286_A		526.9	ug/L	0.9808	0.1861	2,185
Cr2677_A		524.5	ug/L	6.585	1.255	6,561
Cu3273_A		515.6	ug/L	5.118	0.9927	7,290
Fe2599_R	W	48,140	ug/L	750.8	1.560	74,650
K_7664_R		15,630	ug/L	90.13	0.5767	9,017
Li6707_R		499.2	ug/L	3.686	0.7383	5,193
Mg2025_A		9,367	ug/L	35.18	0.3755	3,541
Mn2576_R	W	1,862	ug/L	23.61	1.268	17,650
Mo2020_A		527.5	ug/L	1.623	0.3077	1,766
Na5895_R		20,400	ug/L	201.9	0.9901	38,060
Ni2316_A		510.0	ug/L	0.7302	0.1432	1,025

SP0317-005A

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:21:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		496.0	ug/L	0.7396	0.1491	483.2
Sb2068_A		495.5	ug/L	0.5499	0.1110	300.2
Se1960_A		482.5	ug/L	3.786	0.7845	149.4
Si2516_R		12,660	ug/L	142.8	1.128	5,883
Sn1899_A		520.3	ug/L	3.153	0.6059	268.2
Sr4215_R		774.7	ug/L	6.290	0.8119	55,790
Ti3349_A		531.6	ug/L	5.454	1.026	15,770
Tl1908_A		496.1	ug/L	2.242	0.4519	308.7
V_2924_A		536.3	ug/L	5.495	1.024	6,962
Zn2062_A		582.9	ug/L	1.129	0.1937	1,602
Y_3600_R		15,258	Cts/S	238.27	1.5616	15,258
Y_2243_A		7,921.1	Cts/S	37.075	0.46806	7,921.1
Y_3600_A		150,250	Cts/S	1,361.8	0.90640	150,250

SP0317-005P

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:25:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.02	ug/L	0.02426	0.04663	747.8
Al3961_R		2,271	ug/L	4.416	0.1944	2,355
As1891_A	W	1,839	ug/L	2.012	0.1094	744.7
B_2089_A		531.2	ug/L	0.3680	0.06928	811.5
Ba4554_R	W	2,084	ug/L	0.1396	0.006699	114,900
Be3130_R		52.63	ug/L	0.5753	1.093	4,992
Ca3158_R	W	31,920	ug/L	142.1	0.4453	37,340
Cd2265_A		267.0	ug/L	0.9455	0.3541	3,809
Co2286_A		542.7	ug/L	1.934	0.3565	2,297
Cr2677_A		216.1	ug/L	0.3668	0.1697	2,787
Cu3273_A		266.6	ug/L	1.515	0.5682	3,899
Fe2599_R	W	43,350	ug/L	19.03	0.04390	69,490
K_7664_R		15,780	ug/L	151.1	0.9573	9,412
Li6707_R		502.7	ug/L	5.661	1.126	5,406
Mg2025_A		8,860	ug/L	7.352	0.08298	3,418
Mn2576_R	W	1,869	ug/L	10.38	0.5554	18,320
Mo2020_A		108.9	ug/L	0.4920	0.4517	372.1
Na5895_R		22,420	ug/L	154.6	0.6897	43,230
Ni2316_A		528.1	ug/L	0.5879	0.1113	1,078
Pb2203_A		99.99	ug/L	0.3266	0.3266	100.0
Sb2068_A		102.5	ug/L	0.6922	0.6756	61.89
Se1960_A		97.00	ug/L	1.198	1.235	32.25
Si2516_R		13,400	ug/L	71.08	0.5304	6,432
Sn1899_A		531.0	ug/L	1.830	0.3447	279.3
Sr4215_R		779.0	ug/L	6.632	0.8514	57,990
Ti3349_A		538.3	ug/L	2.799	0.5200	16,420
Tl1908_A		100.7	ug/L	0.7432	0.7377	62.91
V_2924_A		548.9	ug/L	3.461	0.6304	7,376
Zn2062_A		596.6	ug/L	0.9956	0.1669	1,675
Y_3600_R		15,771	Cts/S	27.021	0.17133	15,771
Y_2243_A		8,084.6	Cts/S	14.678	0.18155	8,084.6
Y_3600_A		154,580	Cts/S	541.10	0.35005	154,580

SP0317-005S

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:29:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-005S

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:29:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		54.11	ug/L	0.2523	0.4663	754.8
Al3961_R		2,349	ug/L	16.60	0.7068	2,396
As1891_A	W	1,967	ug/L	7.737	0.3933	782.3
B_2089_A		549.3	ug/L	1.671	0.3041	823.7
Ba4554_R	W	2,168	ug/L	2.386	0.1101	117,600
Be3130_R		53.96	ug/L	0.8349	1.547	5,034
Ca3158_R	W	33,950	ug/L	417.1	1.228	39,080
Cd2265_A		273.3	ug/L	0.9560	0.3498	3,829
Co2286_A		561.6	ug/L	1.933	0.3443	2,333
Cr2677_A		222.3	ug/L	6.308	2.838	2,813
Cu3273_A		275.7	ug/L	8.991	3.261	3,958
Fe2599_R	W	46,400	ug/L	315.2	0.6792	73,170
K_7664_R		16,390	ug/L	68.26	0.4164	9,621
Li6707_R		516.0	ug/L	4.248	0.8233	5,459
Mg2025_A		9,279	ug/L	11.34	0.1222	3,514
Mn2576_R	W	1,977	ug/L	16.05	0.8118	19,060
Mo2020_A		112.3	ug/L	0.3883	0.3457	376.6
Na5895_R		23,530	ug/L	199.9	0.8497	44,620
Ni2316_A		545.9	ug/L	1.830	0.3353	1,093
Pb2203_A		102.7	ug/L	0.5417	0.5274	100.9
Sb2068_A		105.8	ug/L	0.8744	0.8261	62.80
Se1960_A		101.1	ug/L	0.3961	0.3917	32.98
Si2516_R		14,340	ug/L	126.5	0.8821	6,767
Sn1899_A		545.0	ug/L	3.016	0.5533	281.4
Sr4215_R		810.8	ug/L	9.172	1.131	59,380
Ti3349_A		554.3	ug/L	15.29	2.758	16,600
Tl1908_A		102.4	ug/L	0.5008	0.4892	62.75
V_2924_A		567.0	ug/L	16.64	2.934	7,476
Zn2062_A		618.2	ug/L	2.344	0.3791	1,703
Y_3600_R		15,515	Cts/S	148.55	0.95742	15,515
Y_2243_A		7,935.8	Cts/S	13.759	0.17338	7,935.8
Y_3600_A		151,740	Cts/S	3,747.7	2.4699	151,740

SP0317-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:34:04PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05205	ug/L	0.1461	280.7	-24.38
Al3961_R		7.602	ug/L	2.114	27.81	24.61
As1891_A		-0.1418	ug/L	0.7466	526.5	-1.524
B_2089_A		174.4	ug/L	0.6564	0.3764	263.5
Ba4554_R		32.26	ug/L	0.1508	0.4675	1,745
Be3130_R		0.03453	ug/L	0.09012	261.0	-0.03636
Ca3158_R		21,200	ug/L	184.2	0.8692	24,360
Cd2265_A		-0.03154	ug/L	0.04417	140.0	-3.251
Co2286_A		0.8851	ug/L	0.02063	2.330	5.409
Cr2677_A		0.6200	ug/L	0.1364	21.99	11.23
Cu3273_A		1.084	ug/L	0.5893	54.35	23.11
Fe2599_R		16.16	ug/L	0.4057	2.511	29.25
K_7664_R		6,746	ug/L	65.46	0.9705	3,916
Li6707_R		0.08579	ug/L	0.1929	224.9	-10.92
Mg2025_A		3,233	ug/L	22.38	0.6920	1,212
Mn2576_R		448.0	ug/L	3.509	0.7833	4,320
Mo2020_A		1.171	ug/L	0.05043	4.305	4.339
Na5895_R		18,760	ug/L	144.6	0.7708	35,560
Ni2316_A		1.801	ug/L	0.2416	13.41	3.183

SP0317-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:34:04PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.7099	ug/L	0.6115	86.15	-1.331
Sb2068_A		1.085	ug/L	0.4354	40.14	1.083
Se1960_A		2.308	ug/L	1.265	54.79	1.850
Si2516_R		4,169	ug/L	9.730	0.2334	1,997
Sn1899_A		3.096	ug/L	1.096	35.41	2.464
Sr4215_R		173.2	ug/L	1.218	0.7030	12,660
Ti3349_A		0.1289	ug/L	0.3011	233.6	-9.559
Tl1908_A		-0.4933	ug/L	0.01246	2.525	-1.836
V_2924_A		0.4858	ug/L	0.2075	42.71	-1.787
Zn2062_A		1.316	ug/L	0.05024	3.817	3.251
Y_3600_R		15,498	Cts/S	48.966	0.31594	15,498
Y_2243_A		7,954.0	Cts/S	45.953	0.57773	7,954.0
Y_3600_A		153,890	Cts/S	158.42	0.10295	153,890

SP0317-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:38:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1830	ug/L	0.1683	91.99	-22.06
Al3961_R		7.080	ug/L	1.256	17.74	24.04
As1891_A		-0.2103	ug/L	0.6238	296.7	-1.586
B_2089_A		167.7	ug/L	0.1969	0.1174	259.3
Ba4554_R		30.24	ug/L	0.3277	1.084	1,655
Be3130_R		0.03580	ug/L	0.04585	128.1	0.07214
Ca3158_R		20,800	ug/L	52.84	0.2540	24,200
Cd2265_A		-0.01475	ug/L	0.01208	81.94	-3.075
Co2286_A		0.7886	ug/L	0.08727	11.07	5.122
Cr2677_A		0.3241	ug/L	0.3449	106.4	7.573
Cu3273_A		1.383	ug/L	0.08741	6.322	27.90
Fe2599_R		26.44	ug/L	0.2603	0.9845	46.00
K_7664_R		6,672	ug/L	24.05	0.3604	3,920
Li6707_R		-1.830	ug/L	0.9683	52.91	-31.62
Mg2025_A		3,117	ug/L	20.54	0.6592	1,194
Mn2576_R		441.4	ug/L	1.219	0.2761	4,309
Mo2020_A		1.065	ug/L	0.04723	4.435	4.072
Na5895_R		18,520	ug/L	84.16	0.4545	35,530
Ni2316_A		1.963	ug/L	0.02059	1.049	3.584
Pb2203_A		-1.029	ug/L	0.08729	8.485	-1.682
Sb2068_A		1.229	ug/L	0.5400	43.95	1.206
Se1960_A		1.452	ug/L	0.6010	41.39	1.624
Si2516_R		4,064	ug/L	16.63	0.4091	1,972
Sn1899_A		1.534	ug/L	0.1329	8.665	1.697
Sr4215_R		171.3	ug/L	1.327	0.7747	12,680
Ti3349_A		-0.1279	ug/L	0.07292	56.99	-17.69
Tl1908_A		-1.347	ug/L	0.4218	31.31	-2.421
V_2924_A		0.4264	ug/L	0.3173	74.40	-2.582
Zn2062_A		1.625	ug/L	0.0002300	0.01418	4.197
Y_3600_R		15,687	Cts/S	70.589	0.44999	15,687
Y_2243_A		8,134.6	Cts/S	30.933	0.38027	8,134.6
Y_3600_A		156,660	Cts/S	4.6917	0.0029950	156,660

SP0317-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:42:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:42:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1257	ug/L	0.1362	108.3	-28.26
Al3961_R		24.76	ug/L	0.9397	3.795	67.69
As1891_A		0.4380	ug/L	0.5859	133.7	-1.322
B_2089_A		230.6	ug/L	1.071	0.4645	349.6
Ba4554_R		113.6	ug/L	0.3640	0.3203	6,246
Be3130_R		0.08347	ug/L	0.01293	15.49	4.589
Ca3158_R	W	50,380	ug/L	119.4	0.2370	58,790
Cd2265_A		-0.03968	ug/L	0.01255	31.63	-2.732
Co2286_A		10.32	ug/L	0.2177	2.110	44.89
Cr2677_A		0.8719	ug/L	0.06769	7.763	15.60
Cu3273_A		1.527	ug/L	0.1775	11.63	30.42
Fe2599_R		702.3	ug/L	1.829	0.2605	1,126
K_7664_R		11,640	ug/L	17.69	0.1520	6,904
Li6707_R		-0.5350	ug/L	0.2617	48.92	-17.76
Mg2025_A		6,937	ug/L	34.88	0.5028	2,626
Mn2576_R	W	1,307	ug/L	2.345	0.1793	12,790
Mo2020_A		0.1944	ug/L	0.06056	31.15	1.006
Na5895_R		18,570	ug/L	7.520	0.04049	35,720
Ni2316_A		5.157	ug/L	0.06232	1.209	9.934
Pb2203_A		-0.9147	ug/L	0.7047	77.04	-1.520
Sb2068_A		0.1749	ug/L	0.3271	187.0	0.5606
Se1960_A		1.131	ug/L	0.9637	85.21	1.650
Si2516_R		5,002	ug/L	16.32	0.3264	2,423
Sn1899_A		1.280	ug/L	0.1047	8.186	1.539
Sr4215_R		457.7	ug/L	1.196	0.2613	33,980
Ti3349_A		-0.2850	ug/L	0.3017	105.9	-22.35
Tl1908_A		-0.8165	ug/L	0.8410	103.0	-2.596
V_2924_A		0.1851	ug/L	0.07425	40.12	-9.868
Zn2062_A		2.506	ug/L	0.002261	0.09024	6.582
Y_3600_R		15,727	Cts/S	29.471	0.18739	15,727
Y_2243_A		8,008.7	Cts/S	47.866	0.59768	8,008.7
Y_3600_A		155,490	Cts/S	1,454.9	0.93566	155,490

SP0317-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:47:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2142	ug/L	0.4168	194.6	-20.88
Al3961_R		3.164	ug/L	9.740	307.9	45.37
As1891_A		-1.334	ug/L	0.4407	33.03	-1.983
B_2089_A		235.5	ug/L	0.4928	0.2093	351.3
Ba4554_R		115.7	ug/L	0.5792	0.5007	6,224
Be3130_R		0.02043	ug/L	0.03382	165.5	-1.333
Ca3158_R	W	51,190	ug/L	356.1	0.6956	58,470
Cd2265_A		-0.06840	ug/L	0.08366	122.3	-3.715
Co2286_A		10.53	ug/L	0.1538	1.461	45.03
Cr2677_A		0.7985	ug/L	0.3157	39.53	14.32
Cu3273_A		1.505	ug/L	0.4381	29.11	28.92
Fe2599_R		35.05	ug/L	1.986	5.666	58.62
K_7664_R		11,770	ug/L	16.80	0.1428	6,833
Li6707_R		0.002047	ug/L	0.5235	25,580	-11.74
Mg2025_A		7,052	ug/L	24.55	0.3481	2,628
Mn2576_R	W	1,326	ug/L	7.129	0.5375	12,700
Mo2020_A		0.2148	ug/L	0.1608	74.90	1.055
Na5895_R		18,790	ug/L	18.86	0.1004	35,380
Ni2316_A		5.206	ug/L	0.03086	0.5927	9.929

SP0317-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:47:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.8417	ug/L	1.077	128.0	-1.447
Sb2068_A		-0.1449	ug/L	0.1235	85.21	0.3388
Se1960_A		1.401	ug/L	0.9574	68.31	1.702
Si2516_R		5,040	ug/L	3.278	0.06504	2,389
Sn1899_A		1.611	ug/L	0.1447	8.981	1.684
Sr4215_R		461.1	ug/L	1.405	0.3046	33,510
Ti3349_A		-0.3856	ug/L	0.1011	26.23	-24.99
Tl1908_A		-0.4144	ug/L	0.5845	141.0	-2.315
V_2924_A		0.2607	ug/L	0.2540	97.42	-8.740
Zn2062_A		2.614	ug/L	0.06853	2.621	6.775
Y_3600_R		15,396	Cts/S	33.545	0.21789	15,396
Y_2243_A		7,882.5	Cts/S	0.27479	0.0034860	7,882.5
Y_3600_A		152,530	Cts/S	213.92	0.14025	152,530

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:51:27PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		497.9	ug/L	0.7597	0.1526	10,590
Al3961_R		12,620	ug/L	100.1	0.7927	12,870
As1891_A		494.6	ug/L	0.5224	0.1056	201.6
B_2089_A		480.9	ug/L	0.6398	0.1330	756.8
Ba4554_R		493.9	ug/L	3.987	0.8072	27,080
Be3130_R		513.3	ug/L	6.730	1.311	48,440
Ca3158_R		12,910	ug/L	86.19	0.6675	15,010
Cd2265_A		526.7	ug/L	1.267	0.2406	7,530
Co2286_A		514.5	ug/L	1.598	0.3106	2,202
Cr2677_A		516.0	ug/L	3.474	0.6733	6,689
Cu3273_A		511.0	ug/L	1.301	0.2546	7,460
Fe2599_R		12,710	ug/L	71.48	0.5623	20,270
K_7664_R		12,510	ug/L	107.1	0.8560	7,408
Li6707_R		483.6	ug/L	4.133	0.8546	5,171
Mg2025_A		12,370	ug/L	42.31	0.3420	4,818
Mn2576_R		516.2	ug/L	4.348	0.8422	5,033
Mo2020_A		504.6	ug/L	1.049	0.2080	1,743
Na5895_R		12,310	ug/L	138.8	1.128	23,630
Ni2316_A		503.8	ug/L	0.7942	0.1576	1,048
Pb2203_A		498.8	ug/L	2.439	0.4889	500.2
Sb2068_A		496.6	ug/L	0.1792	0.03609	309.5
Se1960_A		490.2	ug/L	0.4921	0.1004	155.9
Si2516_R		13,340	ug/L	37.32	0.2798	6,370
Sn1899_A		526.0	ug/L	1.582	0.3009	279.8
Sr4215_R		496.9	ug/L	4.413	0.8880	36,780
Ti3349_A		512.1	ug/L	1.111	0.2170	15,760
Tl1908_A		510.9	ug/L	0.9884	0.1934	329.1
V_2924_A		522.9	ug/L	0.3464	0.06623	7,048
Zn2062_A		507.5	ug/L	3.052	0.6014	1,440
Y_3600_R		15,683	Cts/S	69.862	0.44545	15,683
Y_2243_A		8,175.8	Cts/S	7.7604	0.094919	8,175.8
Y_3600_A		155,830	Cts/S	109.61	0.070336	155,830

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:55:35PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:55:35PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1074	ug/L	0.02801	26.08	-23.88
Al3961_R		-1.596	ug/L	8.475	530.9	-2.730
As1891_A		0.01486	ug/L	0.4223	2,842	-1.507
B_2089_A		1.837	ug/L	0.1669	9.088	6.657
Ba4554_R		0.2340	ug/L	0.03193	13.64	9.798
Be3130_R		0.2457	ug/L	0.03244	13.20	19.90
Ca3158_R		13.39	ug/L	7.031	52.53	-2.852
Cd2265_A		0.07604	ug/L	0.04482	58.94	-1.814
Co2286_A		0.1990	ug/L	0.1320	66.31	2.645
Cr2677_A		0.09694	ug/L	0.08223	84.82	4.190
Cu3273_A		0.09376	ug/L	0.3068	327.2	9.115
Fe2599_R		9.312	ug/L	2.294	24.64	18.76
K_7664_R		14.07	ug/L	8.921	63.40	-58.22
Li6707_R		-0.5875	ug/L	0.9894	168.4	-18.32
Mg2025_A		1.369	ug/L	0.2361	17.25	-7.131
Mn2576_R		0.5274	ug/L	0.2405	45.60	5.862
Mo2020_A		0.5540	ug/L	0.07866	14.20	2.369
Na5895_R		22.14	ug/L	8.060	36.41	117.4
Ni2316_A		0.4694	ug/L	0.1623	34.58	0.5090
Pb2203_A		-0.6837	ug/L	0.1011	14.79	-1.348
Sb2068_A		0.09396	ug/L	0.2263	240.9	0.5065
Se1960_A		2.046	ug/L	0.1259	6.152	1.752
Si2516_R		44.19	ug/L	23.03	52.12	67.03
Sn1899_A		0.9250	ug/L	0.1720	18.59	1.388
Sr4215_R		0.1914	ug/L	0.04270	22.31	5.571
Ti3349_A		0.5890	ug/L	0.2726	46.29	4.542
Tl1908_A		0.7777	ug/L	0.4188	53.86	-0.7727
V_2924_A		0.1553	ug/L	0.1875	120.7	-4.206
Zn2062_A		0.3554	ug/L	0.2525	71.04	0.6153
Y_3600_R		15,747	Cts/S	75.735	0.48093	15,747
Y_2243_A		8,206.7	Cts/S	13.940	0.16986	8,206.7
Y_3600_A		158,690	Cts/S	30.170	0.019012	158,690

SP0317-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:59:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.207	ug/L	0.09917	2.357	-548.0
Al3961_R		6.912	ug/L	1.987	28.74	38.33
As1891_A	W	1,108	ug/L	8.197	0.7398	436.2
B_2089_A		156.7	ug/L	0.7621	0.4863	235.6
Ba4554_R		60.76	ug/L	0.1231	0.2026	3,265
Be3130_R		0.03720	ug/L	0.03755	101.0	0.2892
Ca3158_R	W	38,340	ug/L	259.8	0.6775	43,750
Cd2265_A		0.4032	ug/L	0.01948	4.830	80.72
Co2286_A		25.28	ug/L	0.2884	1.141	107.5
Cr2677_A		-0.6413	ug/L	0.2307	35.98	7.444
Cu3273_A		-6.103	ug/L	0.7684	12.59	-2.509
Fe2599_R	W	82,200	ug/L	436.5	0.5310	128,500
K_7664_R		10,560	ug/L	43.89	0.4155	6,124
Li6707_R		0.8644	ug/L	0.4866	56.30	-2.655
Mg2025_A		5,577	ug/L	27.91	0.5005	2,083
Mn2576_R	W	2,721	ug/L	9.293	0.3415	26,000
Mo2020_A		3.390	ug/L	0.02706	0.7982	11.56
Na5895_R		17,670	ug/L	121.4	0.6872	33,250
Ni2316_A		3.368	ug/L	0.3238	9.614	-0.2078

SP0317-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 4:59:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-1.833	ug/L	0.5246	28.62	0.1859
Sb2068_A		-1.151	ug/L	1.298	112.8	1.824
Se1960_A		-0.8863	ug/L	2.553	288.0	2.314
Si2516_R		10,590	ug/L	32.73	0.3091	4,960
Sn1899_A		1.523	ug/L	0.8510	55.87	1.642
Sr4215_R		413.1	ug/L	3.813	0.9232	29,990
Ti3349_A		0.02266	ug/L	0.08183	361.1	-12.57
Tl1908_A		-0.9300	ug/L	0.09995	10.75	-3.595
V_2924_A		1.812	ug/L	0.004139	0.2284	2.512
Zn2062_A		4.012	ug/L	0.07693	1.918	10.63
Y_3600_R		15,383	Cts/S	20.687	0.13448	15,383
Y_2243_A		7,898.8	Cts/S	23.059	0.29193	7,898.8
Y_3600_A		151,550	Cts/S	725.81	0.47891	151,550

SP0317-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:04:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.165	ug/L	0.2010	4.826	-555.6
Al3961_R		1.340	ug/L	4.269	318.6	33.29
As1891_A	W	1,133	ug/L	12.46	1.100	437.0
B_2089_A		160.4	ug/L	1.310	0.8168	236.2
Ba4554_R		60.30	ug/L	0.5392	0.8943	3,228
Be3130_R		0.04637	ug/L	0.01934	41.70	1.181
Ca3158_R	W	39,100	ug/L	269.9	0.6903	44,450
Cd2265_A		0.4501	ug/L	0.04556	10.12	81.07
Co2286_A		25.85	ug/L	0.2372	0.9174	107.6
Cr2677_A		-0.5387	ug/L	0.05131	9.524	8.975
Cu3273_A		-7.174	ug/L	0.3721	5.187	-16.22
Fe2599_R	W	83,680	ug/L	905.4	1.082	130,300
K_7664_R		10,760	ug/L	81.23	0.7546	6,217
Li6707_R		1.205	ug/L	0.06275	5.210	0.9141
Mg2025_A		5,740	ug/L	49.86	0.8686	2,100
Mn2576_R	W	2,837	ug/L	20.07	0.7073	27,010
Mo2020_A		3.617	ug/L	0.08969	2.480	12.05
Na5895_R		18,020	ug/L	84.06	0.4665	33,780
Ni2316_A		3.825	ug/L	0.09470	2.476	0.5803
Pb2203_A		-1.187	ug/L	0.8558	72.11	0.8458
Sb2068_A		-1.070	ug/L	0.1997	18.66	1.867
Se1960_A		-0.6602	ug/L	1.185	179.5	2.374
Si2516_R		10,770	ug/L	55.14	0.5122	5,023
Sn1899_A		2.464	ug/L	0.1614	6.552	2.080
Sr4215_R		422.9	ug/L	3.243	0.7669	30,590
Ti3349_A		-0.5189	ug/L	0.05395	10.40	-28.55
Tl1908_A		-2.293	ug/L	0.4713	20.55	-4.426
V_2924_A		2.041	ug/L	0.07197	3.527	4.895
Zn2062_A		4.648	ug/L	0.1131	2.434	12.12
Y_3600_R		15,323	Cts/S	17.035	0.11117	15,323
Y_2243_A		7,736.5	Cts/S	57.917	0.74862	7,736.5
Y_3600_A		150,410	Cts/S	506.58	0.33681	150,410

SP0317-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:08:35PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:08:35PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1420	ug/L	0.1087	76.56	-25.54
Al3961_R		16.03	ug/L	7.063	44.05	35.11
As1891_A		2.537	ug/L	0.5006	19.73	-0.4611
B_2089_A		133.6	ug/L	0.05855	0.04383	201.6
Ba4554_R		18.63	ug/L	0.5188	2.784	1,008
Be3130_R		0.01897	ug/L	0.003001	15.82	-1.508
Ca3158_R		23,470	ug/L	279.7	1.192	27,010
Cd2265_A		-0.01959	ug/L	0.0007310	3.733	-2.698
Co2286_A		7.134	ug/L	0.006429	0.09012	31.18
Cr2677_A		0.6329	ug/L	0.1185	18.73	11.23
Cu3273_A		5.539	ug/L	0.2631	4.750	87.80
Fe2599_R		416.8	ug/L	4.448	1.067	661.0
K_7664_R		8,695	ug/L	122.8	1.412	5,072
Li6707_R		-1.089	ug/L	0.5422	49.78	-23.39
Mg2025_A		3,670	ug/L	10.24	0.2789	1,368
Mn2576_R		222.0	ug/L	0.4772	0.2150	2,144
Mo2020_A		2.184	ug/L	0.009010	0.4126	7.711
Na5895_R		19,340	ug/L	251.0	1.298	36,690
Ni2316_A		10.06	ug/L	0.1538	1.529	19.66
Pb2203_A		-0.8192	ug/L	0.06504	7.940	-1.419
Sb2068_A		2.001	ug/L	0.3024	15.11	1.651
Se1960_A		1.896	ug/L	0.5339	28.16	1.683
Si2516_R		5,980	ug/L	24.55	0.4106	2,848
Sn1899_A		0.8198	ug/L	0.7643	93.23	1.283
Sr4215_R		121.9	ug/L	2.124	1.743	8,917
Ti3349_A		-0.05208	ug/L	0.03382	64.93	-15.08
Tl1908_A		-1.400	ug/L	0.7656	54.70	-2.230
V_2924_A		0.2133	ug/L	0.2426	113.7	-4.494
Zn2062_A		1.804	ug/L	0.05186	2.875	4.571
Y_3600_R		15,514	Cts/S	7.0351	0.045346	15,514
Y_2243_A		7,907.1	Cts/S	6.7367	0.085198	7,907.1
Y_3600_A		154,230	Cts/S	273.68	0.17745	154,230

SP0317-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:12:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.009611	ug/L	0.09905	1,031	-25.56
Al3961_R		14.01	ug/L	3.810	27.19	32.65
As1891_A		0.1629	ug/L	0.9852	604.8	-1.388
B_2089_A		134.5	ug/L	0.06228	0.04630	201.9
Ba4554_R		18.28	ug/L	0.07696	0.4210	985.9
Be3130_R		-0.01001	ug/L	0.005670	56.65	-4.186
Ca3158_R		23,070	ug/L	114.8	0.4978	26,470
Cd2265_A		-0.03617	ug/L	0.005212	14.41	-3.174
Co2286_A		7.255	ug/L	0.06607	0.9108	31.50
Cr2677_A		0.5697	ug/L	0.03235	5.678	10.12
Cu3273_A		1.126	ug/L	0.1090	9.683	23.27
Fe2599_R		138.7	ug/L	1.586	1.144	222.0
K_7664_R		8,497	ug/L	67.43	0.7936	4,941
Li6707_R		-1.435	ug/L	1.030	71.78	-26.99
Mg2025_A		3,677	ug/L	15.59	0.4241	1,364
Mn2576_R		221.9	ug/L	1.436	0.6474	2,137
Mo2020_A		2.292	ug/L	0.03412	1.489	8.029
Na5895_R		19,060	ug/L	72.23	0.3790	36,060
Ni2316_A		10.17	ug/L	0.09288	0.9136	19.79

SP0317-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:12:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.6982	ug/L	0.5862	83.95	-1.303
Sb2068_A		0.7853	ug/L	0.1201	15.29	0.9045
Se1960_A		1.041	ug/L	0.4565	43.84	1.412
Si2516_R		5,806	ug/L	7.204	0.1241	2,759
Sn1899_A		0.5661	ug/L	0.09319	16.46	1.147
Sr4215_R		119.9	ug/L	0.6966	0.5809	8,752
Ti3349_A		-0.5096	ug/L	0.02030	3.984	-28.25
Tl1908_A		-1.082	ug/L	0.2488	22.98	-2.021
V_2924_A		-0.0001020	ug/L	0.01818	17,850	-7.181
Zn2062_A		1.711	ug/L	0.005739	0.3353	4.294
Y_3600_R		15,473	Cts/S	0.22030	0.0014240	15,473
Y_2243_A		7,864.4	Cts/S	36.180	0.46005	7,864.4
Y_3600_A		150,240	Cts/S	3,050.9	2.0307	150,240

SP0317-015

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:17:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		3.870	ug/L	0.1697	4.385	-421.2
Al3961_R		472.0	ug/L	2.846	0.6029	512.6
As1891_A	W	2,393	ug/L	6.454	0.2697	945.1
B_2089_A		71.18	ug/L	0.4003	0.5623	108.8
Ba4554_R		34.68	ug/L	0.07601	0.2192	1,876
Be3130_R		0.04864	ug/L	0.06962	143.1	0.4743
Ca3158_R	W	45,780	ug/L	91.85	0.2006	52,640
Cd2265_A		0.3850	ug/L	0.04401	11.43	62.54
Co2286_A		23.34	ug/L	0.1035	0.4436	99.01
Cr2677_A		1.345	ug/L	0.02345	1.743	31.85
Cu3273_A		-4.244	ug/L	0.1275	3.005	6.142
Fe2599_R	W	63,450	ug/L	120.4	0.1897	99,950
K_7664_R		6,692	ug/L	24.99	0.3735	3,884
Li6707_R		5.373	ug/L	0.3970	7.389	45.07
Mg2025_A		6,679	ug/L	13.16	0.1970	2,489
Mn2576_R	W	3,897	ug/L	16.92	0.4340	37,550
Mo2020_A		1.410	ug/L	0.09324	6.613	4.859
Na5895_R		16,010	ug/L	31.44	0.1964	30,360
Ni2316_A		9.819	ug/L	0.3105	3.162	14.11
Pb2203_A		0.2071	ug/L	0.04157	20.08	1.530
Sb2068_A		-1.453	ug/L	0.1733	11.93	1.234
Se1960_A		-1.049	ug/L	1.726	164.4	2.255
Si2516_R		14,130	ug/L	56.68	0.4010	6,659
Sn1899_A		1.534	ug/L	0.4542	29.60	1.644
Sr4215_R		417.7	ug/L	0.6297	0.1508	30,550
Ti3349_A		14.02	ug/L	0.1027	0.7329	411.5
Tl1908_A		-1.281	ug/L	0.2229	17.41	-4.555
V_2924_A		2.102	ug/L	0.4472	21.27	1.839
Zn2062_A		5.680	ug/L	0.1817	3.199	15.17
Y_3600_R		15,500	Cts/S	38.556	0.24875	15,500
Y_2243_A		7,880.4	Cts/S	13.178	0.16723	7,880.4
Y_3600_A		153,510	Cts/S	190.89	0.12435	153,510

SP0317-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:21:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:21:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		3.248	ug/L	0.1325	4.079	-412.4
Al3961_R		1.193	ug/L	2.592	217.4	39.36
As1891_A	W	2,174	ug/L	0.6796	0.03126	836.8
B_2089_A		74.00	ug/L	0.6165	0.8332	110.1
Ba4554_R		32.21	ug/L	0.07415	0.2302	1,719
Be3130_R		-0.009862	ug/L	0.0001850	1.881	-4.041
Ca3158_R	W	46,660	ug/L	86.03	0.1844	52,940
Cd2265_A		0.4473	ug/L	0.004143	0.9263	59.93
Co2286_A		23.92	ug/L	0.05791	0.2421	98.73
Cr2677_A		-0.3078	ug/L	0.2832	92.00	10.39
Cu3273_A		-4.455	ug/L	0.06303	1.415	1.448
Fe2599_R	W	61,420	ug/L	490.2	0.7981	95,460
K_7664_R		6,783	ug/L	2.682	0.03954	3,886
Li6707_R		4.788	ug/L	0.9685	20.23	38.41
Mg2025_A		6,809	ug/L	11.78	0.1731	2,475
Mn2576_R	W	3,950	ug/L	1.069	0.02705	37,550
Mo2020_A		1.335	ug/L	0.1264	9.466	4.491
Na5895_R		16,430	ug/L	7.525	0.04579	30,750
Ni2316_A		9.106	ug/L	0.1896	2.082	12.53
Pb2203_A		-0.7577	ug/L	1.004	132.5	0.5591
Sb2068_A		-1.073	ug/L	0.06989	6.514	1.362
Se1960_A		-0.8503	ug/L	0.04090	4.810	2.230
Si2516_R		13,670	ug/L	28.23	0.2065	6,356
Sn1899_A		1.481	ug/L	0.6403	43.22	1.577
Sr4215_R		427.6	ug/L	0.7662	0.1792	30,860
Ti3349_A		-0.3504	ug/L	0.04152	11.85	-23.70
Tl1908_A		-2.074	ug/L	0.3077	14.84	-4.944
V_2924_A		1.497	ug/L	0.1361	9.091	-6.407
Zn2062_A		4.249	ug/L	0.1685	3.964	10.97
Y_3600_R		15,293	Cts/S	142.82	0.93389	15,293
Y_2243_A		7,683.9	Cts/S	4.9144	0.063956	7,683.9
Y_3600_A		151,140	Cts/S	575.08	0.38050	151,140

SP0317-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:25:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1779	ug/L	0.03505	19.70	-40.93
Al3961_R		136.4	ug/L	3.155	2.313	162.0
As1891_A		3.676	ug/L	0.2919	7.941	-0.07122
B_2089_A		159.2	ug/L	0.7138	0.4484	238.2
Ba4554_R		38.10	ug/L	0.1447	0.3799	2,067
Be3130_R		0.01580	ug/L	0.04606	291.6	-1.969
Ca3158_R	W	29,850	ug/L	236.2	0.7914	34,410
Cd2265_A		0.01169	ug/L	0.01613	138.0	-0.2315
Co2286_A		3.708	ug/L	0.05400	1.456	17.01
Cr2677_A		1.053	ug/L	0.01635	1.554	17.39
Cu3273_A		0.9322	ug/L	0.1166	12.51	23.28
Fe2599_R		2,547	ug/L	16.83	0.6608	4,028
K_7664_R		9,163	ug/L	25.25	0.2755	5,358
Li6707_R		-0.3801	ug/L	0.5919	155.7	-15.90
Mg2025_A		3,935	ug/L	4.123	0.1048	1,460
Mn2576_R		718.1	ug/L	2.420	0.3369	6,943
Mo2020_A		1.119	ug/L	0.09746	8.706	4.100
Na5895_R		24,580	ug/L	104.1	0.4233	46,700
Ni2316_A		5.844	ug/L	0.02381	0.4073	10.99

SP0317-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:25:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.3102	ug/L	1.246	401.6	-0.8637
Sb2068_A		0.9295	ug/L	0.05276	5.676	1.052
Se1960_A		2.211	ug/L	0.3806	17.21	1.878
Si2516_R		4,409	ug/L	14.31	0.3246	2,116
Sn1899_A		1.019	ug/L	0.4435	43.53	1.378
Sr4215_R		253.9	ug/L	1.287	0.5070	18,620
Ti3349_A		2.827	ug/L	0.02494	0.8823	72.56
Tl1908_A		-1.509	ug/L	0.6262	41.49	-2.617
V_2924_A		0.5738	ug/L	0.03978	6.932	-1.930
Zn2062_A		1.929	ug/L	0.1668	8.646	4.889
Y_3600_R		15,542	Cts/S	2.8233	0.018165	15,542
Y_2243_A		7,864.9	Cts/S	11.218	0.14263	7,864.9
Y_3600_A		154,170	Cts/S	1,237.4	0.80262	154,170

SP0317-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:30:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.300	ug/L	0.07862	3.418	-297.9
Al3961_R		16.94	ug/L	3.800	22.43	42.25
As1891_A	W	1,823	ug/L	17.32	0.9505	711.0
B_2089_A		69.78	ug/L	1.247	1.786	105.4
Ba4554_R		21.96	ug/L	0.2273	1.035	1,206
Be3130_R		0.04586	ug/L	0.02233	48.70	1.065
Ca3158_R	W	30,040	ug/L	176.7	0.5883	35,090
Cd2265_A		0.3638	ug/L	0.07801	21.44	41.95
Co2286_A		10.72	ug/L	0.1252	1.168	46.05
Cr2677_A		-0.2891	ug/L	0.09010	31.17	5.817
Cu3273_A		-2.576	ug/L	0.3450	13.39	10.68
Fe2599_R	W	42,540	ug/L	310.1	0.7289	68,080
K_7664_R		5,663	ug/L	67.68	1.195	3,330
Li6707_R		2.061	ug/L	0.7586	36.81	10.16
Mg2025_A		4,417	ug/L	52.41	1.186	1,624
Mn2576_R	W	1,399	ug/L	7.970	0.5698	13,680
Mo2020_A		2.093	ug/L	0.05017	2.397	7.217
Na5895_R		15,170	ug/L	21.09	0.1391	29,230
Ni2316_A		3.887	ug/L	0.3201	8.236	3.910
Pb2203_A		-0.4620	ug/L	0.2214	47.94	0.2578
Sb2068_A		-0.4626	ug/L	0.5468	118.2	1.265
Se1960_A		-0.002647	ug/L	0.1474	5,568	1.859
Si2516_R		12,570	ug/L	65.66	0.5224	6,022
Sn1899_A		1.731	ug/L	0.1267	7.319	1.724
Sr4215_R		280.2	ug/L	0.6397	0.2283	20,830
Ti3349_A		0.003784	ug/L	0.3258	8,610	-13.39
Tl1908_A		-1.348	ug/L	0.1157	8.579	-2.950
V_2924_A		1.030	ug/L	0.06548	6.356	-0.3742
Zn2062_A		45.33	ug/L	0.4498	0.9923	122.3
Y_3600_R		15,748	Cts/S	22.851	0.14510	15,748
Y_2243_A		7,787.1	Cts/S	64.580	0.82933	7,787.1
Y_3600_A		154,060	Cts/S	580.40	0.37673	154,060

SP0317-006L

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:34:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-006L

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:34:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.861	ug/L	0.8744	30.56	-84.64
Al3961_R		51.41	ug/L	40.28	78.36	14.43
As1891_A		1,812	ug/L	7.702	0.4250	146.5
B_2089_A		75.90	ug/L	0.3893	0.5129	26.92
Ba4554_R		23.49	ug/L	0.05311	0.2261	250.2
Be3130_R		0.2193	ug/L	0.2296	104.7	0.7507
Ca3158_R		31,860	ug/L	1,536	4.822	7,265
Cd2265_A		0.3469	ug/L	0.05277	15.21	6.891
Co2286_A		10.23	ug/L	0.3436	3.359	10.63
Cr2677_A		-1.322	ug/L	0.5914	44.74	0.9004
Cu3273_A		-4.031	ug/L	2.418	59.98	4.629
Fe2599_R		45,020	ug/L	2,093	4.649	14,100
K_7664_R		5,834	ug/L	99.98	1.714	619.6
Li6707_R		2.940	ug/L	1.261	42.87	-5.530
Mg2025_A		4,588	ug/L	23.27	0.5072	346.4
Mn2576_R		1,476	ug/L	77.64	5.259	2,825
Mo2020_A		2.039	ug/L	0.02127	1.043	1.824
Na5895_R		15,790	ug/L	672.7	4.261	6,009
Ni2316_A		4.429	ug/L	0.6767	15.28	0.6241
Pb2203_A		-4.449	ug/L	2.053	46.15	-1.251
Sb2068_A		-3.122	ug/L	0.5041	16.15	0.3021
Se1960_A		4.889	ug/L	2.029	41.49	1.580
Si2516_R		13,150	ug/L	654.6	4.978	1,268
Sn1899_A		3.641	ug/L	1.362	37.41	1.272
Sr4215_R		292.8	ug/L	15.73	5.373	4,250
Ti3349_A		-0.3924	ug/L	0.3718	94.73	-16.56
Tl1908_A		1.981	ug/L	0.6127	30.93	-1.212
V_2924_A		1.979	ug/L	0.2853	14.42	-2.608
Zn2062_A		46.48	ug/L	0.6795	1.462	25.88
Y_3600_R		15,416	Cts/S	532.02	3.4511	15,416
Y_2243_A		8,133.2	Cts/S	31.463	0.38684	8,133.2
Y_3600_A		160,490	Cts/S	1,822.2	1.1354	160,490

SP0317-006A

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:38:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		344.1	ug/L	0.7263	0.2111	6,759
Al3961_R		11,010	ug/L	266.3	2.418	10,850
As1891_A	W	2,250	ug/L	7.231	0.3214	880.7
B_2089_A		511.3	ug/L	1.995	0.3903	767.9
Ba4554_R		512.7	ug/L	9.186	1.792	27,100
Be3130_R		537.2	ug/L	13.40	2.494	48,860
Ca3158_R	W	36,030	ug/L	893.2	2.479	40,410
Cd2265_A		531.5	ug/L	1.848	0.3477	7,291
Co2286_A		527.0	ug/L	2.059	0.3907	2,155
Cr2677_A		513.6	ug/L	6.875	1.339	6,426
Cu3273_A		526.4	ug/L	8.055	1.530	7,443
Fe2599_R	W	48,240	ug/L	905.6	1.877	74,120
K_7664_R		15,950	ug/L	300.9	1.887	9,116
Li6707_R		505.6	ug/L	11.24	2.222	5,212
Mg2025_A		9,515	ug/L	6.014	0.06320	3,546
Mn2576_R	W	1,927	ug/L	44.39	2.304	18,100
Mo2020_A		523.2	ug/L	1.995	0.3814	1,726
Na5895_R		20,760	ug/L	427.9	2.062	38,370
Ni2316_A		499.1	ug/L	2.107	0.4221	989.0

SP0317-006A

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:38:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		480.4	ug/L	0.9365	0.1949	461.3
Sb2068_A		502.0	ug/L	0.2130	0.04243	299.8
Se1960_A		480.0	ug/L	1.578	0.3288	146.6
Si2516_R		13,140	ug/L	323.5	2.462	6,045
Sn1899_A		528.1	ug/L	3.165	0.5993	268.3
Sr4215_R		788.6	ug/L	19.43	2.464	56,270
Ti3349_A		518.6	ug/L	7.335	1.414	15,390
Tl1908_A		496.7	ug/L	0.6525	0.1314	304.7
V_2924_A		540.2	ug/L	7.375	1.365	7,014
Zn2062_A		536.1	ug/L	2.652	0.4946	1,453
Y_3600_R		15,119	Cts/S	240.37	1.5898	15,119
Y_2243_A		7,809.1	Cts/S	9.3573	0.11983	7,809.1
Y_3600_A		150,270	Cts/S	1,757.4	1.1695	150,270

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:43:07PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		485.9	ug/L	1.366	0.2812	10,360
Al3961_R		12,490	ug/L	38.85	0.3110	12,740
As1891_A		508.3	ug/L	2.088	0.4107	200.8
B_2089_A		484.1	ug/L	3.277	0.6769	738.7
Ba4554_R		476.9	ug/L	2.574	0.5399	26,150
Be3130_R		522.4	ug/L	1.431	0.2739	49,310
Ca3158_R		12,720	ug/L	41.50	0.3264	14,790
Cd2265_A	W	548.1	ug/L	1.654	0.3018	7,595
Co2286_A	W	527.0	ug/L	2.048	0.3886	2,186
Cr2677_A		511.1	ug/L	3.886	0.7602	6,638
Cu3273_A		519.8	ug/L	0.08836	0.01700	7,602
Fe2599_R		12,320	ug/L	69.42	0.5634	19,650
K_7664_R		12,410	ug/L	35.37	0.2849	7,349
Li6707_R		479.5	ug/L	1.967	0.4103	5,128
Mg2025_A		12,710	ug/L	43.57	0.3429	4,796
Mn2576_R		511.7	ug/L	0.1998	0.03905	4,991
Mo2020_A		513.7	ug/L	2.020	0.3931	1,720
Na5895_R		12,050	ug/L	7.190	0.05968	23,150
Ni2316_A		507.0	ug/L	3.004	0.5926	1,022
Pb2203_A		499.6	ug/L	4.802	0.9613	485.6
Sb2068_A		514.6	ug/L	0.2575	0.05004	310.8
Se1960_A		500.8	ug/L	5.618	1.122	154.4
Si2516_R		13,390	ug/L	185.1	1.382	6,397
Sn1899_A	W	547.2	ug/L	2.670	0.4880	282.1
Sr4215_R		490.7	ug/L	1.140	0.2323	36,330
Ti3349_A		506.6	ug/L	2.165	0.4275	15,620
Tl1908_A		523.9	ug/L	1.983	0.3786	327.2
V_2924_A		525.7	ug/L	2.262	0.4303	7,098
Zn2062_A		505.4	ug/L	2.900	0.5737	1,390
Y_3600_R		15,687	Cts/S	90.345	0.57592	15,687
Y_2243_A		7,925.3	Cts/S	29.863	0.37681	7,925.3
Y_3600_A		156,110	Cts/S	476.83	0.30545	156,110

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:47:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:47:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1300	ug/L	0.02750	21.15	-23.44
Al3961_R		2.796	ug/L	1.708	61.06	1.721
As1891_A		0.4557	ug/L	0.8616	189.1	-1.327
B_2089_A		1.638	ug/L	0.3461	21.13	6.361
Ba4554_R		0.3166	ug/L	0.1230	38.85	14.24
Be3130_R		0.2298	ug/L	0.01649	7.174	18.26
Ca3158_R		8.278	ug/L	0.8907	10.76	-8.770
Cd2265_A		0.07189	ug/L	0.07989	111.1	-1.875
Co2286_A		0.01238	ug/L	0.04943	399.4	1.848
Cr2677_A		0.1101	ug/L	0.1053	95.60	4.370
Cu3273_A		-0.2945	ug/L	0.1055	35.81	3.361
Fe2599_R		11.07	ug/L	0.1325	1.197	21.41
K_7664_R		25.15	ug/L	18.71	74.41	-51.15
Li6707_R		-2.148	ug/L	1.087	50.61	-34.85
Mg2025_A		1.343	ug/L	0.8482	63.16	-7.163
Mn2576_R		0.2255	ug/L	0.2377	105.4	2.872
Mo2020_A		0.5174	ug/L	0.07753	14.98	2.245
Na5895_R		2.879	ug/L	4.337	150.6	79.74
Ni2316_A		0.3451	ug/L	0.03794	10.99	0.2510
Pb2203_A		-0.3016	ug/L	0.2479	82.19	-0.9638
Sb2068_A		0.3031	ug/L	0.8182	270.0	0.6355
Se1960_A		1.628	ug/L	0.2933	18.02	1.622
Si2516_R		35.35	ug/L	25.58	72.35	62.34
Sn1899_A		1.442	ug/L	0.2639	18.31	1.666
Sr4215_R		0.1463	ug/L	0.05964	40.76	2.218
Ti3349_A		0.5913	ug/L	0.06851	11.59	4.623
Tl1908_A		-0.1084	ug/L	0.3002	277.0	-1.349
V_2924_A		0.1934	ug/L	0.1757	90.86	-3.678
Zn2062_A		0.3394	ug/L	0.04893	14.42	0.5712
Y_3600_R		15,625	Cts/S	51.116	0.32714	15,625
Y_2243_A		8,220.0	Cts/S	5.4921	0.066815	8,220.0
Y_3600_A		158,930	Cts/S	314.47	0.19786	158,930

SP0317-006P

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:51:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.90	ug/L	0.02143	0.04128	750.7
Al3961_R		2,154	ug/L	8.920	0.4141	2,206
As1891_A	W	1,887	ug/L	20.93	1.109	738.7
B_2089_A		539.8	ug/L	5.524	1.023	796.9
Ba4554_R	W	2,065	ug/L	20.32	0.9842	112,400
Be3130_R		55.56	ug/L	0.3390	0.6101	5,201
Ca3158_R	W	32,030	ug/L	294.5	0.9195	36,980
Cd2265_A		282.2	ug/L	3.557	1.261	3,887
Co2286_A		565.3	ug/L	6.345	1.122	2,312
Cr2677_A		217.8	ug/L	2.784	1.278	2,799
Cu3273_A		279.9	ug/L	1.980	0.7074	4,076
Fe2599_R	W	42,280	ug/L	430.9	1.019	66,880
K_7664_R		16,000	ug/L	124.9	0.7807	9,419
Li6707_R		511.3	ug/L	6.539	1.279	5,426
Mg2025_A		9,182	ug/L	61.01	0.6645	3,424
Mn2576_R	W	1,904	ug/L	17.00	0.8927	18,420
Mo2020_A		111.8	ug/L	0.8177	0.7311	369.3
Na5895_R		22,440	ug/L	230.7	1.028	42,710
Ni2316_A		537.9	ug/L	6.757	1.256	1,061

SP0317-006P

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:51:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		100.4	ug/L	0.3859	0.3844	97.01
Sb2068_A		106.6	ug/L	1.738	1.629	62.10
Se1960_A		102.2	ug/L	1.733	1.696	32.73
Si2516_R		13,560	ug/L	173.6	1.280	6,422
Sn1899_A		557.9	ug/L	7.997	1.433	283.5
Sr4215_R		789.6	ug/L	8.426	1.067	58,010
Ti3349_A		537.8	ug/L	4.266	0.7934	16,350
Tl1908_A		103.6	ug/L	1.639	1.583	62.56
V_2924_A		569.1	ug/L	4.135	0.7267	7,619
Zn2062_A		570.0	ug/L	8.996	1.578	1,546
Y_3600_R		15,564	Cts/S	14.382	0.092407	15,564
Y_2243_A		7,812.9	Cts/S	43.179	0.55266	7,812.9
Y_3600_A		154,030	Cts/S	1,260.2	0.81819	154,030

SP0317-006S

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 5:55:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.57	ug/L	0.4346	0.8427	740.3
Al3961_R		2,114	ug/L	21.31	1.008	2,187
As1891_A	W	1,869	ug/L	18.97	1.015	724.3
B_2089_A		537.2	ug/L	3.333	0.6205	785.2
Ba4554_R	W	2,046	ug/L	10.54	0.5155	112,500
Be3130_R		55.00	ug/L	0.1572	0.2858	5,203
Ca3158_R	W	31,310	ug/L	42.98	0.1373	36,510
Cd2265_A		282.0	ug/L	2.442	0.8657	3,845
Co2286_A		569.0	ug/L	5.628	0.9890	2,304
Cr2677_A		218.6	ug/L	0.5994	0.2742	2,773
Cu3273_A		280.6	ug/L	0.8445	0.3010	4,033
Fe2599_R	W	41,450	ug/L	97.18	0.2345	66,240
K_7664_R		15,650	ug/L	25.27	0.1615	9,304
Li6707_R		504.2	ug/L	3.117	0.6182	5,406
Mg2025_A		9,156	ug/L	83.98	0.9171	3,380
Mn2576_R	W	1,870	ug/L	9.032	0.4829	18,280
Mo2020_A		112.0	ug/L	0.6213	0.5549	366.0
Na5895_R		21,960	ug/L	18.92	0.08617	42,220
Ni2316_A		538.6	ug/L	4.529	0.8408	1,052
Pb2203_A		99.27	ug/L	0.2131	0.2146	94.95
Sb2068_A		106.3	ug/L	1.605	1.510	61.23
Se1960_A		101.9	ug/L	0.09194	0.09025	32.28
Si2516_R		13,350	ug/L	118.6	0.8887	6,386
Sn1899_A		562.8	ug/L	4.227	0.7510	283.1
Sr4215_R		777.1	ug/L	0.02257	0.002904	57,680
Ti3349_A		537.9	ug/L	2.210	0.4108	16,150
Tl1908_A		102.8	ug/L	0.2577	0.2506	61.53
V_2924_A		572.1	ug/L	2.325	0.4064	7,562
Zn2062_A		568.7	ug/L	2.491	0.4381	1,527
Y_3600_R		15,724	Cts/S	66.897	0.42544	15,724
Y_2243_A		7,734.4	Cts/S	52.701	0.68139	7,734.4
Y_3600_A		152,070	Cts/S	488.72	0.32139	152,070

SP0317-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:00:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0317-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:00:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05170	ug/L	0.3561	688.7	-38.21
Al3961_R		12.31	ug/L	2.940	23.88	35.77
As1891_A		-1.275	ug/L	1.149	90.10	-1.964
B_2089_A		164.2	ug/L	0.4483	0.2730	239.7
Ba4554_R		36.95	ug/L	0.1884	0.5099	1,944
Be3130_R		0.01513	ug/L	0.01937	128.0	-1.821
Ca3158_R	W	29,910	ug/L	143.1	0.4783	33,440
Cd2265_A		-0.008631	ug/L	0.06316	731.8	-1.065
Co2286_A		3.930	ug/L	0.1666	4.241	17.46
Cr2677_A		0.5533	ug/L	0.2695	48.71	10.70
Cu3273_A		3.016	ug/L	0.1857	6.158	51.89
Fe2599_R		1,937	ug/L	4.774	0.2465	2,970
K_7664_R		9,733	ug/L	29.81	0.3063	5,523
Li6707_R		0.3229	ug/L	0.4906	151.9	-8.192
Mg2025_A		4,014	ug/L	19.22	0.4788	1,454
Mn2576_R		720.9	ug/L	3.630	0.5035	6,759
Mo2020_A		1.357	ug/L	0.07972	5.875	4.774
Na5895_R	W	25,610	ug/L	37.88	0.1479	47,180
Ni2316_A		6.063	ug/L	0.05361	0.8842	11.20
Pb2203_A		-0.7858	ug/L	0.7703	98.02	-1.299
Sb2068_A		0.5948	ug/L	0.01899	3.192	0.8035
Se1960_A		2.592	ug/L	0.9300	35.88	1.938
Si2516_R		4,464	ug/L	0.1110	0.002486	2,077
Sn1899_A		2.625	ug/L	0.5257	20.02	2.145
Sr4215_R		256.7	ug/L	0.2459	0.09577	18,260
Ti3349_A		0.1878	ug/L	0.05862	31.21	-7.657
Tl1908_A		-1.039	ug/L	0.6856	66.01	-2.269
V_2924_A		0.3883	ug/L	0.004563	1.175	-4.365
Zn2062_A		1.861	ug/L	0.1462	7.855	4.592
Y_3600_R		15,073	Cts/S	54.832	0.36379	15,073
Y_2243_A		7,678.3	Cts/S	7.1648	0.093312	7,678.3
Y_3600_A		151,410	Cts/S	2,059.0	1.3599	151,410

SP0317-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:04:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2916	ug/L	0.04966	17.03	-29.28
Al3961_R		101.1	ug/L	11.74	11.62	111.3
As1891_A		15.51	ug/L	0.8145	5.250	4.626
B_2089_A		63.81	ug/L	0.4004	0.6276	97.17
Ba4554_R		12.41	ug/L	0.06372	0.5134	683.5
Be3130_R		0.01069	ug/L	0.02079	194.5	-2.525
Ca3158_R		10,120	ug/L	98.22	0.9709	11,860
Cd2265_A		0.006602	ug/L	0.008573	129.9	-1.470
Co2286_A		15.41	ug/L	0.2780	1.803	64.72
Cr2677_A		0.6604	ug/L	0.1369	20.73	13.22
Cu3273_A		6.657	ug/L	0.007561	0.1136	105.3
Fe2599_R		1,303	ug/L	17.44	1.339	2,099
K_7664_R		4,460	ug/L	68.48	1.535	2,621
Li6707_R		1.452	ug/L	1.094	75.31	3.554
Mg2025_A		1,553	ug/L	10.37	0.6676	569.5
Mn2576_R	W	1,596	ug/L	19.94	1.250	15,710
Mo2020_A		0.2656	ug/L	0.1766	66.49	1.196
Na5895_R		18,040	ug/L	255.8	1.419	34,910
Ni2316_A		6.216	ug/L	0.3180	5.116	11.76

SP0317-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:04:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.7845	ug/L	0.4333	55.23	-1.348
Sb2068_A		-0.3758	ug/L	0.1575	41.90	0.2299
Se1960_A		2.941	ug/L	0.1580	5.373	2.214
Si2516_R		5,500	ug/L	83.67	1.521	2,676
Sn1899_A		1.484	ug/L	0.4612	31.08	1.608
Sr4215_R		111.6	ug/L	1.491	1.336	8,328
Ti3349_A		3.000	ug/L	0.08586	2.862	78.29
Tl1908_A		-0.6291	ug/L	0.2223	35.33	-2.594
V_2924_A		0.4028	ug/L	0.06925	17.19	-8.237
Zn2062_A		2.486	ug/L	0.009164	0.3687	6.378
Y_3600_R		15,825	Cts/S	190.10	1.2013	15,825
Y_2243_A		7,825.9	Cts/S	54.788	0.70008	7,825.9
Y_3600_A		155,100	Cts/S	195.53	0.12607	155,100

SP0317-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:08:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4377	ug/L	0.1030	23.52	-17.71
Al3961_R		17.12	ug/L	5.478	32.00	24.84
As1891_A		2.469	ug/L	0.4582	18.56	-0.4736
B_2089_A		64.02	ug/L	0.03568	0.05572	96.84
Ba4554_R		12.42	ug/L	0.01451	0.1168	668.9
Be3130_R		0.03776	ug/L	0.01254	33.20	0.2408
Ca3158_R		10,330	ug/L	68.56	0.6637	11,840
Cd2265_A		0.03915	ug/L	0.008585	21.93	-2.046
Co2286_A		15.78	ug/L	0.0008150	0.005164	65.75
Cr2677_A		0.6427	ug/L	0.3633	56.53	12.88
Cu3273_A		4.863	ug/L	0.1904	3.916	78.14
Fe2599_R		205.0	ug/L	3.159	1.541	326.1
K_7664_R		4,494	ug/L	17.52	0.3897	2,582
Li6707_R		0.9551	ug/L	0.3019	31.61	-1.709
Mg2025_A		1,574	ug/L	4.748	0.3017	573.4
Mn2576_R	W	1,641	ug/L	8.634	0.5261	15,800
Mo2020_A		0.2103	ug/L	0.03401	16.17	1.005
Na5895_R		18,130	ug/L	45.77	0.2525	34,310
Ni2316_A		6.090	ug/L	0.2126	3.490	11.52
Pb2203_A		-0.9681	ug/L	1.349	139.4	-1.544
Sb2068_A		0.007911	ug/L	0.3975	5,025	0.4314
Se1960_A		2.610	ug/L	0.8754	33.55	2.093
Si2516_R		5,467	ug/L	31.37	0.5738	2,601
Sn1899_A		1.135	ug/L	0.1270	11.19	1.421
Sr4215_R		113.0	ug/L	0.2583	0.2286	8,248
Ti3349_A		0.2302	ug/L	0.02970	12.90	-6.542
Tl1908_A		-1.273	ug/L	0.8720	68.52	-2.998
V_2924_A		0.4539	ug/L	0.2275	50.12	-7.734
Zn2062_A		2.220	ug/L	0.03470	1.563	5.620
Y_3600_R		15,472	Cts/S	52.721	0.34075	15,472
Y_2243_A		7,774.7	Cts/S	13.339	0.17156	7,774.7
Y_3600_A		154,840	Cts/S	466.33	0.30117	154,840

SP0324-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:13:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SP0324-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:13:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.05532	ug/L	0.01596	28.85	-42.74
Al3961_R		2,455	ug/L	12.80	0.5211	2,434
As1891_A		3.548	ug/L	0.6808	19.19	-0.09620
B_2089_A		20.71	ug/L	0.2535	1.224	32.12
Ba4554_R		23.15	ug/L	0.3607	1.558	1,221
Be3130_R		0.1083	ug/L	0.04001	36.95	-1.264
Ca3158_R	W	32,190	ug/L	105.3	0.3272	36,100
Cd2265_A		-0.08634	ug/L	0.01796	20.80	-1.638
Co2286_A		1.174	ug/L	0.04313	3.675	7.071
Cr2677_A		5.141	ug/L	0.01958	0.3808	64.59
Cu3273_A		3.853	ug/L	0.1566	4.064	59.00
Fe2599_R		2,218	ug/L	5.956	0.2686	3,411
K_7664_R		6,325	ug/L	23.64	0.3737	3,578
Li6707_R		11.77	ug/L	2.401	20.40	110.0
Mg2025_A		6,998	ug/L	2.564	0.03665	2,439
Mn2576_R		115.4	ug/L	0.3072	0.2662	1,087
Mo2020_A		3.050	ug/L	0.08497	2.786	9.896
Na5895_R	F	270,300	ug/L	3,931	1.455	498,800
Ni2316_A		5.428	ug/L	0.04892	0.9011	9.577
Pb2203_A		0.3001	ug/L	0.4848	161.5	-0.4672
Sb2068_A		-0.5768	ug/L	1.856	321.7	0.1453
Se1960_A		2.205	ug/L	0.06390	2.898	1.682
Si2516_R		6,788	ug/L	11.53	0.1698	3,145
Sn1899_A		1.313	ug/L	0.7860	59.87	1.433
Sr4215_R		173.7	ug/L	0.02378	0.01369	12,390
Ti3349_A		132.1	ug/L	0.2362	0.1787	3,748
Tl1908_A		-0.7923	ug/L	0.7577	95.64	-1.746
V_2924_A		5.115	ug/L	0.1629	3.184	58.76
Zn2062_A		19.33	ug/L	0.1503	0.7773	49.16
Y_3600_R		15,119	Cts/S	23.746	0.15706	15,119
Y_2243_A		7,374.0	Cts/S	1.9008	0.025777	7,374.0
Y_3600_A		144,080	Cts/S	666.59	0.46266	144,080

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:17:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		479.4	ug/L	2.438	0.5086	10,140
Al3961_R		12,430	ug/L	63.45	0.5105	12,510
As1891_A		497.6	ug/L	1.001	0.2011	195.3
B_2089_A		473.6	ug/L	1.276	0.2693	718.0
Ba4554_R		474.5	ug/L	2.434	0.5130	25,670
Be3130_R		526.2	ug/L	5.403	1.027	49,000
Ca3158_R		12,530	ug/L	50.26	0.4012	14,370
Cd2265_A	W	549.4	ug/L	0.5592	0.1018	7,562
Co2286_A		523.6	ug/L	0.2706	0.05168	2,157
Cr2677_A		499.4	ug/L	0.01535	0.003074	6,438
Cu3273_A		520.5	ug/L	2.215	0.4256	7,557
Fe2599_R		12,280	ug/L	8.053	0.06560	19,310
K_7664_R		12,240	ug/L	64.25	0.5249	7,148
Li6707_R	W	472.6	ug/L	2.075	0.4390	4,987
Mg2025_A		12,620	ug/L	3.903	0.03092	4,734
Mn2576_R		512.6	ug/L	2.336	0.4557	4,933
Mo2020_A		507.3	ug/L	0.7224	0.1424	1,688
Na5895_R		12,030	ug/L	2.056	0.01709	22,800
Ni2316_A		496.4	ug/L	0.01941	0.003911	994.4

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:17:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		488.1	ug/L	2.098	0.4300	471.2
Sb2068_A		511.7	ug/L	0.08369	0.01635	307.0
Se1960_A		490.6	ug/L	1.290	0.2630	150.2
Si2516_R	W	13,530	ug/L	71.75	0.5303	6,375
Sn1899_A	W	545.0	ug/L	0.004491	0.0008240	279.1
Sr4215_R		482.0	ug/L	1.886	0.3913	35,210
Ti3349_A		501.6	ug/L	0.9782	0.1950	15,350
Tl1908_A		517.8	ug/L	0.4108	0.07932	321.2
V_2924_A		522.0	ug/L	1.328	0.2543	6,997
Zn2062_A		491.3	ug/L	0.6806	0.1385	1,342
Y_3600_R		15,476	Cts/S	40.290	0.26034	15,476
Y_2243_A		7,872.9	Cts/S	8.5681	0.10883	7,872.9
Y_3600_A		154,970	Cts/S	264.87	0.17091	154,970

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:21:44PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2201	ug/L	0.3035	137.9	-21.29
Al3961_R		1.644	ug/L	1.779	108.2	0.5355
As1891_A		-0.02350	ug/L	0.7492	3,189	-1.471
B_2089_A		0.9226	ug/L	0.1695	18.38	5.072
Ba4554_R		0.1505	ug/L	0.2831	188.1	5.039
Be3130_R		0.2099	ug/L	0.02507	11.95	16.19
Ca3158_R		7.556	ug/L	2.105	27.86	-9.481
Cd2265_A		0.1311	ug/L	0.01299	9.903	-0.9920
Co2286_A		0.1309	ug/L	0.07898	60.34	2.273
Cr2677_A		0.1512	ug/L	0.2724	180.2	4.876
Cu3273_A		-0.2216	ug/L	0.2279	102.8	4.423
Fe2599_R		6.830	ug/L	2.446	35.81	14.48
K_7664_R		16.35	ug/L	6.936	42.42	-55.68
Li6707_R		-0.4302	ug/L	0.6053	140.7	-16.29
Mg2025_A		2.269	ug/L	0.9498	41.87	-6.553
Mn2576_R		0.5472	ug/L	0.1349	24.64	5.925
Mo2020_A		0.5125	ug/L	0.1590	31.02	2.149
Na5895_R		19.20	ug/L	2.314	12.05	109.5
Ni2316_A		0.3461	ug/L	0.0009140	0.2641	0.2442
Pb2203_A		-0.3897	ug/L	0.2939	75.41	-1.015
Sb2068_A		-0.2438	ug/L	0.6343	260.2	0.2855
Se1960_A		2.058	ug/L	0.8968	43.58	1.695
Si2516_R		36.35	ug/L	28.94	79.60	62.00
Sn1899_A		0.7157	ug/L	0.6979	97.52	1.233
Sr4215_R		0.2429	ug/L	0.04656	19.17	9.231
Ti3349_A		0.6151	ug/L	0.04209	6.843	5.334
Tl1908_A		0.8017	ug/L	0.4743	59.16	-0.7316
V_2924_A		0.2275	ug/L	0.03544	15.58	-3.190
Zn2062_A		0.2989	ug/L	0.008166	2.732	0.4392
Y_3600_R		15,429	Cts/S	106.84	0.69242	15,429
Y_2243_A		7,926.3	Cts/S	0.52508	0.0066240	7,926.3
Y_3600_A		158,060	Cts/S	921.84	0.58323	158,060

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,089
Analyst Name: EP
Acquire Date: 1/25/2022 6:26:08PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSr268 HCL: MSr269 Digestion Vessels: mL0002600001130

1:1 HNO3: MR3246 1:1 HCL: MR3238

Pipet	LCS/Spiking Information:
M21	CLPP-SPK-1 (ID/Vol): MS2369 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW20759 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW20749 / 0.5 mL
—	— Spike (ID/Vol): — / — mL

Heat Source ID : A

Start Time: 8:30 /Temp. 90 °C

End Time: 16:25 /Temp. 90 °C

Thermometer ID/Pos: ALC30 M,2

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LCSWPA24ICW1	PA24ICW1	0.05	L	0.05	L	AQ	IC	IM	01/24/2022	—	✓
PBWPA24ICW1	PA24ICW1		L		L	AQ	IC	IM	01/24/2022	—	
SP0177-010	PA24ICW1		L		L	AQ	IC	IM	01/24/2022	A	
SP0260-002	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0315-007	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-001	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-002	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-003	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-004	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-005	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-005P	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-005S	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-007	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-008	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-009	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-010	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-011	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-012	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-013	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-014	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-015	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-016	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		
SP0317-017	PA24ICW1		L		L	AQ	IC	IM	01/24/2022		

REVIEWED
EL 01-24-22
KATAHDIN ANALYTICAL
METALS SECTION

Client IDs Verified
IM 01-24-22

QA-064-Revision 5 -12/07/2018 Digestion performed by: IM On: 01-24-22 Page: PA053 Revision: 00

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSr268 HCL: MSr269 Digestion Vessels: MLD026000013 0

1:1 HNO3: Mr3246 1:1 HCL: Mr3238

Pipet	LCS/Spiking Information:
M27	CLPP-SPK-1 (ID/Vol): MS2369 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW20759 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW20749 / 0.5 mL
—	— Spike (ID/Vol): — / — mL

Heat Source ID : A
Start Time: 8:30 /Temp. 90 °C
End Time: 16:25 /Temp. 90 °C
Thermometer ID/Pos: AK30 / 1,2

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LCSWPA24ICW2	PA24ICW2	0.05	L	0.05	L	AQ	IC	IM	01/24/2022	—	✓
PBWPA24ICW2	PA24ICW2		L		L	AQ	IC	IM	01/24/2022	—	
SO8464-001R	PA24ICW2		L		L	AQ	IC	IM	01/24/2022	D	
SO8464-002R	PA24ICW2		L		L	AQ	IC	IM	01/24/2022	A	
SO8464-004R	PA24ICW2		L		L	AQ	IC	IM	01/24/2022	D	
SO8464-005R	PA24ICW2		L		L	AQ	IC	IM	01/24/2022	A	
SP0317-006	PA24ICW2		L		L	AQ	IC	IM	01/24/2022		
SP0317-006P	PA24ICW2		L		L	AQ	IC	IM	01/24/2022		
SP0317-006S	PA24ICW2		L		L	AQ	IC	IM	01/24/2022		
SP0317-018	PA24ICW2		L		L	AQ	IC	IM	01/24/2022		
SP0317-019	PA24ICW2		L		L	AQ	IC	IM	01/24/2022		
SP0317-020	PA24ICW2		L		L	AQ	IC	IM	01/24/2022		
SP0324-001	PA24ICW2		L		L	AQ	IC	IM	01/24/2022		

REVIEWED
Ear 01-24-22
KATAHDIN ANALYTICAL
METALS SECTION

Client IDs verified
IM 01-24-22

QA-064-Revision 5 -12/07/2018 Digestion performed by: IM On: 01-24-22 Page: PA054 Revision: 00

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Alkalinity

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG313409	SM2320B	01-FEB-22	N/A	J 2.3 mg/L	5.0 mg/L	4.0

Solids-Filterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG313166	SM2540C	26-JAN-22	25-JAN-22	U 8.0 mg/L	10. mg/L	8.0

Total Biochemical Oxygen Demand

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG313028	SM5210B	26-JAN-22	21-JAN-22	U 1.0 mg/L	2.0 mg/L	1.0

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG313409-2	LCS	WG313409	01-FEB-22	N/A	mg/L	120	130	111	80-120	
WG313409-3	LCSD	WG313409	01-FEB-22	N/A	mg/L	120	140	113	80-120	2

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG313166-2	LCS	WG313166	26-JAN-22	25-JAN-22	mg/L	750	670	89	80-120	
WG313166-3	LCSD	WG313166	26-JAN-22	25-JAN-22	mg/L	750	690	92	80-120	4

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG313028-2	LCS	WG313028	26-JAN-22	21-JAN-22	mg/L	198	190	98	85-115	

Quality Control Report

Duplicate Sample Summary Report

Solids-Filterable Residue

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG313166-4	SP0317-5	WG313166	26-JAN-22	mg/L	140	170	16*	10

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Matrix Spike Sample Summary Report

Alkalinity

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG313409-4	MS	SP0317-5	WG313409	01-FEB-22	mg/L	120	104	203	92	75 - 125
WG313409-5	MSD	SP0317-5	WG313409	01-FEB-22	mg/L	120	104	202	92	75 - 125

Total Biochemical Oxygen Demand

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG313028-3	MS	SP0317-1	WG313028	26-JAN-22	mg/L	47.52	U 2.0	45.2	95	75 - 125

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results <u>may</u> not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results <u>may</u> not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-1
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#5	AQ	19-JAN-22 11:48:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	170 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:00:36	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:18:00	SM 5210B	21-JAN-22 0956	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-3
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1D-EVENT#5-DUP	AQ	19-JAN-22 11:48:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	160 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:08:37	N/A	N/A	
Solids-Filterable Residue	200 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:22:00	SM 5210B	21-JAN-22 1007	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-5
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-EVENT#5	AQ	19-JAN-22 12:54:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	100 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:11:41	N/A	N/A	
Solids-Filterable Residue	140 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	R1

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-7
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-1S-EVENT#5	AQ	19-JAN-22 13:29:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	44. mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:20:40	N/A	N/A	
Solids-Filterable Residue	130 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:25:00	SM 5210B	21-JAN-22 1021	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-9
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-EVENT#5	AQ	19-JAN-22 15:05:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	190 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:22:48	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-11
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-EVENT#5	AQ	19-JAN-22 15:05:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:25:54	N/A	N/A	
Solids-Filterable Residue	160 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-13
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-EVENT#5	AQ	20-JAN-22 10:33:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	76. mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:28:44	N/A	N/A	
Solids-Filterable Residue	100 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-15
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-EVENT#5	AQ	20-JAN-22 11:31:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	140 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:31:10	N/A	N/A	
Solids-Filterable Residue	180 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-17
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-EVENT#5	AQ	20-JAN-22 12:35:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:33:59	N/A	N/A	
Solids-Filterable Residue	170 mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	J1.8 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:28:00	SM 5210B	21-JAN-22 1030	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SP0317-19
Report Date: 07-FEB-22
Project: Fort Devens 2021 LTM
SDG: SP0317

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-EVENT#5	AQ	20-JAN-22 13:38:00	20-JAN-22

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	21. mg/L	5.0	0.23	4	STDM 2320B	WG313409	01-FEB-22 11:53:24	N/A	N/A	
Solids-Filterable Residue	93. mg/L	10.	5.0	8	STDM 2540C	WG313166	26-JAN-22 13:04:00	SM 2540C	25-JAN-22	
Total Biochemical Oxygen Demand	U2.0 mg/L	2.0	0.23	1	SM5210B	WG313028	26-JAN-22 11:31:00	SM 5210B	21-JAN-22 1037	

Raw Data Section

WET CHEMISTRY BATCH REPORT
Feb 03 2022, 05:10 pm
Batch: WG313409 Run ID 1: R585615 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 01-FEB-22

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SP0270-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	296.466	300 mg/L	NA	5	0.23	5.0		
SP0270-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	265.336	260 mg/L	NA	5	0.23	5.0		
SP0270-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	320.198	320 mg/L	NA	5	0.23	5.0		
SP0317-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	166.939	170 mg/L	NA	5	0.23	5.0		
SP0317-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	165.601	160 mg/L	NA	5	0.23	5.0		
SP0317-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	104.427	100 mg/L	NA	5	0.23	5.0		
SP0317-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	43.932	44. mg/L	NA	5	0.23	5.0		
SP0317-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	191.35	190 mg/L	NA	5	0.23	5.0		
SP0317-11	SAMP	STDM 2320B	50.0mL	50.0mL	1	143.656	140 mg/L	NA	5	0.23	5.0		
SP0317-13	SAMP	STDM 2320B	50.0mL	50.0mL	1	76.16	76. mg/L	NA	5	0.23	5.0		
SP0317-15	SAMP	STDM 2320B	50.0mL	50.0mL	1	140.04	140 mg/L	NA	5	0.23	5.0		
SP0317-17	SAMP	STDM 2320B	50.0mL	50.0mL	1	107.781	110 mg/L	NA	5	0.23	5.0		
SP0317-19	SAMP	STDM 2320B	50.0mL	50.0mL	1	20.764	21. mg/L	NA	5	0.23	5.0		
SP0333-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	15.999	16. mg/L	NA	5	0.23	5.0		
WG313409-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.327	J2.3 mg/L	NA	5	0.23	5.0		
WG313409-2	LCS	STDM 2320B	50.0mL	50.0mL	1	133.3	130 mg/L	NA	5	0.23	5.0		111
WG313409-3	LCSD	STDM 2320B	50.0mL	50.0mL	1	135.328	140 mg/L	NA	5	0.23	5.0	2	113
WG313409-4	MS	STDM 2320B	50.0mL	50.0mL	1	202.751	200 mg/L	NA	5	0.23	5.0		92
WG313409-5	MSD	STDM 2320B	50.0mL	50.0mL	1	202.322	200 mg/L	NA	5	0.23	5.0	0	92

Comments:

SP0270-2	(Sub perchlorate is only analysis w/ MS/MSD)
SP0317-5	MS/MSD
WG313409-1	SP0270-1
WG313409-2	SP0270-1
WG313409-3	SP0270-1
WG313409-4	SP0317-5
WG313409-5	SP0317-5

Entered by: SS Date: 2/3/22 Accepted by: [signature] Date: 02/04/22

WG313409 → R585615

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DG111-SC	
Alkalinity Acid Reagent: W20297	Buffer pH 4 ID: Sm 4799
Acid Concentration: 0.1 N	Buffer pH 7 ID: 4901
Alkalinity Check Standard: W20605 → Tv = 125 mg/L	Buffer pH 10 ID: 4898
Alkalinity MS: W20670 Tv = 120 mg/L	Pipette IDs: W13
Sulfuric Acid Titrant ID:	

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50	CCV	17	50	
CCB	2	↓	CCB	18		
LCS	3	44	0317-19	1		~~LCS failed high~~ ✓ Miscalculated
LCSD	4	↓	~~0330~~ 0333-1	2		↓
LCS	1	44	CCV	3		~~LCS failed high~~ ✓
LCSD	2	↓	CCB	4	↓	↓
LCS	1	44				
LCSD	2	↓				
SP0270-1	1	50				
-2	2					
-3	3					
0317-1	4					
CCV	5					
CCB	6					
0317-3	7					
-5	8	↓				
MS	9	44				
↓ MSD	10	↓				
-7	11	50				
-9	12					
-11	13					
-13	14					
-15	15					
-17	16	↓				SS 2/3/22

Analyst: SS	Date: 2/1/22
Checked By: [signature]	Date: 02/04/22

Start time:	2/1/2022 9:46						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	Recovery
1/4	CCV	2/1/2022 9:47:37 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	123.226	mg/L	Total Alkalinity	98.58%
			R3 =	6.744	pH	pH	
			R4 =	19.8	oC	TEMPERATURE	
2/4	CCB	2/1/2022 9:50:29 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.327	mg/L	Total Alkalinity	
			R3 =	5.571	pH	pH	
			R4 =	20.7	oC	TEMPERATURE	
3/4	LCS	2/1/2022 9:52:26 AM	R1 =	107.677	mg/L	P Alkalinity- pH8.2	
			R2 =	133.3	mg/L	Total Alkalinity	
			R3 =	10.593	pH	pH	
			R4 =	19.6	oC	TEMPERATURE	
4/4	LCSD	2/1/2022 9:55:37 AM	R1 =	101.919	mg/L	P Alkalinity- pH8.2	
			R2 =	135.328	mg/L	Total Alkalinity	
			R3 =	10.607	pH	pH	
			R4 =	19.5	oC	TEMPERATURE	
1/2	LCS	2/1/2022 10:09:37 AM	R1 =	115.075	mg/L	P Alkalinity- pH8.2	
			R2 =	133.07	mg/L	Total Alkalinity	
			R3 =	10.644	pH	pH	
			R4 =	20.2	oC	TEMPERATURE	
2/2	LCSD	2/1/2022 10:12:45 AM	R1 =	113.079	mg/L	P Alkalinity- pH8.2	
			R2 =	132.767	mg/L	Total Alkalinity	
			R3 =	10.628	pH	pH	
			R4 =	20.3	oC	TEMPERATURE	
1/2	LCS	2/1/2022 10:19:43 AM	R1 =	94.092	mg/L	P Alkalinity- pH8.2	
			R2 =	135.025	mg/L	Total Alkalinity	
			R3 =	10.635	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
2/2	LCSD	2/1/2022 10:23:04 AM	R1 =	111.93	mg/L	P Alkalinity- pH8.2	
			R2 =	134.074	mg/L	Total Alkalinity	
			R3 =	10.613	pH	pH	
			R4 =	20.3	oC	TEMPERATURE	
1/18	SP0270-1	2/1/2022 10:47:43 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	296.466	mg/L	Total Alkalinity	
			R3 =	7.129	pH	pH	
			R4 =	13.1	oC	TEMPERATURE	
2/18	SP0270-2	2/1/2022 10:52:05 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	265.336	mg/L	Total Alkalinity	
			R3 =	6.504	pH	pH	
			R4 =	13	oC	TEMPERATURE	
3/18	SP0270-3	2/1/2022 10:56:10 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	320.198	mg/L	Total Alkalinity	
			R3 =	6.837	pH	pH	
			R4 =	13.4	oC	TEMPERATURE	
4/18	SP0317-1	2/1/2022 11:00:36 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	166.939	mg/L	Total Alkalinity	
			R3 =	6.064	pH	pH	
			R4 =	14.2	oC	TEMPERATURE	
5/18	CCV	2/1/2022 11:03:38 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	131.534	mg/L	Total Alkalinity	105.23%
			R3 =	8.023	pH	pH	
			R4 =	19.5	oC	TEMPERATURE	
6/18	CCB	2/1/2022 11:06:43 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.686	mg/L	Total Alkalinity	
			R3 =	5.563	pH	pH	
			R4 =	19.9	oC	TEMPERATURE	

7/18	SP0317-3	2/1/2022 11:08:37 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	165.601	mg/L	Total Alkalinity	
			R3 =	6.043	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
8/18	SP0317-5	2/1/2022 11:11:41 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	104.427	mg/L	Total Alkalinity	
			R3 =	5.818	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
9/18	SP0317-5 MS	2/1/2022 11:14:11 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	202.751	mg/L	Total Alkalinity	
			R3 =	6.23	pH	pH	
			R4 =	14.9	oC	TEMPERATURE	
10/18	SP0317-5 MSD	2/1/2022 11:17:26 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	202.322	mg/L	Total Alkalinity	
			R3 =	6.249	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
11/18	SP0317-7	2/1/2022 11:20:40 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	43.932	mg/L	Total Alkalinity	
			R3 =	5.788	pH	pH	
			R4 =	14.7	oC	TEMPERATURE	
12/18	SP0317-9	2/1/2022 11:22:48 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	191.35	mg/L	Total Alkalinity	
			R3 =	6.075	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
13/18	SP0317-11	2/1/2022 11:25:54 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	143.656	mg/L	Total Alkalinity	
			R3 =	5.948	pH	pH	
			R4 =	15.1	oC	TEMPERATURE	
14/18	SP0317-13	2/1/2022 11:28:44 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	76.16	mg/L	Total Alkalinity	
			R3 =	5.97	pH	pH	
			R4 =	15.3	oC	TEMPERATURE	
15/18	SP0317-15	2/1/2022 11:31:10 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	140.04	mg/L	Total Alkalinity	
			R3 =	6	pH	pH	
			R4 =	15.5	oC	TEMPERATURE	
16/18	SP0317-17	2/1/2022 11:33:59 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	107.781	mg/L	Total Alkalinity	
			R3 =	6.081	pH	pH	
			R4 =	16.2	oC	TEMPERATURE	
17/18	CCV	2/1/2022 11:36:33 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	133.363	mg/L	Total Alkalinity	106.69%
			R3 =	8.134	pH	pH	
			R4 =	19.5	oC	TEMPERATURE	
18/18	CCB	2/1/2022 11:39:39 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.69	mg/L	Total Alkalinity	
			R3 =	5.616	pH	pH	
			R4 =	20	oC	TEMPERATURE	
1/4	SP0317-19	2/1/2022 11:53:24 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	20.764	mg/L	Total Alkalinity	
			R3 =	6.173	pH	pH	
			R4 =	14.9	oC	TEMPERATURE	
2/4	SP0333-1	2/1/2022 11:55:39 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	15.999	mg/L	Total Alkalinity	
			R3 =	5.836	pH	pH	
			R4 =	15.6	oC	TEMPERATURE	
3/4	CCV	2/1/2022 11:57:44 AM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	131.921	mg/L	Total Alkalinity	105.54%
			R3 =	7.891	pH	pH	
			R4 =	19.8	oC	TEMPERATURE	

4/4	CCB	2/1/2022 12:00:49 PM	R1 =	0	mg/L	P Alkalinity- pH8.2		
			R2 =	2.688	mg/L	Total Alkalinity		
			R3 =	5.623	pH	pH		
			R4 =	20.2	oC	TEMPERATURE		
Calibration data								
	Number of segments	1						
	Slope	-58.46 mV/pH						
	Zero point	6.979 pH						
	Calibration temperature	25.0 oC						

WET CHEMISTRY BATCH REPORT
Jan 26 2022, 02:34 pm
Batch: WG313166

Parameter: Solids-Filterable Residue

Date Analyzed: 26-JAN-22

Analyst Initials: MH/JL

Prep Date: 25-JAN-22

Prep Method: STDM 2540C

Prep Chemist: MH/JL

Sample	Samp Type	Method	Tare Amt.	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SP0296-1	SAMP	STDM 2540C	92.79010g		92.82410g	1	340	340 mg/L	NA	10	5.02	10.		
SP0317-1	SAMP	STDM 2540C	90.67880g		90.69720g	1	184	180 mg/L	NA	10	5.02	10.		
SP0317-11	SAMP	STDM 2540C	88.17260g		88.18860g	1	160	160 mg/L	NA	10	5.02	10.		
SP0317-13	SAMP	STDM 2540C	87.92850g		87.93890g	1	104	100 mg/L	NA	10	5.02	10.		
SP0317-15	SAMP	STDM 2540C	88.24560g		88.26330g	1	177	180 mg/L	NA	10	5.02	10.		
SP0317-17	SAMP	STDM 2540C	88.82660g		88.84330g	1	167	170 mg/L	NA	10	5.02	10.		
SP0317-19	SAMP	STDM 2540C	92.12520g		92.13450g	1	93	93. mg/L	NA	10	5.02	10.		
SP0317-3	SAMP	STDM 2540C	88.02010g		88.04060g	1	205	200 mg/L	NA	10	5.02	10.		
SP0317-5	SAMP	STDM 2540C	101.4028g		101.4171g	1	143	140 mg/L	NA	10	5.02	10.		
SP0317-7	SAMP	STDM 2540C	84.02980g		84.04240g	1	126	130 mg/L	NA	10	5.02	10.		
SP0317-9	SAMP	STDM 2540C	91.30660g		91.32440g	1	178	180 mg/L	NA	10	5.02	10.		
WG313166-1	MBLANK	STDM 2540C	89.39020g		89.38490g	1	-53	U8.0 mg/L	NA	10	5.02	10.		
WG313166-2	LCS	STDM 2540C	89.99970g		90.06630g	1	666	670 mg/L	NA	10	5.02	10.		89
WG313166-3	LCSD	STDM 2540C	85.71770g		85.78670g	1	690	690 mg/L	NA	10	5.02	10.	4	92
WG313166-4	DUP	STDM 2540C	82.58750g		82.60430g	1	168	170 mg/L	NA	10	5.02	10.	16	

Comments:

SP0317-5	MS/MSD
WG313166-1	SP0296-1
WG313166-2	SP0296-1
WG313166-3	SP0296-1
WG313166-4	SP0317-5

Entered by: MH/JL/SS Date: 1/26/22 Accepted by: ZF Date: 1/26/22

Katahdin Analytical Services SP0317 Page 176 of 185

KATAHDIN ANALYTICAL SERVICES, LLC

R585175

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS WG313166

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2____ Total Suspended Solids: SM 2540D____ PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot#

Filter Lot # SWL4878

ASTM Class Weights

Balance ID: BAL01

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.1002	0.1001
1.0000	0.9998	0.9999 JL 1/26/22
10.0000	9.9999	10.~~0004~~.0001
100.0000	100.0003	100.0003

Notes:

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID:

In Temp. 178	Date: 1/25/22	Time: 1034
Out Temp. 182	Date: 1/26/22	Time: 0757
In Temp. 182	Date: 1/26/22	Time: 1020
Out Temp. 182	Date: 1/26/22	Time: 1155
In Temp.	Date:	Time:
Out Temp.	Date:	Time:

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis)
Blank	100	0845	005	89.3902	89.3888	89.3849	1304
LCS			007	89.9997	90.0688	90.0663	
LCSD			008	85.7177	85.7893	85.7867	
SP0296-1			010	92.7901	92.8239	92.8241	
SP0317-1			006	90.6788	90.6993	90.6972	
SP0317-3			BP12	88.0201	88.0417	88.0406	
-5			BP8	101.4028	101.4175	101.4171	
-7			BP9	84.0298	84.0424	84.0424	
-9			BP11	91.3066	91.3237	91.3244	
-11			BP7	88.1726	88.1909	88.1886	
-SD-~~MDUP~~			AL12	82.5875	82.6044	82.6043	
-13			BP6	87.9285	87.9393	87.9389	
-15			AL13	88.2456	88.2646	88.2633	
-17			AL2	88.8266	88.8426	88.8433	
-19		0935	AL5	92.1252	92.1348	92.1345	1319

MH 1/26/22

Analyst: JL / MH Date: 1/25/22

Checked By: ZF Date: 1/26/22

WET CHEMISTRY BATCH REPORT
Jan 26 2022, 01:59 pm
Batch: WG313028 Run ID 1: R585153 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Prep Date: 21-JAN-22

Date Analyzed: 26-JAN-22

Prep Method: SM 5210B

Analyst Initials: JL

Prep Chemist: JL

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SP0317-1	SAMP	SM5210B	300.00mL	300.00mL	1	-.69	U2.0 mg/L	NA	2	0.23	2.0		
SP0317-3	SAMP	SM5210B	300.00mL	300.00mL	1	-.27	U2.0 mg/L	NA	2	0.23	2.0		
SP0317-7	SAMP	SM5210B	300.00mL	300.00mL	1	.05	U2.0 mg/L	NA	2	0.23	2.0		
SP0317-17	SAMP	SM5210B	300.00mL	300.00mL	1	1.85	J1.8 mg/L	NA	2	0.23	2.0		
SP0317-19	SAMP	SM5210B	300.00mL	300.00mL	1	-.21	U2.0 mg/L	NA	2	0.23	2.0		
SP0325-1	SAMP	SM5210B	2.0000mL	300.00mL	150	2.2	330 mg/L	NA	2	35.	300		
SP0343-1	SAMP	SM5210B	0.37500mL	300.00mL	800	3.5	2800 mg/L	NA	2	190	1600		
WG313028-1	MBLANK	SM5210B	300.00mL	300.00mL	1	-.21	U1.0 mg/L	NA	2	0.23	2.0		
WG313028-2	LCS	SM5210B	6.0000mL	300.00mL	50	3.88	190 mg/L	NA	2	12.	100		98
WG313028-3	MS	SM5210B	25.000mL	300.00mL	12	3.77	45. mg/L	NA	2	2.8	24.		95

Comments:

WG313028-1 SP0317-1
WG313028-2 SP0317-1
WG313028-3 SP0317-1

Entered by: JL Date: 1/26/22 Accepted by: ZF Date: 1/26/22

WET CHEMISTRY BATCH REPORT
Jan 26 2022, 01:30 pm
Batch: WG313028 Run ID 1: R585153 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Date Analyzed: 26-JAN-22

Analyst Initials: JL

Prep Date: 21-JAN-22

Prep Method: SM 5210B

Prep Chemist: JL

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SP0317-1	SAMP	SM5210B	300.00mL	300.00mL	1	-.69	U2.0 mg/L	NA	2	0.23	2.0		
SP0317-3	SAMP	SM5210B	300.00mL	300.00mL	1	-.27	U2.0 mg/L	NA	2	0.23	2.0		
SP0317-7	SAMP	SM5210B	300.00mL	300.00mL	1	.05	U2.0 mg/L	NA	2	0.23	2.0		
SP0317-17	SAMP	SM5210B	300.00mL	300.00mL	1	1.85	J1.8 mg/L	NA	2	0.23	2.0		
SP0317-19	SAMP	SM5210B	300.00mL	300.00mL	1	-.21	U2.0 mg/L	NA	2	0.23	2.0		
SP0325-1	SAMP	SM5210B	2.0000mL	300.00mL	150	2.2	330 mg/L	NA	2	35.	300		
SP0343-1	SAMP	SM5210B	0.37500mL	300.00mL	800	3.5	2800 mg/L	NA	2	190	1600		
WG313028-1	MBLANK	SM5210B	300.00mL	300.00mL	1	-.21	U1.0 mg/L	NA	2	0.23	2.0		
WG313028-2	LCS	SM5210B	6.0000mL	300.00mL	50	3.88	190 mg/L	NA	2	12.	100		98
WG313028-3	MS	SM5210B	25.000mL	300.00mL	12	3.77	45. mg/L	NA	2	2.8	24.		95

Comments:

WG313028-1	SP0317-1
WG313028-2	SP0317-1
WG313028-3	SP0317-1

Entered by: for JL Date: 01/26/22 Accepted by: Date: 01/26/22

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 X **CBOD5**

Data Entry By: JL

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = 1

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	7.97	8.18	-0.21	N/A	No
Blank 2	0	8.15	8.38	-0.23	N/A	No
Blank 3	0	8.11	8.34	-0.23	N/A	No
Seed Control 1	1	7.88	7.54	0.34	0.34	No
Seed Control 2	2	8.08	6.56	1.52	0.76	No
Seed Control 3	4	8.00	4.32	3.68	0.92	0.92
Seed Control 4	6	8.12	2.28	5.84	0.97	0.97
			Mean Seed Correction Factor (SCF):			**0.95**

LCS Recovery Calculations

GGA Added (mL):	**6**		**LCS True Value (mg/L):**	**198**
LCS ID	**Calc mg/L**	**% Recovery**	**Recovery Acceptance Limits (%): 84.6 TO 115.4**	
LCS 1	173.67	87.7	LCS Within Criteria ?	Yes
LCS 2	215.67	108.9	LCS Within Criteria ?	Yes
LCS 3	192.67	97.3	LCS Within Criteria ?	Yes
Mean	194	98.0	LCS Within Criteria ?	Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
SP0317-1	25.00	-0.69	45.28	6	47.52	95.3
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:

LCS 1	
LCS 2	
LCS 3	
Blank 1	D7
Blank 2	D7

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 X **CBOD5**

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
LCS 1	6.000	8.41	3.99	4.42	3.47	173.67	Yes	100.0
LCS 2	6.000	8.19	2.93	5.26	4.31	215.67	Yes	100.0
LCS 3	6.000	8.14	3.34	4.80	3.85	192.67	Yes	100.0
Mean LCS Result	6.000	8.247	3.420	4.827	3.880	194.000	Yes	100.0
SP0317-1	25.000	8.18	7.17	1.01	0.06	0.76	No	24.0
	50.000	8.45	7.78	0.67	-0.28	-1.66	No	12.0
	100.000	8.67	8.06	0.61	-0.34	-1.01	No	6.0
	300.000	9.31	9.05	0.26	-0.69	-0.69	Yes	2.0
MS	25.000	8.16	3.44	4.72	3.77	45.28	Yes	24.0
DUP	100.000	8.77	8.04	0.73	-0.22	-0.65	No	6.0
SP0317-3	25.000	8.00	7.76	0.24	-0.71	-8.48	No	24.0
	50.000	8.58	7.89	0.69	-0.26	-1.54	No	12.0
	100.000	8.94	8.02	0.92	-0.03	-0.08	No	6.0
	300.000	9.41	8.73	0.68	-0.27	-0.27	Yes	2.0
SP0317-7	25.000	8.05	7.54	0.51	-0.44	-5.24	No	24.0
	50.000	8.39	7.69	0.70	-0.25	-1.48	No	12.0
	100.000	8.77	8.22	0.55	-0.40	-1.19	No	6.0
	300.000	9.50	8.50	1.00	0.05	0.05	Yes	2.0
SP0317-17	25.000	7.97	7.69	0.28	-0.67	-8.00	No	24.0
	50.000	8.29	7.82	0.47	-0.48	-2.86	No	12.0
	100.000	8.73	7.64	1.09	0.14	0.43	No	6.0
	300.000	9.45	6.65	2.80	1.85	1.85	Yes	2.0
SP0317-19	25.000	8.22	7.84	0.38	-0.57	-6.80	No	24.0
	50.000	8.27	7.75	0.52	-0.43	-2.56	No	12.0
	100.000	8.82	8.08	0.74	-0.21	-0.62	No	6.0
	300.000	9.46	8.72	0.74	-0.21	-0.21	Yes	2.0
SP0325	0.500	8.10	7.39	0.71	-0.24	-142.00	No	1200.0
	1.000	8.10	6.54	1.56	0.61	184.00	No	600.0
	2.000	8.18	5.03	3.15	2.20	330.50	Yes	300.0
	5.000	8.10	<1	7.10	6.15	369.20	No	120.0
	10.000	8.08	<1	7.08	6.13	184.00	No	60.0
SP0343	0.025	7.75	7.18	0.57	-0.38	-4520.00	No	24000.0
	0.050	7.85	7.07	0.78	-0.16	-982.00	No	12000.0
	0.100	8.05	6.10	1.95	1.00	3010.00	No	6000.0
	0.250	8.00	4.97	3.03	2.08	2500.00	Yes	2400.0
	0.500	7.99	2.12	5.87	4.92	2954.00	Yes	1200.0
	1.000	7.91	<1	6.91	5.96	1789.00	No	600.0
				0.00	-0.95	#DIV/0!	No	#DIV/0!
				0.00	-0.95	#DIV/0!	No	#DIV/0!
				0.00	-0.95	#DIV/0!	No	#DIV/0!
				0.00	-0.95	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG313028

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration	Probe ID:
Total BOD: SM5210B EPA 405.1		**PQL: 2.0 mg/L**		True Value / Lot ID	Actual Value / Accept? ± 0.05
Carbonaceous BOD: SM5210B		**PQL: 2.0 mg/L**		4.01	
Glutamic Acid Std (GGA) ID: GGA 1/21/22	GGA Preparation:	Seed Used Source ID and Amount:		7.00	
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01	
Phosphate Bffr Soln. ID: W20571	SWL4207	SSD: ✓	1 mL ✓	DO Meter ID: B27869	DO Probe ID: 086030MD
$H_{14}MgO_{11}S$ ID: SWL4874	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID: 14-860	pH Paper ID: L6102002
Ferric Chloride Soln. ID: SWL4770	SWL4623	Starch Indicator ID:		Carboy ID: I	1:50 H_2SO_4 ID:
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:		Pipet IDs: W3,7,10,11	
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):	INC ID:

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
Blank		0942					R2		7.97	8.18	1110	
↓		43					388		8.15	8.38	11	
		43					423		8.11	8.34	12	
1		0944					188		7.88	7.54	1113	
2		45					A2		8.08	6.56	13	
4		46					16A		8.00	4.32	14	
6		47					54		8.12	2.28	15	
LCS		0948					047		8.41	3.99	1116	
↓		49					826		8.19	2.93	17	
		50					242		8.14	3.34	17	
~~SP0317-1~~	Seres	0956	↓			N	343	25	8.18	7.17	1118	
SP0317-1		56				↓	7127	50	8.45	7.78	18	
		57					1009	100	8.47	8.06	19	
		1000					T2	300	9.31	9.05	20	
	MS	1002				↓	137	25	8.16	3.44	1121	
	DUP	03	↓				F1	100	8.77	8.04	21	

02 1/20/22

WL-013 - Revision 10 - 09/23/2021

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
~~SP0317-3~~	Seres	1007	✓			N	568	25	8.00	7.76	1122	
SP0317-3		08					412	50	8.58	7.89	23	
		09					340	100	8.94	8.02	24	
		1012					6666	300	9.41	8.73	24	
~~SP0317-7~~	Seres	1021	✓			N	123	25	8.05	7.54	1125	
SP0317-7		22					2674	50	8.39	7.69	26	
		23					2024	100	8.77	8.22	27	
		27					B1	300	9.50	8.50	27	
~~SP0317-17~~	Seres	1030	✓			N	380	25	7.97	7.69	1128	
SP0317-17		31					62	50	8.29	7.82	29	
		32					1397	100	8.73	7.64	29	
		33					447	300	9.45	6.65	30	
~~SP0317-19~~	Seres	1037	✓			N	R2	25	8.22	7.84	1131	
SP0317-19		37					1R	50	8.27	7.75	32	
		39					108	100	8.82	8.08	32	
		42					B2	300	9.46	8.72	33	
SP0325	Inland	1135	✓			N	068	.5	8.10	7.39	1133	
	Tech	35					4840	1	8.10	6.54	34	
		36					076	2	8.18	5.03	35	
		36					57B	5	8.10	<1	35	
		37					BP21	10	8.08	<1	35	

JR 1/26/22

JR 1/26/22

NOTES:

ANALYST 1 JR	DATE 1/21/22
ANALYST 2 JR	DATE 1/26/22
CHECKED BY: [illegible]	DATE 01/26/22

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.					pH Meter Calibration		Probe ID:	
Total BOD:	**SM5210B**	**EPA 405.1**		**PQL: 2.0 mg/L**		True Value	Lot ID	Actual Value	Accept? ± 0.05
Carbonaceous BOD:	**SM5210B**			**PQL: 2.0 mg/L**		4.01			
Glutamic Acid Std (GGA) ID: GGA	GGA Preparation:		Seed Used Source ID and Amount:			7.00			
Nitirification Inhibitor ID:	0.15g Glucose ID:		LAWPCA:	1 mL		10.01			
Phosphate Bffr Soln. ID:			SSD:	1 mL		DO Meter ID: B27869		DO Probe ID:	
$H_{14}MgO_{11}S$ ID:	0.15 g Glutamic Acid ID:		$Na_2S_2O_3$ ID:			KI Paper ID:		pH Paper ID:	
Ferric Chloride Soln. ID:			Starch Indicator ID:			Carboy ID:		1:50 H_2SO_4 ID:	
Calcium Chloride Soln. ID:			Potassium Iodide Soln. ID:			Pipet IDs:			
Acid 1 ID (A1):	Acid 2 ID (A2):		Base1 ID (B1):			Base 2 ID (B2):		INC ID:	

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
SP0343	Barreled	14 48	✓			N	PPG	.025	7.75	7.18	1136	
	Souls	49	↓			↓	190A	.05	7.85	7.07	37	
		50					A17	.1	8.05	6.10	37	
		50					818A	.25	8.00	4.97	38	
		51					079	.5	7.99	2.12	39	
		52	↓			↓	705	1	7.91	<1	39	

OL 11/20/2

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *

NOTES:

ANALYST 1	DATE 1/21/22
ANALYST 2	DATE 1/26/22
CHECKED BY:	DATE 01/26/22

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

WL-013 - Revision 10 - 09/23/2021

QAWL1049 - 000656

0000005

SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SO5557

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SO5557

Sample Receipt

The following samples were received on August 20, 2021 and were logged in under Katahdin Analytical Services work order number SO5557 for a hardcopy due date of September 08, 2021.

KATAHDIN Sample No.	SERES Sample Identification
SO5557-1	MW-21-2S-BASELINE
SO5557-2	MW-21-2S-BASELINE-FF
SO5557-3	MW-21-3D-BASELINE
SO5557-4	MW-21-3D-BASELINE-FF

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Metals Analysis

The samples associated with Katahdin Work Order SO5557 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

Aqueous-matrix Katahdin Sample Number SO5557-1 was digested for ICP analysis on 08/25/21 (QC Batch

OH25CW1) in accordance USEPA Method 3010A.

Aqueous-matrix Katahdin Sample Numbers SO5557-(2-4) were digested for ICP analysis on 08/26/21 (QC Batch OH26CW1) in accordance USEPA Method 3010A.

ICP analyses of Katahdin Work Order SO5557 samples were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all applicable analytical run QC criteria were met, with the following exception:

The CCB analyzed at 13:32 in ICP analysis sequence IOH26A was above the project acceptance limit for calcium. All associated samples had calcium concentrations greater than ten times the CCB or less than ½ LOQ and were accepted without corrective action.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I, preparation blanks on Form IIIP, and matrix QC samples on Forms VA, VD, and VI have been reported using the laboratory's Practical Quantitation Limits (PQL). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the PQL are flagged with "U" in the C-qualifier column, and the PQL is listed in the concentration column. Results that fall between the MDL and the PQL are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. These PQLs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VB and IX for client samples, analysis QC samples (serial dilutions and post-digestion spikes) have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted MDL is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, and PQLs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of SO5557 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for solids filterable residue, chemical oxygen demand, total biological oxygen demand and alkalinity were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

Analyses for nitrate were performed according to "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA 600/R-93/100, August 1993.

Analyses for total organic carbon, chloride and sulfate were performed according to "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, Third Edition, Final

Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOD", where "LOD" is the numerical value of the Limit of Detection.

All analyses were performed within analytical holding times and all quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond ***Sep 13, 2021***

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client:	SERES	KAS PM:	HHM	Sampled By:	Client
Project:		KIMS Entry By:	JCB	Delivered By:	KAS
KAS Work Order#:	505557	KIMS Review By:	HHM	Received By:	JCB
		Labeled By:	JCB		
SDG #:	Cooler: 1 of 1			Date/Time Rec.:	8/20/21 1620

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 3.2 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

For MW-21-25 we recieved two 1000mL HDPE unpres. bottles that look dramatically different. One has an orange/tan color while the other is a darker green. The other unpres. 250 is also this green color.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: SERES Engineering
Contact: Heather Levesque
Phone #: (619) 370.0374
Fax #: ( )
Address: 669 Marina Dr. B7
City: Charleston
State: SC
Zip Code: 29492
Purchase Order #: Ft. Devens
Proj. Name / No.: Ft. Devens
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign): Spencer Gust Spencer P Gust
Copies To:

LAB USE ONLY
WORK ORDER #: 505557
KATAHDIN PROJECT NUMBER:
REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	TOC 40ml, Glass, H_2SO_4 (Filt. ☐Y ☐N)	Total Metals 250ml, HDPE, HNO_3 (Filt. ☐Y ☐N)	Diss. Metals 250ml, HDPE, HNO_3 (Filt. ☑Y ☐N)	COD 250ml, HDPE, H_2SO_4 (Filt. ☐Y ☐N)	BOD5, Alk, TDS 1000ml, HDPE, none (Filt. ☐Y ☐N)	Anions 250ml, HDPE, none (Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)
	MW-21-2S-Baseline	8.20.21 / 1035	GW	7	2	1		1	2	1				
	MW-21-2S-BaselineFF	8.20.21 / 1035	GW	1			1							
	MW-21-3D-Baseline	8.20.21 / 1220	GW	7	2	1		1	2	1				
	MW-21-3D-BaselineFF	8.20.21 / 1220	GW	1			1							
	Temp Blank	— / —	—	1										
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COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Spencer P Gust	8.20.21 1:55	08/20/2021 TBuchanan 13:57	08/20/2021 TBuchanan 16:20		
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 23, 2021

12:50 PM

Login Number: SO5557

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:

Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7

USA
halevesque@seres-es.com

Primary Invoice Address:

Mary Tunstall
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information:

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs. Anions list is for Cl & SO4, check sample comments for what to report.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	3.2
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	ECC-091317-TXT
LOGIN INITIALS	:	JCB
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

HHM

12:51 pm, Aug 23, 2021

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 23, 2021
12:50 PM

Login Number: SO5557

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO5557-1	MW-21-2S-BASELINE	20-AUG-21 10:35	20-AUG-21			08-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Service	S	COURIER-BILLING				
Aqueous	S	E353.2-NITRATE	22-AUG-21	125mL Plastic		
Aqueous	S	SM2320B-ALKALINITY	03-SEP-21			
Aqueous	S	SM2540C-TDS	27-AUG-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	22-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	17-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	17-SEP-21			
Aqueous	S	SW9060-TOC(1)	17-SEP-21	40 mL Vial+H2SO4		

SO5557-2	MW-21-2S-BASELINE-FF	20-AUG-21 10:35	20-AUG-21			08-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	16-FEB-22	250mL Plastic+HNO3		

SO5557-3	MW-21-3D-BASELINE	20-AUG-21 12:20	20-AUG-21			08-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E353.2-NITRATE	22-AUG-21	125mL Plastic		
Aqueous	S	SM2320B-ALKALINITY	03-SEP-21			
Aqueous	S	SM2540C-TDS	27-AUG-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	22-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	17-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	17-SEP-21			
Aqueous	S	SW9060-TOC(1)	17-SEP-21	40 mL Vial+H2SO4		

SO5557-4	MW-21-3D-BASELINE-FF	20-AUG-21 12:20	20-AUG-21			08-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	16-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	16-FEB-22	250mL Plastic+HNO3		

Total Samples: 4 ***Total Analyses: 39***

12:51 pm, Aug 23, 2021

SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as “U” MDL have a 50% rate for false negatives compared to those results reported as “U” PQL/LOQ or “U” LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results <u>may</u> not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results <u>may</u> not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-BASELINE

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	415			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	43600			P	1	100	11	80
7439-89-6	IRON, TOTAL	47700			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5480			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1190			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	13500			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	44100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-BASELINE-FF

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	390			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	45400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1160			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-BASELINE

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	2210			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	51600			P	1	100	11	80
7439-89-6	IRON, TOTAL	65500			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7270			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3450			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7520			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	16500			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-BASELINE-FF

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2260			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	68700			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3590			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5557-1
Report Date: 13-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5557

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-BASELINE	AQ	20-AUG-21 10:35:00	20-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG305135	25-AUG-21 10:11:00	N/A	N/A	
COD-Color	U10. mg/L	15.	5.7	10	SM 5220	WG304988	23-AUG-21 15:29:00	N/A	N/A	
Chloride	46 mg/L	10.	0.50	5.0	SW846 9056A	WG305703	07-SEP-21 18:50:00	N/A	N/A	
Nitrate As N	U0.025 mg/L	0.050	0.015	0.025	EPA 353.2	WG304865	20-AUG-21 16:37:00	N/A	N/A	
Solids-Filterable Residue	270 mg/L	10.	5.0	8	STDM 2540C	WG304926	24-AUG-21 11:10:00	SM 2540C	23-AUG-21	
Sulfate	27 mg/L	1.0	0.064	0.50	SW846 9056A	WG305703	07-SEP-21 18:31:00	N/A	N/A	
Total Biochemical Oxygen Demand	J4.5 mg/L	6.0	0.70	1	SM 5210B	WG304847	25-AUG-21 13:50:00	SM 5210B	20-AUG-21 1636	
Total Organic Carbon (1)	3.6 mg/L	1.0	0.10	0.50	SW846 9060A	WG305311	27-AUG-21 20:39:02	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5557-3
Report Date: 13-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5557

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-BASELINE	AQ	20-AUG-21 12:20:00	20-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	200 mg/L	5.0	0.23	4	STDM 2320B	WG305135	25-AUG-21 10:14:41	N/A	N/A	
COD-Color	U10. mg/L	15.	5.7	10	SM 5220	WG304988	23-AUG-21 15:29:00	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG305703	07-SEP-21 19:08:00	N/A	N/A	
Nitrate As N	U0.025 mg/L	0.050	0.015	0.025	EPA 353.2	WG304865	20-AUG-21 16:38:11	N/A	N/A	
Solids-Filterable Residue	280 mg/L	10.	5.0	8	STDM 2540C	WG304926	24-AUG-21 11:10:00	SM 2540C	23-AUG-21	
Sulfate	18 mg/L	2.0	0.13	1.0	SW846 9056A	WG305703	07-SEP-21 19:08:00	N/A	N/A	
Total Biochemical Oxygen Demand	J5.3 mg/L	6.0	0.70	1	SM 5210B	WG304847	25-AUG-21 13:58:00	SM 5210B	20-AUG-21 1648	
Total Organic Carbon (1)	2.3 mg/L	1.0	0.10	0.50	SW846 9060A	WG305311	27-AUG-21 20:51:13	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO5557 **SOW No.** SW846

Client Field ID	Lab Sample ID
MW-21-2S-BASELINE	SO5557-001
MW-21-2S-BASELINE-FF	SO5557-002
MW-21-3D-BASELINE	SO5557-003
MW-21-3D-BASELINE-FF	SO5557-004

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Edward A. Morgan Name: Edward A. Morgan

Date: September 10, 2021 Title: Data Management

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-BASELINE

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	415			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	43600			P	1	100	11	80
7439-89-6	IRON, TOTAL	47700			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5480			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1190			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	13500			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	44100			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2S-BASELINE-FF

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	390			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	45400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1160			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-BASELINE

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	2210			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	51600			P	1	100	11	80
7439-89-6	IRON, TOTAL	65500			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7270			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3450			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7520			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	16500			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3D-BASELINE-FF

Matrix: WATER **SDG Name:** SO5557

Percent Solids: 0.00 **Lab Sample ID:** SO5557-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	2260			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	68700			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3590			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

QC Summary Section

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: ICV

File: IOH26A Aug 26, 2021 12:48

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9959.00	99.6
ARSENIC	400.0	382.90	95.7
CALCIUM	10000.0	10030.00	100.3
IRON	10000.0	10030.00	100.3
MAGNESIUM	10000.0	10250.00	102.5
MANGANESE	400.0	396.20	99.0
POTASSIUM	13600.0	13540.00	99.6
SODIUM	10000.0	10030.00	100.3

SAMPLE: CCV

File: IOH26A Aug 26, 2021 13:10

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12820.00	102.6
ARSENIC	500.0	502.10	100.4
CALCIUM	12500.0	12820.00	102.6
IRON	12500.0	12850.00	102.8
MAGNESIUM	12500.0	12960.00	103.7
MANGANESE	500.0	508.50	101.7
POTASSIUM	12500.0	12740.00	101.9
SODIUM	12500.0	12820.00	102.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCV

File: IOH26A Aug 26, 2021 13:28

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13030.00	104.2
ARSENIC	500.0	507.70	101.5
CALCIUM	12500.0	13020.00	104.2
IRON	12500.0	13010.00	104.1
MAGNESIUM	12500.0	13060.00	104.5
MANGANESE	500.0	518.10	103.6
POTASSIUM	12500.0	13060.00	104.5
SODIUM	12500.0	13100.00	104.8

SAMPLE: CCV

File: IOH26A Aug 26, 2021 14:20

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12750.00	102.0
ARSENIC	500.0	506.80	101.4
CALCIUM	12500.0	12690.00	101.5
IRON	12500.0	12740.00	101.9
MAGNESIUM	12500.0	13080.00	104.6
MANGANESE	500.0	508.70	101.7
POTASSIUM	12500.0	12730.00	101.8
SODIUM	12500.0	12760.00	102.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCV

File: IOH26A Aug 26, 2021 15:12

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12560.00	100.5
ARSENIC	500.0	505.90	101.2
CALCIUM	12500.0	12500.00	100.0
IRON	12500.0	12480.00	99.8
MAGNESIUM	12500.0	13060.00	104.5
MANGANESE	500.0	502.70	100.5
POTASSIUM	12500.0	12520.00	100.2
SODIUM	12500.0	12570.00	100.6

SAMPLE: CCV

File: IOH26A Aug 26, 2021 16:05

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12670.00	101.4
ARSENIC	500.0	495.40	99.1
CALCIUM	12500.0	12680.00	101.4
IRON	12500.0	12710.00	101.7
MAGNESIUM	12500.0	12780.00	102.2
MANGANESE	500.0	503.40	100.7
POTASSIUM	12500.0	12670.00	101.4
SODIUM	12500.0	12840.00	102.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCV

File: IOH26A Aug 26, 2021 16:57

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13100.00	104.8
ARSENIC	500.0	504.70	100.9
CALCIUM	12500.0	13010.00	104.1
IRON	12500.0	13150.00	105.2
MAGNESIUM	12500.0	12930.00	103.4
MANGANESE	500.0	514.60	102.9
POTASSIUM	12500.0	13030.00	104.2
SODIUM	12500.0	13340.00	106.7

SAMPLE: CCV

File: IOH26A Aug 26, 2021 17:41

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12850.00	102.8
ARSENIC	500.0	501.50	100.3
CALCIUM	12500.0	12760.00	102.1
IRON	12500.0	12920.00	103.4
MAGNESIUM	12500.0	12930.00	103.4
MANGANESE	500.0	506.90	101.4
POTASSIUM	12500.0	12890.00	103.1
SODIUM	12500.0	13060.00	104.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: ICV

File: IOH27B Aug 27, 2021 18:03

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10030.00	100.3
ARSENIC	400.0	387.60	96.9
CALCIUM	10000.0	10100.00	101.0
IRON	10000.0	10060.00	100.6
MAGNESIUM	10000.0	10410.00	104.1
MANGANESE	400.0	398.90	99.7
POTASSIUM	13600.0	13580.00	99.9
SODIUM	10000.0	10050.00	100.5

SAMPLE: CCV

File: IOH27B Aug 27, 2021 18:25

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13030.00	104.2
ARSENIC	500.0	504.90	101.0
CALCIUM	12500.0	13200.00	105.6
IRON	12500.0	13110.00	104.9
MAGNESIUM	12500.0	13020.00	104.2
MANGANESE	500.0	516.20	103.2
POTASSIUM	12500.0	12850.00	102.8
SODIUM	12500.0	12800.00	102.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCV

File: IOH27B Aug 27, 2021 18:43

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12240.00	97.9
ARSENIC	500.0	501.40	100.3
CALCIUM	12500.0	12530.00	100.2
IRON	12500.0	12430.00	99.4
MAGNESIUM	12500.0	12770.00	102.2
MANGANESE	500.0	492.80	98.6
POTASSIUM	12500.0	12370.00	99.0
SODIUM	12500.0	12210.00	97.7

SAMPLE: CCV

File: IOH27B Aug 27, 2021 19:36

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12700.00	101.6
ARSENIC	500.0	498.10	99.6
CALCIUM	12500.0	13110.00	104.9
IRON	12500.0	13000.00	104.0
MAGNESIUM	12500.0	12640.00	101.1
MANGANESE	500.0	513.90	102.8
POTASSIUM	12500.0	12730.00	101.8
SODIUM	12500.0	12700.00	101.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCV

File: IOH27B Aug 27, 2021 20:28

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12570.00	100.6
ARSENIC	500.0	495.40	99.1
CALCIUM	12500.0	12990.00	103.9
IRON	12500.0	12910.00	103.3
MAGNESIUM	12500.0	12570.00	100.6
MANGANESE	500.0	510.90	102.2
POTASSIUM	12500.0	12610.00	100.9
SODIUM	12500.0	12490.00	99.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: PQL

File: IOH26A Aug 26, 2021 12:56

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	296.20	98.7
ARSENIC	8.0	8.66	108.3
CALCIUM	100.0	107.30	107.3
IRON	100.0	104.90	104.9
MAGNESIUM	100.0	109.20	109.2
MANGANESE	5.0	5.02	100.4
POTASSIUM	1000.0	987.20	98.7

SAMPLE: PQL

File: IOH26A Aug 26, 2021 13:36

Analyte	TRUE	FOUND	% R
SODIUM	1000.0	1060.00	106.0

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: PQL

File: IOH27B Aug 27, 2021 18:12

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	314.00	104.7
ARSENIC	8.0	9.03	112.9
CALCIUM	100.0	105.40	105.4
IRON	100.0	105.40	105.4
MAGNESIUM	100.0	108.60	108.6
MANGANESE	5.0	4.92	98.4
POTASSIUM	1000.0	1021.00	102.1

SAMPLE: PQL

File: IOH27B Aug 27, 2021 18:52

Analyte	TRUE	FOUND	% R
SODIUM	1000.0	1066.00	106.6

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: ICB

File: IOH26A Aug 26, 2021 12:52

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	7.586	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 13:14

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	6.755	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 13:32

Analyte	Result	C
ALUMINUM	46.980	J
ARSENIC	1.400	U
CALCIUM	51.330	B
IRON	29.980	J
MAGNESIUM	6.756	J
MANGANESE	0.870	U
POTASSIUM	87.900	J
SODIUM	35.560	J

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCB

File: IOH26A Aug 26, 2021 14:24

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.147	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 15:16

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 16:09

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	5.250	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCB

File: IOH26A Aug 26, 2021 17:01

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	4.359	J
MAGNESIUM	2.975	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	14.920	J

SAMPLE: CCB

File: IOH26A Aug 26, 2021 17:45

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	4.486	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: ICB

File: IOH27B Aug 27, 2021 18:07

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH27B Aug 27, 2021 18:29

Analyte	Result	C
ALUMINUM	13.090	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	5.943	J
MAGNESIUM	6.978	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH27B Aug 27, 2021 18:47

Analyte	Result	C
ALUMINUM	13.560	J
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	4.992	J
MANGANESE	0.870	U
POTASSIUM	93.580	J
SODIUM	12.940	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: CCB

File: IOH27B Aug 27, 2021 19:40

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH27B Aug 27, 2021 20:32

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	14.180	J
IRON	3.600	U
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOH25ICW1

Matrix: WATER **SDG Name:** SO5557

QC Batch ID: OH25ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	100	U
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOH26ICW1

Matrix: WATER **SDG Name:** SO5557

QC Batch ID: OH26ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	6.3	J
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	49	J
SODIUM	1000	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: ICSA

File: IOH26A Aug 26, 2021 13:01

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	527700.00	105.5
ARSENIC	0	-0.28	
CALCIUM	500000.00	487700.00	97.5
IRON	200000.00	188800.00	94.4
MAGNESIUM	500000.00	433200.00	86.6
MANGANESE	0	-0.17	
POTASSIUM	0	-22.15	
SODIUM	0	11.86	

SAMPLE: ICSAB

File: IOH26A Aug 26, 2021 13:05

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	525700.00	105.1
ARSENIC	100.00	99.37	99.0
CALCIUM	500000.00	480300.00	96.1
IRON	200000.00	188100.00	94.0
MAGNESIUM	500000.00	430500.00	86.1
MANGANESE	500.00	470.50	94.2
POTASSIUM	20000.00	21570.00	107.8
SODIUM	20000.00	21750.00	108.7

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Concentration Units: ug/L

SAMPLE: ICSA

File: IOH27B Aug 27, 2021 18:16

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	534100.00	106.8
ARSENIC	0	-2.14	
CALCIUM	500000.00	495800.00	99.2
IRON	200000.00	190200.00	95.1
MAGNESIUM	500000.00	443900.00	88.8
MANGANESE	0	-0.03	
POTASSIUM	0	2.82	
SODIUM	0	6.88	

SAMPLE: ICSAB

File: IOH27B Aug 27, 2021 18:21

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	512900.00	102.6
ARSENIC	100.00	97.14	97.0
CALCIUM	500000.00	484900.00	97.0
IRON	200000.00	187000.00	93.5
MAGNESIUM	500000.00	437100.00	87.4
MANGANESE	500.00	467.30	93.4
POTASSIUM	20000.00	21480.00	107.4
SODIUM	20000.00	21410.00	107.1

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOH25ICW1

Matrix: WATER **SDG Name:** SO5557

QC Batch ID: OH25ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	102	101.7	87	113
CALCIUM	2500	2610	104.5	87	113
IRON	1000	1020	102.5	87	115
MAGNESIUM	5000	5270	105.4	85	113
MANGANESE	500	495	98.9	90	114
POTASSIUM	10000	10600	105.5	86	114
SODIUM	7500	7980	106.4	87	115

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOH26ICW1

Matrix: WATER **SDG Name:** SO5557

QC Batch ID: OH26ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	103	103.0	87	113
CALCIUM	2500	2680	107.4	87	113
IRON	1000	1090	108.6	87	115
MAGNESIUM	5000	5260	105.3	85	113
MANGANESE	500	524	104.8	90	114
POTASSIUM	10000	10500	104.6	86	114
SODIUM	7500	7860	104.8	87	115

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P
POTASSIUM	1000	73	P
SODIUM	1000	12	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	80	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	500	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	500	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	11	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	7.8	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	41	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	24	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P
POTASSIUM	5.00	300000	P
SODIUM	5.00	200000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OH25ICW1

Matrix: WATER **SDG Name:** SO5557

Method: P **Prep Date:** 08/25/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOH25ICW1	LCSWOH25ICW1	0.05	0.05	
PBWOH25ICW1	PBWOH25ICW1	0.05	0.05	
MW-21-2S-BASELINE	SO5557-001	0.05	0.05	C

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OH26ICW1

Matrix: WATER **SDG Name:** SO5557

Method: P **Prep Date:** 08/26/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOH26ICW1	LCSWOH26ICW1	0.05	0.05	
PBWOH26ICW1	PBWOH26ICW1	0.05	0.05	
MW-21-2S-BASELINE-FF	SO5557-002	0.05	0.05	A
MW-21-3D-BASELINE	SO5557-003	0.05	0.05	C
MW-21-3D-BASELINE-FF	SO5557-004	0.05	0.05	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Instrument ID: THERMO ICAP 6500 **File Name:** IOH26A

Date: 08/26/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	12:39	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	12:44	AL	AS	CA	FE	MG MN	K	NA
ICV		1	12:48	AL	AS	CA	FE	MG MN	K	NA
ICB		1	12:52	AL	AS	CA	FE	MG MN	K	NA
PQL		1	12:56	AL	AS	CA	FE	MG MN	K	
ICSA		1	13:01	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	13:05	AL	AS	CA	FE	MG MN	K	NA
CCV		1	13:10	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:14	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:19							
ZZZZZZ		1	13:23							
CCV		1	13:28	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:32	AL	AS	CA	FE	MG MN	K	NA
PQL		1	13:36							NA
LCSWOH25ICW1		1	13:41		AS	CA	FE	MG MN	K	NA
PBWOH25ICW1		1	13:45		AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:49							
ZZZZZZ		2	13:54							
ZZZZZZ		1	13:58							
ZZZZZZ		5	14:03							
ZZZZZZ		1	14:07							
ZZZZZZ		1	14:11							
ZZZZZZ		1	14:16							
CCV		1	14:20	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:24	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	14:28							
ZZZZZZ		1	14:33							

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Instrument ID: THERMO ICAP 6500 **File Name:** IOH26A

Date: 08/26/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	14:37							
ZZZZZZ		1	14:42							
ZZZZZZ		1	14:46							
ZZZZZZ		1	14:50							
ZZZZZZ		1	14:55							
ZZZZZZ		1	14:59							
ZZZZZZ		1	15:03							
ZZZZZZ		1	15:08							
CCV		1	15:12	AL	AS	CA	FE	MG MN	K	NA
CCB		1	15:16	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	15:21							
ZZZZZZ		1	15:25							
ZZZZZZ		1	15:29							
ZZZZZZ		1	15:34							
ZZZZZZ		1	15:38							
ZZZZZZ		1	15:43							
ZZZZZZ		1	15:47							
ZZZZZZ		1	15:51							
ZZZZZZ		1	15:56							
ZZZZZZ		1	16:00							
CCV		1	16:05	AL	AS	CA	FE	MG MN	K	NA
CCB		1	16:09	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	16:13							
ZZZZZZ		1	16:18							
ZZZZZZ		5	16:22							
ZZZZZZ		1	16:26							
ZZZZZZ		1	16:31							

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Instrument ID: THERMO ICAP 6500 **File Name:** IOH26A

Date: 08/26/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	16:35							
ZZZZZZ		1	16:39							
ZZZZZZ		1	16:44							
ZZZZZZ		1	16:48							
ZZZZZZ		1	16:52							
CCV		1	16:57	AL	AS	CA	FE	MG MN	K	NA
CCB		1	17:01	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	17:05							
ZZZZZZ		1	17:10							
ZZZZZZ		1	17:14							
ZZZZZZ		1	17:19							
ZZZZZZ		1	17:23							
ZZZZZZ		1	17:27							
SO5557-001	MW-21-2S-BASELINE	1	17:32		AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	17:36							
CCV		1	17:41	AL	AS	CA	FE	MG MN	K	NA
CCB		1	17:45	AL	AS	CA	FE	MG MN	K	NA

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Instrument ID: THERMO ICAP 6500 **File Name:** IOH27B

Date: 08/27/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	17:55	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	17:59	AL	AS	CA	FE	MG MN	K	NA
ICV		1	18:03	AL	AS	CA	FE	MG MN	K	NA
ICB		1	18:07	AL	AS	CA	FE	MG MN	K	NA
PQL		1	18:12	AL	AS	CA	FE	MG MN	K	
ICSA		1	18:16	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	18:21	AL	AS	CA	FE	MG MN	K	NA
CCV		1	18:25	AL	AS	CA	FE	MG MN	K	NA
CCB		1	18:29	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	18:34							
ZZZZZZ		1	18:38							
CCV		1	18:43	AL	AS	CA	FE	MG MN	K	NA
CCB		1	18:47	AL	AS	CA	FE	MG MN	K	NA
PQL		1	18:52							NA
LCSWOH26ICW1		1	18:56		AS	CA	FE	MG MN	K	NA
PBWOH26ICW1		1	19:00		AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	19:05							
ZZZZZZ		1	19:09							
ZZZZZZ		1	19:13							
ZZZZZZ		1	19:18							
ZZZZZZ		1	19:22							
ZZZZZZ		1	19:27							
ZZZZZZ		5	19:31							
CCV		1	19:36	AL	AS	CA	FE	MG MN	K	NA
CCB		1	19:40	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	19:44							
ZZZZZZ		1	19:48							

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5557

Instrument ID: THERMO ICAP 6500 **File Name:** IOH27B

Date: 08/27/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements								
ZZZZZZ		1	19:53									
ZZZZZZ		1	19:57									
SO5557-002	MW-21-2S-BASELINE-FF	1	20:01		AS			FE	MN			
SO5557-003	MW-21-3D-BASELINE	1	20:06		AS		CA	FE	MG MN	K	NA	
SO5557-004	MW-21-3D-BASELINE-FF	1	20:10		AS			FE	MN			
ZZZZZZ		1	20:14									
ZZZZZZ		1	20:19									
ZZZZZZ		5	20:23									
CCV		1	20:28	AL	AS		CA	FE	MG MN	K	NA	
CCB		1	20:32	AL	AS		CA	FE	MG MN	K	NA	

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP **ANALYSIS DATE**: 08/26/2021

METHOD: **ICP**
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOH26A

REVIEWED
08/28/21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed
to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by
EP (initals) on 8/26/21 (date). Quant IDs verified

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20471	08/24/2021	08/24/2022	0 ug/L
Standard 1	MW20463	08/20/2021	09/11/2021	Varies by Element
ICV	MW20364	08/20/2021	11/04/2021	Varies by Element
PQL	MW20454	08/17/2021	9/11/2021	Varies by Element
LRS1	MW20455	08/18/2021	09/15/2021	Varies by Element
LRS2	MW20469	08/24/2021	09/11/2021	Varies by Element
ICSA	MW20453	08/17/2021	11/17/2021	Varies by Element
ICSAB	MW20412	08/05/2021	10/05/2021	Varies by Element
CCV	MW20468	08/24/2021	09/11/2021	Varies by Element
Internal Standard	MW20452	08/17/2021	11/17/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

PQL failed low for sodium. Replaced with Sodium PQL. PQL warned high for zinc, failed low for selenium. Samples accepted at 10x the warning value of the PQL or ½ the true value of the PQL for zinc.

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 1.6 mL of sample (pipet M25) + 6.4 mL of MW19407 (pipet M25)

Post Spike: 0.123mL MW20305 (pipet M27) to 6.0mL of sample (pipet M25)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOH26A	08/26/2021	12:39	EP
Std 1	1.000	IOH26A	08/26/2021	12:44	EP
ICV	1.000	IOH26A	08/26/2021	12:48	EP
ICB	1.000	IOH26A	08/26/2021	12:52	EP
PQL	1.000	IOH26A	08/26/2021	12:56	EP
ICSA	1.000	IOH26A	08/26/2021	13:01	EP
ICSAB	1.000	IOH26A	08/26/2021	13:05	EP
CCV	1.000	IOH26A	08/26/2021	13:10	EP
CCB	1.000	IOH26A	08/26/2021	13:14	EP
LRS1	1.000	IOH26A	08/26/2021	13:19	EP
LRS2	1.000	IOH26A	08/26/2021	13:23	EP
CCV	1.000	IOH26A	08/26/2021	13:28	EP
CCB	1.000	IOH26A	08/26/2021	13:32	EP
SODIUM PQL	1.000	IOH26A	08/26/2021	13:36	EP
LCSWOH25ICW1	1.000	IOH26A	08/26/2021	13:41	EP
PBWOH25ICW1	1.000	IOH26A	08/26/2021	13:45	EP
SO5596-001	1.000	IOH26A	08/26/2021	13:49	EP
SO5478-001	2.000	IOH26A	08/26/2021	13:54	EP
SO5506-002	1.000	IOH26A	08/26/2021	13:58	EP
SO5506-002L	5.000	IOH26A	08/26/2021	14:03	EP
SO5506-002A	1.000	IOH26A	08/26/2021	14:07	EP
SO5506-002P	1.000	IOH26A	08/26/2021	14:11	EP
SO5506-002S	1.000	IOH26A	08/26/2021	14:16	EP
CCV	1.000	IOH26A	08/26/2021	14:20	EP
CCB	1.000	IOH26A	08/26/2021	14:24	EP
SO5506-003	1.000	IOH26A	08/26/2021	14:28	EP
SO5506-004	1.000	IOH26A	08/26/2021	14:33	EP
SO5506-005	1.000	IOH26A	08/26/2021	14:37	EP
SO5506-007	1.000	IOH26A	08/26/2021	14:42	EP
SO5506-008	1.000	IOH26A	08/26/2021	14:46	EP
SO5506-009	1.000	IOH26A	08/26/2021	14:50	EP
SO5506-010	1.000	IOH26A	08/26/2021	14:55	EP
SO5506-012	1.000	IOH26A	08/26/2021	14:59	EP
SO5506-013	1.000	IOH26A	08/26/2021	15:03	EP
SO5506-014	1.000	IOH26A	08/26/2021	15:08	EP
CCV	1.000	IOH26A	08/26/2021	15:12	EP
CCB	1.000	IOH26A	08/26/2021	15:16	EP
SO5506-017	1.000	IOH26A	08/26/2021	15:21	EP
SO5506-018	1.000	IOH26A	08/26/2021	15:25	EP
SO5506-019	1.000	IOH26A	08/26/2021	15:29	EP
SO5154-001R	1.000	IOH26A	08/26/2021	15:34	EP
SO5512-001	1.000	IOH26A	08/26/2021	15:38	EP
SO5512-002	1.000	IOH26A	08/26/2021	15:43	EP
SO5516-002	1.000	IOH26A	08/26/2021	15:47	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO5520-001	1.000	IOH26A	08/26/2021	15:51	EP
SO5520-002	1.000	IOH26A	08/26/2021	15:56	EP
SO5520-003	1.000	IOH26A	08/26/2021	16:00	EP
CCV	1.000	IOH26A	08/26/2021	16:05	EP
CCB	1.000	IOH26A	08/26/2021	16:09	EP
SO5520-004	1.000	IOH26A	08/26/2021	16:13	EP
SO5556-002	1.000	IOH26A	08/26/2021	16:18	EP
SO5556-002L	5.000	IOH26A	08/26/2021	16:22	EP
SO5556-002A	1.000	IOH26A	08/26/2021	16:26	EP
SO5556-002P	1.000	IOH26A	08/26/2021	16:31	EP
SO5556-002S	1.000	IOH26A	08/26/2021	16:35	EP
SO5556-003	1.000	IOH26A	08/26/2021	16:39	EP
SO5556-004	1.000	IOH26A	08/26/2021	16:44	EP
SO5556-005	1.000	IOH26A	08/26/2021	16:48	EP
SO5556-006	1.000	IOH26A	08/26/2021	16:52	EP
CCV	1.000	IOH26A	08/26/2021	16:57	EP
CCB	1.000	IOH26A	08/26/2021	17:01	EP
SO5556-007	1.000	IOH26A	08/26/2021	17:05	EP
SO5556-009	1.000	IOH26A	08/26/2021	17:10	EP
SO5556-010	1.000	IOH26A	08/26/2021	17:14	EP
SO5556-011	1.000	IOH26A	08/26/2021	17:19	EP
SO5556-012	1.000	IOH26A	08/26/2021	17:23	EP
SO5556-013	1.000	IOH26A	08/26/2021	17:27	EP
SO5557-001	1.000	IOH26A	08/26/2021	17:32	EP
SODIUM PQL	1.000	IOH26A	08/26/2021	17:36	EP
CCV	1.000	IOH26A	08/26/2021	17:41	EP
CCB	1.000	IOH26A	08/26/2021	17:45	EP
PQL	1.000	IOH26A	08/26/2021	17:49	EP
ICSA	1.000	IOH26A	08/26/2021	17:54	EP
ICSAB	1.000	IOH26A	08/26/2021	17:58	EP
CCV	1.000	IOH26A	08/26/2021	18:03	EP
CCB	1.000	IOH26A	08/26/2021	18:07	EP

Intensity Report

Author:

Published: 8/27/2021 8:18:10AM

Notes:

Blank

Method Name: FAST-2016_NO_AU

Method Revision: 1,006

Analyst Name: EP

Acquire Date: 8/26/2021 12:39:52PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001320	Cts/S	0.00001000	7.269	-18.81
Al3961_R		0.00009100	Cts/S	0.00008800	97.58	1.845
As1891_A		-0.0003410	Cts/S	0.00005600	16.39	-2.530
B_2089_A		0.0009900	Cts/S	0.00006800	6.857	7.354
Ba4554_R		0.0009140	Cts/S	0.0009230	100.9	19.25
Be3130_R		0.000005000	Cts/S	0.00002200	420.4	-0.1135
Ca3158_R		-0.001382	Cts/S	0.000005000	0.3920	-28.60
Cd2265_A		-0.0001880	Cts/S	0.00001600	8.262	-1.399
Co2286_A		0.000003000	Cts/S	0.00002900	899.1	0.02497
Cr2677_A		0.000006000	Cts/S	0.000001000	9.372	0.8177
Cu3273_A		-0.0001190	Cts/S	0.000003000	2.241	-16.98
Fe2599_R		0.00007300	Cts/S	0.00005000	67.91	1.537
K_7664_R		-0.001305	Cts/S	0.0003310	25.37	-26.89
Li6707_R		0.00007600	Cts/S	0.0004340	573.7	1.414
Mg2025_A		-0.001027	Cts/S	0.00001000	1.003	-7.628
Mn2576_R		0.0002670	Cts/S	0.00006800	25.39	5.551
Mo2020_A		0.00004100	Cts/S	0.00001100	27.93	0.3023
Na5895_R		0.003145	Cts/S	0.0003390	10.79	64.99
Ni2316_A		0.0000	Cts/S	0.00001000	2,456	-0.002618
Pb2203_A		-0.0001690	Cts/S	0.0001080	63.90	-1.261
Sb2068_A		0.00006500	Cts/S	0.000005000	6.970	0.4840
Se1960_A		0.0002380	Cts/S	0.00005000	20.95	1.768
Si2516_R		0.003130	Cts/S	0.0002680	8.576	64.70
Sn1899_A		0.0001620	Cts/S	0.00003000	18.71	1.205
Sr4215_R		-0.001332	Cts/S	0.00003400	2.536	-27.57
Ti3349_A		-0.0001070	Cts/S	0.00003700	34.75	-15.18
Tl1908_A		-0.0002780	Cts/S	0.00001500	5.428	-2.064
V_2924_A		-0.00002100	Cts/S	0.000001000	5.277	-3.016
Zn2062_A		0.00001700	Cts/S	0.00001100	61.43	0.1293
Y_3600_R		20,700	Cts/S	704.95	3.4056	20,700
Y_2243_A		7,428.2	Cts/S	70.486	0.94889	7,428.2
Y_3600_A		142,080	Cts/S	180.03	0.12671	142,080

Std 1

Method Name: FAST-2016_NO_AU

Method Revision: 1,006

Analyst Name: EP

Acquire Date: 8/26/2021 12:44:16PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1227	Cts/S	0.0004740	0.3866	17,260
Al3961_R		1.456	Cts/S	0.01307	0.8978	28,800
As1891_A		0.04610	Cts/S	0.00005300	0.1150	340.2
B_2089_A		0.1973	Cts/S	0.0004120	0.2089	1,456
Ba4554_R		3.845	Cts/S	0.05908	1.536	76,060
Be3130_R		5.349	Cts/S	0.07211	1.348	105,800
Ca3158_R		1.581	Cts/S	0.009615	0.6082	31,260
Cd2265_A		1.538	Cts/S	0.002819	0.1833	11,350
Co2286_A		0.4531	Cts/S	0.0008330	0.1839	3,343
Cr2677_A		0.08042	Cts/S	0.0002220	0.2756	11,310
Cu3273_A		0.1019	Cts/S	0.0004290	0.4212	14,320
Fe2599_R		2.607	Cts/S	0.03094	1.187	51,560
K_7664_R		0.9108	Cts/S	0.008069	0.8859	18,020
Li6707_R		0.7519	Cts/S	0.01295	1.722	14,870

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:44:16PM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.225	Cts/S	0.001120	0.09141	9,040
Mn2576_R		0.5353	Cts/S	0.002697	0.5037	10,590
Mo2020_A		0.4117	Cts/S	0.0004700	0.1142	3,038
Na5895_R		3.079	Cts/S	0.04304	1.398	60,900
Ni2316_A		0.2116	Cts/S	0.0001240	0.05853	1,562
Pb2203_A		0.1178	Cts/S	0.0002800	0.2374	869.4
Sb2068_A		0.06718	Cts/S	0.00009900	0.1468	495.8
Se1960_A		0.03562	Cts/S	0.00006000	0.1674	262.8
Si2516_R		0.6225	Cts/S	0.002670	0.4290	12,310
Sn1899_A		0.05447	Cts/S	0.00008200	0.1502	401.9
Sr4215_R		5.137	Cts/S	0.07428	1.446	101,600
Ti3349_A		0.1782	Cts/S	0.0008500	0.4771	25,060
Tl1908_A		0.06953	Cts/S	0.00001500	0.02177	513.0
V_2924_A		0.07853	Cts/S	0.0002130	0.2718	11,040
Zn2062_A		0.3071	Cts/S	0.00003900	0.01258	2,266
Y_3600_R		19,779	Cts/S	14.602	0.073828	19,779
Y_2243_A		7,379.1	Cts/S	7.7818	0.10546	7,379.1
Y_3600_A		140,620	Cts/S	517.16	0.36776	140,620

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:48:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		407.2	ug/L	7.010	1.721	7,056
Al3961_R		9,959	ug/L	11.03	0.1108	11,590
As1891_A		382.9	ug/L	1.587	0.4145	131.9
B_2089_A		399.3	ug/L	0.4627	0.1159	600.6
Ba4554_R		395.0	ug/L	4.728	1.197	30,360
Be3130_R		403.1	ug/L	3.903	0.9682	43,080
Ca3158_R		10,030	ug/L	36.90	0.3678	12,660
Cd2265_A		397.7	ug/L	0.5112	0.1285	4,625
Co2286_A		403.2	ug/L	0.7602	0.1885	1,382
Cr2677_A		404.6	ug/L	5.548	1.371	4,602
Cu3273_A		409.6	ug/L	5.933	1.448	5,890
Fe2599_R		10,030	ug/L	122.6	1.222	20,910
K_7664_R		13,540	ug/L	21.37	0.1579	9,843
Li6707_R		406.6	ug/L	2.940	0.7232	6,109
Mg2025_A		10,250	ug/L	8.159	0.07959	3,795
Mn2576_R		396.2	ug/L	1.210	0.3053	4,241
Mo2020_A		406.0	ug/L	1.003	0.2470	1,264
Na5895_R		10,030	ug/L	2.400	0.02392	24,730
Ni2316_A		401.5	ug/L	0.3510	0.08740	642.8
Pb2203_A		408.4	ug/L	0.9920	0.2429	363.2
Sb2068_A		393.4	ug/L	1.886	0.4794	200.1
Se1960_A		395.2	ug/L	3.241	0.8199	107.6
Si2516_R		9,837	ug/L	14.49	0.1474	4,837
Sn1899_A		409.3	ug/L	0.06522	0.01593	169.3
Sr4215_R		403.7	ug/L	2.188	0.5420	41,420
Ti3349_A		403.2	ug/L	5.118	1.269	10,150
Tl1908_A		409.8	ug/L	0.8299	0.2025	214.3
V_2924_A		405.8	ug/L	5.323	1.312	4,504
Zn2062_A		396.2	ug/L	0.7798	0.1968	920.3
Y_3600_R		19,981	Cts/S	3.7112	0.018574	19,981
Y_2243_A		7,563.6	Cts/S	20.284	0.26817	7,563.6
Y_3600_A		141,400	Cts/S	1,466.3	1.0370	141,400

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:52:31PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07747	ug/L	0.05439	70.22	-17.57
Al3961_R		-4.824	ug/L	0.6237	12.93	-3.679
As1891_A		-0.4971	ug/L	1.437	289.0	-2.725
B_2089_A		1.650	ug/L	0.3573	21.66	9.791
Ba4554_R		-0.06074	ug/L	0.03983	65.57	13.28
Be3130_R		0.1356	ug/L	0.04525	33.37	14.03
Ca3158_R		-0.5769	ug/L	2.024	350.9	-27.66
Cd2265_A		0.05839	ug/L	0.01470	25.18	-0.7238
Co2286_A		-0.01482	ug/L	0.04783	322.8	-0.02500
Cr2677_A		-0.06149	ug/L	0.2003	325.7	0.1106
Cu3273_A		0.01185	ug/L	0.03828	323.1	-16.89
Fe2599_R		7.586	ug/L	0.3629	4.783	16.86
K_7664_R		10.16	ug/L	23.89	235.2	-18.20
Li6707_R		0.6631	ug/L	0.5336	80.48	11.19
Mg2025_A		0.8987	ug/L	1.362	151.5	-7.354
Mn2576_R		-0.01770	ug/L	0.06505	367.6	5.020
Mo2020_A		0.4731	ug/L	0.2430	51.36	1.758
Na5895_R		0.6301	ug/L	2.776	440.6	62.86
Ni2316_A		-0.07084	ug/L	0.2347	331.4	-0.1083
Pb2203_A		0.1017	ug/L	0.5714	562.1	-1.173
Sb2068_A		0.2260	ug/L	0.3555	157.3	0.6015
Se1960_A		-0.8420	ug/L	0.2650	31.47	1.556
Si2516_R		12.46	ug/L	3.766	30.22	66.94
Sn1899_A		-0.1715	ug/L	0.004867	2.838	1.142
Sr4215_R		0.1166	ug/L	0.01301	11.15	-14.30
Ti3349_A		0.04886	ug/L	0.1284	262.7	-14.00
Tl1908_A		0.5890	ug/L	0.09706	16.48	-1.771
V_2924_A		-0.2278	ug/L	0.1572	69.03	-5.638
Zn2062_A		0.03128	ug/L	0.1083	346.1	0.2035
Y_3600_R		19,503	Cts/S	56.175	0.28804	19,503
Y_2243_A		7,479.2	Cts/S	55.299	0.73938	7,479.2
Y_3600_A		142,820	Cts/S	765.49	0.53599	142,820

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:56:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		10.38	ug/L	0.03498	0.3368	167.5
Al3961_R		296.2	ug/L	2.425	0.8189	345.3
As1891_A		8.658	ug/L	0.1448	1.673	0.4773
B_2089_A		49.14	ug/L	0.2029	0.4130	80.68
Ba4554_R		5.984	ug/L	0.03021	0.5049	476.7
Be3130_R		5.104	ug/L	0.0008730	0.01710	543.6
Ca3158_R		107.3	ug/L	2.646	2.465	107.8
Cd2265_A		5.019	ug/L	0.01449	0.2888	57.95
Co2286_A		10.51	ug/L	0.2158	2.053	36.72
Cr2677_A		9.976	ug/L	0.1828	1.832	118.1
Cu3273_A		25.55	ug/L	0.02860	0.1119	363.5
Fe2599_R		104.9	ug/L	0.3861	0.3682	219.4
K_7664_R		987.2	ug/L	17.89	1.812	691.9
Li6707_R		101.6	ug/L	0.8812	0.8671	1,524
Mg2025_A		109.2	ug/L	0.2723	0.2494	33.69
Mn2576_R		5.018	ug/L	0.01002	0.1996	58.80
Mo2020_A		10.10	ug/L	0.09441	0.9350	32.32
Na5895_R	F	2.980	ug/L	3.792	127.2	70.01
Ni2316_A		10.25	ug/L	0.02315	0.2258	16.71

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:56:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.612	ug/L	0.5871	10.46	3.785
Sb2068_A		7.052	ug/L	0.6645	9.422	3.646
Se1960_A	F	6.175	ug/L	1.220	19.76	3.514
Si2516_R		197.7	ug/L	6.527	3.302	158.1
Sn1899_A		99.93	ug/L	0.2663	0.2665	43.04
Sr4215_R		10.41	ug/L	0.1018	0.9780	1,039
Ti3349_A		15.06	ug/L	0.2233	1.483	376.8
Tl1908_A		17.11	ug/L	0.4368	2.552	7.053
V_2924_A		9.941	ug/L	0.1916	1.927	111.1
Zn2062_A	W	24.54	ug/L	0.06957	0.2835	58.21
Y_3600_R		19,930	Cts/S	64.663	0.32444	19,930
Y_2243_A		7,700.4	Cts/S	17.355	0.22538	7,700.4
Y_3600_A		146,170	Cts/S	980.03	0.67047	146,170

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:01:21PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.278	ug/L	0.1386	10.85	-450.9
Al3961_R		527,700	ug/L	8,184	1.551	579,100
As1891_A		-0.2794	ug/L	0.2046	73.24	-10.28
B_2089_A		-1.679	ug/L	0.2048	12.20	4.337
Ba4554_R		1.519	ug/L	0.1584	10.43	127.5
Be3130_R		-0.04573	ug/L	0.009881	21.61	-4.690
Ca3158_R		487,700	ug/L	5,266	1.080	582,400
Cd2265_A		1.968	ug/L	0.04262	2.166	363.9
Co2286_A		0.3294	ug/L	0.01933	5.869	3.544
Cr2677_A		-1.748	ug/L	0.1294	7.403	1.323
Cu3273_A		0.3216	ug/L	0.1955	60.81	-13.17
Fe2599_R		188,800	ug/L	1,155	0.6119	371,600
K_7664_R		-22.15	ug/L	43.10	194.5	-39.82
Li6707_R		5.328	ug/L	0.7422	13.93	77.05
Mg2025_A		433,200	ug/L	995.2	0.2297	139,100
Mn2576_R		-0.1655	ug/L	0.3403	205.7	-1.242
Mo2020_A		-2.182	ug/L	0.1115	5.109	-5.648
Na5895_R		11.86	ug/L	3.968	33.45	86.91
Ni2316_A		0.2560	ug/L	0.3332	130.2	-8.574
Pb2203_A		-2.055	ug/L	2.174	105.8	-29.16
Sb2068_A		2.202	ug/L	1.095	49.74	4.590
Se1960_A		-1.403	ug/L	2.482	176.9	3.619
Si2516_R		21.86	ug/L	1.800	8.237	54.63
Sn1899_A		12.42	ug/L	0.6178	4.974	5.508
Sr4215_R	W	5.143	ug/L	0.06607	1.285	473.6
Ti3349_A		0.7859	ug/L	0.05688	7.238	4.146
Tl1908_A		2.121	ug/L	0.4341	20.47	-0.2587
V_2924_A		1.150	ug/L	0.2732	23.76	32.13
Zn2062_A		4.529	ug/L	0.09592	2.118	9.285
Y_3600_R		18,872	Cts/S	74.597	0.39528	18,872
Y_2243_A		6,585.8	Cts/S	9.4817	0.14397	6,585.8
Y_3600_A		126,150	Cts/S	226.19	0.17931	126,150

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:05:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:05:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		218.1	ug/L	2.119	0.9713	2,885
Al3961_R		525,700	ug/L	10,160	1.932	572,800
As1891_A		99.37	ug/L	0.007819	0.007869	20.26
B_2089_A		485.5	ug/L	1.714	0.3530	631.0
Ba4554_R		493.2	ug/L	3.223	0.6536	35,540
Be3130_R		500.1	ug/L	6.804	1.361	50,120
Ca3158_R		480,300	ug/L	8,793	1.831	569,500
Cd2265_A		911.1	ug/L	6.806	0.7470	9,481
Co2286_A		449.0	ug/L	3.521	0.7841	1,336
Cr2677_A		469.8	ug/L	4.439	0.9448	4,725
Cu3273_A		534.8	ug/L	3.452	0.6455	6,779
Fe2599_R		188,100	ug/L	3,049	1.622	367,400
K_7664_R		21,570	ug/L	154.0	0.7139	14,720
Li6707_R		554.3	ug/L	2.136	0.3853	7,810
Mg2025_A		430,500	ug/L	3,140	0.7294	137,500
Mn2576_R		470.5	ug/L	3.470	0.7376	4,718
Mo2020_A		483.3	ug/L	3.161	0.6540	1,304
Na5895_R		21,750	ug/L	121.6	0.5589	50,210
Ni2316_A		881.5	ug/L	6.100	0.6921	1,211
Pb2203_A		43.61	ug/L	0.8336	1.912	6.208
Sb2068_A		595.5	ug/L	3.243	0.5446	265.5
Se1960_A		47.79	ug/L	3.583	7.498	15.03
Si2516_R		2,132	ug/L	18.14	0.8506	1,018
Sn1899_A		478.8	ug/L	3.213	0.6710	171.4
Sr4215_R		519.5	ug/L	4.735	0.9114	49,990
Ti3349_A		502.1	ug/L	4.122	0.8210	11,140
Tl1908_A		84.56	ug/L	0.7270	0.8597	37.84
V_2924_A		485.2	ug/L	4.922	1.014	4,768
Zn2062_A		892.5	ug/L	4.637	0.5195	1,797
Y_3600_R		18,738	Cts/S	122.43	0.65336	18,738
Y_2243_A		6,552.7	Cts/S	46.521	0.70996	6,552.7
Y_3600_A		124,580	Cts/S	424.10	0.34042	124,580

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.1	ug/L	0.3773	0.07439	8,824
Al3961_R		12,820	ug/L	138.4	1.080	14,780
As1891_A		502.1	ug/L	0.4185	0.08334	171.0
B_2089_A		508.9	ug/L	0.9352	0.1838	751.0
Ba4554_R		510.5	ug/L	7.727	1.514	38,870
Be3130_R		513.6	ug/L	7.422	1.445	54,390
Ca3158_R		12,820	ug/L	119.8	0.9345	16,030
Cd2265_A		509.1	ug/L	0.9921	0.1949	5,826
Co2286_A		512.2	ug/L	0.5055	0.09869	1,727
Cr2677_A		511.0	ug/L	2.019	0.3952	5,832
Cu3273_A		510.1	ug/L	1.133	0.2222	7,366
Fe2599_R		12,850	ug/L	149.7	1.165	26,530
K_7664_R		12,740	ug/L	138.1	1.083	9,179
Li6707_R		517.0	ug/L	9.359	1.810	7,697
Mg2025_A		12,960	ug/L	13.16	0.1016	4,721
Mn2576_R		508.5	ug/L	3.507	0.6898	5,392
Mo2020_A		509.3	ug/L	0.8388	0.1647	1,560
Na5895_R		12,820	ug/L	171.1	1.335	31,290
Ni2316_A		514.1	ug/L	0.8328	0.1620	809.6

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		515.8	ug/L	0.1969	0.03818	451.7
Sb2068_A		504.3	ug/L	0.3290	0.06523	252.4
Se1960_A		503.1	ug/L	1.245	0.2475	134.2
Si2516_R		13,110	ug/L	112.0	0.8545	6,368
Sn1899_A		512.8	ug/L	0.2446	0.04770	208.4
Sr4215_R		511.7	ug/L	7.465	1.459	52,030
Ti3349_A		506.5	ug/L	0.1890	0.03732	12,800
Tl1908_A		519.0	ug/L	0.6926	0.1334	267.5
V_2924_A		507.4	ug/L	2.109	0.4156	5,653
Zn2062_A		508.1	ug/L	0.4124	0.08117	1,161
Y_3600_R		19,800	Cts/S	86.000	0.43435	19,800
Y_2243_A		7,442.2	Cts/S	1.4110	0.018959	7,442.2
Y_3600_A		141,920	Cts/S	42.095	0.029662	141,920

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:14:35PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.05219	ug/L	0.06803	130.3	-19.80
Al3961_R		-6.093	ug/L	4.343	71.28	-5.079
As1891_A		0.06571	ug/L	1.196	1,820	-2.501
B_2089_A		2.066	ug/L	0.5623	27.22	10.29
Ba4554_R		-0.02898	ug/L	0.05418	187.0	15.64
Be3130_R		-0.01501	ug/L	0.02330	155.3	-1.677
Ca3158_R		3.120	ug/L	1.887	60.48	-23.05
Cd2265_A		0.03198	ug/L	0.007352	22.99	-1.026
Co2286_A		0.1146	ug/L	0.07961	69.44	0.4098
Cr2677_A		-0.1910	ug/L	0.1517	79.45	-1.365
Cu3273_A		-0.1347	ug/L	0.1395	103.5	-18.99
Fe2599_R		2.630	ug/L	1.719	65.39	6.748
K_7664_R		-3.769	ug/L	26.27	696.9	-27.99
Li6707_R		0.2451	ug/L	0.3597	146.7	5.036
Mg2025_A		6.755	ug/L	1.662	24.61	-5.158
Mn2576_R		0.03579	ug/L	0.08371	233.9	5.574
Mo2020_A		0.5530	ug/L	0.1275	23.05	1.986
Na5895_R		3.640	ug/L	2.133	58.58	69.93
Ni2316_A		0.09903	ug/L	0.3403	343.6	0.1590
Pb2203_A		-0.2531	ug/L	0.4194	165.7	-1.474
Sb2068_A		0.6410	ug/L	0.1131	17.64	0.8001
Se1960_A		-0.5872	ug/L	1.714	291.8	1.609
Si2516_R		14.64	ug/L	2.711	18.52	67.82
Sn1899_A		0.4233	ug/L	0.1569	37.07	1.371
Sr4215_R		-0.02232	ug/L	0.01101	49.34	-28.15
Ti3349_A		0.1375	ug/L	0.1691	123.0	-11.73
Tl1908_A		0.7450	ug/L	0.7264	97.51	-1.674
V_2924_A		0.06282	ug/L	0.4718	750.9	-2.338
Zn2062_A		0.05511	ug/L	0.05420	98.35	0.2557
Y_3600_R		19,457	Cts/S	167.64	0.86156	19,457
Y_2243_A		7,407.3	Cts/S	50.493	0.68166	7,407.3
Y_3600_A		142,530	Cts/S	367.93	0.25814	142,530

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:19:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:19:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,052	ug/L	23.26	1.133	34,380
Al3961_R		19.81	ug/L	0.4146	2.093	236.5
As1891_A		20,000	ug/L	18.50	0.09254	6,709
B_2089_A		19,840	ug/L	2.047	0.01032	27,620
Ba4554_R		19,710	ug/L	68.13	0.3458	1,478,000
Be3130_R		19,800	ug/L	58.99	0.2980	2,066,000
Ca3158_R		26.20	ug/L	1.751	6.682	19.79
Cd2265_A		19,260	ug/L	42.05	0.2183	212,400
Co2286_A		20,060	ug/L	20.49	0.1022	65,450
Cr2677_A		20,260	ug/L	396.2	1.956	222,900
Cu3273_A		20,480	ug/L	335.3	1.637	286,000
Fe2599_R		9.524	ug/L	0.1705	1.791	20.81
K_7664_R		14.31	ug/L	1.198	8.372	-15.27
Li6707_R		20,570	ug/L	252.8	1.229	301,800
Mg2025_A		-206.5	ug/L	2.438	1.181	939.6
Mn2576_R		19,980	ug/L	74.22	0.3715	208,600
Mo2020_A		5,057	ug/L	5.204	0.1029	14,990
Na5895_R		25.23	ug/L	6.410	25.41	121.9
Ni2316_A		20,040	ug/L	18.95	0.09459	30,410
Pb2203_A		20,770	ug/L	24.16	0.1163	17,670
Sb2068_A		20,180	ug/L	0.09547	0.0004730	9,752
Se1960_A		20,610	ug/L	36.44	0.1768	5,248
Si2516_R		122.7	ug/L	10.53	8.587	233.6
Sn1899_A		20,060	ug/L	38.86	0.1937	7,847
Sr4215_R		20,060	ug/L	84.61	0.4218	2,011,000
Ti3349_A		20,040	ug/L	490.2	2.446	488,800
Tl1908_A		19,900	ug/L	14.99	0.07535	10,000
V_2924_A		20,350	ug/L	400.6	1.969	219,600
Zn2062_A		19,270	ug/L	54.79	0.2843	42,620
Y_3600_R		19,510	Cts/S	68.495	0.35108	19,510
Y_2243_A		7,201.5	Cts/S	4.5918	0.063761	7,201.5
Y_3600_A		136,890	Cts/S	1,980.5	1.4468	136,890

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:23:40PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.467	ug/L	0.7629	30.93	-523.8
Al3961_R		505,400	ug/L	10,230	2.024	558,400
As1891_A		1.817	ug/L	0.4156	22.87	-11.39
B_2089_A		37.19	ug/L	5.907	15.88	53.55
Ba4554_R		6.588	ug/L	4.995	75.83	497.3
Be3130_R		5.350	ug/L	5.169	96.62	541.8
Ca3158_R		476,200	ug/L	5,884	1.236	572,400
Cd2265_A		3.640	ug/L	1.698	46.64	450.1
Co2286_A		2.633	ug/L	0.7491	28.45	10.95
Cr2677_A		3.770	ug/L	0.1891	5.017	60.90
Cu3273_A		10.09	ug/L	0.3520	3.489	104.7
Fe2599_R		227,300	ug/L	4,433	1.950	450,200
K_7664_R		305,500	ug/L	806.4	0.2639	211,800
Li6707_R		9.472	ug/L	7.377	77.88	136.4
Mg2025_A		183,400	ug/L	423.8	0.2311	58,740
Mn2576_R		16.35	ug/L	5.329	32.59	81.29
Mo2020_A		1.761	ug/L	0.4346	24.68	5.030
Na5895_R		204,100	ug/L	2,545	1.247	477,100
Ni2316_A		2.293	ug/L	0.5121	22.33	-7.509

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:23:40PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.000	ug/L	0.7615	76.11	-24.05
Sb2068_A		3.055	ug/L	0.9965	32.62	5.468
Se1960_A		4.560	ug/L	1.631	35.78	5.097
Si2516_R		51,230	ug/L	161.1	0.3145	23,670
Sn1899_A		14.51	ug/L	1.114	7.679	6.245
Sr4215_R		9.531	ug/L	5.245	55.04	903.4
Ti3349_A		9.941	ug/L	0.1255	1.262	209.5
Tl1908_A		2.381	ug/L	0.6873	28.87	-0.2051
V_2924_A		9.008	ug/L	0.03897	0.4327	114.7
Zn2062_A		8.824	ug/L	0.5097	5.777	17.94
Y_3600_R		18,999	Cts/S	125.88	0.66259	18,999
Y_2243_A		6,572.5	Cts/S	20.069	0.30535	6,572.5
Y_3600_A		125,880	Cts/S	151.80	0.12059	125,880

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:28:20PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		517.2	ug/L	3.341	0.6459	8,865
Al3961_R		13,030	ug/L	75.01	0.5755	14,780
As1891_A		507.7	ug/L	1.016	0.2002	171.2
B_2089_A	W	532.3	ug/L	2.676	0.5027	777.0
Ba4554_R		517.8	ug/L	0.9898	0.1912	38,780
Be3130_R		521.0	ug/L	0.9794	0.1880	54,260
Ca3158_R		13,020	ug/L	83.83	0.6439	16,020
Cd2265_A		512.7	ug/L	0.7801	0.1522	5,810
Co2286_A		516.5	ug/L	0.3569	0.06910	1,725
Cr2677_A		517.5	ug/L	1.445	0.2792	5,818
Cu3273_A		518.9	ug/L	0.7288	0.1405	7,381
Fe2599_R		13,010	ug/L	115.4	0.8871	26,420
K_7664_R		13,060	ug/L	48.20	0.3690	9,255
Li6707_R		524.7	ug/L	3.725	0.7100	7,683
Mg2025_A		13,060	ug/L	22.62	0.1733	4,712
Mn2576_R		518.1	ug/L	3.597	0.6943	5,403
Mo2020_A		513.8	ug/L	0.7382	0.1437	1,559
Na5895_R		13,100	ug/L	27.48	0.2097	31,450
Ni2316_A		516.5	ug/L	1.779	0.3444	805.5
Pb2203_A		519.2	ug/L	0.6580	0.1267	450.2
Sb2068_A		510.6	ug/L	1.310	0.2566	253.0
Se1960_A		509.5	ug/L	2.802	0.5499	134.6
Si2516_R		13,400	ug/L	114.5	0.8549	6,398
Sn1899_A		517.1	ug/L	1.045	0.2021	208.1
Sr4215_R		521.0	ug/L	0.5227	0.1003	52,100
Ti3349_A		518.5	ug/L	2.873	0.5541	12,910
Tl1908_A		523.1	ug/L	1.896	0.3625	267.0
V_2924_A		514.3	ug/L	0.8190	0.1592	5,645
Zn2062_A		511.5	ug/L	0.04017	0.007854	1,158
Y_3600_R		19,472	Cts/S	29.466	0.15133	19,472
Y_2243_A		7,369.6	Cts/S	21.437	0.29089	7,369.6
Y_3600_A		139,790	Cts/S	86.793	0.062087	139,790

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:32:29PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:32:29PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.09467	ug/L	0.08006	84.57	-17.52
Al3961_R		46.98	ug/L	6.848	14.58	56.32
As1891_A		-0.2341	ug/L	1.093	467.0	-2.637
B_2089_A	W	14.15	ug/L	1.498	10.58	27.79
Ba4554_R		0.6237	ug/L	0.06858	11.00	66.08
Be3130_R		0.6361	ug/L	0.1337	21.01	67.69
Ca3158_R		51.33	ug/L	3.726	7.259	37.21
Cd2265_A		0.1888	ug/L	0.04516	23.93	0.8142
Co2286_A		0.2040	ug/L	0.02024	9.919	0.7185
Cr2677_A		0.6022	ug/L	0.2210	36.70	7.818
Cu3273_A		0.4212	ug/L	0.4047	96.07	-11.06
Fe2599_R		29.98	ug/L	3.856	12.86	63.79
K_7664_R		87.90	ug/L	13.56	15.43	37.97
Li6707_R		1.139	ug/L	0.4303	37.77	18.62
Mg2025_A		6.756	ug/L	1.508	22.33	-5.209
Mn2576_R		0.3930	ug/L	0.3548	90.30	9.492
Mo2020_A		1.010	ug/L	0.3851	38.13	3.409
Na5895_R		35.56	ug/L	0.09739	0.2739	150.0
Ni2316_A		0.1235	ug/L	0.4162	337.1	0.1973
Pb2203_A		0.6355	ug/L	0.3996	62.88	-0.7052
Sb2068_A		1.257	ug/L	0.09936	7.905	1.126
Se1960_A		-0.8151	ug/L	0.8864	108.8	1.563
Si2516_R		19.75	ug/L	6.127	31.02	71.99
Sn1899_A		-0.3193	ug/L	0.8593	269.1	1.081
Sr4215_R		0.7350	ug/L	0.07049	9.591	48.73
Ti3349_A		0.6516	ug/L	0.1785	27.40	1.350
Tl1908_A		0.4767	ug/L	0.2779	58.28	-1.831
V_2924_A		0.3606	ug/L	0.1159	32.14	0.9792
Zn2062_A		0.2743	ug/L	0.03160	11.52	0.7599
Y_3600_R		19,946	Cts/S	139.75	0.70066	19,946
Y_2243_A		7,484.2	Cts/S	82.574	1.1033	7,484.2
Y_3600_A		144,340	Cts/S	360.80	0.24997	144,340

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:36:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1318	ug/L	0.005965	4.525	-16.92
Al3961_R		17.54	ug/L	0.6853	3.908	22.56
As1891_A		0.9844	ug/L	0.1479	15.03	-2.248
B_2089_A		9.249	ug/L	0.6014	6.503	21.10
Ba4554_R		0.3231	ug/L	0.007468	2.311	43.35
Be3130_R		0.1937	ug/L	0.02967	15.32	20.70
Ca3158_R		248.1	ug/L	2.866	1.155	287.8
Cd2265_A		0.08582	ug/L	0.07434	86.62	-0.4108
Co2286_A		0.3371	ug/L	0.2158	64.00	1.187
Cr2677_A		0.2605	ug/L	0.1091	41.87	3.878
Cu3273_A		0.8477	ug/L	0.002748	0.3242	-4.800
Fe2599_R		11.49	ug/L	0.5552	4.833	25.55
K_7664_R		48.88	ug/L	17.54	35.88	9.606
Li6707_R		0.04044	ug/L	0.1773	438.5	2.135
Mg2025_A		17.71	ug/L	1.630	9.204	-1.204
Mn2576_R		0.8022	ug/L	0.3141	39.15	13.99
Mo2020_A		0.3644	ug/L	0.07621	20.91	1.452
Na5895_R		1,060	ug/L	13.46	1.270	2,685
Ni2316_A		0.6962	ug/L	0.05348	7.681	1.116

SODIUM PQL

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:36:54PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.8034	ug/L	0.1887	23.49	-0.5669
Sb2068_A		0.1322	ug/L	0.5470	413.9	0.5617
Se1960_A		-1.874	ug/L	0.5169	27.58	1.307
Si2516_R		-10.04	ug/L	1.935	19.28	58.02
Sn1899_A		0.8433	ug/L	0.2036	24.15	1.583
Sr4215_R		0.5019	ug/L	0.09623	19.17	25.05
Ti3349_A		0.3454	ug/L	0.02542	7.360	-6.574
Tl1908_A		1.467	ug/L	1.035	70.54	-1.339
V_2924_A		0.04819	ug/L	0.03044	63.16	-2.561
Zn2062_A		46.99	ug/L	0.3263	0.6944	110.2
Y_3600_R		20,100	Cts/S	36.035	0.17928	20,100
Y_2243_A		7,618.6	Cts/S	28.192	0.37005	7,618.6
Y_3600_A		145,400	Cts/S	1,233.5	0.84835	145,400

LCSWOH25ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:41:19PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		48.21	ug/L	0.4497	0.9327	816.8
Al3961_R		2,010	ug/L	35.51	1.767	2,301
As1891_A		101.7	ug/L	0.6252	0.6147	32.54
B_2089_A		501.7	ug/L	2.986	0.5952	724.7
Ba4554_R		2,001	ug/L	36.81	1.839	151,100
Be3130_R		50.62	ug/L	1.199	2.369	5,314
Ca3158_R		2,613	ug/L	49.77	1.905	3,220
Cd2265_A		259.4	ug/L	1.489	0.5738	2,942
Co2286_A		502.5	ug/L	3.036	0.6042	1,686
Cr2677_A		196.0	ug/L	0.1131	0.05769	2,241
Cu3273_A		251.0	ug/L	1.060	0.4224	3,620
Fe2599_R		1,025	ug/L	16.66	1.625	2,100
K_7664_R		10,550	ug/L	177.4	1.682	7,532
Li6707_R		521.1	ug/L	8.765	1.682	7,694
Mg2025_A		5,268	ug/L	33.60	0.6378	1,920
Mn2576_R		494.7	ug/L	7.297	1.475	5,204
Mo2020_A		101.6	ug/L	0.6549	0.6443	310.0
Na5895_R		7,978	ug/L	129.6	1.625	19,330
Ni2316_A		501.2	ug/L	2.481	0.4951	781.8
Pb2203_A		105.6	ug/L	0.4463	0.4224	91.09
Sb2068_A		101.9	ug/L	0.03844	0.03772	48.98
Se1960_A		103.6	ug/L	0.7887	0.7616	28.94
Si2516_R		1,101	ug/L	20.68	1.879	589.0
Sn1899_A		508.9	ug/L	3.113	0.6118	205.9
Sr4215_R		514.3	ug/L	8.899	1.730	51,860
Ti3349_A		499.1	ug/L	0.7423	0.1487	12,620
Tl1908_A		107.2	ug/L	1.466	1.368	53.83
V_2924_A		490.4	ug/L	0.1856	0.03786	5,502
Zn2062_A		483.9	ug/L	2.909	0.6012	1,102
Y_3600_R		19,637	Cts/S	396.01	2.0166	19,637
Y_2243_A		7,406.6	Cts/S	17.518	0.23651	7,406.6
Y_3600_A		142,090	Cts/S	892.23	0.62794	142,090

PBWOH25ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:45:32PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOH25ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:45:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1140	ug/L	0.1290	113.2	-21.44
Al3961_R		-4.977	ug/L	1.293	25.98	-4.018
As1891_A		0.1704	ug/L	0.7162	420.3	-2.529
B_2089_A		8.605	ug/L	0.4168	4.844	20.10
Ba4554_R		0.4356	ug/L	0.05682	13.04	52.81
Be3130_R		-0.00005900	ug/L	0.04003	68,260	-0.09704
Ca3158_R		9.699	ug/L	0.3431	3.538	-15.65
Cd2265_A		0.02171	ug/L	0.01094	50.38	-1.173
Co2286_A		0.2810	ug/L	0.008111	2.886	0.9910
Cr2677_A		0.1242	ug/L	0.1849	149.0	2.297
Cu3273_A		0.1929	ug/L	0.1641	85.06	-14.60
Fe2599_R		2.363	ug/L	0.5511	23.32	6.525
K_7664_R		15.57	ug/L	10.03	64.44	-14.99
Li6707_R		0.4348	ug/L	0.9481	218.1	8.284
Mg2025_A		6.979	ug/L	1.081	15.49	-5.201
Mn2576_R		0.5302	ug/L	0.1523	28.72	11.24
Mo2020_A		0.2778	ug/L	0.03521	12.67	1.177
Na5895_R		21.39	ug/L	0.1218	0.5694	117.8
Ni2316_A		0.4095	ug/L	0.1723	42.08	0.6538
Pb2203_A		-0.2912	ug/L	0.7166	246.1	-1.548
Sb2068_A		0.009388	ug/L	0.2259	2,407	0.4973
Se1960_A		-0.1363	ug/L	0.9997	733.3	1.770
Si2516_R		80.82	ug/L	7.216	8.929	103.8
Sn1899_A		0.4482	ug/L	0.1026	22.89	1.416
Sr4215_R		0.1398	ug/L	0.02537	18.14	-12.50
Ti3349_A		0.1352	ug/L	0.1836	135.8	-12.09
Tl1908_A		0.6371	ug/L	0.9384	147.3	-1.774
V_2924_A		0.01819	ug/L	0.2688	1,478	-2.926
Zn2062_A		1.898	ug/L	0.03715	1.957	4.567
Y_3600_R		20,387	Cts/S	211.35	1.0367	20,387
Y_2243_A		7,597.6	Cts/S	29.032	0.38212	7,597.6
Y_3600_A		146,320	Cts/S	789.39	0.53948	146,320

SO5596-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:49:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1953	ug/L	0.4159	212.9	-22.12
Al3961_R		-1.365	ug/L	5.142	376.7	1.509
As1891_A		14.18	ug/L	0.1521	1.073	2.391
B_2089_A		115.4	ug/L	1.073	0.9299	173.4
Ba4554_R		1.265	ug/L	0.05380	4.251	115.6
Be3130_R		0.04521	ug/L	0.001879	4.155	4.707
Ca3158_R		1,256	ug/L	7.697	0.6126	1,564
Cd2265_A		0.08390	ug/L	0.01833	21.84	-0.4341
Co2286_A		0.2206	ug/L	0.1788	81.03	0.7709
Cr2677_A		-0.01423	ug/L	0.1920	1,349	0.6497
Cu3273_A		16.24	ug/L	0.1001	0.6163	217.2
Fe2599_R		5.970	ug/L	0.2281	3.820	13.92
K_7664_R		3,390	ug/L	1.886	0.05564	2,449
Li6707_R		5.277	ug/L	0.6641	12.59	80.99
Mg2025_A		354.9	ug/L	2.153	0.6065	121.7
Mn2576_R		1.491	ug/L	0.04047	2.715	21.42
Mo2020_A		0.05929	ug/L	0.1058	178.4	0.4868
Na5895_R	W	126,700	ug/L	1,094	0.8634	312,000
Ni2316_A		-0.4011	ug/L	0.1288	32.11	-0.6337

SO5596-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:49:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9725	ug/L	0.2731	28.08	-0.4023
Sb2068_A		-2.080	ug/L	1.080	51.91	-0.5598
Se1960_A		-2.843	ug/L	1.753	61.64	1.028
Si2516_R		4,783	ug/L	88.71	1.855	2,387
Sn1899_A		-0.4919	ug/L	0.3430	69.72	1.012
Sr4215_R		9.556	ug/L	0.02381	0.2491	956.1
Ti3349_A		0.1609	ug/L	0.1594	99.11	-11.03
Tl1908_A		2.950	ug/L	0.1393	4.720	-0.5407
V_2924_A		-0.2469	ug/L	0.01059	4.288	-5.766
Zn2062_A		3.300	ug/L	0.2131	6.458	7.720
Y_3600_R		20,015	Cts/S	281.83	1.4081	20,015
Y_2243_A		7,480.5	Cts/S	11.248	0.15037	7,480.5
Y_3600_A		141,270	Cts/S	496.87	0.35170	141,270

SO5478-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:54:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.104	ug/L	0.0008480	0.07677	-55.46
Al3961_R		7,475	ug/L	28.91	0.3868	4,308
As1891_A		12.63	ug/L	1.077	8.532	-1.166
B_2089_A		104.7	ug/L	0.8207	0.7836	76.47
Ba4554_R		323.3	ug/L	1.201	0.3714	12,240
Be3130_R		0.3122	ug/L	0.01066	3.413	8.879
Ca3158_R	W	75,210	ug/L	151.7	0.2018	46,760
Cd2265_A		0.7585	ug/L	0.1134	14.96	36.85
Co2286_A		14.98	ug/L	0.07943	0.5303	24.31
Cr2677_A		18.63	ug/L	0.04950	0.2658	105.4
Cu3273_A		64.01	ug/L	1.377	2.151	417.6
Fe2599_R		35,480	ug/L	29.77	0.08392	36,370
K_7664_R	W	65,170	ug/L	502.6	0.7713	23,350
Li6707_R		26.35	ug/L	0.4207	1.597	196.3
Mg2025_A		27,890	ug/L	104.6	0.3751	4,693
Mn2576_R	W	5,624	ug/L	18.22	0.3241	29,590
Mo2020_A		1.833	ug/L	0.2058	11.23	2.724
Na5895_R	W	326,300	ug/L	9,285	2.846	394,700
Ni2316_A		24.98	ug/L	0.3715	1.487	17.29
Pb2203_A		7.420	ug/L	2.735	36.86	2.249
Sb2068_A		-0.9872	ug/L	0.1269	12.86	0.4953
Se1960_A		-0.7639	ug/L	5.749	752.6	2.010
Si2516_R		15,950	ug/L	65.01	0.4075	3,869
Sn1899_A		3.120	ug/L	1.173	37.61	1.707
Sr4215_R		1,555	ug/L	9.624	0.6187	78,550
Ti3349_A		222.2	ug/L	2.882	1.297	2,637
Tl1908_A		1.080	ug/L	0.1892	17.51	-3.108
V_2924_A		15.57	ug/L	0.7282	4.676	72.26
Zn2062_A		317.1	ug/L	0.1935	0.06101	337.2
Y_3600_R		19,663	Cts/S	118.93	0.60484	19,663
Y_2243_A		6,914.7	Cts/S	36.928	0.53404	6,914.7
Y_3600_A		133,980	Cts/S	504.78	0.37677	133,980

SO5506-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:58:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000057

SO5506-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:58:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1976	ug/L	0.01258	6.369	-49.26
Al3961_R		20.86	ug/L	1.995	9.563	32.15
As1891_A		1.373	ug/L	0.7019	51.13	-2.695
B_2089_A		44.84	ug/L	0.3466	0.7729	71.26
Ba4554_R		15.41	ug/L	0.5095	3.306	1,190
Be3130_R		0.03933	ug/L	0.02683	68.23	4.036
Ca3158_R		6,496	ug/L	139.9	2.153	8,104
Cd2265_A		-0.04565	ug/L	0.05170	113.3	23.81
Co2286_A		4.161	ug/L	0.003970	0.09541	14.17
Cr2677_A		-0.1582	ug/L	0.05649	35.71	0.7736
Cu3273_A		0.6524	ug/L	0.08073	12.37	-9.866
Fe2599_R		12,490	ug/L	362.3	2.900	25,770
K_7664_R		1,429	ug/L	65.00	4.549	1,005
Li6707_R		3.713	ug/L	1.097	29.55	56.54
Mg2025_A		3,048	ug/L	20.53	0.6736	1,094
Mn2576_R		419.2	ug/L	8.824	2.105	4,440
Mo2020_A		0.3666	ug/L	0.01310	3.575	1.394
Na5895_R		8,940	ug/L	278.9	3.120	21,820
Ni2316_A		1.517	ug/L	0.2177	14.35	1.705
Pb2203_A		-0.1120	ug/L	0.06073	54.23	-0.8780
Sb2068_A		-0.3389	ug/L	0.5231	154.4	0.5031
Se1960_A		0.5016	ug/L	0.3170	63.21	2.013
Si2516_R		12,690	ug/L	309.2	2.437	6,155
Sn1899_A		1.101	ug/L	0.8195	74.44	1.646
Sr4215_R		39.85	ug/L	1.142	2.866	4,024
Ti3349_A		0.9467	ug/L	0.1351	14.27	8.803
Tl1908_A		0.4713	ug/L	1.072	227.5	-2.046
V_2924_A		0.1304	ug/L	0.02751	21.10	-1.465
Zn2062_A		91.92	ug/L	0.6421	0.6986	209.7
Y_3600_R		19,786	Cts/S	479.27	2.4223	19,786
Y_2243_A		7,415.0	Cts/S	51.067	0.68869	7,415.0
Y_3600_A		142,240	Cts/S	206.01	0.14483	142,240

SO5506-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:03:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.106	ug/L	0.7573	68.46	-22.33
Al3961_R		40.09	ug/L	29.82	74.39	12.56
As1891_A		5.668	ug/L	1.804	31.82	-2.304
B_2089_A		55.40	ug/L	0.6541	1.181	23.55
Ba4554_R		15.77	ug/L	0.7778	4.933	262.3
Be3130_R		0.008518	ug/L	0.1058	1,242	0.05110
Ca3158_R		6,625	ug/L	79.72	1.203	1,659
Cd2265_A		0.2920	ug/L	0.01838	6.293	4.478
Co2286_A		4.974	ug/L	0.6122	12.31	3.459
Cr2677_A		-0.7088	ug/L	0.03097	4.369	-0.4632
Cu3273_A		1.618	ug/L	0.7398	45.71	-13.13
Fe2599_R		12,470	ug/L	75.18	0.6030	5,233
K_7664_R		1,529	ug/L	49.29	3.223	198.3
Li6707_R		2.924	ug/L	2.394	81.87	10.41
Mg2025_A		3,213	ug/L	6.647	0.2069	228.7
Mn2576_R		417.8	ug/L	5.769	1.381	904.6
Mo2020_A		0.9372	ug/L	0.2809	29.97	0.8833
Na5895_R		8,880	ug/L	75.23	0.8471	4,460
Ni2316_A		3.731	ug/L	0.2182	5.847	1.049

SO5506-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:03:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-2.000	ug/L	1.270	63.53	-1.537
Sb2068_A		-1.658	ug/L	4.117	248.3	0.3565
Se1960_A		-7.880	ug/L	2.239	28.42	1.398
Si2516_R		12,490	ug/L	80.15	0.6420	1,283
Sn1899_A		4.261	ug/L	0.6254	14.68	1.572
Sr4215_R		39.93	ug/L	0.1638	0.4103	799.0
Ti3349_A		1.145	ug/L	0.9723	84.89	-9.643
Tl1908_A		10.60	ug/L	0.1443	1.361	-1.028
V_2924_A		-0.001546	ug/L	0.2889	18,680	-3.093
Zn2062_A		119.8	ug/L	1.943	1.622	55.72
Y_3600_R		20,122	Cts/S	217.96	1.0832	20,122
Y_2243_A		7,547.4	Cts/S	40.364	0.53481	7,547.4
Y_3600_A		146,310	Cts/S	625.93	0.42783	146,310

SO5506-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:07:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		40.64	ug/L	0.02199	0.05410	636.3
Al3961_R		10,820	ug/L	128.7	1.189	12,490
As1891_A		477.3	ug/L	2.383	0.4993	160.6
B_2089_A		531.5	ug/L	1.403	0.2640	775.9
Ba4554_R		513.4	ug/L	8.568	1.669	39,090
Be3130_R		507.3	ug/L	10.05	1.981	53,710
Ca3158_R		11,820	ug/L	202.8	1.716	14,780
Cd2265_A		492.0	ug/L	0.4765	0.09685	5,587
Co2286_A		507.7	ug/L	0.9932	0.1956	1,696
Cr2677_A		493.9	ug/L	1.764	0.3571	5,621
Cu3273_A		502.6	ug/L	0.01380	0.002745	7,234
Fe2599_R		17,580	ug/L	334.4	1.902	36,290
K_7664_R		11,420	ug/L	135.4	1.186	8,222
Li6707_R		517.0	ug/L	8.163	1.579	7,697
Mg2025_A		8,463	ug/L	20.64	0.2439	3,061
Mn2576_R		905.7	ug/L	11.67	1.288	9,597
Mo2020_A		511.8	ug/L	1.050	0.2052	1,553
Na5895_R		14,190	ug/L	173.5	1.223	34,620
Ni2316_A		501.6	ug/L	0.8587	0.1712	782.3
Pb2203_A		501.3	ug/L	1.932	0.3854	435.1
Sb2068_A		491.7	ug/L	1.685	0.3426	243.7
Se1960_A		490.6	ug/L	0.4646	0.09470	129.8
Si2516_R		12,690	ug/L	114.6	0.9031	6,164
Sn1899_A		515.0	ug/L	1.074	0.2085	207.3
Sr4215_R		547.9	ug/L	8.101	1.479	55,700
Ti3349_A		498.6	ug/L	1.846	0.3702	12,560
Tl1908_A		499.2	ug/L	0.5428	0.1087	254.6
V_2924_A		500.4	ug/L	1.274	0.2545	5,557
Zn2062_A		575.7	ug/L	1.244	0.2161	1,304
Y_3600_R		19,798	Cts/S	165.47	0.83579	19,798
Y_2243_A		7,370.7	Cts/S	29.918	0.40590	7,370.7
Y_3600_A		141,470	Cts/S	34.781	0.024584	141,470

SO5506-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:11:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000059

SO5506-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:11:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.01	ug/L	0.1940	0.3803	816.4
Al3961_R		2,118	ug/L	25.79	1.218	2,441
As1891_A		103.8	ug/L	1.253	1.208	32.33
B_2089_A		548.5	ug/L	2.487	0.4534	784.2
Ba4554_R	W	2,106	ug/L	0.08277	0.003930	159,700
Be3130_R		53.29	ug/L	0.3374	0.6332	5,621
Ca3158_R		8,638	ug/L	129.1	1.495	10,750
Cd2265_A		259.6	ug/L	1.197	0.4612	2,942
Co2286_A		532.5	ug/L	2.380	0.4470	1,771
Cr2677_A		208.4	ug/L	2.256	1.082	2,339
Cu3273_A		268.0	ug/L	3.875	1.446	3,790
Fe2599_R		13,290	ug/L	52.91	0.3982	27,320
K_7664_R		11,970	ug/L	32.56	0.2720	8,587
Li6707_R		535.4	ug/L	1.558	0.2910	7,939
Mg2025_A		8,159	ug/L	17.02	0.2087	2,939
Mn2576_R		922.6	ug/L	11.48	1.244	9,741
Mo2020_A		105.2	ug/L	0.7088	0.6737	317.9
Na5895_R		16,670	ug/L	110.1	0.6608	40,500
Ni2316_A		525.8	ug/L	2.330	0.4432	812.2
Pb2203_A		104.6	ug/L	1.635	1.563	89.79
Sb2068_A		103.2	ug/L	1.909	1.850	49.29
Se1960_A		105.4	ug/L	2.429	2.304	29.27
Si2516_R		13,570	ug/L	119.3	0.8787	6,562
Sn1899_A		519.7	ug/L	2.477	0.4767	208.3
Sr4215_R		563.4	ug/L	2.066	0.3667	57,060
Ti3349_A		524.9	ug/L	3.601	0.6859	13,020
Tl1908_A		108.0	ug/L	0.3813	0.3532	53.57
V_2924_A		527.4	ug/L	5.308	1.006	5,806
Zn2062_A		525.9	ug/L	1.985	0.3774	1,186
Y_3600_R		19,720	Cts/S	27.811	0.14103	19,720
Y_2243_A		7,339.1	Cts/S	37.986	0.51759	7,339.1
Y_3600_A		139,400	Cts/S	1,515.4	1.0871	139,400

SO5506-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:16:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		49.42	ug/L	1.335	2.701	797.3
Al3961_R		2,080	ug/L	3.067	0.1475	2,399
As1891_A		100.8	ug/L	0.6683	0.6630	31.49
B_2089_A		540.9	ug/L	1.614	0.2984	777.6
Ba4554_R	W	2,069	ug/L	18.49	0.8937	157,000
Be3130_R		52.32	ug/L	0.3229	0.6171	5,522
Ca3158_R		8,551	ug/L	29.37	0.3435	10,650
Cd2265_A		251.8	ug/L	0.7428	0.2950	2,870
Co2286_A		519.5	ug/L	1.080	0.2078	1,737
Cr2677_A		202.9	ug/L	5.460	2.691	2,299
Cu3273_A		262.6	ug/L	6.577	2.505	3,750
Fe2599_R		13,170	ug/L	85.09	0.6463	27,090
K_7664_R		11,660	ug/L	84.37	0.7236	8,369
Li6707_R		529.6	ug/L	4.255	0.8034	7,859
Mg2025_A		7,966	ug/L	11.38	0.1429	2,884
Mn2576_R		910.4	ug/L	1.774	0.1949	9,618
Mo2020_A		103.2	ug/L	0.3894	0.3772	313.7
Na5895_R		16,400	ug/L	65.54	0.3997	39,880
Ni2316_A		513.9	ug/L	1.843	0.3586	798.1

SO5506-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:16:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		100.5	ug/L	0.3828	0.3807	86.75
Sb2068_A		100.3	ug/L	0.8893	0.8867	48.17
Se1960_A		101.5	ug/L	2.185	2.153	28.42
Si2516_R		13,410	ug/L	46.60	0.3476	6,487
Sn1899_A		509.8	ug/L	0.1825	0.03580	205.5
Sr4215_R		557.7	ug/L	2.147	0.3850	56,520
Ti3349_A		512.4	ug/L	14.24	2.778	12,840
Tl1908_A		104.0	ug/L	0.02558	0.02459	51.82
V_2924_A		512.5	ug/L	13.76	2.685	5,696
Zn2062_A		517.5	ug/L	1.509	0.2915	1,174
Y_3600_R		19,733	Cts/S	185.01	0.93757	19,733
Y_2243_A		7,378.6	Cts/S	0.085269	0.0011560	7,378.6
Y_3600_A		140,790	Cts/S	2,823.6	2.0055	140,790

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:20:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.3	ug/L	2.079	0.4097	8,851
Al3961_R		12,750	ug/L	198.1	1.555	14,730
As1891_A		506.8	ug/L	1.605	0.3167	171.3
B_2089_A		514.1	ug/L	0.3359	0.06533	752.7
Ba4554_R		509.2	ug/L	0.3385	0.06647	38,860
Be3130_R		507.9	ug/L	0.8775	0.1728	53,900
Ca3158_R		12,690	ug/L	102.1	0.8047	15,910
Cd2265_A		510.3	ug/L	0.4184	0.08200	5,794
Co2286_A		516.6	ug/L	0.3368	0.06519	1,729
Cr2677_A		506.3	ug/L	2.528	0.4993	5,795
Cu3273_A		506.6	ug/L	2.475	0.4885	7,336
Fe2599_R		12,740	ug/L	14.18	0.1112	26,370
K_7664_R		12,730	ug/L	120.7	0.9478	9,192
Li6707_R		514.2	ug/L	0.9619	0.1871	7,672
Mg2025_A		13,080	ug/L	14.15	0.1081	4,730
Mn2576_R		508.7	ug/L	6.347	1.248	5,406
Mo2020_A		512.3	ug/L	0.6667	0.1301	1,557
Na5895_R		12,760	ug/L	114.0	0.8929	31,220
Ni2316_A		516.7	ug/L	0.06601	0.01278	807.5
Pb2203_A		516.3	ug/L	0.9283	0.1798	448.6
Sb2068_A		511.0	ug/L	1.552	0.3037	253.7
Se1960_A		508.1	ug/L	1.498	0.2947	134.5
Si2516_R		13,150	ug/L	188.7	1.434	6,402
Sn1899_A		514.1	ug/L	1.241	0.2415	207.4
Sr4215_R		511.2	ug/L	3.253	0.6363	52,100
Ti3349_A		508.1	ug/L	1.294	0.2548	12,870
Tl1908_A		523.9	ug/L	0.2421	0.04621	268.0
V_2924_A		508.1	ug/L	1.113	0.2190	5,676
Zn2062_A		508.1	ug/L	1.000	0.1968	1,152
Y_3600_R		19,842	Cts/S	1.8059	0.0091010	19,842
Y_2243_A		7,384.3	Cts/S	2.3969	0.032459	7,384.3
Y_3600_A		142,300	Cts/S	562.58	0.39534	142,300

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:24:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:24:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1193	ug/L	0.1183	99.15	-16.68
Al3961_R		5.870	ug/L	5.496	93.62	8.494
As1891_A		-0.1233	ug/L	0.1606	130.3	-2.542
B_2089_A		3.692	ug/L	0.3756	10.17	12.48
Ba4554_R		0.08081	ug/L	0.04951	61.27	24.08
Be3130_R		0.1482	ug/L	0.07799	52.61	15.45
Ca3158_R		1.878	ug/L	2.526	134.5	-24.81
Cd2265_A		0.07218	ug/L	0.04836	67.00	-0.5555
Co2286_A		0.1504	ug/L	0.04355	28.95	0.5236
Cr2677_A		-0.01194	ug/L	0.1025	857.8	0.6788
Cu3273_A		-0.03472	ug/L	0.4865	1,402	-17.42
Fe2599_R		6.147	ug/L	0.2945	4.790	14.04
K_7664_R		35.38	ug/L	18.83	53.22	-0.3080
Li6707_R		0.8392	ug/L	0.1010	12.04	13.89
Mg2025_A		0.03868	ug/L	0.6937	1,794	-7.506
Mn2576_R		-0.1128	ug/L	0.06573	58.25	4.059
Mo2020_A		0.5390	ug/L	0.05292	9.819	1.924
Na5895_R		7.761	ug/L	2.137	27.53	80.59
Ni2316_A		-0.07682	ug/L	0.3718	484.0	-0.1144
Pb2203_A		0.3911	ug/L	0.6923	177.0	-0.9037
Sb2068_A		0.9416	ug/L	0.8508	90.36	0.9422
Se1960_A		0.1239	ug/L	0.3280	264.7	1.776
Si2516_R		19.22	ug/L	3.297	17.16	70.68
Sn1899_A		0.08153	ug/L	0.6897	845.9	1.220
Sr4215_R		0.2548	ug/L	0.03512	13.78	-0.4616
Ti3349_A		0.1369	ug/L	0.08626	63.00	-11.66
Tl1908_A		0.4616	ug/L	0.3866	83.76	-1.801
V_2924_A		-0.1085	ug/L	0.2618	241.3	-4.252
Zn2062_A		0.1134	ug/L	0.08238	72.64	0.3841
Y_3600_R		19,652	Cts/S	90.120	0.45859	19,652
Y_2243_A		7,331.3	Cts/S	37.353	0.50950	7,331.3
Y_3600_A		141,550	Cts/S	102.58	0.072468	141,550

SO5506-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:28:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2228	ug/L	0.08811	39.55	-22.00
Al3961_R		10.21	ug/L	2.889	28.28	27.09
As1891_A		9.854	ug/L	1.391	14.12	0.6984
B_2089_A		86.47	ug/L	1.165	1.347	126.9
Ba4554_R		55.89	ug/L	0.05190	0.09286	4,186
Be3130_R		0.05445	ug/L	0.03611	66.32	5.483
Ca3158_R		14,070	ug/L	50.55	0.3592	17,250
Cd2265_A		0.06827	ug/L	0.03466	50.77	5.434
Co2286_A		2.463	ug/L	0.05199	2.111	8.078
Cr2677_A		0.4368	ug/L	0.04621	10.58	6.422
Cu3273_A		1.111	ug/L	0.1303	11.72	-1.373
Fe2599_R		3,025	ug/L	1.705	0.05635	6,121
K_7664_R		9,626	ug/L	34.59	0.3593	6,788
Li6707_R		1.785	ug/L	0.3156	17.69	27.52
Mg2025_A		14,990	ug/L	64.38	0.4295	5,245
Mn2576_R		644.8	ug/L	0.5871	0.09104	6,705
Mo2020_A		8.610	ug/L	0.04975	0.5778	25.73
Na5895_R	W	81,510	ug/L	211.9	0.2600	194,600
Ni2316_A		1.060	ug/L	0.2463	23.23	1.537

SO5506-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:28:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3450	ug/L	0.03762	10.90	-0.8183
Sb2068_A		-0.4483	ug/L	0.1741	38.83	0.2978
Se1960_A		-0.8369	ug/L	2.035	243.1	1.597
Si2516_R		6,051	ug/L	6.413	0.1060	2,911
Sn1899_A		-0.4563	ug/L	0.2894	63.43	0.9869
Sr4215_R		191.0	ug/L	0.1191	0.06237	19,010
Ti3349_A		0.7048	ug/L	0.1322	18.76	2.671
Tl1908_A		0.2909	ug/L	0.7557	259.8	-2.183
V_2924_A		-0.09714	ug/L	0.1018	104.8	-6.420
Zn2062_A		20.37	ug/L	0.03247	0.1594	45.15
Y_3600_R		19,401	Cts/S	121.90	0.62833	19,401
Y_2243_A		7,188.6	Cts/S	51.863	0.72146	7,188.6
Y_3600_A		135,240	Cts/S	447.26	0.33071	135,240

SO5506-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:33:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06655	ug/L	0.1549	232.7	-28.96
Al3961_R		18.13	ug/L	4.950	27.30	41.37
As1891_A		3.327	ug/L	0.1531	4.603	-1.561
B_2089_A		47.17	ug/L	0.3002	0.6364	72.66
Ba4554_R		5.271	ug/L	0.03813	0.7233	415.9
Be3130_R		0.2280	ug/L	0.02431	10.66	23.82
Ca3158_R		19,530	ug/L	41.05	0.2102	24,240
Cd2265_A		0.06114	ug/L	0.01351	22.09	8.053
Co2286_A		1.632	ug/L	0.2032	12.45	5.421
Cr2677_A		0.09206	ug/L	0.2960	321.5	3.278
Cu3273_A		0.6637	ug/L	0.1024	15.43	-8.030
Fe2599_R		4,356	ug/L	24.91	0.5719	8,921
K_7664_R		2,242	ug/L	2.744	0.1224	1,581
Li6707_R		11.15	ug/L	0.4581	4.108	166.1
Mg2025_A		4,557	ug/L	5.508	0.1209	1,597
Mn2576_R	W	1,055	ug/L	0.3126	0.02963	11,100
Mo2020_A		0.2947	ug/L	0.08891	30.17	1.106
Na5895_R		14,370	ug/L	29.96	0.2085	34,780
Ni2316_A		0.05653	ug/L	0.03926	69.44	-0.1390
Pb2203_A		0.02879	ug/L	0.7872	2,735	-1.038
Sb2068_A		-0.1743	ug/L	0.6888	395.3	0.4528
Se1960_A		-1.729	ug/L	0.3037	17.57	1.441
Si2516_R		15,180	ug/L	12.27	0.08082	7,301
Sn1899_A		0.1862	ug/L	0.8373	449.7	1.243
Sr4215_R		125.3	ug/L	0.03737	0.02982	12,620
Ti3349_A		0.4525	ug/L	0.1450	32.04	-3.669
Tl1908_A		0.4333	ug/L	0.5588	129.0	-2.340
V_2924_A		0.08039	ug/L	0.2564	318.9	-5.544
Zn2062_A		67.58	ug/L	0.1356	0.2006	150.2
Y_3600_R		19,639	Cts/S	60.268	0.30688	19,639
Y_2243_A		7,224.7	Cts/S	8.8645	0.12270	7,224.7
Y_3600_A		139,760	Cts/S	900.08	0.64402	139,760

SO5506-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:37:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:37:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08439	ug/L	0.1698	201.2	-20.62
Al3961_R		78.65	ug/L	2.969	3.774	93.49
As1891_A		1.990	ug/L	0.1275	6.408	-1.822
B_2089_A		110.3	ug/L	1.129	1.024	162.7
Ba4554_R		2.264	ug/L	0.1704	7.524	190.3
Be3130_R		0.02587	ug/L	0.001686	6.520	2.411
Ca3158_R		444.4	ug/L	1.690	0.3801	529.3
Cd2265_A		0.01531	ug/L	0.04217	275.5	-0.8656
Co2286_A		0.2341	ug/L	0.06647	28.39	0.8197
Cr2677_A		0.2805	ug/L	0.2236	79.72	4.017
Cu3273_A		1.339	ug/L	0.1636	12.21	2.362
Fe2599_R		166.7	ug/L	0.9405	0.5643	345.4
K_7664_R		2,250	ug/L	41.78	1.857	1,599
Li6707_R		0.8996	ug/L	0.9825	109.2	14.82
Mg2025_A		229.9	ug/L	2.499	1.087	74.52
Mn2576_R		11.39	ug/L	0.1188	1.044	125.9
Mo2020_A		19.18	ug/L	0.3946	2.058	57.98
Na5895_R	W	43,760	ug/L	31.25	0.07141	106,600
Ni2316_A		0.5313	ug/L	0.1684	31.70	1.010
Pb2203_A		-0.6803	ug/L	0.2813	41.35	-1.837
Sb2068_A		0.7967	ug/L	0.6213	77.99	0.8645
Se1960_A		0.8677	ug/L	0.2139	24.65	1.964
Si2516_R		6,784	ug/L	14.12	0.2082	3,322
Sn1899_A		0.3521	ug/L	0.3171	90.06	1.323
Sr4215_R		2.821	ug/L	0.004699	0.1666	260.5
Ti3349_A		3.509	ug/L	0.1680	4.788	73.34
Tl1908_A		1.297	ug/L	0.4453	34.33	-1.376
V_2924_A		0.3939	ug/L	0.1062	26.97	0.2057
Zn2062_A		26.18	ug/L	0.4223	1.613	58.96
Y_3600_R		19,793	Cts/S	169.58	0.85680	19,793
Y_2243_A		7,308.3	Cts/S	61.829	0.84602	7,308.3
Y_3600_A		140,880	Cts/S	135.32	0.096055	140,880

SO5506-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:42:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.03507	ug/L	0.2346	668.8	-21.96
Al3961_R		283.9	ug/L	1.486	0.5236	335.2
As1891_A		0.3668	ug/L	0.6770	184.6	-2.441
B_2089_A		12.37	ug/L	0.07164	0.5794	24.98
Ba4554_R		15.32	ug/L	0.09460	0.6177	1,188
Be3130_R		-0.01687	ug/L	0.03249	192.6	-2.938
Ca3158_R		5,906	ug/L	77.27	1.308	7,395
Cd2265_A		0.05016	ug/L	0.005351	10.67	0.8545
Co2286_A		0.8083	ug/L	0.05155	6.378	2.837
Cr2677_A		1.841	ug/L	0.09964	5.414	22.08
Cu3273_A		5.374	ug/L	0.4237	7.883	60.95
Fe2599_R		810.4	ug/L	11.90	1.469	1,680
K_7664_R		1,415	ug/L	8.953	0.6329	999.2
Li6707_R		1.838	ug/L	1.240	67.46	28.93
Mg2025_A		1,482	ug/L	3.059	0.2065	527.9
Mn2576_R		39.38	ug/L	1.107	2.812	424.1
Mo2020_A		0.5381	ug/L	0.07783	14.46	1.941
Na5895_R	W	35,970	ug/L	438.5	1.219	87,950
Ni2316_A		1.178	ug/L	0.01009	0.8563	1.797

SO5506-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:42:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.893	ug/L	1.176	24.03	3.046
Sb2068_A		-0.6316	ug/L	0.8803	139.4	0.1843
Se1960_A		-0.5551	ug/L	0.1407	25.34	1.628
Si2516_R		4,674	ug/L	77.19	1.652	2,316
Sn1899_A		0.3779	ug/L	0.2648	70.07	1.353
Sr4215_R		50.68	ug/L	0.6460	1.275	5,146
Ti3349_A		15.35	ug/L	0.08910	0.5806	375.2
Tl1908_A		1.102	ug/L	0.3656	33.17	-1.518
V_2924_A		1.058	ug/L	0.03439	3.251	8.917
Zn2062_A		90.68	ug/L	0.4202	0.4634	206.8
Y_3600_R		19,861	Cts/S	62.347	0.31391	19,861
Y_2243_A		7,414.2	Cts/S	31.000	0.41811	7,414.2
Y_3600_A		142,790	Cts/S	450.94	0.31582	142,790

SO5506-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:46:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.006406	ug/L	0.1706	2,663	-18.58
Al3961_R		6.621	ug/L	1.815	27.42	40.30
As1891_A		-0.5583	ug/L	0.09448	16.92	-2.655
B_2089_A		40.83	ug/L	0.5149	1.261	63.92
Ba4554_R		16.91	ug/L	0.005821	0.03443	1,284
Be3130_R		0.01535	ug/L	0.000006000	0.03946	1.524
Ca3158_R	W	32,340	ug/L	108.1	0.3344	39,830
Cd2265_A		0.1567	ug/L	0.03905	24.92	0.4285
Co2286_A		0.1180	ug/L	0.1409	119.4	0.4074
Cr2677_A		0.3778	ug/L	0.1215	32.17	5.047
Cu3273_A		0.6175	ug/L	0.4512	73.06	-7.855
Fe2599_R		28.14	ug/L	0.6986	2.483	58.56
K_7664_R		2,154	ug/L	19.58	0.9090	1,505
Li6707_R		4.671	ug/L	0.08271	1.771	69.88
Mg2025_A		1,766	ug/L	5.023	0.2845	614.9
Mn2576_R		24.59	ug/L	0.1878	0.7639	262.0
Mo2020_A		0.5037	ug/L	0.1212	24.06	1.791
Na5895_R		21,510	ug/L	96.88	0.4503	51,610
Ni2316_A		0.9553	ug/L	0.2579	27.00	1.454
Pb2203_A		-0.4828	ug/L	0.7617	157.8	-1.636
Sb2068_A		-0.2516	ug/L	0.1830	72.73	0.3497
Se1960_A		-1.637	ug/L	0.4018	24.54	1.305
Si2516_R		4,650	ug/L	55.57	1.195	2,260
Sn1899_A		-0.08251	ug/L	1.011	1,226	1.139
Sr4215_R		103.3	ug/L	0.5050	0.4890	10,310
Ti3349_A		-0.3182	ug/L	0.003657	1.149	-22.72
Tl1908_A		1.123	ug/L	0.4272	38.05	-1.456
V_2924_A		0.03160	ug/L	0.06867	217.3	-2.738
Zn2062_A		6.166	ug/L	0.03859	0.6258	13.83
Y_3600_R		19,476	Cts/S	56.680	0.29103	19,476
Y_2243_A		7,230.7	Cts/S	18.817	0.26024	7,230.7
Y_3600_A		139,010	Cts/S	165.71	0.11921	139,010

SO5506-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:50:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:50:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04125	ug/L	0.1629	394.9	-19.54
Al3961_R		8.329	ug/L	3.514	42.19	22.91
As1891_A		-0.06228	ug/L	0.1535	246.4	-2.495
B_2089_A		16.12	ug/L	0.002491	0.01546	29.64
Ba4554_R		8.888	ug/L	0.09913	1.115	695.5
Be3130_R		0.03578	ug/L	0.05386	150.5	3.674
Ca3158_R		11,770	ug/L	75.93	0.6449	14,740
Cd2265_A		0.09269	ug/L	0.01603	17.29	-0.2470
Co2286_A		0.4911	ug/L	0.008012	1.631	1.633
Cr2677_A		0.4394	ug/L	0.08440	19.21	5.850
Cu3273_A		0.4056	ug/L	0.2030	50.06	-11.04
Fe2599_R		45.30	ug/L	0.5190	1.146	95.09
K_7664_R		2,111	ug/L	39.59	1.875	1,501
Li6707_R		2.440	ug/L	0.006169	0.2529	37.87
Mg2025_A		4,339	ug/L	19.49	0.4490	1,526
Mn2576_R		46.87	ug/L	0.3780	0.8065	504.0
Mo2020_A		-0.05534	ug/L	0.02225	40.21	0.1268
Na5895_R	W	34,930	ug/L	224.2	0.6419	85,250
Ni2316_A		1.624	ug/L	0.08967	5.521	2.471
Pb2203_A		-0.2359	ug/L	0.06612	28.02	-1.428
Sb2068_A		-0.4933	ug/L	0.2155	43.69	0.2265
Se1960_A		-0.2354	ug/L	0.02380	10.11	1.670
Si2516_R		6,628	ug/L	68.36	1.031	3,252
Sn1899_A		1.173	ug/L	0.2443	20.83	1.637
Sr4215_R		123.0	ug/L	0.6418	0.5218	12,500
Ti3349_A		-0.3288	ug/L	0.1930	58.70	-23.36
Tl1908_A		0.9711	ug/L	0.5359	55.19	-1.547
V_2924_A		-0.1298	ug/L	0.4460	343.7	-4.636
Zn2062_A		28.38	ug/L	0.07468	0.2632	63.39
Y_3600_R		19,825	Cts/S	229.68	1.1585	19,825
Y_2243_A		7,250.9	Cts/S	11.095	0.15302	7,250.9
Y_3600_A		141,230	Cts/S	56.810	0.040226	141,230

SO5506-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:55:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3373	ug/L	0.09375	27.79	-14.23
Al3961_R		-0.8257	ug/L	2.194	265.7	12.68
As1891_A		0.6951	ug/L	0.04099	5.897	-2.271
B_2089_A		59.32	ug/L	0.1398	0.2356	90.16
Ba4554_R		5.514	ug/L	0.01365	0.2475	438.4
Be3130_R		0.006517	ug/L	0.0007410	11.36	0.5869
Ca3158_R		12,120	ug/L	92.86	0.7663	15,170
Cd2265_A		0.09014	ug/L	0.03409	37.82	0.6705
Co2286_A		2.179	ug/L	0.08238	3.780	7.204
Cr2677_A		0.1507	ug/L	0.2220	147.3	4.976
Cu3273_A		0.8488	ug/L	0.09940	11.71	-4.746
Fe2599_R		517.5	ug/L	6.140	1.187	1,071
K_7664_R		2,310	ug/L	14.19	0.6142	1,645
Li6707_R		5.028	ug/L	0.3915	7.786	76.46
Mg2025_A		4,314	ug/L	5.896	0.1367	1,522
Mn2576_R	W	2,538	ug/L	24.07	0.9483	26,940
Mo2020_A		0.2484	ug/L	0.1141	45.96	0.8850
Na5895_R		15,630	ug/L	83.52	0.5345	38,180
Ni2316_A		7.785	ug/L	0.1331	1.709	11.89

SO5506-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:55:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.2848	ug/L	0.4401	154.5	-1.456
Sb2068_A		0.02567	ug/L	0.1664	648.1	0.4873
Se1960_A		-1.476	ug/L	0.5838	39.56	1.701
Si2516_R		10,700	ug/L	92.45	0.8644	5,210
Sn1899_A		0.9670	ug/L	0.1564	16.18	1.561
Sr4215_R		80.31	ug/L	0.6930	0.8628	8,155
Ti3349_A		-0.1046	ug/L	0.06356	60.79	-17.73
Tl1908_A		1.019	ug/L	0.003535	0.3470	-2.834
V_2924_A		-0.1469	ug/L	0.1161	79.04	-14.41
Zn2062_A		10.63	ug/L	0.1666	1.567	23.90
Y_3600_R		19,825	Cts/S	83.589	0.42162	19,825
Y_2243_A		7,275.0	Cts/S	16.453	0.22615	7,275.0
Y_3600_A		141,400	Cts/S	413.56	0.29248	141,400

SO5506-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:59:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3245	ug/L	0.01385	4.266	-45.62
Al3961_R		7.283	ug/L	0.7512	10.31	16.35
As1891_A		0.6858	ug/L	0.3327	48.52	-2.879
B_2089_A		40.65	ug/L	0.02247	0.05527	64.74
Ba4554_R		16.37	ug/L	0.1321	0.8071	1,288
Be3130_R		0.05855	ug/L	0.009865	16.85	6.221
Ca3158_R		6,000	ug/L	125.8	2.098	7,633
Cd2265_A		0.04577	ug/L	0.07266	158.8	23.50
Co2286_A		3.952	ug/L	0.08804	2.228	13.34
Cr2677_A		-0.1538	ug/L	0.04666	30.33	0.7515
Cu3273_A		0.2737	ug/L	0.07835	28.63	-15.29
Fe2599_R		11,940	ug/L	184.5	1.545	25,130
K_7664_R		1,409	ug/L	1.452	0.1030	1,011
Li6707_R		2.770	ug/L	1.064	38.41	43.59
Mg2025_A		3,059	ug/L	4.049	0.1324	1,089
Mn2576_R		404.7	ug/L	7.866	1.944	4,373
Mo2020_A		0.4213	ug/L	0.05450	12.94	1.549
Na5895_R		8,605	ug/L	105.9	1.231	21,430
Ni2316_A		1.344	ug/L	0.2018	15.02	1.452
Pb2203_A		-0.5298	ug/L	0.7543	142.4	-1.252
Sb2068_A		-0.06059	ug/L	0.3030	500.1	0.6323
Se1960_A		-0.1294	ug/L	0.7387	570.7	1.828
Si2516_R		12,330	ug/L	213.9	1.734	6,104
Sn1899_A		0.4009	ug/L	0.7322	182.7	1.351
Sr4215_R		38.20	ug/L	0.5324	1.394	3,934
Ti3349_A		0.08642	ug/L	0.1150	133.1	-13.03
Tl1908_A		0.6015	ug/L	0.5541	92.12	-1.952
V_2924_A		0.1140	ug/L	0.2544	223.0	-1.683
Zn2062_A		39.99	ug/L	0.3418	0.8548	90.51
Y_3600_R		20,180	Cts/S	92.248	0.45712	20,180
Y_2243_A		7,352.0	Cts/S	22.163	0.30145	7,352.0
Y_3600_A		142,570	Cts/S	9.6571	0.0067740	142,570

SO5506-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:03:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:03:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2060	ug/L	0.2374	115.2	-22.08
Al3961_R		6.763	ug/L	5.336	78.89	23.01
As1891_A		9.738	ug/L	0.2669	2.741	0.6659
B_2089_A		82.45	ug/L	0.04167	0.05054	120.8
Ba4554_R		58.39	ug/L	0.2845	0.4872	4,402
Be3130_R		0.02134	ug/L	0.05228	245.0	2.083
Ca3158_R		13,760	ug/L	1.595	0.01159	16,980
Cd2265_A		0.009178	ug/L	0.01831	199.5	4.451
Co2286_A		2.084	ug/L	0.02027	0.9724	6.817
Cr2677_A		0.3125	ug/L	0.08675	27.76	5.093
Cu3273_A		1.794	ug/L	0.2914	16.24	8.163
Fe2599_R		2,868	ug/L	1.463	0.05101	5,840
K_7664_R		9,516	ug/L	49.32	0.5183	6,755
Li6707_R		1.846	ug/L	0.4910	26.60	28.56
Mg2025_A		15,040	ug/L	39.64	0.2635	5,242
Mn2576_R		634.0	ug/L	1.344	0.2119	6,636
Mo2020_A		7.516	ug/L	0.09498	1.264	22.40
Na5895_R	W	79,260	ug/L	326.7	0.4121	190,500
Ni2316_A		1.241	ug/L	0.04325	3.484	1.799
Pb2203_A		-0.01483	ug/L	0.05328	359.2	-1.124
Sb2068_A		0.1532	ug/L	0.3719	242.7	0.5779
Se1960_A		-0.5400	ug/L	1.030	190.8	1.665
Si2516_R		5,967	ug/L	22.20	0.3720	2,890
Sn1899_A		0.8763	ug/L	0.3183	36.33	1.500
Sr4215_R		187.0	ug/L	1.021	0.5459	18,730
Ti3349_A		0.6048	ug/L	0.002825	0.4671	0.2496
Tl1908_A		1.127	ug/L	0.2990	26.53	-1.754
V_2924_A		0.1938	ug/L	0.09259	47.79	-3.248
Zn2062_A		6.543	ug/L	0.1285	1.965	14.53
Y_3600_R		19,528	Cts/S	113.94	0.58345	19,528
Y_2243_A		7,159.3	Cts/S	25.488	0.35601	7,159.3
Y_3600_A		136,540	Cts/S	39.349	0.028819	136,540

SO5506-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:08:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.003605	ug/L	0.1691	4,691	-27.80
Al3961_R		18.31	ug/L	9.802	53.53	41.44
As1891_A		3.154	ug/L	1.914	60.70	-1.581
B_2089_A		44.83	ug/L	0.5243	1.170	69.93
Ba4554_R		5.180	ug/L	0.2731	5.272	418.0
Be3130_R		0.1672	ug/L	0.03546	21.21	17.80
Ca3158_R		18,300	ug/L	653.7	3.571	23,220
Cd2265_A		0.03459	ug/L	0.02408	69.61	5.931
Co2286_A		1.452	ug/L	0.05005	3.448	4.852
Cr2677_A		0.5250	ug/L	0.1619	30.84	8.035
Cu3273_A		0.5128	ug/L	0.08031	15.66	-10.05
Fe2599_R		3,423	ug/L	150.3	4.390	7,165
K_7664_R		2,179	ug/L	49.18	2.257	1,570
Li6707_R		12.01	ug/L	0.1853	1.543	182.9
Mg2025_A		4,414	ug/L	37.24	0.8436	1,558
Mn2576_R	W	1,001	ug/L	34.67	3.465	10,760
Mo2020_A		0.3368	ug/L	0.1392	41.32	1.246
Na5895_R		13,780	ug/L	433.3	3.144	34,100
Ni2316_A		0.6915	ug/L	0.1775	25.67	0.8796

SO5506-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:08:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.6525	ug/L	0.6550	100.4	-1.663
Sb2068_A		0.1664	ug/L	0.3632	218.2	0.5994
Se1960_A		-0.6525	ug/L	0.3497	53.59	1.716
Si2516_R		14,370	ug/L	514.4	3.581	7,064
Sn1899_A		1.891	ug/L	0.3405	18.01	1.927
Sr4215_R		119.4	ug/L	4.396	3.683	12,280
Ti3349_A		0.2445	ug/L	0.07219	29.52	-8.866
Tl1908_A		0.7132	ug/L	1.079	151.3	-2.189
V_2924_A		0.1182	ug/L	0.3723	314.9	-5.073
Zn2062_A		13.14	ug/L	0.04661	0.3546	29.53
Y_3600_R		20,082	Cts/S	487.65	2.4283	20,082
Y_2243_A		7,277.4	Cts/S	65.477	0.89973	7,277.4
Y_3600_A		140,310	Cts/S	121.64	0.086697	140,310

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:12:37PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		509.6	ug/L	0.8651	0.1698	8,931
Al3961_R		12,560	ug/L	52.47	0.4176	14,690
As1891_A		505.9	ug/L	3.788	0.7486	170.3
B_2089_A		511.1	ug/L	1.205	0.2358	745.2
Ba4554_R		497.6	ug/L	6.321	1.270	38,410
Be3130_R		498.0	ug/L	5.380	1.080	53,460
Ca3158_R		12,500	ug/L	52.16	0.4172	15,850
Cd2265_A		508.7	ug/L	1.799	0.3536	5,751
Co2286_A		515.1	ug/L	1.917	0.3721	1,716
Cr2677_A		499.5	ug/L	0.5048	0.1011	5,742
Cu3273_A		500.3	ug/L	1.114	0.2226	7,276
Fe2599_R		12,480	ug/L	140.2	1.123	26,120
K_7664_R		12,520	ug/L	96.82	0.7735	9,139
Li6707_R		503.0	ug/L	5.199	1.033	7,592
Mg2025_A		13,060	ug/L	34.92	0.2673	4,703
Mn2576_R		502.7	ug/L	0.2711	0.05392	5,404
Mo2020_A		511.4	ug/L	1.959	0.3832	1,548
Na5895_R		12,570	ug/L	72.39	0.5761	31,090
Ni2316_A		512.0	ug/L	1.240	0.2421	796.8
Pb2203_A		515.2	ug/L	1.520	0.2951	445.7
Sb2068_A		511.8	ug/L	0.3783	0.07391	253.0
Se1960_A		508.4	ug/L	0.9363	0.1842	134.0
Si2516_R		12,970	ug/L	24.65	0.1900	6,385
Sn1899_A		510.3	ug/L	1.299	0.2546	204.9
Sr4215_R		501.0	ug/L	4.531	0.9045	51,630
Ti3349_A		503.6	ug/L	0.9771	0.1940	12,820
Tl1908_A		524.1	ug/L	1.735	0.3310	266.9
V_2924_A		501.8	ug/L	0.6183	0.1232	5,630
Zn2062_A		507.0	ug/L	1.049	0.2069	1,145
Y_3600_R		20,068	Cts/S	43.365	0.21609	20,068
Y_2243_A		7,352.6	Cts/S	14.376	0.19553	7,352.6
Y_3600_A		142,940	Cts/S	340.51	0.23822	142,940

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:16:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:16:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.09250	ug/L	0.04956	53.57	-17.26
Al3961_R		0.6109	ug/L	5.121	838.2	2.488
As1891_A		0.2610	ug/L	0.2781	106.5	-2.422
B_2089_A		1.691	ug/L	0.3340	19.76	9.699
Ba4554_R		-0.05556	ug/L	0.1827	328.8	13.72
Be3130_R		0.02990	ug/L	0.06207	207.5	2.999
Ca3158_R		-0.4358	ug/L	2.097	481.1	-27.60
Cd2265_A		0.08617	ug/L	0.04588	53.24	-0.4101
Co2286_A		0.1539	ug/L	0.08980	58.34	0.5361
Cr2677_A		-0.1633	ug/L	0.4008	245.5	-1.047
Cu3273_A		0.06645	ug/L	0.04320	65.02	-16.07
Fe2599_R		3.029	ug/L	0.7545	24.91	7.622
K_7664_R		11.10	ug/L	17.49	157.6	-17.63
Li6707_R		0.1146	ug/L	0.08562	74.71	3.170
Mg2025_A		1.962	ug/L	0.2178	11.10	-6.850
Mn2576_R		0.01521	ug/L	0.02872	188.8	5.387
Mo2020_A		0.4231	ug/L	0.03613	8.540	1.582
Na5895_R		7.107	ug/L	1.122	15.79	78.71
Ni2316_A		-0.02660	ug/L	0.07513	282.5	-0.03931
Pb2203_A		0.009443	ug/L	0.3389	3,589	-1.237
Sb2068_A		-0.1445	ug/L	0.3887	269.0	0.4085
Se1960_A		-0.8289	ug/L	0.1270	15.33	1.536
Si2516_R		15.05	ug/L	0.5298	3.521	68.45
Sn1899_A		-0.3233	ug/L	0.3684	113.9	1.063
Sr4215_R		0.07321	ug/L	0.02933	40.07	-18.72
Ti3349_A		0.1076	ug/L	0.02291	21.29	-12.49
Tl1908_A		1.042	ug/L	0.1724	16.54	-1.511
V_2924_A		-0.3431	ug/L	0.1697	49.45	-6.920
Zn2062_A		0.1621	ug/L	0.1416	87.36	0.4972
Y_3600_R		19,582	Cts/S	7.9558	0.040629	19,582
Y_2243_A		7,365.7	Cts/S	53.607	0.72780	7,365.7
Y_3600_A		142,560	Cts/S	195.99	0.13748	142,560

SO5506-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:21:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07820	ug/L	0.1739	222.3	-17.71
Al3961_R		27.07	ug/L	0.3253	1.202	39.05
As1891_A		-0.1988	ug/L	1.170	588.7	-2.540
B_2089_A		12.49	ug/L	0.02972	0.2379	24.54
Ba4554_R		14.35	ug/L	0.05860	0.4085	1,117
Be3130_R		0.02734	ug/L	0.04147	151.7	2.839
Ca3158_R		5,992	ug/L	12.19	0.2034	7,529
Cd2265_A		0.08130	ug/L	0.04941	60.78	-0.1470
Co2286_A		0.5128	ug/L	0.05503	10.73	1.704
Cr2677_A		0.8317	ug/L	0.1699	20.43	10.27
Cu3273_A		2.433	ug/L	0.05858	2.408	18.11
Fe2599_R		157.6	ug/L	0.8411	0.5338	328.9
K_7664_R		1,420	ug/L	15.06	1.060	1,007
Li6707_R		1.526	ug/L	0.8205	53.78	24.43
Mg2025_A		1,478	ug/L	1.365	0.09237	513.4
Mn2576_R		29.00	ug/L	0.1313	0.4527	315.0
Mo2020_A		0.2797	ug/L	0.01189	4.250	1.125
Na5895_R	W	36,070	ug/L	228.3	0.6329	88,490
Ni2316_A		1.754	ug/L	0.1042	5.939	2.660

SO5506-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:21:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9208	ug/L	0.03032	3.293	-0.4322
Sb2068_A		-0.2439	ug/L	0.3718	152.5	0.3528
Se1960_A		-1.183	ug/L	0.2835	23.96	1.422
Si2516_R		4,253	ug/L	7.360	0.1731	2,120
Sn1899_A		0.9143	ug/L	0.1166	12.75	1.531
Sr4215_R		50.94	ug/L	0.2431	0.4773	5,189
Ti3349_A		0.2234	ug/L	0.1892	84.68	-9.448
Tl1908_A		0.7623	ug/L	0.2656	34.85	-1.639
V_2924_A		0.3072	ug/L	0.1577	51.32	0.3105
Zn2062_A		93.04	ug/L	0.02107	0.02265	207.0
Y_3600_R		19,928	Cts/S	192.15	0.96427	19,928
Y_2243_A		7,231.0	Cts/S	10.386	0.14363	7,231.0
Y_3600_A		140,850	Cts/S	941.18	0.66824	140,850

SO5506-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:25:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2431	ug/L	0.1889	77.71	-22.71
Al3961_R		-2.169	ug/L	4.482	206.6	30.06
As1891_A		0.5240	ug/L	0.1081	20.64	-2.286
B_2089_A		40.60	ug/L	0.4403	1.084	63.51
Ba4554_R		16.74	ug/L	0.2443	1.459	1,266
Be3130_R		0.02819	ug/L	0.03284	116.5	2.853
Ca3158_R	W	32,180	ug/L	192.5	0.5983	39,460
Cd2265_A		0.1352	ug/L	0.04157	30.76	0.1494
Co2286_A		0.08517	ug/L	0.1007	118.3	0.2999
Cr2677_A		0.5551	ug/L	0.1235	22.24	7.062
Cu3273_A		-0.1017	ug/L	0.2518	247.7	-18.10
Fe2599_R		7.610	ug/L	1.383	18.18	16.81
K_7664_R		2,157	ug/L	41.93	1.944	1,501
Li6707_R		4.128	ug/L	1.034	25.06	61.65
Mg2025_A		1,747	ug/L	6.139	0.3514	607.4
Mn2576_R		22.86	ug/L	0.2890	1.264	243.0
Mo2020_A		0.3907	ug/L	0.05146	13.17	1.453
Na5895_R		21,290	ug/L	181.3	0.8516	50,850
Ni2316_A		0.8892	ug/L	0.09844	11.07	1.351
Pb2203_A		0.2875	ug/L	0.6050	210.4	-0.9766
Sb2068_A		-0.7002	ug/L	0.2129	30.40	0.1277
Se1960_A		0.1106	ug/L	0.5699	515.3	1.748
Si2516_R		4,562	ug/L	30.93	0.6780	2,209
Sn1899_A		0.4620	ug/L	0.5947	128.7	1.351
Sr4215_R		101.9	ug/L	0.9370	0.9195	10,130
Ti3349_A		-0.2745	ug/L	0.03380	12.31	-21.72
Tl1908_A		0.7937	ug/L	0.08727	11.00	-1.618
V_2924_A		0.1350	ug/L	0.02131	15.79	-1.602
Zn2062_A		4.926	ug/L	0.05836	1.185	11.06
Y_3600_R		19,391	Cts/S	6.6519	0.034304	19,391
Y_2243_A		7,220.5	Cts/S	10.228	0.14166	7,220.5
Y_3600_A		139,570	Cts/S	1,728.4	1.2383	139,570

SO5506-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:29:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:29:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.02610	ug/L	0.3206	1,228	-19.07
Al3961_R		9.686	ug/L	1.141	11.78	24.31
As1891_A		0.1281	ug/L	0.1477	115.4	-2.434
B_2089_A		16.15	ug/L	0.08478	0.5251	29.74
Ba4554_R		8.957	ug/L	0.1176	1.313	699.9
Be3130_R		0.04547	ug/L	0.01222	26.87	4.696
Ca3158_R		11,650	ug/L	20.50	0.1759	14,570
Cd2265_A		0.1017	ug/L	0.07043	69.27	-0.2106
Co2286_A		0.6240	ug/L	0.08018	12.85	2.075
Cr2677_A		0.6543	ug/L	0.01878	2.871	8.219
Cu3273_A		0.4449	ug/L	0.1406	31.59	-10.38
Fe2599_R		14.01	ug/L	0.6787	4.844	30.39
K_7664_R		2,166	ug/L	31.61	1.459	1,539
Li6707_R		2.687	ug/L	0.3722	13.85	41.53
Mg2025_A		4,275	ug/L	1.469	0.03435	1,506
Mn2576_R		44.62	ug/L	0.4316	0.9674	479.5
Mo2020_A		0.07330	ug/L	0.09180	125.2	0.5118
Na5895_R	W	34,430	ug/L	124.4	0.3614	83,940
Ni2316_A		1.965	ug/L	0.1040	5.293	3.001
Pb2203_A		-0.3100	ug/L	0.5246	169.2	-1.495
Sb2068_A		0.6351	ug/L	0.5838	91.92	0.7859
Se1960_A		-1.011	ug/L	1.444	142.9	1.474
Si2516_R		6,573	ug/L	2.990	0.04549	3,222
Sn1899_A		0.1298	ug/L	0.3814	293.8	1.228
Sr4215_R		121.6	ug/L	0.5144	0.4230	12,350
Ti3349_A		0.1451	ug/L	0.04765	32.85	-11.34
Tl1908_A		0.6186	ug/L	0.8844	143.0	-1.727
V_2924_A		-0.02968	ug/L	0.1443	486.2	-3.489
Zn2062_A		26.17	ug/L	0.3765	1.439	58.58
Y_3600_R		19,802	Cts/S	206.52	1.0430	19,802
Y_2243_A		7,264.8	Cts/S	0.68719	0.0094590	7,264.8
Y_3600_A		140,130	Cts/S	1,169.4	0.83453	140,130

SO5154-001R

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:34:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1794	ug/L	0.09158	51.04	-22.25
Al3961_R		350.4	ug/L	7.901	2.255	437.4
As1891_A		0.4568	ug/L	0.1806	39.53	-2.281
B_2089_A		11.50	ug/L	0.2669	2.322	22.81
Ba4554_R		15.73	ug/L	0.008421	0.05352	1,192
Be3130_R		-0.004074	ug/L	0.01276	313.3	-2.199
Ca3158_R	W	42,060	ug/L	513.9	1.222	51,640
Cd2265_A		0.2705	ug/L	0.01229	4.546	2.186
Co2286_A		0.3773	ug/L	0.08155	21.62	1.404
Cr2677_A		1.802	ug/L	0.05666	3.145	20.70
Cu3273_A		7.832	ug/L	0.3679	4.698	92.52
Fe2599_R		284.3	ug/L	3.844	1.352	576.8
K_7664_R		3,282	ug/L	60.52	1.844	2,299
Li6707_R		7.199	ug/L	0.6834	9.493	106.5
Mg2025_A		2,709	ug/L	26.02	0.9604	929.6
Mn2576_R		120.2	ug/L	1.240	1.032	1,254
Mo2020_A		3.665	ug/L	0.09465	2.583	10.98
Na5895_R	W	30,540	ug/L	148.5	0.4862	72,990
Ni2316_A		1.416	ug/L	0.04458	3.149	2.134

SO5154-001R

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:34:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.6937	ug/L	0.9065	130.7	-1.800
Sb2068_A		-0.1970	ug/L	0.02600	13.20	0.3749
Se1960_A		0.1413	ug/L	0.5839	413.4	1.740
Si2516_R		1,968	ug/L	26.99	1.372	988.2
Sn1899_A		-0.1417	ug/L	0.5143	363.0	1.096
Sr4215_R		133.9	ug/L	0.7763	0.5796	13,330
Ti3349_A		28.96	ug/L	0.7244	2.501	690.0
Tl1908_A		0.09222	ug/L	0.5268	571.3	-1.997
V_2924_A		5.414	ug/L	0.05413	0.9998	55.15
Zn2062_A		19.17	ug/L	0.03140	0.1638	41.93
Y_3600_R		19,412	Cts/S	0.55241	0.0028460	19,412
Y_2243_A		7,095.0	Cts/S	55.584	0.78343	7,095.0
Y_3600_A		136,540	Cts/S	10.167	0.0074460	136,540

SO5512-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:38:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7187	ug/L	0.3857	53.66	-111.4
Al3961_R		22.81	ug/L	5.198	22.79	60.68
As1891_A	W	1,648	ug/L	8.815	0.5349	553.3
B_2089_A		69.08	ug/L	0.1499	0.2170	103.7
Ba4554_R		25.55	ug/L	0.07122	0.2788	1,954
Be3130_R		0.003821	ug/L	0.01515	396.4	0.3093
Ca3158_R	W	33,610	ug/L	4.199	0.01249	41,910
Cd2265_A		-0.4071	ug/L	0.01731	4.252	74.13
Co2286_A		7.778	ug/L	0.03645	0.4686	26.16
Cr2677_A		-0.1912	ug/L	0.1378	72.07	3.828
Cu3273_A		0.4153	ug/L	0.3408	82.07	-17.99
Fe2599_R	W	39,690	ug/L	1.186	0.002987	81,590
K_7664_R		6,694	ug/L	10.96	0.1637	4,790
Li6707_R		3.386	ug/L	0.1712	5.056	51.68
Mg2025_A		5,244	ug/L	24.67	0.4704	1,850
Mn2576_R		986.4	ug/L	1.243	0.1260	10,400
Mo2020_A		3.233	ug/L	0.1288	3.985	9.903
Na5895_R		21,100	ug/L	74.78	0.3544	51,250
Ni2316_A		1.331	ug/L	0.06972	5.237	0.002053
Pb2203_A		0.1598	ug/L	1.011	632.4	0.3852
Sb2068_A		0.4670	ug/L	0.07074	15.15	1.364
Se1960_A		-0.4641	ug/L	1.033	222.6	1.973
Si2516_R		12,580	ug/L	6.738	0.05358	6,079
Sn1899_A		1.049	ug/L	0.1559	14.86	1.591
Sr4215_R		272.0	ug/L	0.7853	0.2887	27,530
Ti3349_A		0.4748	ug/L	0.1279	26.93	-3.048
Tl1908_A		0.5645	ug/L	0.3755	66.52	-2.269
V_2924_A		0.5176	ug/L	0.1945	37.58	4.179
Zn2062_A		3.565	ug/L	0.04770	1.338	8.086
Y_3600_R		19,715	Cts/S	114.76	0.58208	19,715
Y_2243_A		7,262.8	Cts/S	35.098	0.48326	7,262.8
Y_3600_A		139,200	Cts/S	481.26	0.34574	139,200

SO5512-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:43:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5512-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:43:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5685	ug/L	0.03406	5.991	-110.0
Al3961_R		-5.173	ug/L	6.514	125.9	28.37
As1891_A	W	1,597	ug/L	3.214	0.2012	530.3
B_2089_A		69.47	ug/L	0.2128	0.3063	103.1
Ba4554_R		25.06	ug/L	0.1344	0.5365	1,902
Be3130_R		-0.01786	ug/L	0.01767	98.96	-1.918
Ca3158_R	W	33,580	ug/L	18.17	0.05410	41,540
Cd2265_A		-0.2816	ug/L	0.007619	2.706	72.32
Co2286_A		7.396	ug/L	0.02350	0.3177	24.61
Cr2677_A		-0.3356	ug/L	0.2007	59.80	2.068
Cu3273_A		0.2375	ug/L	0.06977	29.37	-20.13
Fe2599_R	W	38,490	ug/L	98.81	0.2567	78,500
K_7664_R		6,741	ug/L	10.65	0.1579	4,785
Li6707_R		3.105	ug/L	0.6559	21.13	47.15
Mg2025_A		5,248	ug/L	0.9479	0.01806	1,831
Mn2576_R		976.7	ug/L	0.1824	0.01868	10,220
Mo2020_A		3.361	ug/L	0.03057	0.9095	10.17
Na5895_R		21,220	ug/L	75.75	0.3570	51,120
Ni2316_A		1.400	ug/L	0.1072	7.656	0.1685
Pb2203_A		-0.7495	ug/L	0.2818	37.60	-0.4311
Sb2068_A		-0.3040	ug/L	0.3697	121.6	0.9537
Se1960_A		-1.199	ug/L	0.6003	50.05	1.756
Si2516_R		12,390	ug/L	34.56	0.2790	5,940
Sn1899_A		1.168	ug/L	0.2567	21.98	1.620
Sr4215_R		268.9	ug/L	0.3392	0.1261	27,000
Ti3349_A		-0.4448	ug/L	0.2536	57.02	-25.62
Tl1908_A		-0.2250	ug/L	0.1635	72.67	-2.633
V_2924_A		0.2097	ug/L	0.3132	149.4	0.6580
Zn2062_A		3.164	ug/L	0.04042	1.277	7.114
Y_3600_R		19,557	Cts/S	81.120	0.41479	19,557
Y_2243_A		7,183.4	Cts/S	10.323	0.14370	7,183.4
Y_3600_A		138,140	Cts/S	1,216.3	0.88052	138,140

SO5516-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:47:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.08929	ug/L	0.01892	21.19	-15.60
Al3961_R		-20.47	ug/L	1.157	5.655	75.43
As1891_A		-0.06683	ug/L	0.5087	761.2	-2.333
B_2089_A		8.419	ug/L	0.4046	4.806	17.69
Ba4554_R		62.24	ug/L	0.3431	0.5512	4,556
Be3130_R		-0.04609	ug/L	0.002529	5.486	-4.739
Ca3158_R	W	103,100	ug/L	1,476	1.432	123,700
Cd2265_A		-0.02370	ug/L	0.04617	194.8	-1.499
Co2286_A		0.1263	ug/L	0.1228	97.23	0.4073
Cr2677_A		0.5694	ug/L	0.2253	39.56	6.611
Cu3273_A		0.1258	ug/L	0.2406	191.3	-13.68
Fe2599_R		13.00	ug/L	1.036	7.973	27.09
K_7664_R		222.2	ug/L	8.480	3.817	129.0
Li6707_R		1.868	ug/L	1.002	53.61	28.02
Mg2025_A		779.6	ug/L	2.948	0.3782	250.7
Mn2576_R		2.031	ug/L	0.2687	13.23	25.91
Mo2020_A		-0.01382	ug/L	0.1681	1,217	0.2362
Na5895_R	F	330,900	ug/L	6,172	1.865	772,200
Ni2316_A		-0.04516	ug/L	0.08055	178.4	-0.06804

SO5516-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:47:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.2816	ug/L	0.7979	283.3	-0.9188
Sb2068_A		0.1268	ug/L	0.4509	355.8	0.4978
Se1960_A		-1.500	ug/L	0.1982	13.22	1.253
Si2516_R		273.8	ug/L	8.506	3.107	185.4
Sn1899_A		0.6928	ug/L	0.5628	81.24	1.353
Sr4215_R		320.6	ug/L	3.243	1.012	31,220
Ti3349_A		-0.4042	ug/L	0.07281	18.01	-22.94
Tl1908_A		0.002556	ug/L	0.02361	923.5	-1.883
V_2924_A		0.1046	ug/L	0.03922	37.51	-1.685
Zn2062_A		10.78	ug/L	0.08005	0.7428	22.58
Y_3600_R		18,967	Cts/S	159.27	0.83970	18,967
Y_2243_A		6,780.1	Cts/S	19.605	0.28915	6,780.1
Y_3600_A		128,300	Cts/S	358.71	0.27960	128,300

SO5520-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:51:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1505	ug/L	0.1062	70.59	-20.92
Al3961_R		6.504	ug/L	1.999	30.73	69.84
As1891_A		1.577	ug/L	1.113	70.60	-1.927
B_2089_A		33.52	ug/L	0.1271	0.3793	53.56
Ba4554_R		7.157	ug/L	0.1636	2.286	553.4
Be3130_R		-0.01887	ug/L	0.03489	184.9	-2.046
Ca3158_R	W	63,320	ug/L	1,056	1.667	77,980
Cd2265_A		-0.02353	ug/L	0.02074	88.14	-1.595
Co2286_A		0.04584	ug/L	0.005405	11.79	0.1699
Cr2677_A		0.3969	ug/L	0.09586	24.15	5.218
Cu3273_A		0.3309	ug/L	0.2619	79.14	-11.87
Fe2599_R		10.09	ug/L	0.2064	2.045	21.91
K_7664_R		2,173	ug/L	40.65	1.870	1,518
Li6707_R		2.328	ug/L	0.7508	32.26	35.58
Mg2025_A		1,945	ug/L	4.566	0.2347	675.8
Mn2576_R		0.3508	ug/L	0.3064	87.33	9.477
Mo2020_A		0.2152	ug/L	0.05551	25.79	0.9315
Na5895_R		9,009	ug/L	35.48	0.3938	21,640
Ni2316_A		-0.1765	ug/L	0.1991	112.8	-0.2682
Pb2203_A		-0.4623	ug/L	1.045	226.0	-1.611
Sb2068_A		-0.3859	ug/L	0.3011	78.03	0.2800
Se1960_A		-0.5564	ug/L	0.2162	38.86	1.572
Si2516_R		6,593	ug/L	111.7	1.694	3,177
Sn1899_A		0.5133	ug/L	0.03843	7.486	1.368
Sr4215_R		163.4	ug/L	2.419	1.481	16,320
Ti3349_A		-0.4416	ug/L	0.1087	24.63	-25.67
Tl1908_A		0.4910	ug/L	0.1896	38.62	-1.755
V_2924_A		-0.03903	ug/L	0.1686	431.9	-3.390
Zn2062_A		1.136	ug/L	0.1219	10.73	2.642
Y_3600_R		19,468	Cts/S	106.45	0.54680	19,468
Y_2243_A		7,205.1	Cts/S	24.456	0.33943	7,205.1
Y_3600_A		138,430	Cts/S	594.22	0.42925	138,430

SO5520-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:56:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000075

SO5520-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:56:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1897	ug/L	0.2151	113.4	-25.29
Al3961_R		-18.59	ug/L	4.740	25.50	47.24
As1891_A		0.7009	ug/L	0.3776	53.87	-2.308
B_2089_A		34.97	ug/L	0.5343	1.528	55.77
Ba4554_R		10.43	ug/L	0.09841	0.9435	787.9
Be3130_R		-0.02018	ug/L	0.01371	67.93	-2.136
Ca3158_R	W	70,010	ug/L	486.1	0.6943	85,090
Cd2265_A		0.01623	ug/L	0.01077	66.34	1.998
Co2286_A		-0.02699	ug/L	0.08883	329.1	-0.04624
Cr2677_A		0.3082	ug/L	0.04744	15.39	4.337
Cu3273_A		5.069	ug/L	0.4948	9.761	53.84
Fe2599_R		1,583	ug/L	2.062	0.1302	3,173
K_7664_R		2,327	ug/L	34.48	1.482	1,606
Li6707_R		1.836	ug/L	0.3727	20.30	27.97
Mg2025_A		2,055	ug/L	24.97	1.215	717.0
Mn2576_R		18.85	ug/L	0.2287	1.214	199.1
Mo2020_A		0.1004	ug/L	0.04914	48.93	0.5913
Na5895_R		8,658	ug/L	14.50	0.1675	20,520
Ni2316_A		-0.1530	ug/L	0.1047	68.44	-0.3172
Pb2203_A		-0.2380	ug/L	0.08064	33.88	-1.366
Sb2068_A		-0.7358	ug/L	0.02696	3.664	0.1326
Se1960_A		-1.579	ug/L	0.2645	16.74	1.326
Si2516_R		7,028	ug/L	36.33	0.5170	3,338
Sn1899_A		0.8257	ug/L	0.1299	15.74	1.496
Sr4215_R		181.9	ug/L	0.4811	0.2644	17,930
Ti3349_A		-0.5862	ug/L	0.1112	18.97	-28.74
Tl1908_A		0.4148	ug/L	0.04236	10.21	-1.811
V_2924_A		-0.07765	ug/L	0.03759	48.41	-3.605
Zn2062_A		2.664	ug/L	0.07907	2.968	6.050
Y_3600_R		19,211	Cts/S	15.039	0.078283	19,211
Y_2243_A		7,232.3	Cts/S	50.209	0.69424	7,232.3
Y_3600_A		136,050	Cts/S	504.73	0.37100	136,050

SO5520-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:00:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.008834	ug/L	0.01831	207.3	-21.18
Al3961_R		-8.704	ug/L	7.961	91.46	59.16
As1891_A		2.295	ug/L	2.035	88.66	-1.752
B_2089_A		13.96	ug/L	0.05057	0.3623	26.53
Ba4554_R		12.46	ug/L	0.1881	1.510	945.1
Be3130_R		-0.06146	ug/L	0.02208	35.93	-6.427
Ca3158_R	W	70,430	ug/L	1,165	1.654	86,280
Cd2265_A		-0.03373	ug/L	0.01483	43.96	0.7973
Co2286_A		0.9803	ug/L	0.07521	7.672	3.241
Cr2677_A		0.4727	ug/L	0.1128	23.87	6.131
Cu3273_A		8.311	ug/L	0.04716	0.5674	99.12
Fe2599_R		1,263	ug/L	17.69	1.401	2,551
K_7664_R		1,192	ug/L	22.53	1.890	817.2
Li6707_R		1.201	ug/L	1.333	111.0	19.01
Mg2025_A		1,732	ug/L	9.090	0.5249	602.4
Mn2576_R		31.30	ug/L	0.1685	0.5385	329.7
Mo2020_A		0.1327	ug/L	0.06882	51.85	0.6861
Na5895_R		6,037	ug/L	40.82	0.6762	14,440
Ni2316_A		1.473	ug/L	0.07815	5.304	2.172

SO5520-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:00:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.023	ug/L	0.4792	46.85	-0.2994
Sb2068_A		-0.5344	ug/L	0.9154	171.3	0.2264
Se1960_A		-0.9217	ug/L	1.384	150.1	1.492
Si2516_R		5,400	ug/L	73.92	1.369	2,599
Sn1899_A		0.8272	ug/L	0.07122	8.610	1.495
Sr4215_R		164.2	ug/L	1.781	1.084	16,320
Ti3349_A		-0.6348	ug/L	0.05364	8.451	-29.98
Tl1908_A		0.7954	ug/L	0.02355	2.961	-1.621
V_2924_A		0.009190	ug/L	0.2380	2,590	-2.780
Zn2062_A		17.13	ug/L	0.1608	0.9386	38.16
Y_3600_R		19,365	Cts/S	119.96	0.61950	19,365
Y_2243_A		7,223.3	Cts/S	15.305	0.21189	7,223.3
Y_3600_A		136,340	Cts/S	975.54	0.71553	136,340

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:05:05PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.8	ug/L	1.763	0.3473	8,793
Al3961_R		12,670	ug/L	85.30	0.6731	14,570
As1891_A		495.4	ug/L	2.577	0.5201	168.7
B_2089_A		507.0	ug/L	2.142	0.4224	748.1
Ba4554_R		509.3	ug/L	4.098	0.8046	38,670
Be3130_R		516.1	ug/L	5.873	1.138	54,510
Ca3158_R		12,680	ug/L	67.61	0.5332	15,820
Cd2265_A		505.8	ug/L	1.571	0.3106	5,788
Co2286_A		504.7	ug/L	0.3400	0.06736	1,702
Cr2677_A		504.9	ug/L	1.886	0.3735	5,735
Cu3273_A		511.6	ug/L	1.598	0.3124	7,353
Fe2599_R		12,710	ug/L	129.5	1.019	26,170
K_7664_R		12,670	ug/L	22.86	0.1804	9,100
Li6707_R		516.5	ug/L	2.670	0.5169	7,668
Mg2025_A		12,780	ug/L	38.81	0.3036	4,658
Mn2576_R		503.4	ug/L	0.7149	0.1420	5,323
Mo2020_A		501.7	ug/L	0.9501	0.1894	1,537
Na5895_R		12,840	ug/L	43.79	0.3411	31,250
Ni2316_A		509.7	ug/L	1.813	0.3557	802.7
Pb2203_A		514.4	ug/L	1.732	0.3367	450.5
Sb2068_A		495.9	ug/L	1.029	0.2075	248.1
Se1960_A		499.3	ug/L	1.715	0.3436	133.2
Si2516_R		12,880	ug/L	50.32	0.3908	6,237
Sn1899_A		512.2	ug/L	1.690	0.3300	208.2
Sr4215_R		514.6	ug/L	4.815	0.9357	52,170
Ti3349_A		503.3	ug/L	2.279	0.4527	12,660
Tl1908_A		509.0	ug/L	1.514	0.2975	262.4
V_2924_A		497.4	ug/L	0.9825	0.1975	5,514
Zn2062_A		505.0	ug/L	1.225	0.2425	1,154
Y_3600_R		19,743	Cts/S	37.709	0.19100	19,743
Y_2243_A		7,442.3	Cts/S	16.065	0.21587	7,442.3
Y_3600_A		141,230	Cts/S	228.66	0.16190	141,230

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:09:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:09:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2953	ug/L	0.2221	75.20	-13.46
Al3961_R		-2.699	ug/L	6.995	259.1	-1.241
As1891_A		-0.4932	ug/L	0.5249	106.4	-2.687
B_2089_A		1.467	ug/L	0.0004450	0.03036	9.409
Ba4554_R		-0.002982	ug/L	0.09919	3,326	17.87
Be3130_R		0.1562	ug/L	0.05159	33.03	16.42
Ca3158_R		5.245	ug/L	3.071	58.55	-20.81
Cd2265_A		0.1192	ug/L	0.06459	54.18	-0.03120
Co2286_A		0.04062	ug/L	0.2255	555.2	0.1611
Cr2677_A		0.1361	ug/L	0.04602	33.81	2.341
Cu3273_A		0.3374	ug/L	0.1031	30.54	-11.93
Fe2599_R		5.250	ug/L	2.464	46.94	12.29
K_7664_R		-7.699	ug/L	5.756	74.76	-31.44
Li6707_R		0.4154	ug/L	1.309	315.1	7.806
Mg2025_A		1.771	ug/L	2.721	153.6	-6.939
Mn2576_R		-0.05892	ug/L	0.1102	187.1	4.677
Mo2020_A		0.5320	ug/L	0.07938	14.92	1.917
Na5895_R		5.898	ug/L	0.8732	14.81	76.80
Ni2316_A		0.1840	ug/L	0.1314	71.42	0.2883
Pb2203_A		0.1320	ug/L	0.1552	117.6	-1.134
Sb2068_A		0.7865	ug/L	0.2506	31.87	0.8735
Se1960_A		-1.015	ug/L	0.6155	60.65	1.491
Si2516_R		19.84	ug/L	2.143	10.80	71.65
Sn1899_A		-0.06903	ug/L	0.03135	45.41	1.168
Sr4215_R		0.2439	ug/L	0.05077	20.82	-1.598
Ti3349_A		0.2713	ug/L	0.3069	113.1	-8.182
Tl1908_A		0.9312	ug/L	0.1777	19.09	-1.572
V_2924_A		-0.07237	ug/L	0.2402	331.9	-3.810
Zn2062_A		0.1473	ug/L	0.04423	30.02	0.4629
Y_3600_R		19,838	Cts/S	220.49	1.1114	19,838
Y_2243_A		7,382.1	Cts/S	0.19379	0.0026250	7,382.1
Y_3600_A		140,170	Cts/S	256.69	0.18313	140,170

SO5520-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:13:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1899	ug/L	0.2262	119.1	-21.62
Al3961_R		-6.715	ug/L	2.173	32.37	55.52
As1891_A		-0.2924	ug/L	1.371	468.9	-2.557
B_2089_A		29.41	ug/L	0.09448	0.3212	47.87
Ba4554_R		8.133	ug/L	0.1951	2.399	630.6
Be3130_R		-0.01858	ug/L	0.03599	193.8	-1.983
Ca3158_R	W	63,640	ug/L	2,019	3.173	78,880
Cd2265_A		-0.04118	ug/L	0.05790	140.6	-1.631
Co2286_A		0.06544	ug/L	0.09329	142.6	0.2336
Cr2677_A		0.4388	ug/L	0.07916	18.04	5.650
Cu3273_A		-0.1272	ug/L	0.05988	47.07	-18.19
Fe2599_R		89.04	ug/L	2.186	2.455	183.4
K_7664_R		2,120	ug/L	43.58	2.055	1,490
Li6707_R		2.200	ug/L	0.4003	18.19	33.86
Mg2025_A		1,971	ug/L	5.198	0.2637	684.9
Mn2576_R		10.37	ug/L	0.5190	5.007	114.5
Mo2020_A		0.1481	ug/L	0.08751	59.10	0.7307
Na5895_R		8,714	ug/L	265.0	3.041	21,070
Ni2316_A		-0.1642	ug/L	0.06278	38.23	-0.2550

SO5520-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:13:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.9761	ug/L	0.4721	48.37	-2.051
Sb2068_A		0.5699	ug/L	0.8277	145.2	0.7421
Se1960_A		-1.656	ug/L	0.6169	37.26	1.293
Si2516_R		6,448	ug/L	166.4	2.580	3,129
Sn1899_A		1.169	ug/L	0.8229	70.40	1.625
Sr4215_R		165.1	ug/L	5.073	3.072	16,600
Ti3349_A		-0.5280	ug/L	0.1076	20.38	-27.57
Tl1908_A		0.3345	ug/L	0.002025	0.6052	-1.838
V_2924_A		-0.09413	ug/L	0.3617	384.2	-3.988
Zn2062_A		2.853	ug/L	0.1220	4.276	6.443
Y_3600_R		19,600	Cts/S	353.97	1.8060	19,600
Y_2243_A		7,204.5	Cts/S	37.692	0.52317	7,204.5
Y_3600_A		137,250	Cts/S	25.421	0.018521	137,250

SO5556-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:18:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05887	ug/L	0.1024	173.9	-24.02
Al3961_R		2.441	ug/L	1.255	51.44	13.78
As1891_A		6.198	ug/L	1.264	20.39	-0.5074
B_2089_A		340.4	ug/L	0.4702	0.1381	463.0
Ba4554_R		58.93	ug/L	1.894	3.215	4,322
Be3130_R		0.03469	ug/L	0.02695	77.67	3.457
Ca3158_R		9,838	ug/L	203.7	2.070	11,800
Cd2265_A		-0.01249	ug/L	0.07264	581.5	4.345
Co2286_A		1.004	ug/L	0.07255	7.228	3.228
Cr2677_A		0.2974	ug/L	0.6212	208.9	4.519
Cu3273_A		-0.05183	ug/L	0.07595	146.5	-16.96
Fe2599_R		2,993	ug/L	84.45	2.822	5,931
K_7664_R		23,760	ug/L	546.8	2.301	16,450
Li6707_R		7.121	ug/L	0.4036	5.668	103.2
Mg2025_A		24,040	ug/L	16.70	0.06947	8,160
Mn2576_R		346.6	ug/L	6.501	1.876	3,537
Mo2020_A		3.936	ug/L	0.2314	5.878	11.56
Na5895_R	F	208,600	ug/L	4,346	2.083	487,800
Ni2316_A		0.5902	ug/L	0.1914	32.42	0.7533
Pb2203_A		-0.6571	ug/L	0.2027	30.84	-1.616
Sb2068_A		0.2541	ug/L	0.09809	38.60	0.6151
Se1960_A		-0.7490	ug/L	0.7143	95.37	1.532
Si2516_R		7,077	ug/L	154.2	2.179	3,324
Sn1899_A		0.4535	ug/L	0.2184	48.17	1.301
Sr4215_R		188.3	ug/L	6.004	3.189	18,350
Ti3349_A		-0.2152	ug/L	0.01999	9.287	-19.07
Tl1908_A		1.265	ug/L	0.1984	15.67	-1.497
V_2924_A		0.3792	ug/L	0.2393	63.09	0.05417
Zn2062_A		2.415	ug/L	0.04294	1.778	5.295
Y_3600_R		19,004	Cts/S	190.47	1.0023	19,004
Y_2243_A		6,969.3	Cts/S	4.5337	0.065052	6,969.3
Y_3600_A		131,840	Cts/S	14.876	0.011283	131,840

SO5556-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:22:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5556-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:22:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-1.019	ug/L	0.1577	15.46	-23.10
Al3961_R		45.72	ug/L	1.896	4.146	14.23
As1891_A		12.31	ug/L	0.4966	4.034	-1.677
B_2089_A		345.3	ug/L	4.170	1.208	103.8
Ba4554_R		59.12	ug/L	0.3142	0.5316	903.3
Be3130_R		0.1028	ug/L	0.1331	129.4	2.020
Ca3158_R		10,780	ug/L	25.20	0.2338	2,631
Cd2265_A		0.06955	ug/L	0.07587	109.1	0.01739
Co2286_A		1.402	ug/L	0.3949	28.17	0.9571
Cr2677_A		1.215	ug/L	0.1198	9.855	3.581
Cu3273_A		0.4268	ug/L	0.2052	48.09	-15.24
Fe2599_R		3,049	ug/L	11.89	0.3899	1,240
K_7664_R		23,290	ug/L	51.32	0.2203	3,286
Li6707_R		1.883	ug/L	1.903	101.1	6.969
Mg2025_A		25,470	ug/L	341.6	1.341	1,800
Mn2576_R		346.1	ug/L	0.9495	0.2743	728.4
Mo2020_A		4.547	ug/L	0.2761	6.071	3.016
Na5895_R	W	207,000	ug/L	702.9	0.3396	99,280
Ni2316_A		2.768	ug/L	0.1907	6.892	0.8228
Pb2203_A		1.841	ug/L	1.689	91.75	-0.8918
Sb2068_A		-2.119	ug/L	1.774	83.71	0.2736
Se1960_A		-7.127	ug/L	13.97	196.0	1.373
Si2516_R		6,842	ug/L	8.851	0.1294	708.2
Sn1899_A		1.219	ug/L	6.886	564.8	1.278
Sr4215_R		187.6	ug/L	0.8018	0.4273	3,731
Ti3349_A		0.2741	ug/L	0.4811	175.5	-13.24
Tl1908_A		5.979	ug/L	3.266	54.63	-1.454
V_2924_A		-0.5799	ug/L	0.6804	117.3	-4.391
Zn2062_A		82.53	ug/L	1.897	2.298	37.06
Y_3600_R		19,483	Cts/S	149.13	0.76545	19,483
Y_2243_A		7,278.3	Cts/S	71.070	0.97647	7,278.3
Y_3600_A		136,540	Cts/S	99.113	0.072590	136,540

SO5556-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:26:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		627.5	ug/L	0.5912	0.09422	10,110
Al3961_R		11,250	ug/L	107.4	0.9552	12,400
As1891_A		504.5	ug/L	2.914	0.5777	160.8
B_2089_A		845.3	ug/L	1.504	0.1779	1,152
Ba4554_R		576.4	ug/L	1.412	0.2450	41,940
Be3130_R		541.3	ug/L	2.383	0.4402	54,790
Ca3158_R		15,340	ug/L	183.2	1.194	18,350
Cd2265_A		508.1	ug/L	0.8431	0.1659	5,427
Co2286_A		498.8	ug/L	0.3123	0.06261	1,572
Cr2677_A		505.7	ug/L	0.2124	0.04201	5,334
Cu3273_A		526.6	ug/L	1.893	0.3594	7,028
Fe2599_R		8,692	ug/L	84.01	0.9666	17,150
K_7664_R	W	33,910	ug/L	230.9	0.6809	23,380
Li6707_R		547.8	ug/L	0.1847	0.03372	7,795
Mg2025_A	W	28,830	ug/L	30.84	0.1069	9,796
Mn2576_R		845.1	ug/L	11.60	1.373	8,568
Mo2020_A		523.0	ug/L	0.04445	0.008498	1,498
Na5895_R	F	211,600	ug/L	556.9	0.2632	492,700
Ni2316_A		501.5	ug/L	1.310	0.2613	738.8

SO5556-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:26:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		498.8	ug/L	1.447	0.2902	408.2
Sb2068_A		497.6	ug/L	1.251	0.2515	232.6
Se1960_A		514.9	ug/L	2.009	0.3901	128.4
Si2516_R		7,198	ug/L	69.08	0.9596	3,369
Sn1899_A		524.7	ug/L	2.475	0.4717	199.4
Sr4215_R		719.5	ug/L	3.918	0.5445	69,920
Ti3349_A		506.1	ug/L	0.1706	0.03371	11,820
Tl1908_A		471.7	ug/L	0.3807	0.08071	227.0
V_2924_A		505.0	ug/L	0.8409	0.1665	5,197
Zn2062_A		511.3	ug/L	0.6543	0.1280	1,092
Y_3600_R		18,921	Cts/S	48.591	0.25681	18,921
Y_2243_A		6,956.8	Cts/S	10.711	0.15396	6,956.8
Y_3600_A		131,140	Cts/S	140.96	0.10749	131,140

SO5556-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:31:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.73	ug/L	0.2538	0.4814	819.4
Al3961_R		2,110	ug/L	43.44	2.059	2,373
As1891_A		110.3	ug/L	1.062	0.9633	33.39
B_2089_A		840.0	ug/L	5.856	0.6971	1,139
Ba4554_R	W	2,155	ug/L	35.08	1.628	159,200
Be3130_R		54.71	ug/L	0.9069	1.658	5,623
Ca3158_R		11,920	ug/L	220.6	1.851	14,470
Cd2265_A		259.8	ug/L	1.188	0.4574	2,789
Co2286_A		509.3	ug/L	4.130	0.8108	1,614
Cr2677_A		208.2	ug/L	3.302	1.586	2,196
Cu3273_A		272.0	ug/L	2.979	1.095	3,620
Fe2599_R		3,910	ug/L	78.23	2.001	7,835
K_7664_R	W	33,180	ug/L	499.4	1.505	23,240
Li6707_R		538.7	ug/L	9.637	1.789	7,784
Mg2025_A	W	27,910	ug/L	232.5	0.8331	9,535
Mn2576_R		834.5	ug/L	12.85	1.540	8,594
Mo2020_A		105.6	ug/L	0.4688	0.4440	304.2
Na5895_R	F	206,300	ug/L	5,644	2.736	487,600
Ni2316_A		513.6	ug/L	3.359	0.6541	756.6
Pb2203_A		101.0	ug/L	0.9462	0.9371	82.28
Sb2068_A		101.4	ug/L	0.6956	0.6860	46.06
Se1960_A		105.4	ug/L	0.8152	0.7735	27.84
Si2516_R		7,737	ug/L	131.3	1.696	3,672
Sn1899_A		512.7	ug/L	2.450	0.4778	195.9
Sr4215_R		700.8	ug/L	11.14	1.589	69,170
Ti3349_A		510.7	ug/L	5.147	1.008	11,920
Tl1908_A		98.57	ug/L	1.291	1.310	46.50
V_2924_A		518.2	ug/L	7.668	1.480	5,364
Zn2062_A		522.0	ug/L	1.704	0.3264	1,122
Y_3600_R		19,216	Cts/S	177.36	0.92301	19,216
Y_2243_A		6,995.8	Cts/S	55.116	0.78785	6,995.8
Y_3600_A		131,120	Cts/S	1,218.0	0.92888	131,120

SO5556-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:35:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5556-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:35:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		55.12	ug/L	1.364	2.475	835.0
Al3961_R		2,216	ug/L	57.46	2.593	2,432
As1891_A		114.0	ug/L	1.268	1.112	34.10
B_2089_A		867.8	ug/L	6.006	0.6921	1,160
Ba4554_R	W	2,275	ug/L	42.88	1.885	163,900
Be3130_R		57.50	ug/L	1.053	1.830	5,766
Ca3158_R		12,730	ug/L	379.8	2.984	15,070
Cd2265_A		268.7	ug/L	2.129	0.7922	2,844
Co2286_A		528.0	ug/L	4.156	0.7871	1,650
Cr2677_A		218.9	ug/L	2.991	1.366	2,250
Cu3273_A		287.6	ug/L	5.354	1.861	3,730
Fe2599_R		4,180	ug/L	104.9	2.509	8,171
K_7664_R	W	35,290	ug/L	660.3	1.871	24,110
Li6707_R		557.8	ug/L	6.726	1.206	7,863
Mg2025_A	W	29,250	ug/L	301.7	1.031	9,849
Mn2576_R		887.1	ug/L	29.86	3.365	8,912
Mo2020_A		108.0	ug/L	1.012	0.9374	306.6
Na5895_R	F	219,900	ug/L	5,332	2.425	507,300
Ni2316_A		533.1	ug/L	3.801	0.7131	774.1
Pb2203_A		103.6	ug/L	0.6236	0.6020	83.23
Sb2068_A		104.1	ug/L	1.607	1.544	46.61
Se1960_A		106.1	ug/L	1.351	1.273	27.62
Si2516_R		8,231	ug/L	260.6	3.166	3,807
Sn1899_A		521.7	ug/L	5.148	0.9868	196.4
Sr4215_R		731.5	ug/L	15.84	2.166	70,430
Ti3349_A		528.2	ug/L	8.286	1.569	12,010
Tl1908_A		100.5	ug/L	1.815	1.806	46.79
V_2924_A		545.1	ug/L	7.662	1.406	5,497
Zn2062_A		541.1	ug/L	3.230	0.5970	1,147
Y_3600_R		18,748	Cts/S	211.97	1.1306	18,748
Y_2243_A		6,895.2	Cts/S	63.030	0.91411	6,895.2
Y_3600_A		127,740	Cts/S	1,360.4	1.0650	127,740

SO5556-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:39:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06559	ug/L	0.2795	426.2	-53.74
Al3961_R		178.0	ug/L	6.423	3.608	218.0
As1891_A		3.667	ug/L	1.857	50.64	-1.933
B_2089_A		94.20	ug/L	0.8424	0.8943	137.5
Ba4554_R		22.43	ug/L	0.3050	1.359	1,674
Be3130_R		0.07187	ug/L	0.01582	22.01	7.067
Ca3158_R		18,620	ug/L	429.5	2.306	22,600
Cd2265_A		-0.1468	ug/L	0.01066	7.263	25.46
Co2286_A		3.677	ug/L	0.1014	2.758	12.22
Cr2677_A		0.7520	ug/L	0.1594	21.20	11.32
Cu3273_A		1.213	ug/L	0.09302	7.669	-1.972
Fe2599_R		14,230	ug/L	267.7	1.882	28,490
K_7664_R		2,244	ug/L	58.17	2.592	1,547
Li6707_R		5.683	ug/L	0.6275	11.04	83.47
Mg2025_A		4,913	ug/L	42.35	0.8621	1,716
Mn2576_R		938.7	ug/L	23.13	2.464	9,649
Mo2020_A		0.6703	ug/L	0.01686	2.515	2.222
Na5895_R		22,770	ug/L	350.2	1.538	53,860
Ni2316_A		1.735	ug/L	0.3587	20.68	1.896

SO5556-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:39:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.6954	ug/L	0.03143	4.519	-0.1119
Sb2068_A		-0.1138	ug/L	0.7718	678.1	0.6284
Se1960_A		-0.7053	ug/L	1.132	160.5	1.727
Si2516_R		12,430	ug/L	273.5	2.201	5,852
Sn1899_A		0.7571	ug/L	0.1579	20.86	1.462
Sr4215_R		106.5	ug/L	1.340	1.257	10,490
Ti3349_A		3.423	ug/L	0.1667	4.870	68.29
Tl1908_A		0.8360	ug/L	0.3209	38.39	-2.074
V_2924_A		0.4178	ug/L	0.06171	14.77	-0.03514
Zn2062_A		9.525	ug/L	0.004330	0.04546	21.20
Y_3600_R		19,202	Cts/S	132.60	0.69055	19,202
Y_2243_A		7,197.1	Cts/S	27.019	0.37542	7,197.1
Y_3600_A		135,740	Cts/S	220.77	0.16265	135,740

SO5556-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:44:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1028	ug/L	0.04709	45.81	-21.03
Al3961_R		116.9	ug/L	2.887	2.470	135.7
As1891_A		0.1028	ug/L	0.3989	388.0	-2.547
B_2089_A		4.504	ug/L	0.07791	1.730	13.64
Ba4554_R		25.12	ug/L	0.08186	0.3259	1,883
Be3130_R		0.03136	ug/L	0.005408	17.24	2.820
Ca3158_R		2,880	ug/L	0.2166	0.007521	3,494
Cd2265_A		0.7923	ug/L	0.05573	7.034	10.78
Co2286_A		0.4528	ug/L	0.06583	14.54	1.581
Cr2677_A		0.4375	ug/L	0.1119	25.58	6.001
Cu3273_A		5.181	ug/L	0.2352	4.539	56.78
Fe2599_R		1,596	ug/L	4.330	0.2713	3,216
K_7664_R		465.4	ug/L	7.402	1.590	302.8
Li6707_R		0.7429	ug/L	0.5983	80.53	12.29
Mg2025_A		230.4	ug/L	1.635	0.7098	74.93
Mn2576_R		128.7	ug/L	1.404	1.091	1,335
Mo2020_A		0.5789	ug/L	0.007763	1.341	2.039
Na5895_R		2,893	ug/L	11.42	0.3947	6,935
Ni2316_A		0.4958	ug/L	0.1705	34.39	0.6844
Pb2203_A		2.790	ug/L	0.6963	24.96	1.230
Sb2068_A		0.3440	ug/L	0.5907	171.7	0.6723
Se1960_A		-1.245	ug/L	2.030	163.1	1.447
Si2516_R		483.2	ug/L	12.83	2.654	287.0
Sn1899_A		0.5725	ug/L	0.6128	107.0	1.417
Sr4215_R		19.03	ug/L	0.03815	0.2005	1,863
Ti3349_A		5.179	ug/L	0.1606	3.101	113.9
Tl1908_A		0.6724	ug/L	0.7569	112.6	-1.766
V_2924_A		0.6037	ug/L	0.1689	27.98	3.425
Zn2062_A		60.42	ug/L	0.2276	0.3767	136.4
Y_3600_R		19,315	Cts/S	171.67	0.88881	19,315
Y_2243_A		7,337.4	Cts/S	16.957	0.23110	7,337.4
Y_3600_A		139,560	Cts/S	326.70	0.23410	139,560

SO5556-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:48:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000083

SO5556-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:48:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2719	ug/L	0.2406	88.49	-21.93
Al3961_R		-29.76	ug/L	0.03023	0.1015	79.31
As1891_A		1.131	ug/L	0.2327	20.58	-2.014
B_2089_A		174.4	ug/L	0.6531	0.3745	241.2
Ba4554_R		9.935	ug/L	0.07545	0.7594	747.2
Be3130_R		-0.05106	ug/L	0.04856	95.10	-5.207
Ca3158_R	W	117,400	ug/L	418.5	0.3564	142,000
Cd2265_A		-0.01309	ug/L	0.005961	45.55	-1.428
Co2286_A		0.05192	ug/L	0.04248	81.82	0.1837
Cr2677_A		0.6391	ug/L	0.04210	6.588	7.540
Cu3273_A		0.4436	ug/L	0.1101	24.83	-9.773
Fe2599_R		14.35	ug/L	1.203	8.380	30.01
K_7664_R		18,970	ug/L	196.3	1.035	13,200
Li6707_R		11.20	ug/L	0.7786	6.951	162.3
Mg2025_A		7,126	ug/L	22.53	0.3161	2,420
Mn2576_R		8.874	ug/L	0.2468	2.782	98.09
Mo2020_A		2.892	ug/L	0.05823	2.014	8.601
Na5895_R		13,920	ug/L	147.6	1.061	32,770
Ni2316_A		0.2198	ug/L	0.1551	70.54	0.3487
Pb2203_A		0.1948	ug/L	0.8456	434.0	-1.022
Sb2068_A		0.02812	ug/L	1.082	3,849	0.4686
Se1960_A		-0.1705	ug/L	2.807	1,646	1.622
Si2516_R		10,130	ug/L	58.29	0.5753	4,760
Sn1899_A		0.3026	ug/L	1.230	406.3	1.246
Sr4215_R		629.3	ug/L	4.765	0.7573	61,760
Ti3349_A		-0.5760	ug/L	0.1958	33.99	-27.55
Tl1908_A		0.7106	ug/L	0.3784	53.25	-1.599
V_2924_A		1.338	ug/L	0.06796	5.079	10.94
Zn2062_A		2.479	ug/L	0.1260	5.084	5.447
Y_3600_R		19,108	Cts/S	176.58	0.92413	19,108
Y_2243_A		6,987.0	Cts/S	30.555	0.43732	6,987.0
Y_3600_A		131,850	Cts/S	1,073.1	0.81384	131,850

SO5556-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:52:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1993	ug/L	0.05827	29.23	-21.15
Al3961_R		35.38	ug/L	6.155	17.40	42.64
As1891_A		2.136	ug/L	0.8931	41.81	-1.707
B_2089_A		262.7	ug/L	0.2245	0.08544	363.6
Ba4554_R		11.61	ug/L	0.01490	0.1284	860.2
Be3130_R		-0.01025	ug/L	0.02573	251.0	-1.248
Ca3158_R		1,350	ug/L	18.20	1.349	1,587
Cd2265_A		0.007909	ug/L	0.03353	424.0	-1.044
Co2286_A		0.2212	ug/L	0.2247	101.6	0.7396
Cr2677_A		-0.04570	ug/L	0.06088	133.2	0.3077
Cu3273_A		0.2170	ug/L	0.04975	22.93	-12.97
Fe2599_R		100.5	ug/L	0.7227	0.7193	199.3
K_7664_R		6,913	ug/L	75.74	1.096	4,739
Li6707_R		6.163	ug/L	0.1843	2.990	88.96
Mg2025_A		2,721	ug/L	3.986	0.1465	927.6
Mn2576_R		23.98	ug/L	0.04798	0.2000	248.3
Mo2020_A		20.60	ug/L	0.08177	0.3969	60.06
Na5895_R	W	115,600	ug/L	1,219	1.054	268,800
Ni2316_A		-0.07309	ug/L	0.1629	222.9	0.09699

SO5556-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:52:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.6113	ug/L	0.1905	31.16	-0.6977
Sb2068_A		0.5632	ug/L	0.4877	86.60	0.7186
Se1960_A		-2.613	ug/L	1.340	51.27	1.029
Si2516_R		6,294	ug/L	46.77	0.7430	2,946
Sn1899_A		1.022	ug/L	0.9818	96.07	1.533
Sr4215_R		31.61	ug/L	0.3680	1.164	3,043
Ti3349_A		1.676	ug/L	0.07492	4.470	25.82
Tl1908_A		0.3604	ug/L	0.3538	98.16	-1.794
V_2924_A		-0.02026	ug/L	0.2433	1,201	-4.303
Zn2062_A		5.638	ug/L	0.05042	0.8943	12.34
Y_3600_R		18,889	Cts/S	23.447	0.12413	18,889
Y_2243_A		7,048.8	Cts/S	14.144	0.20066	7,048.8
Y_3600_A		132,920	Cts/S	187.31	0.14092	132,920

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:57:21PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		519.1	ug/L	0.1268	0.02442	8,752
Al3961_R		13,100	ug/L	217.8	1.663	14,680
As1891_A		504.7	ug/L	4.559	0.9034	169.1
B_2089_A		521.8	ug/L	3.391	0.6499	757.3
Ba4554_R	W	530.6	ug/L	6.198	1.168	39,270
Be3130_R	W	537.6	ug/L	7.355	1.368	55,330
Ca3158_R		13,010	ug/L	200.9	1.545	15,810
Cd2265_A		520.8	ug/L	4.117	0.7905	5,865
Co2286_A		510.0	ug/L	3.852	0.7554	1,693
Cr2677_A		519.3	ug/L	2.970	0.5720	5,743
Cu3273_A	W	535.2	ug/L	1.294	0.2417	7,490
Fe2599_R		13,150	ug/L	220.4	1.676	26,390
K_7664_R		13,030	ug/L	134.9	1.035	9,124
Li6707_R	W	539.4	ug/L	6.334	1.174	7,804
Mg2025_A		12,930	ug/L	78.31	0.6055	4,638
Mn2576_R		514.6	ug/L	9.821	1.908	5,303
Mo2020_A		510.6	ug/L	3.395	0.6650	1,540
Na5895_R	W	13,340	ug/L	160.2	1.201	31,630
Ni2316_A		522.9	ug/L	4.126	0.7892	810.3
Pb2203_A		525.1	ug/L	3.564	0.6787	452.6
Sb2068_A		497.2	ug/L	4.100	0.8246	244.8
Se1960_A		508.0	ug/L	1.265	0.2489	133.4
Si2516_R		13,170	ug/L	190.9	1.449	6,217
Sn1899_A	W	528.8	ug/L	2.793	0.5282	211.5
Sr4215_R	W	535.5	ug/L	6.848	1.279	52,920
Ti3349_A		512.3	ug/L	1.285	0.2508	12,550
Tl1908_A		514.4	ug/L	5.179	1.007	260.9
V_2924_A		507.5	ug/L	1.887	0.3719	5,478
Zn2062_A		518.1	ug/L	4.408	0.8507	1,166
Y_3600_R		19,242	Cts/S	105.08	0.54610	19,242
Y_2243_A		7,324.2	Cts/S	27.059	0.36945	7,324.2
Y_3600_A		137,520	Cts/S	435.23	0.31649	137,520

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:01:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:01:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2145	ug/L	0.1398	65.19	-14.68
Al3961_R		-0.8874	ug/L	0.07224	8.141	0.7816
As1891_A		-0.9442	ug/L	2.007	212.5	-2.848
B_2089_A		2.355	ug/L	0.3611	15.33	10.68
Ba4554_R		0.02062	ug/L	0.08362	405.5	19.24
Be3130_R		0.05063	ug/L	0.02228	44.00	5.156
Ca3158_R		0.8765	ug/L	2.028	231.4	-25.68
Cd2265_A		0.06009	ug/L	0.001340	2.230	-0.7019
Co2286_A		0.05011	ug/L	0.1035	206.5	0.1925
Cr2677_A		0.02439	ug/L	0.09805	402.0	1.068
Cu3273_A		0.2622	ug/L	0.04028	15.36	-12.85
Fe2599_R		4.359	ug/L	1.266	29.04	10.22
K_7664_R		-10.29	ug/L	4.632	45.01	-32.53
Li6707_R		0.04161	ug/L	0.4263	1,024	2.073
Mg2025_A		2.975	ug/L	0.0001820	0.006115	-6.514
Mn2576_R		-0.09894	ug/L	0.004148	4.193	4.143
Mo2020_A		0.5921	ug/L	0.1116	18.85	2.101
Na5895_R		14.92	ug/L	0.9711	6.509	96.42
Ni2316_A		-0.2548	ug/L	0.02210	8.675	-0.3930
Pb2203_A		-0.3985	ug/L	0.7467	187.4	-1.601
Sb2068_A		1.039	ug/L	0.7941	76.43	0.9993
Se1960_A		-0.2095	ug/L	0.1024	48.85	1.703
Si2516_R		23.39	ug/L	0.2431	1.039	71.59
Sn1899_A		-0.05707	ug/L	0.1500	262.8	1.175
Sr4215_R		0.1355	ug/L	0.01824	13.46	-12.31
Ti3349_A		0.01774	ug/L	0.1202	677.8	-14.34
Tl1908_A		0.4985	ug/L	0.6222	124.8	-1.796
V_2924_A		0.2027	ug/L	0.2714	133.9	-0.7503
Zn2062_A		0.1224	ug/L	0.07408	60.54	0.4076
Y_3600_R		19,359	Cts/S	10.209	0.052734	19,359
Y_2243_A		7,392.4	Cts/S	46.709	0.63186	7,392.4
Y_3600_A		138,520	Cts/S	386.16	0.27878	138,520

SO5556-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:05:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.004352	ug/L	0.05408	1,243	-56.93
Al3961_R		62.67	ug/L	9.880	15.77	115.6
As1891_A		4.547	ug/L	0.1091	2.400	-1.669
B_2089_A		70.34	ug/L	0.4909	0.6979	102.8
Ba4554_R		132.2	ug/L	0.8331	0.6300	9,638
Be3130_R		0.06427	ug/L	0.0003370	0.5244	6.348
Ca3158_R	W	48,260	ug/L	209.8	0.4348	57,770
Cd2265_A		-0.2484	ug/L	0.06555	26.39	26.30
Co2286_A		0.9179	ug/L	0.1171	12.76	3.191
Cr2677_A		1.617	ug/L	0.04125	2.551	21.59
Cu3273_A		2.853	ug/L	0.4080	14.30	20.24
Fe2599_R		15,430	ug/L	94.17	0.6102	30,450
K_7664_R		4,110	ug/L	14.31	0.3483	2,813
Li6707_R		12.04	ug/L	0.4591	3.813	172.8
Mg2025_A		8,466	ug/L	28.26	0.3339	2,914
Mn2576_R	W	2,107	ug/L	1.474	0.06996	21,340
Mo2020_A		0.9976	ug/L	0.05043	5.055	3.070
Na5895_R	W	33,150	ug/L	75.66	0.2282	77,240
Ni2316_A		1.942	ug/L	0.2605	13.42	2.117

SO5556-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:05:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3062	ug/L	0.3405	111.2	-0.3847
Sb2068_A		-0.2124	ug/L	0.3573	168.2	0.5880
Se1960_A		0.3461	ug/L	0.2593	74.92	2.122
Si2516_R		10,740	ug/L	6.743	0.06278	4,993
Sn1899_A		1.102	ug/L	0.07487	6.793	1.571
Sr4215_R		857.3	ug/L	3.965	0.4625	83,330
Ti3349_A		1.355	ug/L	0.07411	5.470	17.98
Tl1908_A		0.9969	ug/L	0.04904	4.919	-2.563
V_2924_A		0.4866	ug/L	0.2907	59.73	-3.461
Zn2062_A		4.274	ug/L	0.09067	2.121	9.422
Y_3600_R		18,924	Cts/S	33.000	0.17439	18,924
Y_2243_A		7,079.4	Cts/S	37.282	0.52663	7,079.4
Y_3600_A		133,560	Cts/S	1,114.4	0.83441	133,560

SO5556-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:10:18PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1681	ug/L	0.2460	146.3	-27.26
Al3961_R		6.922	ug/L	2.752	39.76	18.76
As1891_A		5.317	ug/L	0.6842	12.87	-0.7948
B_2089_A		347.9	ug/L	2.137	0.6142	471.9
Ba4554_R		62.16	ug/L	0.9851	1.585	4,456
Be3130_R		0.01541	ug/L	0.01773	115.1	1.427
Ca3158_R		10,300	ug/L	137.9	1.339	12,080
Cd2265_A		-0.05812	ug/L	0.02581	44.41	4.009
Co2286_A		0.4008	ug/L	0.07976	19.90	1.326
Cr2677_A		0.4291	ug/L	0.2649	61.73	5.802
Cu3273_A		-0.2922	ug/L	0.3215	110.0	-19.76
Fe2599_R		3,076	ug/L	55.90	1.817	5,960
K_7664_R		24,830	ug/L	515.4	2.076	16,810
Li6707_R		7.080	ug/L	0.4343	6.134	100.3
Mg2025_A		24,320	ug/L	208.6	0.8579	8,235
Mn2576_R		357.7	ug/L	5.371	1.502	3,568
Mo2020_A		4.034	ug/L	0.05533	1.371	11.81
Na5895_R	F	214,400	ug/L	610.5	0.2847	490,200
Ni2316_A		0.7046	ug/L	0.2513	35.66	0.9170
Pb2203_A		0.2243	ug/L	0.4071	181.5	-0.8867
Sb2068_A		0.2287	ug/L	1.014	443.5	0.6033
Se1960_A		-0.02964	ug/L	0.1019	343.9	1.707
Si2516_R		7,222	ug/L	131.5	1.821	3,315
Sn1899_A		0.7697	ug/L	1.040	135.2	1.416
Sr4215_R		198.4	ug/L	3.854	1.942	18,910
Ti3349_A		0.007664	ug/L	0.09108	1,188	-13.52
Tl1908_A		0.8212	ug/L	0.5609	68.30	-1.716
V_2924_A		0.08909	ug/L	0.2525	283.4	-2.934
Zn2062_A		4.969	ug/L	0.009940	0.2001	10.74
Y_3600_R		18,579	Cts/S	301.25	1.6215	18,579
Y_2243_A		6,953.3	Cts/S	44.548	0.64067	6,953.3
Y_3600_A		128,770	Cts/S	681.59	0.52931	128,770

SO5556-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:14:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000087

SO5556-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:14:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02285	ug/L	0.3034	1,328	-53.57
Al3961_R		55.60	ug/L	6.296	11.32	81.54
As1891_A		4.030	ug/L	0.8017	19.89	-1.790
B_2089_A		92.94	ug/L	0.2425	0.2609	135.5
Ba4554_R		20.42	ug/L	0.06619	0.3241	1,527
Be3130_R		0.06008	ug/L	0.08113	135.0	6.026
Ca3158_R		18,640	ug/L	251.7	1.350	22,660
Cd2265_A		-0.2236	ug/L	0.02280	10.20	23.87
Co2286_A		3.283	ug/L	0.1724	5.250	10.91
Cr2677_A		0.1414	ug/L	0.05964	42.18	4.612
Cu3273_A		0.1464	ug/L	0.1987	135.7	-16.68
Fe2599_R		13,870	ug/L	166.6	1.201	27,820
K_7664_R		2,268	ug/L	2.323	0.1024	1,567
Li6707_R		5.175	ug/L	0.5842	11.29	76.27
Mg2025_A		4,943	ug/L	7.095	0.1435	1,725
Mn2576_R		923.9	ug/L	11.47	1.242	9,512
Mo2020_A		0.4397	ug/L	0.07811	17.76	1.537
Na5895_R		23,130	ug/L	72.29	0.3125	54,790
Ni2316_A		1.365	ug/L	0.2167	15.87	1.352
Pb2203_A		0.1675	ug/L	0.5953	355.4	-0.5649
Sb2068_A		0.1951	ug/L	0.09413	48.25	0.7699
Se1960_A		0.4868	ug/L	0.8858	182.0	2.023
Si2516_R		12,140	ug/L	80.54	0.6633	5,729
Sn1899_A		0.7779	ug/L	0.4042	51.95	1.468
Sr4215_R		107.7	ug/L	0.5832	0.5416	10,610
Ti3349_A		0.9507	ug/L	0.09277	9.758	8.504
Tl1908_A		0.7837	ug/L	0.4474	57.09	-2.090
V_2924_A		0.04885	ug/L	0.05010	102.6	-3.982
Zn2062_A		6.423	ug/L	0.1378	2.145	14.32
Y_3600_R		19,231	Cts/S	36.089	0.18766	19,231
Y_2243_A		7,187.6	Cts/S	3.3989	0.047288	7,187.6
Y_3600_A		135,900	Cts/S	498.15	0.36655	135,900

SO5556-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:19:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2173	ug/L	0.1647	75.82	-15.91
Al3961_R		41.51	ug/L	0.9406	2.266	50.69
As1891_A		-0.4716	ug/L	0.3875	82.16	-2.652
B_2089_A		4.061	ug/L	0.2433	5.992	12.84
Ba4554_R		6.895	ug/L	0.3301	4.788	527.2
Be3130_R		-0.009798	ug/L	0.002615	26.69	-1.115
Ca3158_R		2,659	ug/L	127.0	4.778	3,209
Cd2265_A		0.07896	ug/L	0.01960	24.82	0.4025
Co2286_A		0.2162	ug/L	0.1539	71.15	0.7398
Cr2677_A		0.4083	ug/L	0.1884	46.14	5.520
Cu3273_A		1.200	ug/L	0.02641	2.200	0.3373
Fe2599_R		443.2	ug/L	19.03	4.294	890.0
K_7664_R		485.3	ug/L	2.734	0.5633	315.5
Li6707_R		1.174	ug/L	0.9507	80.97	18.24
Mg2025_A		186.3	ug/L	1.818	0.9756	58.38
Mn2576_R		98.20	ug/L	4.328	4.407	1,016
Mo2020_A		0.2908	ug/L	0.01312	4.511	1.156
Na5895_R		2,820	ug/L	103.0	3.654	6,732
Ni2316_A		1.142	ug/L	0.1406	12.31	1.718

SO5556-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:19:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.01267	ug/L	0.5214	4,116	-1.202
Sb2068_A		1.372	ug/L	0.2964	21.61	1.146
Se1960_A		-0.2114	ug/L	0.4551	215.3	1.685
Si2516_R		309.6	ug/L	18.23	5.889	204.7
Sn1899_A		1.037	ug/L	0.8609	83.04	1.582
Sr4215_R		14.71	ug/L	0.6965	4.736	1,427
Ti3349_A		0.1599	ug/L	0.1804	112.9	-10.92
Tl1908_A		-0.6991	ug/L	0.06387	9.136	-2.417
V_2924_A		-0.01260	ug/L	0.1768	1,403	-3.444
Zn2062_A		14.06	ug/L	0.3272	2.327	31.45
Y_3600_R		19,240	Cts/S	560.27	2.9121	19,240
Y_2243_A		7,246.6	Cts/S	2.3191	0.032002	7,246.6
Y_3600_A		139,480	Cts/S	128.06	0.091815	139,480

SO5556-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:23:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04632	ug/L	0.07581	163.7	-18.25
Al3961_R		-25.87	ug/L	3.885	15.02	85.32
As1891_A		1.135	ug/L	1.114	98.15	-1.999
B_2089_A		178.7	ug/L	1.066	0.5967	245.3
Ba4554_R		10.49	ug/L	0.06708	0.6398	777.9
Be3130_R		-0.02332	ug/L	0.01412	60.54	-2.341
Ca3158_R	W	120,400	ug/L	744.7	0.6186	143,700
Cd2265_A		0.02048	ug/L	0.05377	262.5	-1.068
Co2286_A		-0.1042	ug/L	0.2701	259.2	-0.3060
Cr2677_A		0.8172	ug/L	0.04160	5.090	9.436
Cu3273_A		1.478	ug/L	0.01846	1.248	4.143
Fe2599_R		11.06	ug/L	0.5624	5.087	23.14
K_7664_R		19,600	ug/L	60.47	0.3086	13,470
Li6707_R		12.90	ug/L	0.1145	0.8879	184.4
Mg2025_A		7,286	ug/L	38.96	0.5347	2,457
Mn2576_R		9.960	ug/L	0.2591	2.602	107.9
Mo2020_A		2.883	ug/L	0.1949	6.760	8.518
Na5895_R		14,510	ug/L	101.0	0.6961	33,740
Ni2316_A		0.2406	ug/L	0.07842	32.59	0.3771
Pb2203_A		0.4731	ug/L	0.07058	14.92	-0.7859
Sb2068_A		0.5044	ug/L	0.1924	38.15	0.6843
Se1960_A		-1.440	ug/L	0.4779	33.20	1.298
Si2516_R		10,610	ug/L	69.68	0.6568	4,920
Sn1899_A		1.025	ug/L	0.4101	40.00	1.511
Sr4215_R		649.5	ug/L	6.486	0.9987	62,950
Ti3349_A		-0.4087	ug/L	0.07746	18.95	-23.65
Tl1908_A		0.2444	ug/L	1.243	508.7	-1.813
V_2924_A		1.237	ug/L	0.09946	8.043	9.884
Zn2062_A		3.619	ug/L	0.1193	3.296	7.841
Y_3600_R		18,869	Cts/S	104.64	0.55456	18,869
Y_2243_A		6,939.4	Cts/S	14.196	0.20457	6,939.4
Y_3600_A		131,930	Cts/S	49.680	0.037657	131,930

SO5556-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:27:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5556-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:27:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1689	ug/L	0.3404	201.6	-20.39
Al3961_R		11.93	ug/L	5.987	50.18	17.02
As1891_A		1.736	ug/L	1.590	91.56	-1.832
B_2089_A		264.9	ug/L	0.4923	0.1858	365.8
Ba4554_R		11.12	ug/L	0.03108	0.2794	831.0
Be3130_R		-0.02666	ug/L	0.01558	58.45	-2.834
Ca3158_R		1,378	ug/L	16.95	1.230	1,633
Cd2265_A		0.005955	ug/L	0.0006690	11.23	-1.139
Co2286_A		0.1985	ug/L	0.07980	40.20	0.6560
Cr2677_A		0.3866	ug/L	0.2661	68.84	4.888
Cu3273_A		0.4009	ug/L	0.3406	84.95	-10.38
Fe2599_R		61.75	ug/L	1.421	2.301	123.9
K_7664_R		7,081	ug/L	7.424	0.1048	4,891
Li6707_R		6.006	ug/L	0.8497	14.15	87.38
Mg2025_A		2,815	ug/L	1.791	0.06361	958.1
Mn2576_R		23.61	ug/L	0.1605	0.6800	246.4
Mo2020_A		19.86	ug/L	0.1248	0.6286	57.78
Na5895_R	W	117,100	ug/L	672.0	0.5739	274,200
Ni2316_A		-0.06888	ug/L	0.1213	176.1	0.09710
Pb2203_A		-0.2810	ug/L	0.6035	214.8	-1.437
Sb2068_A		-0.07117	ug/L	0.9593	1,348	0.4176
Se1960_A		-2.240	ug/L	0.4651	20.76	1.119
Si2516_R		6,341	ug/L	27.83	0.4390	2,989
Sn1899_A		0.7063	ug/L	0.8819	124.9	1.409
Sr4215_R		32.05	ug/L	0.1395	0.4352	3,109
Ti3349_A		0.2159	ug/L	0.07949	36.82	-8.712
Tl1908_A		1.089	ug/L	0.5671	52.05	-1.432
V_2924_A		-0.1347	ug/L	0.3271	242.8	-5.452
Zn2062_A		2.341	ug/L	0.2158	9.217	5.185
Y_3600_R		19,029	Cts/S	13.254	0.069653	19,029
Y_2243_A		7,034.4	Cts/S	4.7830	0.067994	7,034.4
Y_3600_A		132,100	Cts/S	457.62	0.34642	132,100

SO5557-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:32:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3252	ug/L	0.1141	35.08	-135.0
Al3961_R		4.228	ug/L	5.404	127.8	47.70
As1891_A		415.3	ug/L	2.070	0.4985	132.1
B_2089_A		138.7	ug/L	0.1551	0.1118	195.6
Ba4554_R		42.08	ug/L	0.2365	0.5621	3,111
Be3130_R		-0.05369	ug/L	0.006286	11.71	-5.554
Ca3158_R	W	43,570	ug/L	310.9	0.7136	52,710
Cd2265_A		-0.6891	ug/L	0.04562	6.620	84.79
Co2286_A		3.133	ug/L	0.2775	8.855	10.72
Cr2677_A		-0.6459	ug/L	0.08990	13.92	-0.2155
Cu3273_A		1.344	ug/L	0.008487	0.6316	-6.053
Fe2599_R	W	47,690	ug/L	366.6	0.7688	95,110
K_7664_R		13,530	ug/L	39.14	0.2893	9,417
Li6707_R		2.020	ug/L	0.1282	6.347	30.49
Mg2025_A		5,480	ug/L	2.022	0.03690	1,881
Mn2576_R	W	1,187	ug/L	11.07	0.9324	12,150
Mo2020_A		5.380	ug/L	0.01156	0.2148	15.87
Na5895_R	W	44,070	ug/L	219.1	0.4972	103,800
Ni2316_A		1.744	ug/L	0.09650	5.533	0.2320

SO5557-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:32:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.7645	ug/L	0.3279	42.90	-0.1037
Sb2068_A		-0.4693	ug/L	0.1778	37.89	0.9536
Se1960_A		-0.3974	ug/L	0.4894	123.2	1.969
Si2516_R		7,521	ug/L	88.87	1.182	3,549
Sn1899_A		1.201	ug/L	0.6993	58.22	1.607
Sr4215_R		449.2	ug/L	2.525	0.5621	44,120
Ti3349_A		0.05435	ug/L	0.1195	219.9	-13.02
Tl1908_A		0.2770	ug/L	0.4093	147.8	-2.466
V_2924_A		0.6004	ug/L	0.002455	0.4089	5.117
Zn2062_A		2.993	ug/L	0.02604	0.8698	6.627
Y_3600_R		19,127	Cts/S	53.595	0.28021	19,127
Y_2243_A		7,067.8	Cts/S	32.546	0.46048	7,067.8
Y_3600_A		134,800	Cts/S	767.49	0.56937	134,800

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:36:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07691	ug/L	0.07145	92.91	-17.45
Al3961_R		7.077	ug/L	1.546	21.85	9.877
As1891_A		2.006	ug/L	1.487	74.12	-1.845
B_2089_A		0.1056	ug/L	0.02401	22.73	7.529
Ba4554_R		0.1575	ug/L	0.07748	49.21	29.56
Be3130_R		0.01273	ug/L	0.02547	200.1	1.222
Ca3158_R		126.2	ug/L	5.347	4.236	128.5
Cd2265_A		0.03751	ug/L	0.002790	7.437	-0.9346
Co2286_A		0.2721	ug/L	0.1538	56.52	0.9423
Cr2677_A		0.1002	ug/L	0.1004	100.2	1.958
Cu3273_A		-0.07169	ug/L	0.01925	26.86	-17.95
Fe2599_R		19.80	ug/L	2.576	13.01	41.58
K_7664_R		13.61	ug/L	11.20	82.28	-15.72
Li6707_R		0.4030	ug/L	0.5150	127.8	7.368
Mg2025_A		12.21	ug/L	1.274	10.44	-3.193
Mn2576_R		1.021	ug/L	0.2391	23.41	15.82
Mo2020_A		-0.1307	ug/L	0.05028	38.47	-0.09804
Na5895_R		1,119	ug/L	5.005	0.4473	2,739
Ni2316_A		0.4083	ug/L	0.06012	14.72	0.6349
Pb2203_A		0.1500	ug/L	0.3816	254.5	-1.128
Sb2068_A		-0.5135	ug/L	0.5163	100.5	0.2289
Se1960_A		-2.479	ug/L	0.3186	12.85	1.120
Si2516_R		-3.987	ug/L	1.709	42.87	59.00
Sn1899_A		-0.09860	ug/L	1.116	1,131	1.167
Sr4215_R		0.3205	ug/L	0.01966	6.133	6.122
Ti3349_A		-0.03090	ug/L	0.1697	549.3	-15.90
Tl1908_A		1.110	ug/L	0.8444	76.08	-1.494
V_2924_A		-0.06335	ug/L	0.06932	109.4	-3.710
Zn2062_A		26.14	ug/L	0.3892	1.489	60.03
Y_3600_R		19,450	Cts/S	9.3825	0.048238	19,450
Y_2243_A		7,454.0	Cts/S	17.070	0.22900	7,454.0
Y_3600_A		141,500	Cts/S	209.56	0.14810	141,500

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:41:06PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:41:06PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		505.4	ug/L	8.445	1.671	8,657
Al3961_R		12,850	ug/L	103.0	0.8019	14,530
As1891_A		501.5	ug/L	1.362	0.2716	167.7
B_2089_A		513.8	ug/L	1.074	0.2090	744.4
Ba4554_R		519.9	ug/L	1.101	0.2117	38,820
Be3130_R		525.0	ug/L	0.1017	0.01937	54,510
Ca3158_R		12,760	ug/L	68.26	0.5351	15,640
Cd2265_A		511.3	ug/L	1.726	0.3375	5,746
Co2286_A		509.0	ug/L	1.592	0.3127	1,686
Cr2677_A		505.5	ug/L	3.664	0.7248	5,681
Cu3273_A		517.6	ug/L	3.661	0.7073	7,358
Fe2599_R		12,920	ug/L	41.40	0.3205	26,150
K_7664_R		12,890	ug/L	83.04	0.6441	9,107
Li6707_R	W	530.1	ug/L	2.060	0.3887	7,739
Mg2025_A		12,930	ug/L	49.56	0.3833	4,627
Mn2576_R		506.9	ug/L	2.507	0.4946	5,270
Mo2020_A		507.0	ug/L	1.759	0.3469	1,526
Na5895_R		13,060	ug/L	83.59	0.6402	31,250
Ni2316_A		516.7	ug/L	2.625	0.5079	799.1
Pb2203_A		518.1	ug/L	2.241	0.4325	445.6
Sb2068_A		500.3	ug/L	2.213	0.4424	245.8
Se1960_A		504.9	ug/L	2.099	0.4158	132.3
Si2516_R		13,000	ug/L	104.0	0.7999	6,190
Sn1899_A		519.1	ug/L	0.01888	0.003636	207.2
Sr4215_R		523.3	ug/L	1.919	0.3667	52,180
Ti3349_A		501.8	ug/L	5.988	1.193	12,490
Tl1908_A		512.9	ug/L	3.181	0.6202	259.6
V_2924_A		500.7	ug/L	2.532	0.5058	5,492
Zn2062_A		507.2	ug/L	1.871	0.3689	1,138
Y_3600_R		19,413	Cts/S	173.98	0.89618	19,413
Y_2243_A		7,308.6	Cts/S	6.1103	0.083605	7,308.6
Y_3600_A		139,720	Cts/S	1,035.4	0.74101	139,720

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:45:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02715	ug/L	0.07756	285.7	-18.18
Al3961_R		2.123	ug/L	4.415	208.0	4.192
As1891_A		-0.7129	ug/L	1.059	148.5	-2.751
B_2089_A		1.556	ug/L	0.03249	2.088	9.494
Ba4554_R		0.04404	ug/L	0.1212	275.3	21.09
Be3130_R		0.03573	ug/L	0.006304	17.65	3.599
Ca3158_R		2.992	ug/L	3.378	112.9	-23.20
Cd2265_A		0.05873	ug/L	0.07104	121.0	-0.7120
Co2286_A		0.1361	ug/L	0.2103	154.6	0.4761
Cr2677_A		0.07530	ug/L	0.1698	225.5	1.671
Cu3273_A		-0.1899	ug/L	0.2047	107.8	-19.53
Fe2599_R		4.486	ug/L	0.2043	4.554	10.53
K_7664_R		-1.547	ug/L	2.172	140.4	-26.49
Li6707_R		0.5591	ug/L	0.7685	137.4	9.649
Mg2025_A		2.853	ug/L	0.9829	34.45	-6.517
Mn2576_R		-0.1391	ug/L	0.1948	140.1	3.745
Mo2020_A		0.5545	ug/L	0.2191	39.51	1.976
Na5895_R		7.752	ug/L	3.476	44.84	79.77
Ni2316_A		-0.1666	ug/L	0.04597	27.60	-0.2548

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:45:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.2200	ug/L	0.4601	209.2	-1.435
Sb2068_A		1.259	ug/L	0.1997	15.86	1.102
Se1960_A		0.4959	ug/L	1.602	323.0	1.877
Si2516_R		15.26	ug/L	3.967	25.99	68.12
Sn1899_A		0.2885	ug/L	0.1188	41.18	1.306
Sr4215_R		0.1789	ug/L	0.03815	21.32	-8.033
Ti3349_A		0.1694	ug/L	0.004968	2.934	-10.78
Tl1908_A		0.7029	ug/L	0.7219	102.7	-1.682
V_2924_A		-0.1159	ug/L	0.03909	33.74	-4.309
Zn2062_A		0.1228	ug/L	0.02729	22.22	0.4056
Y_3600_R		19,459	Cts/S	15.155	0.077881	19,459
Y_2243_A		7,350.2	Cts/S	18.388	0.25017	7,350.2
Y_3600_A		140,710	Cts/S	1,331.6	0.94640	140,710

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:49:39PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		10.29	ug/L	0.3311	3.216	161.2
Al3961_R		298.9	ug/L	4.411	1.476	348.1
As1891_A		8.070	ug/L	0.07051	0.8738	0.2574
B_2089_A		50.76	ug/L	0.08136	0.1603	80.29
Ba4554_R	W	6.064	ug/L	0.1643	2.710	482.2
Be3130_R		5.155	ug/L	0.2053	3.983	548.3
Ca3158_R		100.5	ug/L	5.891	5.861	99.05
Cd2265_A		5.186	ug/L	0.01215	0.2343	57.91
Co2286_A		10.49	ug/L	0.06832	0.6515	35.41
Cr2677_A		10.16	ug/L	0.04589	0.4517	116.8
Cu3273_A		26.61	ug/L	0.2444	0.9182	368.6
Fe2599_R		103.3	ug/L	4.480	4.337	215.8
K_7664_R		980.7	ug/L	46.80	4.773	686.0
Li6707_R		103.0	ug/L	3.659	3.552	1,543
Mg2025_A		111.0	ug/L	0.5499	0.4952	33.23
Mn2576_R		4.961	ug/L	0.06480	1.306	58.15
Mo2020_A		10.08	ug/L	0.1429	1.417	31.19
Na5895_R	F	9.073	ug/L	1.289	14.20	84.90
Ni2316_A		10.34	ug/L	0.2354	2.277	16.28
Pb2203_A		5.799	ug/L	0.1244	2.146	3.821
Sb2068_A		7.705	ug/L	0.1562	2.027	3.836
Se1960_A	W	7.429	ug/L	0.8300	11.17	3.725
Si2516_R		196.9	ug/L	16.29	8.274	157.5
Sn1899_A		102.7	ug/L	1.337	1.301	42.72
Sr4215_R		10.37	ug/L	0.4697	4.528	1,034
Ti3349_A		15.05	ug/L	0.1503	0.9986	365.8
Tl1908_A		17.97	ug/L	0.2157	1.200	7.259
V_2924_A		10.08	ug/L	0.2310	2.293	109.4
Zn2062_A	W	25.09	ug/L	0.005406	0.02154	57.52
Y_3600_R		19,912	Cts/S	520.19	2.6125	19,912
Y_2243_A		7,441.3	Cts/S	2.9432	0.039552	7,441.3
Y_3600_A		142,030	Cts/S	124.89	0.087933	142,030

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:54:03PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP **ANALYSIS DATE**: 08/27/2021

METHOD: **ICP** **FILE NAME**: IOH27B

- ☐ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed
to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by
_____ (initals) on _____ (date).

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20471	08/24/2021	08/24/2022	0 ug/L
Standard 1	MW20463	08/20/2021	09/11/2021	Varies by Element
ICV	MW20364	08/20/2021	11/04/2021	Varies by Element
PQL	MW20475	08/27/2021	9/11/2021	Varies by Element
LRS1	MW20455	08/18/2021	09/15/2021	Varies by Element
LRS2	MW20469	08/24/2021	09/11/2021	Varies by Element
ICSA	MW20453	08/17/2021	11/17/2021	Varies by Element
ICSAB	MW20412	08/05/2021	10/05/2021	Varies by Element
CCV	MW20468	08/24/2021	09/11/2021	Varies by Element
Internal Standard	MW20452	08/17/2021	11/17/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

ICB failed high for nickel. Samples accepted at 10x the failing value of the ICB or ½ the true value of the PQL.

PQL failed low for sodium. Replaced with passing Sodium PQL. PQL warned high for barium, samples accepted at 10x the warning value of the PQL or ½ the true value of the PQL.

Initial CCV warned high for calcium. Non-200.7 BQC accepted.

REVIEWED
NWA 8/31/21
KATAHDIN ANALYTICAL
METALS SECTION

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

5x diln.: 1.6 mL of sample (pipet M25) + 6.4 mL of MW19407 (pipet M25)

Post Spike: 0.123mL MW20305 (pipet M27) to 6.0mL of sample (pipet M25)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOH27B	08/27/2021	17:55	EP
Std 1	1.000	IOH27B	08/27/2021	17:59	EP
ICV	1.000	IOH27B	08/27/2021	18:03	EP
ICB	1.000	IOH27B	08/27/2021	18:07	EP
PQL	1.000	IOH27B	08/27/2021	18:12	EP
ICSA	1.000	IOH27B	08/27/2021	18:16	EP
ICSAB	1.000	IOH27B	08/27/2021	18:21	EP
CCV	1.000	IOH27B	08/27/2021	18:25	EP
CCB	1.000	IOH27B	08/27/2021	18:29	EP
LRS1	1.000	IOH27B	08/27/2021	18:34	EP
LRS2	1.000	IOH27B	08/27/2021	18:38	EP
CCV	1.000	IOH27B	08/27/2021	18:43	EP
CCB	1.000	IOH27B	08/27/2021	18:47	EP
SODIUM PQL	1.000	IOH27B	08/27/2021	18:52	EP
LCSWOH26ICW1	1.000	IOH27B	08/27/2021	18:56	EP
PBWOH26ICW1	1.000	IOH27B	08/27/2021	19:00	EP
LCSWOH27ICW2	1.000	IOH27B	08/27/2021	19:05	EP
PBWOH27ICW2	1.000	IOH27B	08/27/2021	19:09	EP
SO5344-002	1.000	IOH27B	08/27/2021	19:13	EP
SO5446-001	1.000	IOH27B	08/27/2021	19:18	EP
SO5506-002D	1.000	IOH27B	08/27/2021	19:22	EP
SO5506-020	1.000	IOH27B	08/27/2021	19:27	EP
SO5506-020L	5.000	IOH27B	08/27/2021	19:31	EP
CCV	1.000	IOH27B	08/27/2021	19:36	EP
CCB	1.000	IOH27B	08/27/2021	19:40	EP
SO5506-020A	1.000	IOH27B	08/27/2021	19:44	EP
SO5506-020S	1.000	IOH27B	08/27/2021	19:48	EP
SO5556-002D	1.000	IOH27B	08/27/2021	19:53	EP
SO5556-014	1.000	IOH27B	08/27/2021	19:57	EP
SO5557-002	1.000	IOH27B	08/27/2021	20:01	EP
SO5557-003	1.000	IOH27B	08/27/2021	20:06	EP
SO5557-004	1.000	IOH27B	08/27/2021	20:10	EP
SO5598-001	1.000	IOH27B	08/27/2021	20:14	EP
SO5649-001	1.000	IOH27B	08/27/2021	20:19	EP
SO5649-001L	5.000	IOH27B	08/27/2021	20:23	EP
CCV	1.000	IOH27B	08/27/2021	20:28	EP
CCB	1.000	IOH27B	08/27/2021	20:32	EP
SO5649-001A	1.000	IOH27B	08/27/2021	20:36	EP
SO5649-001P	1.000	IOH27B	08/27/2021	20:41	EP
SO5649-001S	1.000	IOH27B	08/27/2021	20:45	EP
SO5649-002	1.000	IOH27B	08/27/2021	20:49	EP
SO5313-001D	1.000	IOH27B	08/27/2021	20:54	EP
SO5506-020D	1.000	IOH27B	08/27/2021	20:58	EP
SODIUM PQL	1.000	IOH27B	08/27/2021	21:03	EP

Intensity Report

Author:

Published: 8/30/2021 8:45:42AM

Notes:

Blank

Method Name: FAST-2016_NO_AU

Method Revision: 1,008

Analyst Name: EP

Acquire Date: 8/27/2021 5:55:00PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001290	Cts/S	0.000007000	5.523	-18.56
Al3961_R		-0.0004650	Cts/S	0.00009400	20.26	-9.428
As1891_A		-0.0003670	Cts/S	0.000001000	0.3927	-2.710
B_2089_A		0.001518	Cts/S	0.00007800	5.110	11.22
Ba4554_R		0.0003370	Cts/S	0.0003780	112.1	6.744
Be3130_R		-0.00006900	Cts/S	0.0002150	310.6	-1.446
Ca3158_R		-0.001063	Cts/S	0.0001760	16.57	-21.47
Cd2265_A		-0.0001490	Cts/S	0.000003000	1.726	-1.104
Co2286_A		0.00003200	Cts/S	0.00003700	114.6	0.2374
Cr2677_A		0.000001000	Cts/S	0.00001300	1,052	0.1825
Cu3273_A		-0.0001230	Cts/S	0.000001000	0.5692	-17.71
Fe2599_R		0.0003490	Cts/S	0.000002000	0.5023	7.058
K_7664_R		-0.001822	Cts/S	0.0004790	26.31	-36.78
Li6707_R		0.0005830	Cts/S	0.0006140	105.3	11.67
Mg2025_A		-0.0009050	Cts/S	0.00007400	8.206	-6.691
Mn2576_R		0.0002660	Cts/S	0.00007400	28.02	5.361
Mo2020_A		0.00009000	Cts/S	0.00001900	20.79	0.6682
Na5895_R		0.003227	Cts/S	0.0001840	5.716	65.27
Ni2316_A		-0.00002200	Cts/S	0.00002000	93.94	-0.1591
Pb2203_A		-0.0001720	Cts/S	0.00003100	18.00	-1.272
Sb2068_A		-0.0001350	Cts/S	0.00001700	12.30	-0.9980
Se1960_A		0.0002110	Cts/S	0.00002300	10.71	1.558
Si2516_R		0.003297	Cts/S	0.00003300	1.006	66.73
Sn1899_A		0.0001720	Cts/S	0.000003000	1.871	1.271
Sr4215_R		-0.001599	Cts/S	0.0003870	24.20	-32.27
Ti3349_A		-0.0001410	Cts/S	0.00005700	40.28	-20.26
Tl1908_A		-0.0002280	Cts/S	0.00003200	13.97	-1.690
V_2924_A		-0.00004000	Cts/S	0.000009000	21.95	-5.749
Zn2062_A		0.00005900	Cts/S	0.00004900	82.76	0.4357
Y_3600_R		20,237	Cts/S	415.23	2.0518	20,237
Y_2243_A		7,394.9	Cts/S	3.5349	0.047802	7,394.9
Y_3600_A		143,950	Cts/S	768.53	0.53387	143,950

Std 1

Method Name: FAST-2016_NO_AU

Method Revision: 1,008

Analyst Name: EP

Acquire Date: 8/27/2021 5:59:26PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1162	Cts/S	0.00008500	0.07278	16,330
Al3961_R		1.404	Cts/S	0.01895	1.350	28,980
As1891_A		0.04602	Cts/S	0.0001330	0.2895	333.4
B_2089_A		0.1959	Cts/S	0.0004230	0.2162	1,419
Ba4554_R		3.879	Cts/S	0.03081	0.7943	80,080
Be3130_R		5.226	Cts/S	0.04979	0.9528	107,900
Ca3158_R		1.522	Cts/S	0.01385	0.9101	31,410
Cd2265_A		1.490	Cts/S	0.002917	0.1957	10,790
Co2286_A		0.4508	Cts/S	0.0005650	0.1254	3,266
Cr2677_A		0.07951	Cts/S	0.0008830	1.111	11,170
Cu3273_A		0.09937	Cts/S	0.0003740	0.3766	13,960
Fe2599_R		2.612	Cts/S	0.01660	0.6354	53,910
K_7664_R		0.8875	Cts/S	0.007746	0.8728	18,320
Li6707_R		0.7383	Cts/S	0.007253	0.9824	15,240

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 5:59:26PM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.229	Cts/S	0.00007200	0.005824	8,902
Mn2576_R		0.5187	Cts/S	0.005550	1.070	10,710
Mo2020_A		0.4046	Cts/S	0.001299	0.3211	2,931
Na5895_R		2.953	Cts/S	0.03138	1.063	60,960
Ni2316_A		0.2102	Cts/S	0.0003730	0.1777	1,522
Pb2203_A		0.1143	Cts/S	0.00002000	0.01790	827.9
Sb2068_A		0.06450	Cts/S	0.0001180	0.1831	467.2
Se1960_A		0.03557	Cts/S	0.00006600	0.1861	257.7
Si2516_R		0.5762	Cts/S	0.005839	1.013	11,900
Sn1899_A		0.05260	Cts/S	0.00005900	0.1131	381.0
Sr4215_R		5.074	Cts/S	0.04461	0.8792	104,700
Ti3349_A		0.1726	Cts/S	0.0001860	0.1076	24,250
Tl1908_A		0.06889	Cts/S	0.0002560	0.3717	499.0
V_2924_A		0.07130	Cts/S	0.0002500	0.3509	10,020
Zn2062_A		0.2947	Cts/S	0.0009460	0.3209	2,135
Y_3600_R		20,645	Cts/S	96.045	0.46523	20,645
Y_2243_A		7,243.9	Cts/S	3.0398	0.041963	7,243.9
Y_3600_A		140,520	Cts/S	631.43	0.44935	140,520

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:03:34PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		405.1	ug/L	1.308	0.3230	6,744
Al3961_R		10,030	ug/L	95.02	0.9474	11,760
As1891_A		387.6	ug/L	0.2228	0.05749	130.2
B_2089_A		401.3	ug/L	0.9037	0.2252	588.0
Ba4554_R		395.5	ug/L	2.448	0.6190	32,050
Be3130_R		399.9	ug/L	2.087	0.5219	43,660
Ca3158_R		10,100	ug/L	63.06	0.6243	12,830
Cd2265_A		402.7	ug/L	0.2005	0.04979	4,435
Co2286_A		409.5	ug/L	0.3431	0.08377	1,365
Cr2677_A		400.5	ug/L	0.2879	0.07189	4,568
Cu3273_A		401.0	ug/L	1.406	0.3506	5,706
Fe2599_R		10,060	ug/L	25.78	0.2563	21,960
K_7664_R		13,580	ug/L	101.2	0.7454	10,050
Li6707_R		405.2	ug/L	3.009	0.7426	6,256
Mg2025_A		10,410	ug/L	32.06	0.3080	3,778
Mn2576_R		398.9	ug/L	2.914	0.7305	4,325
Mo2020_A		409.9	ug/L	0.1298	0.03166	1,226
Na5895_R		10,050	ug/L	82.30	0.8191	24,830
Ni2316_A		406.3	ug/L	0.4359	0.1073	631.1
Pb2203_A		411.6	ug/L	0.2135	0.05187	347.0
Sb2068_A		397.8	ug/L	0.8747	0.2199	189.0
Se1960_A		402.4	ug/L	0.5188	0.1289	106.7
Si2516_R		9,811	ug/L	39.97	0.4074	4,673
Sn1899_A		412.4	ug/L	2.001	0.4853	161.0
Sr4215_R		403.7	ug/L	3.460	0.8570	42,770
Ti3349_A		400.0	ug/L	1.776	0.4441	9,892
Tl1908_A		415.0	ug/L	1.004	0.2419	210.3
V_2924_A		401.2	ug/L	0.06211	0.01548	4,100
Zn2062_A		402.8	ug/L	0.2504	0.06217	877.7
Y_3600_R		20,888	Cts/S	1.8026	0.0086300	20,888
Y_2243_A		7,391.0	Cts/S	15.595	0.21101	7,391.0
Y_3600_A		143,470	Cts/S	666.50	0.46457	143,470

Katahdin Analytical Services 4000097

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:07:44PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08185	ug/L	0.1283	156.7	-20.03
Al3961_R		4.859	ug/L	0.5179	10.66	-3.951
As1891_A		0.3201	ug/L	0.2168	67.72	-2.624
B_2089_A		0.04093	ug/L	0.1963	479.5	11.39
Ba4554_R		0.02330	ug/L	0.002920	12.53	8.796
Be3130_R		0.04048	ug/L	0.02379	58.76	2.899
Ca3158_R		-3.215	ug/L	4.161	129.4	-25.89
Cd2265_A		0.005834	ug/L	0.04874	835.4	-1.078
Co2286_A		0.005975	ug/L	0.02876	481.3	0.2711
Cr2677_A		-0.03895	ug/L	0.1178	302.4	-0.2671
Cu3273_A		0.06765	ug/L	0.5133	758.8	-16.85
Fe2599_R		-1.905	ug/L	0.5655	29.68	3.080
K_7664_R		29.17	ug/L	3.424	11.74	-16.15
Li6707_R		0.1335	ug/L	1.403	1,052	14.04
Mg2025_A		-1.326	ug/L	0.7830	59.06	-7.232
Mn2576_R		0.09927	ug/L	0.3786	381.4	6.522
Mo2020_A		0.3707	ug/L	0.1957	52.81	1.795
Na5895_R		-0.07916	ug/L	3.490	4,409	66.21
Ni2316_A	F	20.39	ug/L	28.50	139.7	31.74
Pb2203_A		-0.5747	ug/L	0.1529	26.61	-1.775
Sb2068_A		0.5760	ug/L	1.493	259.3	-0.7275
Se1960_A		-0.1932	ug/L	1.323	684.7	1.521
Si2516_R		-2.070	ug/L	2.419	116.8	66.88
Sn1899_A		-1.016	ug/L	0.3455	34.01	0.8846
Sr4215_R		0.08514	ug/L	0.01056	12.40	-24.00
Ti3349_A		0.1544	ug/L	0.1335	86.49	-16.47
Tl1908_A		0.2253	ug/L	0.8371	371.5	-1.590
V_2924_A		-0.2660	ug/L	0.3681	138.4	-8.571
Zn2062_A		1.736	ug/L	2.533	145.9	4.275
Y_3600_R		20,576	Cts/S	27.632	0.13429	20,576
Y_2243_A		7,461.9	Cts/S	37.096	0.49714	7,461.9
Y_3600_A		144,720	Cts/S	572.63	0.39568	144,720

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:12:10PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		10.28	ug/L	0.01366	0.1329	155.8
Al3961_R		314.0	ug/L	5.391	1.717	348.4
As1891_A		9.032	ug/L	1.031	11.42	0.4061
B_2089_A		47.26	ug/L	0.2677	0.5664	80.22
Ba4554_R	W	6.153	ug/L	0.008301	0.1349	491.5
Be3130_R		5.139	ug/L	0.03461	0.6734	543.5
Ca3158_R		105.4	ug/L	1.341	1.272	108.8
Cd2265_A		5.126	ug/L	0.009117	0.1778	56.89
Co2286_A		10.40	ug/L	0.02860	0.2749	35.92
Cr2677_A		10.21	ug/L	0.08353	0.8182	118.3
Cu3273_A		26.07	ug/L	0.08795	0.3374	359.8
Fe2599_R		105.4	ug/L	1.762	1.672	230.5
K_7664_R		1,021	ug/L	5.299	0.5192	700.2
Li6707_R		102.3	ug/L	0.3995	0.3906	1,544
Mg2025_A		108.6	ug/L	1.077	0.9914	34.09
Mn2576_R		4.918	ug/L	0.01081	0.2197	57.14
Mo2020_A		10.08	ug/L	0.1156	1.147	31.67
Na5895_R	F	16.65	ug/L	21.17	127.2	104.8
Ni2316_A		10.80	ug/L	0.2118	1.960	17.10

Katahdin Analytical Services 4000098

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:12:10PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.505	ug/L	0.05518	1.225	2.598
Sb2068_A		8.095	ug/L	0.3847	4.752	2.476
Se1960_A		9.547	ug/L	0.3249	3.403	4.167
Si2516_R	F	291.4	ug/L	116.9	40.13	199.3
Sn1899_A		100.3	ug/L	0.9029	0.8998	41.30
Sr4215_R		10.31	ug/L	0.0005380	0.005216	1,030
Ti3349_A		15.66	ug/L	0.04020	0.2567	373.2
Tl1908_A		16.79	ug/L	0.9443	5.623	7.081
V_2924_A		10.10	ug/L	0.1777	1.760	99.12
Zn2062_A	W	24.62	ug/L	0.06330	0.2572	55.63
Y_3600_R		20,307	Cts/S	511.49	2.5188	20,307
Y_2243_A		7,602.8	Cts/S	19.580	0.25753	7,602.8
Y_3600_A		145,610	Cts/S	220.73	0.15159	145,610

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:16:34PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.780	ug/L	0.09147	3.290	-404.4
Al3961_R		534,100	ug/L	6,344	1.188	584,100
As1891_A		-2.135	ug/L	0.7768	36.38	-10.84
B_2089_A		-3.867	ug/L	0.1183	3.058	4.986
Ba4554_R		1.645	ug/L	0.02026	1.232	131.0
Be3130_R		-0.01493	ug/L	0.01367	91.57	-3.108
Ca3158_R		495,800	ug/L	1,060	0.2138	588,800
Cd2265_A		1.031	ug/L	0.3562	34.54	369.4
Co2286_A		0.4357	ug/L	0.1674	38.42	3.971
Cr2677_A		-1.646	ug/L	0.03639	2.210	1.876
Cu3273_A		0.7675	ug/L	0.2703	35.22	-7.876
Fe2599_R		190,200	ug/L	387.9	0.2040	387,300
K_7664_R		2.819	ug/L	30.58	1,085	-33.61
Li6707_R		4.074	ug/L	0.9895	24.29	69.94
Mg2025_A		443,900	ug/L	1,267	0.2855	140,100
Mn2576_R		-0.02882	ug/L	0.07618	264.3	2.178
Mo2020_A		-2.308	ug/L	0.3635	15.75	-5.446
Na5895_R		6.883	ug/L	6.494	94.35	78.73
Ni2316_A		0.2908	ug/L	0.5789	199.0	-8.500
Pb2203_A		0.6004	ug/L	0.3781	62.98	-29.32
Sb2068_A		-3.207	ug/L	0.8005	24.96	0.8200
Se1960_A		4.476	ug/L	0.7904	17.66	4.736
Si2516_R		5.154	ug/L	4.309	83.59	52.64
Sn1899_A		10.57	ug/L	0.3000	2.839	4.686
Sr4215_R	W	5.104	ug/L	0.1197	2.346	473.9
Ti3349_A		1.140	ug/L	0.1073	9.409	6.978
Tl1908_A		0.04783	ug/L	0.6580	1,376	-0.8671
V_2924_A		-2.245	ug/L	0.2463	10.97	-4.003
Zn2062_A		4.493	ug/L	0.1296	2.884	8.938
Y_3600_R		19,498	Cts/S	71.964	0.36909	19,498
Y_2243_A		6,456.6	Cts/S	10.133	0.15694	6,456.6
Y_3600_A		124,920	Cts/S	541.57	0.43355	124,920

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:21:08PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:21:08PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		221.6	ug/L	0.06427	0.02900	2,774
Al3961_R		512,900	ug/L	18,430	3.593	562,200
As1891_A		97.14	ug/L	1.679	1.729	19.11
B_2089_A		489.1	ug/L	1.680	0.3436	622.8
Ba4554_R		489.4	ug/L	2.246	0.4589	37,100
Be3130_R		493.5	ug/L	1.544	0.3130	50,390
Ca3158_R		484,900	ug/L	592.0	0.1221	577,100
Cd2265_A		931.2	ug/L	4.373	0.4696	9,256
Co2286_A		457.4	ug/L	1.540	0.3367	1,332
Cr2677_A		481.6	ug/L	0.3041	0.06314	4,768
Cu3273_A		542.2	ug/L	3.720	0.6860	6,678
Fe2599_R		187,000	ug/L	35.83	0.01916	381,700
K_7664_R		21,480	ug/L	175.1	0.8150	14,900
Li6707_R		546.0	ug/L	3.124	0.5723	7,882
Mg2025_A		437,100	ug/L	1,618	0.3701	137,800
Mn2576_R		467.3	ug/L	1.554	0.3326	4,741
Mo2020_A		491.4	ug/L	1.735	0.3530	1,282
Na5895_R		21,410	ug/L	81.21	0.3793	49,430
Ni2316_A		901.4	ug/L	6.904	0.7660	1,210
Pb2203_A		45.62	ug/L	0.8274	1.814	5.029
Sb2068_A		601.2	ug/L	2.527	0.4204	252.7
Se1960_A		49.38	ug/L	1.827	3.699	14.93
Si2516_R		2,089	ug/L	9.407	0.4504	971.1
Sn1899_A		491.7	ug/L	2.818	0.5731	167.3
Sr4215_R		511.5	ug/L	2.195	0.4291	50,690
Ti3349_A		513.1	ug/L	0.3267	0.06368	10,980
Tl1908_A		87.54	ug/L	0.4199	0.4797	38.48
V_2924_A		493.2	ug/L	0.9939	0.2015	4,381
Zn2062_A		916.7	ug/L	5.578	0.6085	1,743
Y_3600_R		19,541	Cts/S	14.551	0.074463	19,541
Y_2243_A		6,447.7	Cts/S	18.328	0.28426	6,447.7
Y_3600_A		124,090	Cts/S	113.69	0.091618	124,090

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:25:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		513.1	ug/L	4.350	0.8478	8,496
Al3961_R		13,030	ug/L	83.31	0.6395	14,920
As1891_A		504.9	ug/L	1.684	0.3335	171.3
B_2089_A		506.6	ug/L	2.080	0.4106	743.0
Ba4554_R		513.8	ug/L	5.159	1.004	40,660
Be3130_R		516.8	ug/L	5.216	1.009	55,090
Ca3158_R	W	13,200	ug/L	61.17	0.4633	16,380
Cd2265_A		517.6	ug/L	1.797	0.3472	5,730
Co2286_A		517.1	ug/L	1.149	0.2222	1,732
Cr2677_A		520.5	ug/L	4.537	0.8716	5,902
Cu3273_A		515.2	ug/L	3.460	0.6715	7,292
Fe2599_R		13,110	ug/L	126.9	0.9680	27,950
K_7664_R		12,850	ug/L	12.72	0.09897	9,290
Li6707_R		514.1	ug/L	4.419	0.8595	7,749
Mg2025_A		13,020	ug/L	2.599	0.01996	4,750
Mn2576_R		516.2	ug/L	1.193	0.2312	5,465
Mo2020_A		512.8	ug/L	2.585	0.5040	1,541
Na5895_R		12,800	ug/L	38.94	0.3042	30,880
Ni2316_A		521.5	ug/L	1.350	0.2589	814.1

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:25:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		522.7	ug/L	0.6077	0.1163	443.2
Sb2068_A		510.7	ug/L	2.488	0.4873	244.2
Se1960_A		502.6	ug/L	3.058	0.6085	133.6
Si2516_R		13,250	ug/L	80.76	0.6097	6,138
Sn1899_A		522.5	ug/L	2.877	0.5506	204.8
Sr4215_R		511.0	ug/L	3.038	0.5945	52,880
Ti3349_A		514.2	ug/L	4.201	0.8170	12,640
Tl1908_A		519.8	ug/L	1.484	0.2855	265.2
V_2924_A		517.9	ug/L	1.575	0.3041	5,263
Zn2062_A		521.3	ug/L	1.552	0.2978	1,142
Y_3600_R		20,400	Cts/S	101.85	0.49928	20,400
Y_2243_A		7,429.2	Cts/S	32.621	0.43909	7,429.2
Y_3600_A		142,600	Cts/S	1,245.6	0.87351	142,600

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:29:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06478	ug/L	0.01700	26.25	-17.58
Al3961_R		13.09	ug/L	1.233	9.425	5.474
As1891_A		0.7388	ug/L	0.6933	93.85	-2.498
B_2089_A		-0.7850	ug/L	0.04865	6.198	10.30
Ba4554_R		0.1550	ug/L	0.1663	107.2	19.05
Be3130_R		0.1263	ug/L	0.02677	21.20	11.97
Ca3158_R		8.221	ug/L	0.3198	3.890	-11.41
Cd2265_A		0.1589	ug/L	0.04658	29.31	0.6618
Co2286_A		0.06834	ug/L	0.2664	389.8	0.4736
Cr2677_A		0.1339	ug/L	0.1645	122.8	1.718
Cu3273_A		0.1086	ug/L	0.1287	118.6	-16.24
Fe2599_R		5.943	ug/L	1.342	22.58	19.68
K_7664_R		36.90	ug/L	4.480	12.14	-10.35
Li6707_R		0.6358	ug/L	0.6973	109.7	21.36
Mg2025_A		6.978	ug/L	0.4863	6.969	-4.234
Mn2576_R		0.02631	ug/L	0.06760	257.0	5.668
Mo2020_A		0.3332	ug/L	0.002431	0.7297	1.693
Na5895_R		2.913	ug/L	0.05039	1.730	72.49
Ni2316_A		0.1752	ug/L	0.2055	117.3	0.1163
Pb2203_A		-0.1614	ug/L	0.6369	394.6	-1.434
Sb2068_A		-0.2744	ug/L	0.1405	51.21	-1.148
Se1960_A		0.2515	ug/L	1.647	654.6	1.651
Si2516_R		5.998	ug/L	5.329	88.85	69.66
Sn1899_A		-0.1634	ug/L	1.108	678.1	1.228
Sr4215_R		0.1600	ug/L	0.1155	72.19	-15.96
Ti3349_A		0.3206	ug/L	0.1021	31.84	-12.33
Tl1908_A		0.3292	ug/L	0.3237	98.32	-1.547
V_2924_A		0.07982	ug/L	0.5391	675.4	-4.970
Zn2062_A		0.1036	ug/L	0.04676	45.15	0.6725
Y_3600_R		20,299	Cts/S	2.2489	0.011079	20,299
Y_2243_A		7,519.3	Cts/S	18.141	0.24126	7,519.3
Y_3600_A		144,740	Cts/S	196.53	0.13579	144,740

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:34:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:34:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,034	ug/L	10.99	0.5402	32,890
Al3961_R		21.74	ug/L	6.468	29.75	230.2
As1891_A		20,170	ug/L	189.7	0.9403	6,760
B_2089_A		19,910	ug/L	196.1	0.9852	27,440
Ba4554_R		19,760	ug/L	245.1	1.240	1,549,000
Be3130_R		19,870	ug/L	85.74	0.4315	2,099,000
Ca3158_R		21.45	ug/L	6.168	28.76	19.58
Cd2265_A		19,680	ug/L	185.1	0.9406	210,100
Co2286_A		20,360	ug/L	191.5	0.9404	66,070
Cr2677_A		20,370	ug/L	91.87	0.4509	226,000
Cu3273_A		20,390	ug/L	165.6	0.8124	283,100
Fe2599_R		7.640	ug/L	0.4085	5.348	23.18
K_7664_R		29.60	ug/L	2.684	9.066	-15.54
Li6707_R		20,320	ug/L	58.99	0.2902	303,100
Mg2025_A		-432.4	ug/L	1.699	0.3929	878.9
Mn2576_R		20,030	ug/L	97.43	0.4863	210,000
Mo2020_A		5,124	ug/L	50.22	0.9799	14,920
Na5895_R		33.64	ug/L	2.427	7.216	145.5
Ni2316_A		20,400	ug/L	208.9	1.024	30,750
Pb2203_A		21,140	ug/L	193.4	0.9146	17,460
Sb2068_A		20,390	ug/L	191.1	0.9375	9,482
Se1960_A		20,610	ug/L	180.6	0.8760	5,246
Si2516_R		41.18	ug/L	26.45	64.22	195.4
Sn1899_A		20,550	ug/L	196.4	0.9555	7,759
Sr4215_R		19,950	ug/L	27.55	0.1381	2,047,000
Ti3349_A		20,080	ug/L	37.88	0.1887	483,600
Tl1908_A		20,150	ug/L	179.6	0.8914	10,020
V_2924_A		20,570	ug/L	146.7	0.7134	205,600
Zn2062_A		19,880	ug/L	203.2	1.022	42,190
Y_3600_R		20,215	Cts/S	105.19	0.52035	20,215
Y_2243_A		7,200.9	Cts/S	57.635	0.80039	7,200.9
Y_3600_A		139,540	Cts/S	525.00	0.37624	139,540

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:38:51PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		3.363	ug/L	0.3450	10.26	-495.4
Al3961_R		518,500	ug/L	3,750	0.7231	565,300
As1891_A		1.015	ug/L	1.002	98.72	-12.23
B_2089_A		23.30	ug/L	3.605	15.47	39.42
Ba4554_R		3.009	ug/L	0.2783	9.248	233.5
Be3130_R		1.522	ug/L	0.3425	22.51	153.0
Ca3158_R		491,800	ug/L	2,102	0.4273	582,200
Cd2265_A		-0.06435	ug/L	0.3703	575.4	455.7
Co2286_A		2.257	ug/L	0.2585	11.45	10.12
Cr2677_A		-1.905	ug/L	0.1394	7.319	3.590
Cu3273_A		4.349	ug/L	0.2778	6.387	28.47
Fe2599_R		235,300	ug/L	439.4	0.1868	477,700
K_7664_R		308,900	ug/L	1,595	0.5162	213,600
Li6707_R		5.492	ug/L	0.1873	3.410	90.09
Mg2025_A		183,800	ug/L	154.2	0.08388	59,480
Mn2576_R		13.26	ug/L	0.1115	0.8412	45.40
Mo2020_A		0.4940	ug/L	0.7911	160.1	1.922
Na5895_R		207,900	ug/L	235.5	0.1133	476,900
Ni2316_A		2.646	ug/L	0.5494	20.77	-7.556

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:38:51PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.083	ug/L	0.7209	17.65	-25.30
Sb2068_A		-0.03107	ug/L	0.1040	334.9	2.788
Se1960_A		5.534	ug/L	3.276	59.19	5.253
Si2516_R		52,280	ug/L	39.45	0.07546	22,870
Sn1899_A		12.45	ug/L	1.808	14.52	5.460
Sr4215_R		5.729	ug/L	0.1937	3.382	534.1
Ti3349_A		3.763	ug/L	0.3977	10.57	63.26
Tl1908_A		0.5913	ug/L	1.125	190.3	-0.7008
V_2924_A		-0.4157	ug/L	0.06070	14.60	17.16
Zn2062_A		8.813	ug/L	0.4262	4.835	17.60
Y_3600_R		19,437	Cts/S	80.559	0.41445	19,437
Y_2243_A		6,620.3	Cts/S	8.2609	0.12478	6,620.3
Y_3600_A		124,340	Cts/S	41.216	0.033148	124,340

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:43:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		518.4	ug/L	6.993	1.349	8,585
Al3961_R		12,240	ug/L	397.5	3.246	14,490
As1891_A		501.4	ug/L	1.819	0.3629	172.4
B_2089_A		514.6	ug/L	4.589	0.8917	764.3
Ba4554_R		486.3	ug/L	17.46	3.591	39,750
Be3130_R		491.6	ug/L	12.88	2.619	54,140
Ca3158_R		12,530	ug/L	262.3	2.094	16,050
Cd2265_A		513.3	ug/L	4.090	0.7968	5,757
Co2286_A		512.4	ug/L	3.773	0.7362	1,739
Cr2677_A		524.9	ug/L	7.453	1.420	5,950
Cu3273_A		515.0	ug/L	7.886	1.531	7,289
Fe2599_R		12,430	ug/L	315.3	2.536	27,380
K_7664_R		12,370	ug/L	320.6	2.591	9,236
Li6707_R		487.5	ug/L	18.46	3.787	7,589
Mg2025_A		12,770	ug/L	94.58	0.7406	4,723
Mn2576_R		492.8	ug/L	13.17	2.672	5,389
Mo2020_A		507.3	ug/L	3.218	0.6343	1,546
Na5895_R		12,210	ug/L	379.0	3.104	30,420
Ni2316_A		516.7	ug/L	3.403	0.6587	817.4
Pb2203_A		517.1	ug/L	4.494	0.8691	444.4
Sb2068_A		504.2	ug/L	5.311	1.053	244.3
Se1960_A		496.9	ug/L	4.292	0.8638	133.9
Si2516_R		12,760	ug/L	314.6	2.465	6,112
Sn1899_A		516.8	ug/L	4.048	0.7833	205.3
Sr4215_R		484.6	ug/L	16.01	3.304	51,790
Ti3349_A		521.0	ug/L	7.701	1.478	12,810
Tl1908_A		515.1	ug/L	5.584	1.084	266.3
V_2924_A		522.2	ug/L	6.472	1.239	5,307
Zn2062_A		518.8	ug/L	4.376	0.8435	1,151
Y_3600_R		21,076	Cts/S	294.83	1.3989	21,076
Y_2243_A		7,529.1	Cts/S	37.487	0.49790	7,529.1
Y_3600_A		142,600	Cts/S	1,843.2	1.2926	142,600

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:47:39PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:47:39PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2477	ug/L	0.2809	113.4	-14.52
Al3961_R		13.56	ug/L	5.014	36.99	6.074
As1891_A		1.353	ug/L	0.9263	68.45	-2.304
B_2089_A	W	10.35	ug/L	0.9452	9.132	26.49
Ba4554_R		0.1964	ug/L	0.01161	5.910	22.50
Be3130_R		0.2304	ug/L	0.06936	30.11	23.23
Ca3158_R		2.637	ug/L	2.279	86.45	-18.47
Cd2265_A		0.2230	ug/L	0.07167	32.15	1.384
Co2286_A		0.2833	ug/L	0.01336	4.715	1.215
Cr2677_A		0.3026	ug/L	0.1347	44.52	3.669
Cu3273_A		0.6177	ug/L	0.3690	59.73	-8.928
Fe2599_R		3.478	ug/L	0.8882	25.54	14.58
K_7664_R		93.58	ug/L	13.46	14.38	30.86
Li6707_R		1.019	ug/L	0.5021	49.27	27.34
Mg2025_A		4.992	ug/L	2.262	45.30	-4.999
Mn2576_R		0.02881	ug/L	0.1745	605.8	5.745
Mo2020_A		0.6612	ug/L	0.1794	27.14	2.716
Na5895_R		12.94	ug/L	4.357	33.68	97.33
Ni2316_A		0.3061	ug/L	0.01181	3.857	0.3292
Pb2203_A		0.4156	ug/L	0.5219	125.6	-0.9452
Sb2068_A		0.7397	ug/L	0.2962	40.05	-0.6586
Se1960_A		0.09326	ug/L	1.625	1,743	1.625
Si2516_R		8.799	ug/L	9.483	107.8	71.55
Sn1899_A		-0.05976	ug/L	0.6864	1,149	1.281
Sr4215_R		0.2475	ug/L	0.1018	41.15	-7.004
Ti3349_A		0.5258	ug/L	0.07223	13.74	-7.217
Tl1908_A		0.4805	ug/L	0.3101	64.54	-1.483
V_2924_A		0.3314	ug/L	0.1505	45.43	-2.378
Zn2062_A		0.2351	ug/L	0.07565	32.17	0.9732
Y_3600_R		20,475	Cts/S	31.582	0.15425	20,475
Y_2243_A		7,591.9	Cts/S	4.5328	0.059705	7,591.9
Y_3600_A		145,080	Cts/S	136.79	0.094280	145,080

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:52:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.004610	ug/L	0.1106	2,399	-19.16
Al3961_R		21.02	ug/L	5.322	25.32	15.23
As1891_A		0.6581	ug/L	0.5097	77.45	-2.594
B_2089_A		6.690	ug/L	0.01920	0.2869	21.56
Ba4554_R		0.4327	ug/L	0.03220	7.443	41.50
Be3130_R		0.1391	ug/L	0.08671	62.35	13.59
Ca3158_R		524.3	ug/L	1.903	0.3629	635.8
Cd2265_A		0.1114	ug/L	0.006795	6.102	0.1491
Co2286_A		0.3629	ug/L	0.04617	12.72	1.512
Cr2677_A		0.4657	ug/L	0.1049	22.51	5.636
Cu3273_A		1.393	ug/L	0.05310	3.813	2.297
Fe2599_R		12.10	ug/L	1.017	8.404	33.22
K_7664_R		66.01	ug/L	5.892	8.926	10.81
Li6707_R		0.1306	ug/L	1.141	873.9	13.93
Mg2025_A		23.54	ug/L	0.5613	2.384	1.945
Mn2576_R		1.143	ug/L	0.09824	8.595	17.68
Mo2020_A		0.2011	ug/L	0.01805	8.976	1.326
Na5895_R		1,066	ug/L	2.115	0.1984	2,658
Ni2316_A		0.5939	ug/L	0.1155	19.45	0.7937

SODIUM PQL

Method Name: FAST-2016_NO_AU Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:52:06PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.07801	ug/L	0.5665	726.3	-1.260
Sb2068_A		0.3308	ug/L	0.4684	141.6	-0.8738
Se1960_A		-2.197	ug/L	0.2613	11.90	1.028
Si2516_R		-16.80	ug/L	0.3233	1.924	60.14
Sn1899_A		-0.04331	ug/L	0.2582	596.0	1.310
Sr4215_R		0.7912	ug/L	0.05271	6.661	49.80
Ti3349_A		0.5046	ug/L	0.08008	15.87	-7.905
Tl1908_A		0.1014	ug/L	0.3118	307.5	-1.710
V_2924_A		0.6968	ug/L	0.2158	30.97	1.458
Zn2062_A		51.23	ug/L	0.2466	0.4813	117.2
Y_3600_R		20,597	Cts/S	155.86	0.75674	20,597
Y_2243_A		7,722.0	Cts/S	10.147	0.13141	7,722.0
Y_3600_A		147,550	Cts/S	2,610.5	1.7692	147,550

LCSWOH26ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 6:56:32PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.91	ug/L	0.2092	0.4109	825.3
Al3961_R		2,099	ug/L	9.786	0.4663	2,396
As1891_A		103.0	ug/L	1.228	1.193	33.09
B_2089_A		519.6	ug/L	4.758	0.9157	754.6
Ba4554_R		2,063	ug/L	10.43	0.5059	163,100
Be3130_R		52.99	ug/L	0.2867	0.5409	5,645
Ca3158_R		2,685	ug/L	20.08	0.7478	3,313
Cd2265_A		267.1	ug/L	2.118	0.7930	2,966
Co2286_A		536.1	ug/L	3.731	0.6959	1,809
Cr2677_A		213.2	ug/L	0.1821	0.08540	2,432
Cu3273_A		267.1	ug/L	1.347	0.5043	3,795
Fe2599_R		1,086	ug/L	2.589	0.2383	2,320
K_7664_R		10,460	ug/L	120.5	1.153	7,546
Li6707_R		525.6	ug/L	4.395	0.8362	7,917
Mg2025_A		5,265	ug/L	37.26	0.7077	1,948
Mn2576_R		523.8	ug/L	8.021	1.531	5,545
Mo2020_A		106.7	ug/L	0.8139	0.7630	323.4
Na5895_R		7,857	ug/L	109.7	1.397	18,970
Ni2316_A		539.1	ug/L	5.448	1.011	843.8
Pb2203_A		108.4	ug/L	1.553	1.432	91.65
Sb2068_A		103.6	ug/L	0.4227	0.4078	46.86
Se1960_A		103.6	ug/L	0.09821	0.09483	29.03
Si2516_R		1,152	ug/L	20.92	1.816	597.4
Sn1899_A		544.2	ug/L	5.183	0.9525	214.8
Sr4215_R		522.8	ug/L	3.327	0.6365	54,060
Ti3349_A		529.6	ug/L	0.3249	0.06135	13,090
Tl1908_A		107.8	ug/L	0.7037	0.6527	54.60
V_2924_A		535.3	ug/L	0.2657	0.04964	5,505
Zn2062_A		532.4	ug/L	3.508	0.6589	1,175
Y_3600_R		20,388	Cts/S	106.19	0.52083	20,388
Y_2243_A		7,484.1	Cts/S	33.813	0.45180	7,484.1
Y_3600_A		143,480	Cts/S	412.80	0.28770	143,480

PBWOH26ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:00:47PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOH26ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:00:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1748	ug/L	0.2330	133.3	-15.90
Al3961_R		12.26	ug/L	2.213	18.05	4.537
As1891_A		0.2547	ug/L	0.6636	260.5	-2.727
B_2089_A		6.546	ug/L	0.7099	10.85	21.24
Ba4554_R		0.7270	ug/L	0.009018	1.241	64.48
Be3130_R		0.08267	ug/L	0.01047	12.66	7.424
Ca3158_R		7.636	ug/L	0.9210	12.06	-12.21
Cd2265_A		0.07226	ug/L	0.03625	50.17	-0.3104
Co2286_A		0.09432	ug/L	0.1872	198.5	0.5749
Cr2677_A		-0.006491	ug/L	0.2456	3,784	0.1064
Cu3273_A		0.4732	ug/L	0.1898	40.10	-11.12
Fe2599_R		6.261	ug/L	0.6737	10.76	20.49
K_7664_R		48.98	ug/L	10.08	20.57	-1.602
Li6707_R		0.2850	ug/L	0.1558	54.69	16.21
Mg2025_A		3.932	ug/L	0.1796	4.567	-5.474
Mn2576_R		0.2163	ug/L	0.09366	43.30	7.712
Mo2020_A		0.006006	ug/L	0.0004280	7.123	0.7132
Na5895_R		19.29	ug/L	4.033	20.91	112.4
Ni2316_A		0.3595	ug/L	0.06158	17.13	0.4117
Pb2203_A		0.4575	ug/L	0.5538	121.0	-0.9195
Sb2068_A		0.8741	ug/L	1.165	133.3	-0.6003
Se1960_A		0.06741	ug/L	1.463	2,171	1.638
Si2516_R		77.63	ug/L	19.00	24.48	103.0
Sn1899_A		-0.05953	ug/L	0.1396	234.4	1.297
Sr4215_R		0.3190	ug/L	0.03009	9.432	0.4297
Ti3349_A		0.2139	ug/L	0.1188	55.52	-15.17
Tl1908_A		0.3468	ug/L	0.3947	113.8	-1.573
V_2924_A		0.3523	ug/L	0.2297	65.19	-2.134
Zn2062_A		0.2567	ug/L	0.08906	34.70	1.035
Y_3600_R		20,426	Cts/S	150.02	0.73447	20,426
Y_2243_A		7,688.1	Cts/S	1.6599	0.021591	7,688.1
Y_3600_A		146,390	Cts/S	53.459	0.036519	146,390

LCSWOH27ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:05:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.00	ug/L	0.9340	1.868	809.3
Al3961_R		2,156	ug/L	26.76	1.241	2,444
As1891_A		103.6	ug/L	0.6632	0.6400	33.58
B_2089_A		522.6	ug/L	2.550	0.4880	764.9
Ba4554_R		2,128	ug/L	18.30	0.8601	167,100
Be3130_R		54.66	ug/L	0.5707	1.044	5,783
Ca3158_R		2,750	ug/L	20.08	0.7303	3,370
Cd2265_A		269.7	ug/L	1.607	0.5959	3,019
Co2286_A		541.3	ug/L	2.231	0.4121	1,841
Cr2677_A		217.5	ug/L	0.2363	0.1087	2,479
Cu3273_A		273.9	ug/L	0.2515	0.09184	3,889
Fe2599_R		1,109	ug/L	12.64	1.140	2,353
K_7664_R		10,810	ug/L	61.46	0.5686	7,749
Li6707_R		542.6	ug/L	4.329	0.7978	8,116
Mg2025_A		5,308	ug/L	42.84	0.8071	1,979
Mn2576_R		539.9	ug/L	3.267	0.6052	5,675
Mo2020_A		107.5	ug/L	0.4153	0.3864	328.4
Na5895_R		8,109	ug/L	59.80	0.7374	19,440
Ni2316_A		544.4	ug/L	3.269	0.6004	859.0

LCSWOH27ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:05:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		108.9	ug/L	0.4083	0.3748	92.79
Sb2068_A		105.9	ug/L	0.09130	0.08619	48.33
Se1960_A		103.3	ug/L	2.335	2.260	29.20
Si2516_R	F	1,212	ug/L	11.51	0.9500	620.5
Sn1899_A		549.1	ug/L	2.661	0.4847	218.4
Sr4215_R		538.3	ug/L	4.778	0.8877	55,280
Ti3349_A		540.3	ug/L	1.881	0.3481	13,350
Tl1908_A		108.4	ug/L	0.8579	0.7917	55.31
V_2924_A		546.7	ug/L	2.637	0.4823	5,620
Zn2062_A		538.2	ug/L	2.066	0.3839	1,198
Y_3600_R		20,248	Cts/S	92.765	0.45814	20,248
Y_2243_A		7,543.8	Cts/S	25.184	0.33384	7,543.8
Y_3600_A		143,390	Cts/S	475.75	0.33179	143,390

PBWOH27ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:09:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2341	ug/L	0.2002	85.51	-22.86
Al3961_R		6.657	ug/L	6.242	93.77	-1.892
As1891_A		1.310	ug/L	0.6315	48.20	-2.335
B_2089_A		5.458	ug/L	0.2944	5.393	19.53
Ba4554_R		0.8694	ug/L	0.2755	31.68	76.03
Be3130_R		0.01659	ug/L	0.009578	57.74	0.3530
Ca3158_R		9.461	ug/L	2.516	26.60	-9.959
Cd2265_A		0.08231	ug/L	0.04083	49.61	-0.2043
Co2286_A		0.08590	ug/L	0.07046	82.02	0.5423
Cr2677_A		-0.05452	ug/L	0.2031	372.5	-0.4504
Cu3273_A		0.5299	ug/L	0.4150	78.31	-10.28
Fe2599_R		2.033	ug/L	0.4379	21.53	11.49
K_7664_R		42.49	ug/L	11.80	27.76	-6.343
Li6707_R		-0.3127	ug/L	0.2820	90.19	7.228
Mg2025_A		3.304	ug/L	1.060	32.09	-5.677
Mn2576_R		0.4269	ug/L	0.1146	26.84	9.979
Mo2020_A		-0.1191	ug/L	0.01148	9.639	0.3225
Na5895_R		21.90	ug/L	1.226	5.598	119.0
Ni2316_A		0.4302	ug/L	0.3498	81.30	0.5211
Pb2203_A		-0.06652	ug/L	1.148	1,726	-1.373
Sb2068_A		0.07262	ug/L	0.4914	676.7	-0.9976
Se1960_A		-0.6158	ug/L	0.2089	33.92	1.444
Si2516_R	W	104.5	ug/L	5.588	5.346	115.6
Sn1899_A		0.3767	ug/L	0.8912	236.6	1.464
Sr4215_R		0.1936	ug/L	0.09768	50.46	-12.60
Ti3349_A		0.1822	ug/L	0.2453	134.6	-15.95
Tl1908_A		-0.2327	ug/L	0.2884	123.9	-1.869
V_2924_A		0.09208	ug/L	0.08819	95.78	-4.860
Zn2062_A		2.398	ug/L	0.04096	1.708	5.857
Y_3600_R		20,484	Cts/S	91.572	0.44703	20,484
Y_2243_A		7,643.7	Cts/S	0.38013	0.0049730	7,643.7
Y_3600_A		146,210	Cts/S	280.46	0.19182	146,210

SO5344-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:13:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000107

SO5344-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:13:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.4418	ug/L	0.2433	55.07	-24.01
Al3961_R		-163.3	ug/L	11.31	6.929	151.0
As1891_A		1.602	ug/L	0.04505	2.813	-2.010
B_2089_A		803.7	ug/L	3.206	0.3989	1,066
Ba4554_R		314.1	ug/L	2.117	0.6739	23,710
Be3130_R		-0.004890	ug/L	0.01519	310.6	-0.9779
Ca3158_R	W	365,800	ug/L	2,300	0.6289	433,400
Cd2265_A		0.1007	ug/L	0.03927	38.99	-0.007844
Co2286_A		-0.1542	ug/L	0.09394	60.92	-0.2736
Cr2677_A		74.58	ug/L	0.7198	0.9652	787.6
Cu3273_A		2.252	ug/L	0.01203	0.5342	13.48
Fe2599_R		7.805	ug/L	0.5196	6.658	22.66
K_7664_R	W	77,700	ug/L	503.2	0.6477	53,740
Li6707_R		11.13	ug/L	1.107	9.942	171.0
Mg2025_A	W	27,510	ug/L	112.4	0.4086	9,272
Mn2576_R		2.709	ug/L	0.3484	12.86	41.03
Mo2020_A		2.812	ug/L	0.06093	2.167	8.473
Na5895_R		15,300	ug/L	76.69	0.5012	35,190
Ni2316_A		20.47	ug/L	0.3688	1.801	29.39
Pb2203_A		0.08604	ug/L	0.9493	1,103	-1.112
Sb2068_A		1.365	ug/L	0.5882	43.09	-0.1589
Se1960_A		0.7137	ug/L	2.281	319.7	1.627
Si2516_R		14,740	ug/L	171.8	1.165	6,504
Sn1899_A		1.647	ug/L	0.2011	12.21	1.782
Sr4215_R	W	1,443	ug/L	8.468	0.5870	142,400
Ti3349_A		0.5038	ug/L	0.1050	20.84	-6.821
Tl1908_A		-0.09609	ug/L	0.02548	26.52	-1.620
V_2924_A		13.30	ug/L	0.1184	0.8902	119.7
Zn2062_A		24.88	ug/L	0.1927	0.7744	50.88
Y_3600_R		19,457	Cts/S	286.13	1.4705	19,457
Y_2243_A		6,899.9	Cts/S	19.565	0.28355	6,899.9
Y_3600_A		132,840	Cts/S	1.1656	0.00087700	132,840

SO5446-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:18:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.06861	ug/L	0.03015	43.94	-31.60
Al3961_R		57.67	ug/L	3.721	6.452	56.01
As1891_A		0.5529	ug/L	0.1462	26.45	-2.733
B_2089_A		9.701	ug/L	0.3951	4.072	24.34
Ba4554_R		520.2	ug/L	1.486	0.2856	40,530
Be3130_R		0.01349	ug/L	0.004908	36.38	-0.04257
Ca3158_R		453.9	ug/L	4.038	0.8895	533.8
Cd2265_A		-0.1319	ug/L	0.04346	32.95	8.806
Co2286_A		0.6947	ug/L	0.09485	13.65	2.582
Cr2677_A		1.866	ug/L	0.1264	6.773	20.89
Cu3273_A		6.882	ug/L	0.1351	1.964	75.27
Fe2599_R		5,323	ug/L	10.27	0.1930	11,170
K_7664_R		137.2	ug/L	32.81	23.91	61.50
Li6707_R		0.7102	ug/L	0.4932	69.46	22.25
Mg2025_A		31.82	ug/L	3.963	12.45	4.879
Mn2576_R		75.38	ug/L	0.2246	0.2979	788.8
Mo2020_A		-0.2495	ug/L	0.001538	0.6167	-0.08077
Na5895_R	F	319,200	ug/L	912.8	0.2860	756,300
Ni2316_A		7.868	ug/L	0.1469	1.867	11.47

SO5446-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:18:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.5236	ug/L	0.2277	43.49	-0.6668
Sb2068_A		0.1407	ug/L	0.8701	618.6	-0.8295
Se1960_A		0.1810	ug/L	0.1213	67.01	1.607
Si2516_R		190.7	ug/L	2.287	1.199	151.8
Sn1899_A		0.3702	ug/L	0.2453	66.27	1.384
Sr4215_R		22.37	ug/L	0.07433	0.3323	2,248
Ti3349_A		0.9698	ug/L	0.06164	6.356	3.633
Tl1908_A		-0.6935	ug/L	0.07180	10.35	-2.042
V_2924_A		0.01201	ug/L	0.1033	860.8	-4.940
Zn2062_A		119.2	ug/L	0.3780	0.3172	254.9
Y_3600_R		20,082	Cts/S	95.632	0.47621	20,082
Y_2243_A		7,238.4	Cts/S	12.131	0.16759	7,238.4
Y_3600_A		135,570	Cts/S	543.67	0.40102	135,570

SO5506-002D

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:22:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1448	ug/L	0.2809	193.9	-48.56
Al3961_R		39.76	ug/L	0.8102	2.038	42.11
As1891_A		2.444	ug/L	0.2151	8.800	-2.594
B_2089_A		40.07	ug/L	0.3636	0.9074	69.97
Ba4554_R		15.25	ug/L	0.1668	1.094	1,213
Be3130_R		0.09471	ug/L	0.01252	13.21	8.591
Ca3158_R		6,308	ug/L	164.2	2.604	7,814
Cd2265_A		-0.2861	ug/L	0.03789	13.24	23.65
Co2286_A		4.056	ug/L	0.06714	1.655	14.42
Cr2677_A		-0.1885	ug/L	0.2313	122.7	-0.2073
Cu3273_A		0.3488	ug/L	0.07702	22.08	-15.02
Fe2599_R		12,480	ug/L	250.8	2.010	26,600
K_7664_R		1,466	ug/L	14.15	0.9655	1,027
Li6707_R		3.162	ug/L	0.1378	4.359	59.47
Mg2025_A		2,927	ug/L	29.95	1.023	1,088
Mn2576_R		417.0	ug/L	11.36	2.725	4,414
Mo2020_A		0.3286	ug/L	0.03963	12.06	1.683
Na5895_R		8,793	ug/L	188.8	2.147	21,230
Ni2316_A		1.557	ug/L	0.1469	9.431	1.649
Pb2203_A		0.5111	ug/L	0.4944	96.74	-0.5074
Sb2068_A		-0.09494	ug/L	0.2296	241.8	-0.8926
Se1960_A		-0.9999	ug/L	0.8078	80.79	1.466
Si2516_R		12,690	ug/L	250.3	1.973	5,878
Sn1899_A		1.331	ug/L	0.6822	51.24	1.848
Sr4215_R		38.26	ug/L	0.6142	1.605	3,928
Ti3349_A		1.378	ug/L	0.004619	0.3351	14.01
Tl1908_A		0.07214	ug/L	0.3998	554.2	-1.944
V_2924_A		-0.02671	ug/L	0.3241	1,214	-5.942
Zn2062_A		19.34	ug/L	0.2421	1.252	44.11
Y_3600_R		20,400	Cts/S	241.07	1.1817	20,400
Y_2243_A		7,652.9	Cts/S	70.795	0.92508	7,652.9
Y_3600_A		143,950	Cts/S	1,033.7	0.71813	143,950

SO5506-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:27:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-020

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:27:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01153	ug/L	0.03676	318.8	-19.79
Al3961_R		14.55	ug/L	4.325	29.73	19.40
As1891_A		1.198	ug/L	0.3438	28.69	-2.390
B_2089_A		58.12	ug/L	0.1270	0.2186	95.61
Ba4554_R		5.439	ug/L	0.1785	3.283	437.7
Be3130_R		0.02566	ug/L	0.007423	28.93	1.342
Ca3158_R		12,630	ug/L	155.4	1.230	15,690
Cd2265_A		-0.02452	ug/L	0.05288	215.7	-0.2287
Co2286_A		1.986	ug/L	0.03137	1.579	7.051
Cr2677_A		0.2702	ug/L	0.02742	10.15	5.791
Cu3273_A		1.097	ug/L	0.03031	2.762	-2.086
Fe2599_R		534.6	ug/L	0.9558	0.1788	1,147
K_7664_R		2,327	ug/L	29.34	1.261	1,653
Li6707_R		4.745	ug/L	0.8308	17.51	83.41
Mg2025_A		4,165	ug/L	0.2571	0.006173	1,541
Mn2576_R	W	2,587	ug/L	25.76	0.9955	27,410
Mo2020_A		0.1227	ug/L	0.004871	3.971	0.9019
Na5895_R		15,460	ug/L	131.6	0.8509	37,320
Ni2316_A		8.036	ug/L	0.05981	0.7442	12.57
Pb2203_A		-0.03675	ug/L	0.9035	2,459	-1.325
Sb2068_A		0.2369	ug/L	0.5151	217.4	-0.9055
Se1960_A		0.3898	ug/L	0.8297	212.8	2.079
Si2516_R		10,740	ug/L	87.08	0.8104	4,995
Sn1899_A		0.5718	ug/L	0.3897	68.15	1.534
Sr4215_R		80.62	ug/L	0.7396	0.9174	8,322
Ti3349_A		0.02144	ug/L	0.06440	300.4	-19.74
Tl1908_A		0.2974	ug/L	0.4657	156.6	-2.984
V_2924_A		0.2923	ug/L	0.2189	74.92	-11.94
Zn2062_A		7.333	ug/L	0.2817	3.842	16.89
Y_3600_R		20,420	Cts/S	84.890	0.41571	20,420
Y_2243_A		7,602.1	Cts/S	0.13234	0.0017410	7,602.1
Y_3600_A		144,210	Cts/S	473.28	0.32818	144,210

SO5506-020L

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:31:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04848	ug/L	0.3798	783.5	-19.53
Al3961_R		81.81	ug/L	11.47	14.02	11.73
As1891_A		7.756	ug/L	1.339	17.26	-2.290
B_2089_A		58.56	ug/L	0.3550	0.6063	29.06
Ba4554_R		7.000	ug/L	0.009738	0.1391	116.8
Be3130_R		0.1115	ug/L	0.02858	25.64	0.9550
Ca3158_R		13,300	ug/L	263.1	1.977	3,259
Cd2265_A		0.2575	ug/L	0.06903	26.81	-0.2988
Co2286_A		2.119	ug/L	0.2005	9.463	1.732
Cr2677_A		0.9557	ug/L	0.2537	26.54	2.964
Cu3273_A		3.023	ug/L	0.5885	19.47	-9.302
Fe2599_R		591.8	ug/L	23.83	4.027	257.3
K_7664_R		2,615	ug/L	16.06	0.6141	339.8
Li6707_R		4.438	ug/L	4.331	97.59	25.15
Mg2025_A		4,360	ug/L	1.760	0.04037	323.7
Mn2576_R		2,698	ug/L	80.06	2.968	5,669
Mo2020_A		-0.4688	ug/L	0.4812	102.7	0.3724
Na5895_R		16,060	ug/L	462.1	2.878	7,734
Ni2316_A		9.670	ug/L	1.106	11.44	2.960

SO5506-020L

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:31:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-1.594	ug/L	3.323	208.4	-1.615
Sb2068_A		4.342	ug/L	1.942	44.73	-0.6088
Se1960_A		1.060	ug/L	0.3295	31.09	1.772
Si2516_R		11,000	ug/L	371.1	3.374	1,067
Sn1899_A		1.570	ug/L	0.005850	0.3725	1.461
Sr4215_R		83.40	ug/L	2.988	3.583	1,681
Ti3349_A		0.8428	ug/L	0.3284	38.96	-16.47
Tl1908_A		3.889	ug/L	1.204	30.94	-1.655
V_2924_A		0.4290	ug/L	1.075	250.5	-6.943
Zn2062_A		35.52	ug/L	0.9116	2.566	16.71
Y_3600_R		20,245	Cts/S	284.25	1.4040	20,245
Y_2243_A		7,758.2	Cts/S	6.9959	0.090174	7,758.2
Y_3600_A		147,720	Cts/S	466.38	0.31571	147,720

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:36:02PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		511.1	ug/L	2.006	0.3925	8,618
Al3961_R		12,700	ug/L	94.20	0.7417	14,660
As1891_A		498.1	ug/L	3.408	0.6842	174.8
B_2089_A		499.4	ug/L	2.165	0.4335	758.4
Ba4554_R		505.4	ug/L	0.1609	0.03184	40,330
Be3130_R		517.0	ug/L	0.9180	0.1776	55,560
Ca3158_R		13,110	ug/L	19.14	0.1460	16,410
Cd2265_A		516.9	ug/L	2.512	0.4860	5,923
Co2286_A		511.1	ug/L	1.582	0.3096	1,772
Cr2677_A		522.0	ug/L	0.5990	0.1148	6,027
Cu3273_A		509.3	ug/L	2.259	0.4436	7,341
Fe2599_R		13,000	ug/L	6.257	0.04813	27,930
K_7664_R		12,730	ug/L	8.331	0.06542	9,279
Li6707_R		506.1	ug/L	1.259	0.2487	7,690
Mg2025_A		12,640	ug/L	31.23	0.2471	4,774
Mn2576_R		513.9	ug/L	3.914	0.7617	5,485
Mo2020_A		505.7	ug/L	1.631	0.3225	1,574
Na5895_R		12,700	ug/L	49.69	0.3913	30,880
Ni2316_A		517.6	ug/L	2.880	0.5564	836.4
Pb2203_A		520.0	ug/L	1.208	0.2323	456.4
Sb2068_A		504.3	ug/L	2.765	0.5483	249.6
Se1960_A		496.0	ug/L	4.308	0.8684	136.5
Si2516_R		13,420	ug/L	8.660	0.06455	6,267
Sn1899_A		521.4	ug/L	2.403	0.4608	211.6
Sr4215_R		505.2	ug/L	0.4489	0.08885	52,700
Ti3349_A		512.8	ug/L	1.678	0.3272	12,840
Tl1908_A		511.6	ug/L	3.146	0.6149	270.2
V_2924_A		521.8	ug/L	1.262	0.2418	5,402
Zn2062_A		525.5	ug/L	1.235	0.2350	1,192
Y_3600_R		20,566	Cts/S	43.423	0.21113	20,566
Y_2243_A		7,690.7	Cts/S	29.140	0.37890	7,690.7
Y_3600_A		145,230	Cts/S	615.46	0.42380	145,230

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:40:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:40:11PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06204	ug/L	0.3964	639.0	-17.83
Al3961_R		8.941	ug/L	3.582	40.06	0.6973
As1891_A		0.8266	ug/L	1.125	136.1	-2.532
B_2089_A		0.2338	ug/L	0.2694	115.3	12.06
Ba4554_R		0.2240	ug/L	0.02845	12.70	24.16
Be3130_R		0.1360	ug/L	0.08870	65.21	12.75
Ca3158_R		-1.099	ug/L	3.360	305.7	-22.65
Cd2265_A		0.1292	ug/L	0.007704	5.964	0.3341
Co2286_A		0.1741	ug/L	0.1276	73.29	0.8547
Cr2677_A		0.2417	ug/L	0.06025	24.93	2.996
Cu3273_A		0.1171	ug/L	0.1001	85.49	-16.32
Fe2599_R		3.443	ug/L	1.609	46.73	14.15
K_7664_R		42.71	ug/L	8.685	20.33	-6.006
Li6707_R		-0.1111	ug/L	0.08363	75.30	10.02
Mg2025_A		1.550	ug/L	1.206	77.79	-6.389
Mn2576_R		-0.1015	ug/L	0.2123	209.2	4.243
Mo2020_A		0.2091	ug/L	0.1638	78.36	1.351
Na5895_R		7.838	ug/L	4.001	51.05	83.03
Ni2316_A		-0.05572	ug/L	0.2499	448.5	-0.2541
Pb2203_A		0.4134	ug/L	0.06191	14.98	-0.9621
Sb2068_A		0.2426	ug/L	0.8219	338.9	-0.9204
Se1960_A		-0.1040	ug/L	0.7346	706.2	1.598
Si2516_R		12.98	ug/L	6.837	52.69	71.86
Sn1899_A		0.3074	ug/L	0.1335	43.42	1.451
Sr4215_R		0.1077	ug/L	0.03069	28.48	-21.08
Ti3349_A		0.3314	ug/L	0.1466	44.25	-12.21
Tl1908_A		0.2522	ug/L	0.2527	100.2	-1.629
V_2924_A		0.1179	ug/L	0.03584	30.39	-4.621
Zn2062_A		0.1912	ug/L	0.02599	13.59	0.8895
Y_3600_R		20,019	Cts/S	352.23	1.7595	20,019
Y_2243_A		7,718.3	Cts/S	15.970	0.20692	7,718.3
Y_3600_A		146,500	Cts/S	252.14	0.17211	146,500

SO5506-020A

Method Name: FAST-2016_NO_AU Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:44:38PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		400.1	ug/L	2.754	0.6883	6,678
Al3961_R		10,660	ug/L	157.6	1.479	12,410
As1891_A		478.3	ug/L	3.898	0.8149	166.1
B_2089_A		542.5	ug/L	4.140	0.7630	812.0
Ba4554_R		492.2	ug/L	6.933	1.409	39,580
Be3130_R		510.1	ug/L	8.485	1.663	55,250
Ca3158_R		17,650	ug/L	332.4	1.883	22,260
Cd2265_A		508.0	ug/L	4.619	0.9091	5,736
Co2286_A		509.7	ug/L	4.921	0.9654	1,746
Cr2677_A		515.1	ug/L	2.748	0.5334	5,884
Cu3273_A		508.8	ug/L	3.024	0.5944	7,254
Fe2599_R		6,144	ug/L	88.06	1.433	13,310
K_7664_R		12,160	ug/L	188.9	1.554	8,927
Li6707_R		502.4	ug/L	6.496	1.293	7,694
Mg2025_A		9,431	ug/L	75.54	0.8011	3,525
Mn2576_R	W	2,946	ug/L	40.98	1.391	31,670
Mo2020_A		516.0	ug/L	4.333	0.8396	1,586
Na5895_R		20,240	ug/L	290.0	1.433	49,570
Ni2316_A		517.2	ug/L	4.119	0.7964	826.2

SO5506-020A

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:44:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		513.4	ug/L	4.248	0.8275	445.1
Sb2068_A		494.0	ug/L	5.162	1.045	241.3
Se1960_A		486.3	ug/L	5.646	1.161	132.6
Si2516_R		10,660	ug/L	165.2	1.550	5,032
Sn1899_A		530.6	ug/L	2.891	0.5447	212.7
Sr4215_R		571.9	ug/L	8.687	1.519	60,130
Ti3349_A		507.5	ug/L	3.614	0.7120	12,570
Tl1908_A		497.8	ug/L	5.511	1.107	258.4
V_2924_A		520.0	ug/L	2.869	0.5516	5,313
Zn2062_A		519.5	ug/L	3.994	0.7688	1,164
Y_3600_R		20,729	Cts/S	357.79	1.7260	20,729
Y_2243_A		7,598.1	Cts/S	47.780	0.62884	7,598.1
Y_3600_A		143,620	Cts/S	377.81	0.26306	143,620

SO5506-020S

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:48:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.43	ug/L	1.232	2.396	815.5
Al3961_R		2,110	ug/L	0.6488	0.03075	2,417
As1891_A		103.3	ug/L	0.002885	0.002793	33.54
B_2089_A		558.8	ug/L	0.8136	0.1456	819.3
Ba4554_R	W	2,052	ug/L	9.854	0.4801	162,100
Be3130_R		53.60	ug/L	0.1724	0.3216	5,702
Ca3158_R		15,420	ug/L	68.11	0.4418	19,100
Cd2265_A		261.0	ug/L	0.1693	0.06488	2,931
Co2286_A		521.2	ug/L	0.8971	0.1721	1,778
Cr2677_A		216.3	ug/L	1.026	0.4741	2,420
Cu3273_A		267.8	ug/L	5.495	2.052	3,726
Fe2599_R		1,598	ug/L	1.229	0.07692	3,405
K_7664_R		12,830	ug/L	30.93	0.2410	9,256
Li6707_R		525.4	ug/L	2.222	0.4229	7,903
Mg2025_A		9,057	ug/L	16.61	0.1834	3,371
Mn2576_R	W	3,115	ug/L	3.276	0.1052	32,900
Mo2020_A		104.1	ug/L	0.1245	0.1197	318.8
Na5895_R		23,440	ug/L	27.40	0.1169	56,370
Ni2316_A		529.8	ug/L	0.7888	0.1489	838.4
Pb2203_A		104.1	ug/L	0.7237	0.6951	88.91
Sb2068_A		101.1	ug/L	0.4913	0.4859	46.22
Se1960_A		101.8	ug/L	0.1336	0.1311	29.26
Si2516_R		12,050	ug/L	26.50	0.2200	5,578
Sn1899_A		529.8	ug/L	0.8493	0.1603	211.4
Sr4215_R		598.9	ug/L	1.850	0.3090	61,850
Ti3349_A		533.6	ug/L	4.463	0.8364	12,920
Tl1908_A		103.5	ug/L	0.3264	0.3154	51.50
V_2924_A		543.4	ug/L	7.670	1.412	5,465
Zn2062_A		529.5	ug/L	0.7387	0.1395	1,182
Y_3600_R		20,360	Cts/S	171.08	0.84031	20,360
Y_2243_A		7,566.5	Cts/S	10.692	0.14130	7,566.5
Y_3600_A		140,540	Cts/S	1,171.4	0.83350	140,540

SO5556-002D

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:53:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5556-002D

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:53:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.009161	ug/L	0.1150	1,255	-25.37
Al3961_R		11.65	ug/L	10.00	85.88	13.69
As1891_A		6.930	ug/L	0.4441	6.409	-0.4748
B_2089_A		332.7	ug/L	0.1553	0.04669	474.4
Ba4554_R		58.00	ug/L	0.4192	0.7228	4,518
Be3130_R		0.02285	ug/L	0.009311	40.74	1.014
Ca3158_R		10,180	ug/L	165.3	1.623	12,420
Cd2265_A		-0.06216	ug/L	0.05464	87.90	4.756
Co2286_A		0.8921	ug/L	0.003775	0.4232	3.218
Cr2677_A		0.1422	ug/L	0.08525	59.95	2.357
Cu3273_A		0.09526	ug/L	0.05173	54.31	-16.12
Fe2599_R		3,037	ug/L	23.86	0.7856	6,368
K_7664_R		23,650	ug/L	317.4	1.342	16,830
Li6707_R		6.689	ug/L	0.5555	8.305	110.7
Mg2025_A		23,890	ug/L	52.61	0.2202	8,539
Mn2576_R		353.9	ug/L	3.477	0.9824	3,692
Mo2020_A		3.969	ug/L	0.1558	3.925	12.39
Na5895_R	F	203,700	ug/L	3,458	1.698	482,000
Ni2316_A		0.9550	ug/L	0.2391	25.04	1.187
Pb2203_A		-0.03704	ug/L	0.1280	345.6	-1.209
Sb2068_A		0.1652	ug/L	0.6223	376.6	-0.8676
Se1960_A		0.7996	ug/L	0.04876	6.098	1.812
Si2516_R		7,228	ug/L	116.9	1.617	3,320
Sn1899_A		0.6111	ug/L	0.05053	8.269	1.492
Sr4215_R		182.3	ug/L	1.679	0.9207	18,520
Ti3349_A		0.1829	ug/L	0.2935	160.4	-14.89
Tl1908_A		1.637	ug/L	1.128	68.94	-1.032
V_2924_A		0.3686	ug/L	0.2344	63.58	-2.898
Zn2062_A		2.640	ug/L	0.009723	0.3684	6.128
Y_3600_R		20,052	Cts/S	217.18	1.0831	20,052
Y_2243_A		7,316.8	Cts/S	7.1161	0.097258	7,316.8
Y_3600_A		137,240	Cts/S	136.93	0.099773	137,240

SO5556-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:57:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4140	ug/L	0.04036	9.749	-32.75
Al3961_R		18.70	ug/L	1.244	6.651	57.65
As1891_A		4.804	ug/L	0.5657	11.77	-1.499
B_2089_A		65.57	ug/L	0.2754	0.4201	104.7
Ba4554_R		118.2	ug/L	0.3164	0.2676	9,304
Be3130_R		-0.006422	ug/L	0.03160	492.0	-2.079
Ca3158_R	W	47,550	ug/L	318.4	0.6697	58,690
Cd2265_A		-0.1881	ug/L	0.05732	30.46	15.07
Co2286_A		0.4765	ug/L	0.08139	17.08	1.971
Cr2677_A		0.4237	ug/L	0.1632	38.51	7.749
Cu3273_A		1.372	ug/L	0.1220	8.889	0.4246
Fe2599_R		8,322	ug/L	15.65	0.1881	17,630
K_7664_R		4,022	ug/L	44.87	1.115	2,864
Li6707_R		11.51	ug/L	0.6017	5.230	183.9
Mg2025_A		8,101	ug/L	8.032	0.09916	2,956
Mn2576_R	W	2,026	ug/L	14.29	0.7053	21,300
Mo2020_A		0.5689	ug/L	0.01509	2.652	2.273
Na5895_R	W	30,870	ug/L	326.6	1.058	73,920
Ni2316_A		0.5554	ug/L	0.2397	43.15	0.2705

SO5556-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 7:57:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3261	ug/L	0.2661	81.59	-0.7728
Sb2068_A		0.06725	ug/L	0.1426	212.1	-0.8522
Se1960_A		0.8775	ug/L	0.4485	51.11	2.134
Si2516_R		10,180	ug/L	60.91	0.5985	4,700
Sn1899_A		0.6049	ug/L	0.6800	112.4	1.523
Sr4215_R		778.2	ug/L	2.066	0.2655	80,050
Ti3349_A		0.1209	ug/L	0.1893	156.6	-16.99
Tl1908_A		0.4717	ug/L	0.6384	135.4	-2.556
V_2924_A		0.06853	ug/L	0.1420	207.2	-11.11
Zn2062_A		4.272	ug/L	0.01660	0.3886	9.867
Y_3600_R		20,276	Cts/S	111.23	0.54859	20,276
Y_2243_A		7,481.2	Cts/S	0.049168	0.00065700	7,481.2
Y_3600_A		141,900	Cts/S	689.64	0.48600	141,900

SO5557-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:01:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.005	ug/L	0.1952	19.43	-118.5
Al3961_R		-0.09141	ug/L	9.375	10,260	31.15
As1891_A		390.2	ug/L	0.1109	0.02842	131.6
B_2089_A		127.8	ug/L	0.4447	0.3479	194.7
Ba4554_R		39.24	ug/L	0.3598	0.9168	3,117
Be3130_R		-0.0007260	ug/L	0.001257	173.1	-1.488
Ca3158_R	W	41,780	ug/L	132.0	0.3160	51,960
Cd2265_A		-1.198	ug/L	0.09818	8.193	85.79
Co2286_A		2.989	ug/L	0.06680	2.235	11.06
Cr2677_A		-0.6322	ug/L	0.2341	37.03	-0.9788
Cu3273_A		0.2183	ug/L	0.4142	189.7	-22.75
Fe2599_R	W	45,380	ug/L	277.6	0.6117	96,840
K_7664_R		12,660	ug/L	7.757	0.06125	9,166
Li6707_R		1.142	ug/L	0.5858	51.30	29.12
Mg2025_A		5,119	ug/L	4.806	0.09389	1,878
Mn2576_R	W	1,158	ug/L	3.696	0.3192	12,260
Mo2020_A		5.118	ug/L	0.08149	1.592	16.20
Na5895_R	W	40,500	ug/L	176.9	0.4367	97,680
Ni2316_A		2.167	ug/L	0.5713	26.36	0.8740
Pb2203_A		0.7427	ug/L	0.3624	48.79	0.6348
Sb2068_A		-1.310	ug/L	0.5433	41.47	-0.9612
Se1960_A		-0.3365	ug/L	1.109	329.5	1.893
Si2516_R		7,289	ug/L	43.46	0.5963	3,408
Sn1899_A		1.920	ug/L	0.3438	17.90	2.052
Sr4215_R		406.0	ug/L	2.788	0.6867	42,060
Ti3349_A		-0.2457	ug/L	0.1983	80.73	-26.03
Tl1908_A		0.6919	ug/L	0.02367	3.421	-2.018
V_2924_A		-0.1843	ug/L	0.09045	49.06	-6.250
Zn2062_A		3.241	ug/L	0.09401	2.900	7.643
Y_3600_R		20,430	Cts/S	29.264	0.14324	20,430
Y_2243_A		7,528.8	Cts/S	7.1990	0.095619	7,528.8
Y_3600_A		142,710	Cts/S	229.30	0.16068	142,710

SO5557-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:06:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5557-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:06:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.927	ug/L	0.08062	4.183	-156.5
Al3961_R		28.02	ug/L	12.24	43.68	71.69
As1891_A	W	2,212	ug/L	2.513	0.1136	771.6
B_2089_A		72.12	ug/L	0.5098	0.7068	115.1
Ba4554_R		41.47	ug/L	2.295	5.534	3,258
Be3130_R		0.01081	ug/L	0.05558	514.2	-0.2090
Ca3158_R	W	51,570	ug/L	2,831	5.488	63,470
Cd2265_A		-1.889	ug/L	0.7955	42.13	122.9
Co2286_A		19.11	ug/L	0.2541	1.330	66.18
Cr2677_A		-1.114	ug/L	0.2549	22.89	-2.120
Cu3273_A		0.01147	ug/L	0.09337	814.4	-29.65
Fe2599_R	W	65,500	ug/L	3,614	5.518	138,300
K_7664_R		7,519	ug/L	344.3	4.579	5,371
Li6707_R		5.491	ug/L	1.495	27.23	93.34
Mg2025_A		7,267	ug/L	11.83	0.1627	2,678
Mn2576_R	W	3,450	ug/L	192.2	5.571	36,150
Mo2020_A		1.573	ug/L	0.02228	1.416	5.274
Na5895_R		16,500	ug/L	844.2	5.117	39,410
Ni2316_A		7.561	ug/L	0.009131	0.1208	8.266
Pb2203_A		1.271	ug/L	0.1544	12.15	1.670
Sb2068_A		-1.416	ug/L	0.2455	17.35	-0.6422
Se1960_A		-1.588	ug/L	0.3695	23.27	2.038
Si2516_R		14,200	ug/L	744.0	5.238	6,510
Sn1899_A		1.725	ug/L	0.4184	24.25	1.981
Sr4215_R		444.1	ug/L	24.40	5.493	45,530
Ti3349_A		0.7292	ug/L	0.005928	0.8130	-2.098
Tl1908_A		0.1721	ug/L	0.06210	36.08	-3.520
V_2924_A		-0.09892	ug/L	0.4048	409.2	-10.83
Zn2062_A		5.129	ug/L	0.2930	5.713	11.87
Y_3600_R		20,234	Cts/S	747.57	3.6947	20,234
Y_2243_A		7,551.7	Cts/S	17.668	0.23396	7,551.7
Y_3600_A		144,070	Cts/S	491.11	0.34087	144,070

SO5557-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:10:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.370	ug/L	0.7009	29.57	-157.9
Al3961_R		-5.336	ug/L	15.72	294.6	36.05
As1891_A	W	2,265	ug/L	6.073	0.2681	785.3
B_2089_A		74.62	ug/L	0.3203	0.4293	118.0
Ba4554_R		43.09	ug/L	3.215	7.462	3,310
Be3130_R		-0.02791	ug/L	0.006063	21.73	-4.228
Ca3158_R	W	53,960	ug/L	4,215	7.811	64,920
Cd2265_A		-2.252	ug/L	1.022	45.38	125.1
Co2286_A		19.81	ug/L	0.05840	0.2949	68.18
Cr2677_A		-0.9203	ug/L	0.1816	19.73	0.5635
Cu3273_A		0.2163	ug/L	0.1934	89.43	-27.38
Fe2599_R	W	68,670	ug/L	5,111	7.443	141,800
K_7664_R		7,865	ug/L	600.2	7.631	5,493
Li6707_R		5.938	ug/L	0.6349	10.69	98.04
Mg2025_A		7,474	ug/L	25.19	0.3371	2,738
Mn2576_R	W	3,592	ug/L	278.8	7.761	36,800
Mo2020_A		1.531	ug/L	0.1014	6.622	5.104
Na5895_R		17,290	ug/L	1,340	7.751	40,380
Ni2316_A		7.888	ug/L	0.2278	2.888	8.561

SO5557-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:10:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9906	ug/L	0.3892	39.29	1.511
Sb2068_A		-1.291	ug/L	0.3010	23.31	-0.5246
Se1960_A		-0.4614	ug/L	0.6444	139.7	2.362
Si2516_R		14,890	ug/L	1,226	8.234	6,668
Sn1899_A		1.221	ug/L	0.4437	36.35	1.771
Sr4215_R		465.9	ug/L	36.84	7.908	46,690
Ti3349_A		-0.3051	ug/L	0.008224	2.695	-27.93
Tl1908_A		0.2363	ug/L	1.660	702.5	-3.543
V_2924_A		-0.09815	ug/L	0.1501	153.0	-10.98
Zn2062_A		5.340	ug/L	0.08080	1.513	12.27
Y_3600_R		19,801	Cts/S	1,049.2	5.2987	19,801
Y_2243_A		7,507.0	Cts/S	0.58989	0.0078580	7,507.0
Y_3600_A		144,650	Cts/S	1,098.7	0.75958	144,650

SO5598-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:14:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1740	ug/L	0.1129	64.86	-16.47
Al3961_R		100.5	ug/L	17.91	17.82	287.2
As1891_A		1.742	ug/L	1.240	71.16	-2.087
B_2089_A	W	1,403	ug/L	0.4136	0.02948	1,937
Ba4554_R		96.56	ug/L	1.043	1.080	7,540
Be3130_R		0.01323	ug/L	0.05672	428.8	0.06996
Ca3158_R	W	189,900	ug/L	659.4	0.3472	232,600
Cd2265_A		-0.03604	ug/L	0.03848	106.8	-0.2773
Co2286_A		10.23	ug/L	0.1481	1.447	33.45
Cr2677_A		1.648	ug/L	0.02299	1.395	22.84
Cu3273_A		1.289	ug/L	0.1061	8.231	0.6368
Fe2599_R		573.7	ug/L	8.802	1.534	1,212
K_7664_R		983.5	ug/L	5.731	0.5827	667.0
Li6707_R		4.199	ug/L	0.4690	11.17	74.04
Mg2025_A	W	34,720	ug/L	77.35	0.2228	12,230
Mn2576_R	W	4,900	ug/L	23.96	0.4891	51,120
Mo2020_A		42.83	ug/L	0.01949	0.04551	125.3
Na5895_R		2,892	ug/L	3.869	0.1338	6,928
Ni2316_A		24.27	ug/L	0.06943	0.2861	36.83
Pb2203_A		3.257	ug/L	1.041	31.96	1.430
Sb2068_A		10.23	ug/L	0.06272	0.6129	3.838
Se1960_A		0.9711	ug/L	0.07279	7.496	2.434
Si2516_R		6,892	ug/L	22.99	0.3336	3,179
Sn1899_A		2.514	ug/L	0.3011	11.98	2.189
Sr4215_R		212.4	ug/L	1.601	0.7540	21,650
Ti3349_A		0.1763	ug/L	0.009055	5.137	-14.56
Tl1908_A		0.3871	ug/L	0.01224	3.161	-3.962
V_2924_A		1.120	ug/L	0.1882	16.80	-13.58
Zn2062_A	W	1,929	ug/L	7.031	0.3645	4,104
Y_3600_R		20,113	Cts/S	37.352	0.18571	20,113
Y_2243_A		7,210.7	Cts/S	13.109	0.18180	7,210.7
Y_3600_A		138,480	Cts/S	59.937	0.043281	138,480

SO5649-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:19:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5649-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:19:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02812	ug/L	0.1797	639.0	-16.89
Al3961_R		-216.5	ug/L	0.6354	0.2934	162.5
As1891_A		0.09039	ug/L	2.266	2,506	-2.555
B_2089_A		7.147	ug/L	0.4964	6.945	20.69
Ba4554_R		181.3	ug/L	3.611	1.992	13,760
Be3130_R		-0.03265	ug/L	0.01383	42.35	-4.730
Ca3158_R	W	439,700	ug/L	9,881	2.247	523,500
Cd2265_A		0.01487	ug/L	0.0009870	6.636	-0.8697
Co2286_A		-0.2970	ug/L	0.09537	32.11	-0.7135
Cr2677_A		2.587	ug/L	0.2027	7.834	27.73
Cu3273_A		77.90	ug/L	0.4580	0.5880	1,023
Fe2599_R		13.45	ug/L	0.6475	4.814	34.28
K_7664_R	W	32,110	ug/L	783.6	2.440	22,300
Li6707_R		27.82	ug/L	0.02672	0.09606	412.7
Mg2025_A		13.03	ug/L	3.120	23.96	-1.731
Mn2576_R		1.299	ug/L	0.1195	9.201	18.39
Mo2020_A		13.87	ug/L	0.02545	0.1834	40.21
Na5895_R	W	53,710	ug/L	1,241	2.311	123,900
Ni2316_A		0.4338	ug/L	0.1374	31.67	0.6291
Pb2203_A		530.8	ug/L	1.844	0.3475	428.1
Sb2068_A		0.4576	ug/L	0.1706	37.28	-0.7412
Se1960_A		1.216	ug/L	1.567	128.9	1.788
Si2516_R		197.4	ug/L	7.545	3.823	151.2
Sn1899_A		1.177	ug/L	0.2784	23.66	1.647
Sr4215_R		488.2	ug/L	10.67	2.185	48,410
Ti3349_A		0.5179	ug/L	0.1014	19.59	-6.634
Tl1908_A		-0.2571	ug/L	0.2188	85.09	-1.734
V_2924_A		0.2055	ug/L	0.1029	50.06	-4.184
Zn2062_A		231.6	ug/L	0.1790	0.07729	482.2
Y_3600_R		19,556	Cts/S	445.65	2.2788	19,556
Y_2243_A		7,051.5	Cts/S	1.0081	0.014297	7,051.5
Y_3600_A		134,070	Cts/S	568.10	0.42373	134,070

SO5649-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:23:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.9851	ug/L	1.017	103.2	-21.97
Al3961_R		-4.163	ug/L	43.43	1,043	75.17
As1891_A		5.482	ug/L	1.364	24.88	-2.380
B_2089_A		2.410	ug/L	2.330	96.68	12.22
Ba4554_R		178.8	ug/L	0.8526	0.4768	2,839
Be3130_R		0.1225	ug/L	0.1352	110.4	1.255
Ca3158_R	W	441,000	ug/L	3,047	0.6909	109,600
Cd2265_A		-0.04532	ug/L	0.1076	237.5	-1.211
Co2286_A		0.5277	ug/L	0.5441	103.1	0.5998
Cr2677_A		4.486	ug/L	0.3318	7.396	10.48
Cu3273_A		74.92	ug/L	0.3179	0.4244	197.7
Fe2599_R		41.38	ug/L	5.763	13.93	24.77
K_7664_R		30,940	ug/L	14.56	0.04707	4,456
Li6707_R		28.52	ug/L	9.336	32.74	97.72
Mg2025_A		25.66	ug/L	1.668	6.499	-4.890
Mn2576_R		4.271	ug/L	1.059	24.80	14.46
Mo2020_A		12.84	ug/L	0.5384	4.192	8.523
Na5895_R		51,870	ug/L	378.4	0.7294	25,050
Ni2316_A		2.265	ug/L	0.8952	39.53	0.5789

SO5649-001L

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:23:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		549.3	ug/L	2.358	0.4293	93.76
Sb2068_A		-1.750	ug/L	1.718	98.21	-1.193
Se1960_A		-3.005	ug/L	4.081	135.8	1.429
Si2516_R		137.7	ug/L	62.79	45.59	79.95
Sn1899_A		4.817	ug/L	2.577	53.50	1.678
Sr4215_R		482.4	ug/L	2.830	0.5868	9,962
Ti3349_A		-1.234	ug/L	0.4199	34.02	-26.42
Tl1908_A		6.208	ug/L	1.061	17.08	-1.078
V_2924_A		2.015	ug/L	0.4855	24.09	-1.759
Zn2062_A		265.5	ug/L	0.3562	0.1342	118.6
Y_3600_R		20,413	Cts/S	105.27	0.51569	20,413
Y_2243_A		7,545.3	Cts/S	30.037	0.39809	7,545.3
Y_3600_A		144,470	Cts/S	136.46	0.094452	144,470

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:28:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		503.5	ug/L	4.638	0.9213	8,631
Al3961_R		12,570	ug/L	143.3	1.140	14,700
As1891_A		495.4	ug/L	0.1574	0.03177	176.2
B_2089_A		493.0	ug/L	1.662	0.3372	758.8
Ba4554_R		500.3	ug/L	7.148	1.429	40,430
Be3130_R		508.5	ug/L	5.656	1.112	55,350
Ca3158_R		12,990	ug/L	79.15	0.6092	16,460
Cd2265_A		512.0	ug/L	0.6637	0.1296	5,944
Co2286_A		509.0	ug/L	0.5857	0.1151	1,788
Cr2677_A		518.5	ug/L	2.396	0.4622	6,087
Cu3273_A		502.5	ug/L	4.991	0.9934	7,363
Fe2599_R		12,910	ug/L	133.1	1.031	28,090
K_7664_R		12,610	ug/L	129.6	1.028	9,307
Li6707_R		497.1	ug/L	9.425	1.896	7,651
Mg2025_A		12,570	ug/L	7.409	0.05893	4,812
Mn2576_R		510.9	ug/L	3.447	0.6748	5,522
Mo2020_A		502.6	ug/L	0.7045	0.1402	1,585
Na5895_R		12,490	ug/L	131.8	1.056	30,760
Ni2316_A		512.7	ug/L	0.3962	0.07728	839.4
Pb2203_A		514.3	ug/L	1.637	0.3183	457.3
Sb2068_A		496.9	ug/L	0.8275	0.1665	249.1
Se1960_A		492.2	ug/L	1.806	0.3669	137.2
Si2516_R		13,170	ug/L	105.3	0.7995	6,234
Sn1899_A		517.2	ug/L	2.082	0.4025	212.6
Sr4215_R		498.3	ug/L	7.006	1.406	52,650
Ti3349_A		507.8	ug/L	3.804	0.7490	12,930
Tl1908_A		511.1	ug/L	1.493	0.2921	273.5
V_2924_A		513.8	ug/L	2.746	0.5344	5,408
Zn2062_A		523.5	ug/L	0.2233	0.04267	1,202
Y_3600_R		20,831	Cts/S	15.872	0.076195	20,831
Y_2243_A		7,791.6	Cts/S	17.945	0.23032	7,791.6
Y_3600_A		147,660	Cts/S	1,178.1	0.79783	147,660

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:32:20PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:32:20PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1954	ug/L	0.1326	67.88	-15.61
Al3961_R		5.241	ug/L	2.122	40.49	-3.455
As1891_A		1.247	ug/L	0.2039	16.35	-2.387
B_2089_A		-0.7276	ug/L	0.3454	47.47	10.68
Ba4554_R		0.1563	ug/L	0.09508	60.84	19.22
Be3130_R		0.1855	ug/L	0.03197	17.24	18.33
Ca3158_R		14.18	ug/L	7.749	54.65	-4.043
Cd2265_A		0.08302	ug/L	0.006136	7.391	-0.1958
Co2286_A		0.1882	ug/L	0.1208	64.20	0.9059
Cr2677_A		0.1685	ug/L	0.1588	94.22	2.148
Cu3273_A		0.3164	ug/L	0.1081	34.17	-13.47
Fe2599_R		2.959	ug/L	0.3794	12.82	13.41
K_7664_R		27.84	ug/L	30.30	108.8	-17.00
Li6707_R		0.2501	ug/L	1.020	407.7	15.62
Mg2025_A		1.167	ug/L	0.3556	30.47	-6.548
Mn2576_R		0.1614	ug/L	0.05228	32.38	7.120
Mo2020_A		0.3796	ug/L	0.001023	0.2695	1.887
Na5895_R		11.70	ug/L	8.766	74.90	93.98
Ni2316_A		0.03893	ug/L	0.2553	655.8	-0.09992
Pb2203_A		0.2465	ug/L	0.6446	261.5	-1.113
Sb2068_A		0.7915	ug/L	0.8247	104.2	-0.6451
Se1960_A		-1.069	ug/L	0.1746	16.33	1.338
Si2516_R		16.49	ug/L	0.3348	2.031	74.77
Sn1899_A		-0.1761	ug/L	0.2053	116.6	1.258
Sr4215_R		0.1856	ug/L	0.006783	3.656	-13.39
Ti3349_A		0.2643	ug/L	0.07888	29.85	-13.95
Tl1908_A		0.09346	ug/L	1.007	1,078	-1.719
V_2924_A		-0.1038	ug/L	0.02099	20.22	-6.993
Zn2062_A		0.09486	ug/L	0.07393	77.93	0.6721
Y_3600_R		20,387	Cts/S	76.806	0.37674	20,387
Y_2243_A		7,737.3	Cts/S	18.829	0.24336	7,737.3
Y_3600_A		147,060	Cts/S	546.90	0.37188	147,060

SO5649-001A

Method Name: FAST-2016_NO_AU
Method Revision: 1,008
Analyst Name: EP
Acquire Date: 8/27/2021 8:36:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		26.57	ug/L	0.1834	0.6902	380.3
Al3961_R		10,840	ug/L	131.7	1.215	12,360
As1891_A		500.8	ug/L	1.416	0.2827	161.6
B_2089_A		499.7	ug/L	2.066	0.4134	696.6
Ba4554_R		663.7	ug/L	9.237	1.392	50,590
Be3130_R		511.8	ug/L	4.428	0.8653	52,560
Ca3158_R	W	433,800	ug/L	6,020	1.388	519,200
Cd2265_A		497.1	ug/L	1.037	0.2086	5,209
Co2286_A		491.8	ug/L	1.770	0.3600	1,564
Cr2677_A		501.4	ug/L	2.619	0.5224	5,361
Cu3273_A		585.9	ug/L	4.112	0.7018	7,826
Fe2599_R		5,601	ug/L	74.35	1.327	11,500
K_7664_R	W	41,270	ug/L	339.8	0.8233	28,810
Li6707_R		543.6	ug/L	6.802	1.251	7,892
Mg2025_A		5,143	ug/L	16.74	0.3256	1,793
Mn2576_R		495.8	ug/L	5.485	1.106	5,057
Mo2020_A		526.7	ug/L	1.769	0.3358	1,503
Na5895_R	W	57,610	ug/L	544.7	0.9455	133,600
Ni2316_A		490.1	ug/L	1.534	0.3131	727.0

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc. | **Metals Preparation Benchsheet**

Reagents and Consumables Information: | **Method:** 3010

HNO3: MSC847 | HCL: MSC845 | Digestion Vessels: 17303050

1:1 HNO3: MC342 | 1:1 HCL: MSC844

Pipet	LCS/Spiking Information:
M11	CLPP-SPK-1 (ID/Vol): MS23248 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW20443 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW20444 / 0.5 mL
—	— Spike (ID/Vol): — / — mL

Heat Source ID: A
Start Time: 0755 /Temp. 90 °C
End Time: 1450 /Temp. 93 °C
Thermometer ID/Pos: ALC30 127

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LCSWOH25ICW1	OH25ICW1	0.05	L	0.05	L	AQ	IC	CD	08/25/2021	-	✓
PBWOH25ICW1	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	-	
SO5154-001R	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	D	
SO5512-001	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	C	
SO5512-002	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	A	
SO5520-001	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	D	
SO5520-002	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5520-003	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5520-004	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-002	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	H	
SO5556-003	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-004	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-005	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-006	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-007	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
~~SO5556-008~~	~~OH25ICW1~~		~~L~~		~~L~~	~~AQ~~	~~IC~~	~~CD~~	~~08/25/2021~~		
SO5556-009	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	D	
SO5556-010	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-011	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-012	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-013	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5557-001		0.05		0.05	L	AQ	IC	CD		C	
TCLP → 5516-2		0.01	L	0.05	L						
5556-25 P		0.05									

Client IDs CD 8-26-21 Verified

REVIEWED
CD/JT 8-26-21
KATAHDIN ANALYTICAL
METALS SECTION

QA-064-Revision 5 -12/07/2018 | Digestion performed by: CD/IM/JT | On: 8-25-21 | Page: OH080 | Revision: 00

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSR247 **HCL:** MSR245 **Digestion Vessels:** MLD0050000034

1:1 HNO3: MR3112 **1:1 HCL:** MR3103

Pipet **LCS/Spiking Information:**

m1 **CLPP-SPK-1 (ID/Vol):** MS2378 / 0.05 **mL**

m1 **CLPP-SPK-INT1 (ID/Vol):** MW70443 / 0.5 **mL**

m1 **CLPP-SPK-INT2 (ID/Vol):** MW70444 / 0.5 **mL**

- - **Spike (ID/Vol):** - / - **mL**

Heat Source ID : A

Start Time: 920 **/Temp.** 88 **°C**

End Time: 1520 **/Temp.** 90 **°C**

Thermometer ID/Pos: AL630 / 2,6

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LCSWOH26ICW1	OH26ICW1	0.05	L	0.05	L	AQ	IC	JT	08/26/2021	–	J
PBWOH26ICW1	OH26ICW1	0.05	L		L	AQ	IC	JT	08/26/2021	–	
SO5344-002	OH26ICW1	0.01	L		L	AQ	IC	JT	08/26/2021	–	
SO5446-001	OH26ICW1	0.01	L		L	AQ	IC	JT	08/26/2021	–	
SO5506-002D	OH26ICW1	0.05	L		L	AQ	IC	JT	08/26/2021	H	
SO5506-020	OH26ICW1		L		L	AQ	IC	JT	08/26/2021	D	
~~SO5506-020P~~	~~OH26ICW1~~		~~L~~		~~L~~	~~AQ~~	~~IC~~	~~JT~~	~~08/26/2021~~	~~D~~	CD 9-1-21
SO5506-020S	OH26ICW1		L		L	AQ	IC	JT	08/26/2021	D	
SO5556-002D	OH26ICW1		L		L	AQ	IC	JT	08/26/2021	H	
SO5556-014	OH26ICW1		L		L	AQ	IC	JT	08/26/2021	D	
SO5557-002	OH26ICW1		L		L	AQ	IC	JT	08/26/2021	A	
SO5557-003	OH26ICW1		L		L	AQ	IC	JT	08/26/2021	L	
SO5557-004	OH26ICW1		L		L	AQ	IC	JT	08/26/2021	A	
SO5598-001	OH26ICW1	0.01	L		L	AQ	IC	JT	08/26/2021	–	

Client ID's verified CD 8-26-21

REVIEWED

CD 9-1-21

KATAHDIN ANALYTICAL
METALS SECTION

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Alkalinity

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305135	SM2320B	25-AUG-21	N/A	J 1.6 mg/L	5.0 mg/L	4.0

COD-Color

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304988	SM 5220	23-AUG-21	N/A	U 10. mg/L	15. mg/L	10.

Chloride

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305703	SW846 9056A	07-SEP-21	N/A	J 0.10 mg/L	2.0 mg/L	1.0

Nitrate As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304865	EPA 353.2	20-AUG-21	N/A	U 0.025 mg/L	0.050 mg/L	0.025

Nitrite As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304865	EPA 353.2	20-AUG-21	N/A	U 0.025 mg/L	0.050 mg/L	0.025

Solids-Filterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304926	SM 2540C	24-AUG-21	23-AUG-21	U 8.0 mg/L	10. mg/L	8.0

Sulfate

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305703	SW846 9056A	07-SEP-21	N/A	U 1.0 mg/L	1.0 mg/L	0.50

Total Biochemical Oxygen Demand

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304847	SM 5210B	25-AUG-21	20-AUG-21	U 1.0 mg/L	2.0 mg/L	1.0

Total Organic Carbon (1)

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305311	SW846 9060A	27-AUG-21	N/A	J 0.20 mg/L	1.0 mg/L	0.50

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305135-2	LCS	WG305135	25-AUG-21	N/A	mg/L	120	140	113	80-120	
WG305135-4	LCSD	WG305135	25-AUG-21	N/A	mg/L	120	130	112	80-120	1

COD-Color

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304988-2	LCS	WG304988	23-AUG-21	N/A	mg/L	75	74.	99	80-120	

Chloride

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305703-2	LCS	WG305703	07-SEP-21	N/A	mg/L	3.75	3.58	95.5	90-110	

Nitrate As N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304865-2	LCS	WG304865	20-AUG-21	N/A	mg/L	1	0.95	95	90-110	

Nitrite As N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304865-3	LCS	WG304865	20-AUG-21	N/A	mg/L	1	1.0	100	90-110	

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304926-2	LCS	WG304926	24-AUG-21	23-AUG-21	mg/L	750	710	94	80-120	
WG304926-3	LCSD	WG304926	24-AUG-21	23-AUG-21	mg/L	750	700	94	80-120	1

Sulfate

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305703-2	LCS	WG305703	07-SEP-21	N/A	mg/L	3.75	3.63	96.8	90-110	

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304847-2	LCS	WG304847	25-AUG-21	20-AUG-21	mg/L	198	220	111	85-115	

Total Organic Carbon (1)

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305311-2	LCS	WG305311	27-AUG-21	N/A	mg/L	50	52.	104	80-120	

Quality Control Report

Duplicate Sample Summary Report

Solids-Filterable Residue

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG304926-4	SO5557-3	WG304926	24-AUG-21	mg/L	280	280	1	10

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5557-1
Report Date: 13-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5557

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2S-BASELINE	AQ	20-AUG-21 10:35:00	20-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG305135	25-AUG-21 10:11:00	N/A	N/A	
COD-Color	U10. mg/L	15.	5.7	10	SM 5220	WG304988	23-AUG-21 15:29:00	N/A	N/A	
Chloride	46 mg/L	10.	0.50	5.0	SW846 9056A	WG305703	07-SEP-21 18:50:00	N/A	N/A	
Nitrate As N	U0.025 mg/L	0.050	0.015	0.025	EPA 353.2	WG304865	20-AUG-21 16:37:00	N/A	N/A	
Solids-Filterable Residue	270 mg/L	10.	5.0	8	STDM 2540C	WG304926	24-AUG-21 11:10:00	SM 2540C	23-AUG-21	
Sulfate	27 mg/L	1.0	0.064	0.50	SW846 9056A	WG305703	07-SEP-21 18:31:00	N/A	N/A	
Total Biochemical Oxygen Demand	J4.5 mg/L	6.0	0.70	1	SM 5210B	WG304847	25-AUG-21 13:50:00	SM 5210B	20-AUG-21 1636	
Total Organic Carbon (1)	3.6 mg/L	1.0	0.10	0.50	SW846 9060A	WG305311	27-AUG-21 20:39:02	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5557-3
Report Date: 13-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5557

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3D-BASELINE	AQ	20-AUG-21 12:20:00	20-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	200 mg/L	5.0	0.23	4	STDM 2320B	WG305135	25-AUG-21 10:14:41	N/A	N/A	
COD-Color	U10. mg/L	15.	5.7	10	SM 5220	WG304988	23-AUG-21 15:29:00	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG305703	07-SEP-21 19:08:00	N/A	N/A	
Nitrate As N	U0.025 mg/L	0.050	0.015	0.025	EPA 353.2	WG304865	20-AUG-21 16:38:11	N/A	N/A	
Solids-Filterable Residue	280 mg/L	10.	5.0	8	STDM 2540C	WG304926	24-AUG-21 11:10:00	SM 2540C	23-AUG-21	
Sulfate	18 mg/L	2.0	0.13	1.0	SW846 9056A	WG305703	07-SEP-21 19:08:00	N/A	N/A	
Total Biochemical Oxygen Demand	J5.3 mg/L	6.0	0.70	1	SM 5210B	WG304847	25-AUG-21 13:58:00	SM 5210B	20-AUG-21 1648	
Total Organic Carbon (1)	2.3 mg/L	1.0	0.10	0.50	SW846 9060A	WG305311	27-AUG-21 20:51:13	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Raw Data Section

WET CHEMISTRY BATCH REPORT
Aug 25 2021, 02:24 pm
Batch: WG304847 Run ID 1: R575218 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Prep Date: 20-AUG-21

Date Analyzed: 25-AUG-21

Prep Method: SM 5210B

Analyst Initials: JL

Prep Chemist: JL/SS

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5512-1	SAMP	SM 5210B	100.00mL	300.00mL	3	1.2	J3.6 mg/L	NA	2	0.70	6.0		
SO5519-1	SAMP	SM 5210B	2.6670mL	300.00mL	110	2.87	320 mg/L	NA	2	26.	220		
SO5544-1	SAMP	SM 5210B	0.58300mL	300.00mL	510	2.853	1500 mg/L	NA	2	120	1000		
SO5545-1	SAMP	SM 5210B	1.5000mL	300.00mL	200	2.095	420 mg/L	NA	2	47.	400		
SO5546-1	SAMP	SM 5210B	5.0000mL	300.00mL	60	.66	U120 mg/L	NA	2	14.	120		
SO5547-1	SAMP	SM 5210B	5.0000mL	300.00mL	60	3.37	200 mg/L	NA	2	14.	120		
SO5557-1	SAMP	SM 5210B	100.00mL	300.00mL	3	1.5	J4.5 mg/L	NA	2	0.70	6.0		
SO5557-3	SAMP	SM 5210B	100.00mL	300.00mL	3	1.76	J5.3 mg/L	NA	2	0.70	6.0		
WG304847-1	MBLANK	SM 5210B	300.00mL	300.00mL	1	.11	U1.0 mg/L	NA	2	0.23	2.0		
WG304847-2	LCS	SM 5210B	6.0000mL	300.00mL	50	4.396	220 mg/L	NA	2	12.	100		111
WG304847-3	MS	SM 5210B	0.25000mL	300.00mL	1200	4.05	4900 mg/L	NA	2	280	2400		95
WG304847-4	DUP	SM 5210B	2.0000mL	300.00mL	150	1.25	~~U300~~ 190 mg/L	NA	2	35.	300	53	

ZF 8/27/21

Comments:

SO5512-1	Anions please report Cl & SO4.
WG304847-1	SO5519-1
WG304847-2	SO5519-1
WG304847-3	SO5519-1
WG304847-4	SO5519-1

Entered by: JL Date: 8/25/21 Accepted by: ZF Date: 8/27/21

Katahdin Analytical Services 5000011

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: [JL]

R575218
WG304847

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = [1]

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	8.04	7.93	0.11	N/A	Yes
Blank 2	0	8.03	7.91	0.12	N/A	Yes
Blank 3	0	8.09	7.79	0.3	N/A	No
Seed Control 1	1	8.13	6.98	1.15	1.15	No
Seed Control 2	2	8.01	5.68	2.33	1.17	1.17
Seed Control 3	4	7.86	3.10	4.76	1.19	1.19
Seed Control 4	6	8.18	0.89	7.29	1.22	No
			Mean Seed Correction Factor (SCF):			**1.18**

Blank: 0918 1300

LCS: 0925 1308

LCS Recovery Calculations

GGA Added (mL):	6		LCS True Value (mg/L):	198
LCS ID	Calc mg/L	% Recovery	Recovery Acceptance Limits (%): 84.6 TO 115.4	
LCS 1	227.13	114.7	LCS Within Criteria ?	Yes
LCS 2	213.63	107.9	LCS Within Criteria ?	Yes
LCS 3	218.63	110.4	LCS Within Criteria ?	Yes
Mean	219.79	111.0	LCS Within Criteria ?	Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
5519	0.25	315.83	4863.00	6	4752	95.7
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:
LCS 1
LCS 2
LCS 3
Blank 1
Blank 2

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
LCS 1	6.000	8.37	2.65	5.72	4.54	227.13	Yes	100.0
LCS 2	6.000	8.01	2.56	5.45	4.27	213.63	Yes	100.0
LCS 3	6.000	8.37	2.82	5.55	4.37	218.63	Yes	100.0
Mean LCS Result	6.000	8.250	2.677	5.573	4.396	219.792	Yes	100.0
5512	1.000	7.93	6.93	1.00	-0.18	-53.25	No	600.0
0932 1311	2.000	8.15	6.89	1.26	0.08	12.38	No	300.0
	5.000	7.93	6.42	1.51	0.33	19.95	No	120.0
	10.000	8.19	6.61	1.58	0.40	12.08	No	60.0
	25.000	8.11	6.55	1.56	0.38	4.59	No	24.0
	50.000	7.67	6.04	1.63	0.45	2.72	No	12.0
	100.000	7.40	5.02	2.38	1.20	3.61	Yes	6.0
5519	0.250	8.10	6.53	1.57	0.39	471.00	No	2400.0
1107 1317	0.500	8.04	6.76	1.28	0.10	61.50	No	1200.0
	1.000 2.667	8.01	5.82	2.19	1.01 2.87	303.75	Yes	600.0
	2.000	8.31	5.05	3.26	2.08	312.38	Yes	300.0
	5.000	8.02	1.32	6.70	5.52	331.35	Yes	120.0
	10.000	7.94	<1	6.94	5.76	172.88	No	60.0
	25.000	7.54	<1	6.54	5.36	64.35	No	24.0
1115 **MS** 1324	0.250	8.00	2.77	5.23	4.05	4863.00	Yes	2400.0
~~1441~~ **DUP** 1325	2.000	8.19	5.76	2.43	1.25	187.88	Yes	300.0
5544	0.100	7.78	6.40	1.38	0.20	607.50	No	6000.0
1437 1329	0.250 .583	7.78	5.57	2.21	1.03 2.853	1239.00	Yes	2400.0
	0.500	8.18	4.53	3.65	2.47	1483.50	Yes	1200.0
	1.000	7.89	1.65	6.24	5.06	1518.75	Yes	600.0
	2.000	7.84	<1	6.84	5.66	849.38	No	300.0
5545	0.100	7.81	6.77	1.04	-0.14	-412.50	No	6000.0
1442 1335	0.250	7.81	6.88	0.93	-0.25	-297.00	No	2400.0
	0.500	7.83	6.76	1.07	-0.11	-64.50	No	1200.0
	1.000 1.5	8.17	5.67	2.50	1.32 2.095	396.75	Yes	600.0
	2.000	8.03	3.98	4.05	2.87	430.88	Yes	300.0
1457 **5546** 1339	0.500	7.86	6.88	0.98	-0.20	-118.50	No	1200.0
	1.000	7.86	6.71	1.15	-0.03	-8.25	No	600.0
	2.000	7.69	6.49	1.20	0.02	3.38	No	300.0
	5.000	7.79	5.95	1.84	0.66	39.75	No	120.0
5547	0.250	7.75	7.37	0.38	-0.80	-957.00	No	2400.0
1508 1343	0.500	7.94	7.21	0.73	-0.45	-268.50	No	1200.0
	1.000	7.84	6.72	1.12	-0.06	-17.25	No	600.0
	2.000	8.07	6.17	1.90	0.72	108.38	No	300.0
	5.000	8.13	3.58	4.55	3.37	202.35	Yes	120.0
	10.000	7.86	<1	6.86	5.68	170.48	No	60.0
				0.00	-1.18	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 X **CBOD5**

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
5557	1.000	8.00	6.96	1.04	-0.14	-41.25	No	600.0
1636 1350	2.000	8.16	7.12	1.04	-0.14	-20.63	No	300.0
	5.000	8.07	7.03	1.04	-0.14	-8.25	No	120.0
	10.000	7.76	6.63	1.13	-0.05	-1.43	No	60.0
	25.000	7.47	6.41	1.06	-0.12	-1.41	No	24.0
	50.000	7.35	6.04	1.31	0.13	0.79	No	12.0
	100.000	7.55	4.87	2.68	1.50	4.51	Yes	6.0
5557	1.000	7.83	7.03	0.80	-0.38	-113.25	No	600.0
1648 1358	2.000	7.90	7.06	0.84	-0.34	-50.63	No	300.0
	5.000	7.98	7.17	0.81	-0.37	-22.05	No	120.0
	10.000	7.57	6.71	0.86	-0.32	-9.53	No	60.0
	25.000	7.60	6.38	1.22	0.04	0.51	No	24.0
	50.000	7.23	6.01	1.22	0.04	0.26	No	12.0
	100.000	6.25	3.31	2.94	1.76	5.29	Yes	6.0
	300.000	2.97	<1	1.97	0.79	0.79	No	2.0
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!
				0.00	-1.18	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG304847

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration	Probe ID:
Total BOD: SM5210B EPA 405.1		**PQL: 2.0 mg/L**		True Value / Lot ID	Actual Value / Accept? ± 0.05
Carbonaceous BOD: SM5210B		**PQL: 2.0 mg/L**		4.01	
Glutamic Acid Std (GGA) ID: GGA 082021	GGA Preparation:	Seed Used Source ID and Amount:		7.00	
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01	
Phosphate Bffr Soln. ID: W20097	SWL4207	SSD: ✓	1 mL ✓	DO Meter ID: B27869	DO Probe ID: 086080MD
$H_{14}MgO_{11}S$ ID: SWL4791	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID: 14-860	pH Paper ID: 6W2002
Ferric Chloride Soln. ID: SWL4770	SWL4223	Starch Indicator ID:		Carboy ID: ~~11~~	1:50 H_2SO_4 ID:
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:		Pipet IDs: W3,7,10,13	
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):	

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
Blank		0918					T2		8.04	7.93	1300	
↓		19					432		8.03	7.91	01	
		20					2986		8.09	7.79	02	
1		0921					BP22		8.13	6.98	1303	
2		22					R22		8.01	5.68	04	
4		23					323		7.86	3.10	05	
6		24					298		8.18	~~2.65~~	1007	.89
LCS		0925					399		8.37	~~2.56~~	08	2.65
↓		26					47		8.01	~~2.82~~	09	2.56
		27					BP31		8.37	~~6.93~~	1310	2.82
505512	Serres	0932	↓			N	97	1	7.93	6.93	11	
		33					6666	2	8.15	6.89	12	
		34					211	5	7.93	6.48	13	
		35					~~1327~~ 347	10	8.19	6.61	14	
		36					7127	25	8.11	6.55	15	
		37					T22	50	7.67	5.04	16	
		38					411	100	7.40	5.02	17	

JR 8/25/21

WL-013 - Revision 9 - 12/11/2018

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S05519	Pineland	1107	✓			N	1321	.25	8.10	6.53	1317	
	Potato	08					747	.5	8.04	6.76	18	
		09					911	1	8.01	5.82	19	
		10					047	2	8.31	5.05	20	
		13					057	5	8.02	1.32	21	
		13					1009	10	7.94	<1	22	
		14					396	25	7.54	<1	23	
	ms	1115					360	.25	8.00	2.77	1324	
	DMP	16					021	2	8.19	5.76	25	
S05544	Kerry	1437	✓			N	170	.1	7.78	6.40	13:29	
		38					511	.25	7.78	5.57	30	
		38					343	.5	8.18	4.53	31	
		39					284	1	7.89	1.65	32	
		40	✓				022	2	7.84	<1	33	
S05545	Inland	1442	✓			N	75	.1	7.81	6.77	1335	
		43					376	.25	7.81	6.88	36	
		44					77m	.5	7.83	6.76	37	
		45					3025	1	8.17	5.67	38	
		46	✓				381	2	8.03	3.98	39	

OL 8/23/21

NOTES:

ANALYST 1	OL	DATE	8/20/21
ANALYST 2	OL	DATE	8/25/21
CHECKED BY:	ZF	DATE	8/27/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.				pH Meter Calibration		Probe ID:	
Total BOD: SM5210B	EPA 405.1		PQL: 2.0 mg/L		True Value	Lot ID	Actual Value	Accept? ± 0.05
Carbonaceous BOD:	SM5210B		PQL: 2.0 mg/L		4.01			
Glutamic Acid Std (GGA) ID: GGA		GGA Preparation:	Seed Used Source ID and Amount:		7.00			
Nitirification Inhibitor ID:		0.15g Glucose ID:	LAWPCA:	1 mL	10.01			
Phosphate Bffr Soln. ID:			SSD:	1 mL	DO Meter ID: B27869		DO Probe ID:	
$H_{14}MgO_{11}S$ ID:		0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID:		pH Paper ID:	
Ferric Chloride Soln. ID:			Starch Indicator ID:		Carboy ID:		1:50 H_2SO_4 ID:	
Calcium Chloride Soln. ID:			Potassium Iodide Soln. ID:		Pipet IDs:			
Acid 1 ID (A1):	Acid 2 ID (A2):		Base1 ID (B1):		Base 2 ID (B2):			

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S05546	mmc	1457	✓			N	II	.5	7.86	6.88	1339	
	Surgery	58					D2	1	7.86	6.71	40	
		59					311	2	7.69	6.49	41	
		1500					AC	5	7.79	595	42	
S05547	mmc	1508	✓			N	732	.25	7.75	7.37	13 43	
	cancer	09					492	.5	7.94	7.21	44	
		10					9060	1	7.84	6.72	45	
		11					194	2	8.07	6.17	46	
		12					826	5	8.13	3.58	47	
		14					T24	10	7.86	<1	48	
S05557-1	seres	1636	✓			N	137	1	8.00	6.96	13:50	
	28 Base	37					789	2	8.16	7.12	51	
	line	38					388	5	8.07	7.03	52	
		39					A18	10	7.76	6.63	53	
		40					110	25	7.47	6.41	54	
		41					BP29	50	7.35	6.04	55	
		42					k250	100	7.55	4.87	55	

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
505557	Seres	1648	✓			N	E2	1	7.83	7.03	13:58	
-3		49					1397	8	7.90	7.06	59	
		50					412	5	7.98	7.17	14:00	
		51					BP34	10	7.57	6.71	01	
		52					979	25	7.60	6.38	02	
		53					H2	50	7.23	6.01	03	
		54					9696	100	6.25	3.31	03	
		55					6096	300	2.97	<1	04	

OL 8/23/21

NOTES:

ANALYST 1 OL / SS	DATE 8/20/21
ANALYST 2 OL / SW	DATE 8/25/21
CHECKED BY: ZF	DATE 8/27/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 09:50 am
Batch: WG304865 Run ID 1: R575350 Run ID 2: R575351

Parameter: Nitrate As N

Date Analyzed: 20-AUG-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO5512-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO5519-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	5	-.1004	U0.25 mg/L	NA	.05	0.076	0.25		
SO5556-2	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO5557-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	.0056	U0.050 mg/L	NA	.05	0.015	0.050		
SO5557-3	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0252	U0.050 mg/L	NA	.05	0.015	0.050		
WG304865-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.025 mg/L	NA	.05	0.015	0.050		
WG304865-2	LCS	EPA 353.2	5.0000mL	5.0000mL	1	.953	0.95 mg/L	NA	.05	0.015	0.050		95
WG304865-4	DUP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050	NC	
WG304865-5	MS	EPA 353.2	5.0000mL	5.0000mL	1	.239	0.24 mg/L	NA	.05	0.015	0.050		48

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG304865-1	SO5506-6
WG304865-2	SO5506-6
WG304865-3	SO5506-6
WG304865-4	SO5506-6
WG304865-5	SO5506-6

Entered by: SS Date: 8/27/21 Accepted by: ZF Date: 8/27/21

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 09:50 am
Batch: WG304865 Run ID 1: R575350 Run ID 2: R575351

Parameter: Nitrite As N

Date Analyzed: 20-AUG-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0105	U0.050 mg/L	NA	.05	0.0032	0.050		
SO5556-2	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0225	U0.050 mg/L	NA	.05	0.0032	0.050		
WG304865-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	-.0246	U0.025 mg/L	NA	.05	0.0032	0.050		
WG304865-3	LCS	EPA 353.2	5.0000mL	5.0000mL	1	1	1.0 mg/L	NA	.05	0.0032	0.050		100
WG304865-4	DUP	EPA 353.2	5.0000mL	5.0000mL	1	-.011	U0.050 mg/L	NA	.05	0.0032	0.050	NC	
WG304865-5	MS	EPA 353.2	5.0000mL	5.0000mL	1	.299	0.30 mg/L	NA	.05	0.0032	0.050		60

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG304865-1	SO5506-6
WG304865-2	SO5506-6
WG304865-3	SO5506-6
WG304865-4	SO5506-6
WG304865-5	SO5506-6

Entered by: SS Date: 8/27/21 Accepted by: ZF Date: 8/27/21

KATAHDIN ANALYTICAL SERVICES, LLC.
Wet Chemistry Analysis Run Information Sheet

Analyte: NO3, NO2, and NO3+NO2	**Analyst:** SS
Instrument: LACHAT	**Analysis Date:** 8/20/21

Were pHs of all samples adjusted to 5-9 prior to analysis?

Circle one: (Yes) No **pH Paper Lot ID:** 6102002

Were all samples checked for the presence of chlorine prior to analysis?

Circle one: (Yes) No

Analytical Method (Check all that apply):

[✓] EPA 353.2 [ ] SM 4500 F [ ] Other

WG304865 → R575350

Reagent Information:

Reagent Name	Reagent ID	Expiration Date
Ammonium Chloride Buffer	**W20296**	**9/13/2021**
Sulfanilamide Color Reagent	**W20288**	**9/11/2021**
Carrier	**DI Water**	
Cadmium Reduction Column	**S/N: SWL4699**	

Standards Information:

Standard Name	Concentration (mg/L)	ID	Expiration Date
Nitrate CCV	0.5	W20300	9/17/21
Nitrite CCV	0.5	W20252	9/5/21
Nitrate ICV/LCS	1.0	W20203	8/20/21
Nitrite ICV/LCS	1.0	W20241	8/30/21
Standard #1	2.0	W20264	9/6/21
Standard #2	1.0	W20265	9/6/21
Standard #3	0.5	W20252	9/5/21
Standard #4	0.25	W20266	9/6/21
Standard# 5	0.05	W20267	9/6/21
Standard #6	0.0	DI water	N/A
Nitrate Standard	100.0	W20037	5/27/2022
Nitrite Standard	100.0	W19308	9/3/2021

Notes:

1. Matrix Spiking: To 5mL Sample Alliquot add 0.025 mL of Nitrate Standard and 0.025mL Nitrite Standard

* Sample labels are verified. SS 8/20/21

Comments: Pipettes: W5, W3, W9, W8

MS: 200uL, 5mL 5x, 10x, & 20x Dilutions: 1mL, 5mL

2x, 4x Dilutions: 5mL 25x, 50x, 100x, 200x Dilutions: 200uL, 5mL

250x, 500x, 1000x, 2000x, 2500x Dilutions: 200uL, 1ml, 5mL

WL-062 - Revision 2 - 11/11/2015

* 505519-1 was diluted upfront due to dark color. SS 8/27/21

Author: wetchem Date : 8/20/2021

Original Run Filename: OM_8-20-2021_12-42-14PM.OMN Created: 8/20/2021 12:42:14 PM
Original Run Author's Signature: [wetchem]
Current Run Filename: OM_8-20-2021_12-42-14PM.OMN Last Modified: 8/20/2021 1:11:35 PM
Current Run Author's Signature: [wetchem]
Description: Default New Run

Sample	Channel 1 NITRATE/NITRITE			Channel 2 NITRITE			Detection Time	MDF
	Conc. (mg/L)	Area (V.s)	Height (V)	Conc. (mg/L)	Area (V.s)	Height (V)		
STD 2.0	2.00	20.1	1.70	2.00	22.6	2.10	8/20/2021@12:43:17 PM	
STD 1.0	1.00	10.3	0.889	1.00	11.8	1.13	8/20/2021@12:44:26 PM	
STD .5	0.500	5.19	0.451	0.500	6.21	0.590	8/20/2021@12:45:37 PM	
STD .25	0.250	2.82	0.246	0.250	3.31	0.317	8/20/2021@12:46:47 PM	
STD.05	0.0500	0.572	0.0488	0.0500	0.655	0.0607	8/20/2021@12:47:59 PM	
STD 0.0	0.00	-0.0263	-1.44e-3	0.00	0.0418	2.36e-3	8/20/2021@12:49:10 PM	
99.4% CCV NO3	0.497	5.13	0.446	-0.0241	0.0342	1.64e-3	8/20/2021@12:52:16 PM	
Known Conc:	0.500			0.500				
105.2% Calibration:	Table/Fig. : 1			Table/Fig. : 2				
CCV NO2	0.505	5.21	0.456	0.526	6.23	0.593	8/20/2021@12:53:26 PM	
Known Conc:	0.500			0.500				
CCB	-0.0158	-0.0159	-7.65e-4	-0.0244	0.0306	2.17e-3	8/20/2021@12:54:39 PM	
Known Conc:	0.00			0.00				
BLANK	-0.0129	0.0135	1.45e-3	-0.0246	0.0282	2.06e-3	8/20/2021@12:55:50 PM	
Known Conc:	0.00			0.00				
NO3 LCS	0.953	9.70	0.847	-0.0245	0.0292	2.41e-3	8/20/2021@12:57:01 PM	
Known Conc:	1.00			1.00				
NO2 LCS	1.01	10.3	0.897	1.00	11.6	1.12	8/20/2021@12:58:10 PM	
Known Conc:	1.00			1.00				
SO5512-1	-0.0235	-0.0930	-6.93e-3	-1.44e-4	0.304	0.0247	8/20/2021@12:59:21 PM	
SO5519-1	0.0406	0.224	0.0164	0.141	0.623	0.0668	8/20/2021@1:00:31 PM	5.00
SO5506-6	-7.01e-3	0.0725	5.16e-3	-0.0105	0.187	0.0157	8/20/2021@1:01:42 PM	
SO5506-6 DUP	-6.49e-3	0.0777	5.58e-3	-0.0110	0.182	0.0149	8/20/2021@1:02:53 PM	
SO5506-6 MS	0.538	5.54	0.441	0.299	3.67	0.324	8/20/2021@1:04:04 PM	
99.2% CCV NO3	0.496	5.12	0.454	-0.0256	0.0175	1.32e-3	8/20/2021@1:07:09 PM	
Known Conc:	0.500			0.500				
104.8% CCV NO2	0.505	5.21	0.466	0.524	6.21	0.593	8/20/2021@1:08:18 PM	
Known Conc:	0.500			0.500				
CCB	-0.0162	-0.0202	-1.21e-3	-0.0275	-4.14e-3	1.68e-3	8/20/2021@1:09:31 PM	
Known Conc:	0.00			0.00				

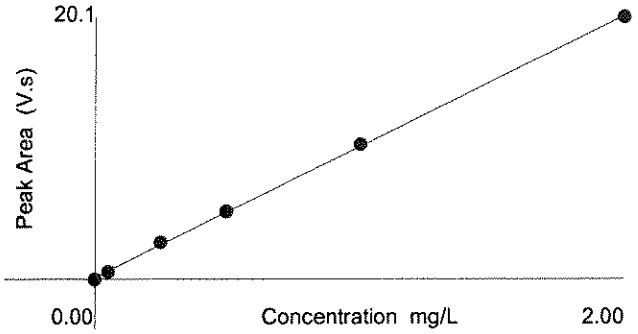
Table : 1 (NITRATE/NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	20.1	1.70	0.0	0.5	1.99	8/20/2021	12:43:17 PM
2	1.00	1	10.3	0.889	0.0	-1.4	1.01	8/20/2021	12:44:26 PM
3	0.500	1	5.19	0.451	0.0	-0.7	0.503	8/20/2021	12:45:37 PM
4	0.250	1	2.82	0.246	0.0	-6.3	0.267	8/20/2021	12:46:47 PM
5	0.0500	1	0.572	0.0488	0.0	11.4	0.0428	8/20/2021	12:47:59 PM
6	0.00	1	-0.0263	-1.44e-3			-0.0169	8/20/2021	12:49:10 PM

Author: wetchem

Date : 8/20/2021

Figure : 1 (NITRATE/NITRITE)



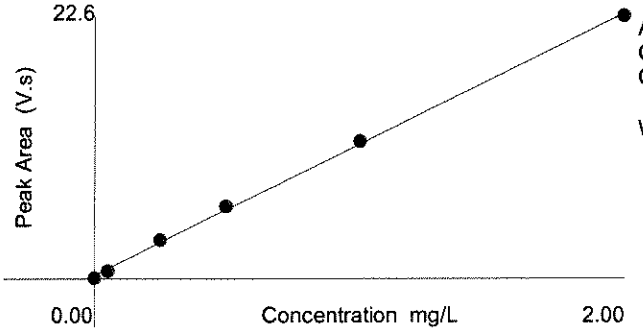
Area = 10.0 * Conc + 0.145
Conc = 0.0997 * Area - 0.0142
Correlation Coefficient (r) = 0.99984

Weighting : None

Table : 2 (NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	22.6	2.10	0.0	0.9	1.98	8/20/2021	12:43:18 PM
2	1.00	1	11.8	1.13	0.0	-2.1	1.02	8/20/2021	12:44:28 PM
3	0.500	1	6.21	0.590	0.0	-4.5	0.524	8/20/2021	12:45:38 PM
4	0.250	1	3.31	0.317	0.0	-5.9	0.267	8/20/2021	12:46:49 PM
5	0.0500	1	0.655	0.0607	0.0	25.1	0.0310	8/20/2021	12:48:00 PM
6	0.00	1	0.0418	2.36e-3			-0.0234	8/20/2021	12:49:12 PM

Figure : 2 (NITRITE)



Area = 11.3 * Conc + 0.312
Conc = 0.0887 * Area - 0.0271
Correlation Coefficient (r) = 0.99955

Weighting : None

Author: wetchem

Date : 8/20/2021

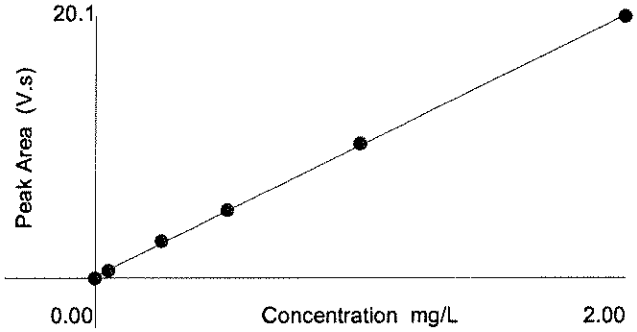
Original Run Filename: OM_8-20-2021_04-28-55PM.OMN Created: 8/20/2021 4:28:55 PM
Original Run Author's Signature: [wetchem]
Current Run Filename: OM_8-20-2021_04-28-55PM.OMN Last Modified: 8/20/2021 4:46:50 PM
Current Run Author's Signature: [wetchem]
Description: Default New Run

	Sample	Channel 1 NITRATE/NITRITE Conc. (mg/L)	Area (V.s)	Height (V)	Channel 2 NITRITE Conc. (mg/L)	Area (V.s)	Height (V)	Detection Time	MDF
99.2%	CCV NO3	0.496	5.11	0.456	-0.0246	0.0289	1.01e-3	8/20/2021@4:29:58 PM	
	Known Conc:	0.500			0.500				
	Calibration:	Table/Fig. : 1			Table/Fig. : 2				
104%	CCV NO2	0.504	5.20	0.463	0.520	6.17	0.594	8/20/2021@4:31:08 PM	
	Known Conc:	0.500			0.500				
	CCB	-0.0167	-0.0248	-1.20e-3	-0.0245	0.0299	2.64e-3	8/20/2021@4:32:19 PM	
	Known Conc:	0.00			0.00				
	BLANK	-0.0124	0.0189	1.91e-3	-0.0251	0.0225	2.19e-3	8/20/2021@4:33:30 PM	
	Known Conc:	0.00			0.00				
	NO3 LCS	0.948	9.65	0.861	-0.0237	0.0391	2.58e-3	8/20/2021@4:34:39 PM	
	Known Conc:	1.00			1.00				
	NO2 LCS	1.00	10.2	0.909	1.00	11.6	1.12	8/20/2021@4:35:48 PM	
	Known Conc:	1.00			1.00				
SS 8/20/21 -1	SO5557 1035	8.83e-3	0.231	0.0199	3.20e-3	0.342	0.0293	8/20/2021@4:36:59 PM	
-3	SO5557 1220	-0.0345	-0.203	-0.0158	0.0252	0.590	0.0465	8/20/2021@4:38:09 PM	
	SO5556-2	-0.0188	-0.0456	-4.06e-3	-0.0225	0.0520	4.85e-3	8/20/2021@4:39:20 PM	
99.4%	CCV NO3	0.497	5.13	0.463	-0.0280	-0.0103	-1.01e-3	8/20/2021@4:42:25 PM	
	Known Conc:	0.500			0.500				
103.6%	CCV NO2	0.503	5.19	0.467	0.518	6.14	0.596	8/20/2021@4:43:34 PM	
	Known Conc:	0.500			0.500				
	CCB	-0.0165	-0.0227	-1.34e-3	-0.0248	0.0257	1.31e-3	8/20/2021@4:44:46 PM	
	Known Conc:	0.00			0.00				

Table : 1 (NITRATE/NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	20.1	1.70	0.0	0.5	1.99	8/20/2021	12:43:17 PM
2	1.00	1	10.3	0.889	0.0	-1.4	1.01	8/20/2021	12:44:26 PM
3	0.500	1	5.19	0.451	0.0	-0.7	0.503	8/20/2021	12:45:37 PM
4	0.250	1	2.82	0.246	0.0	-6.3	0.267	8/20/2021	12:46:47 PM
5	0.0500	1	0.572	0.0488	0.0	11.4	0.0428	8/20/2021	12:47:59 PM
6	0.00	1	-0.0263	-1.44e-3			-0.0169	8/20/2021	12:49:10 PM

Figure : 1 (NITRATE/NITRITE)



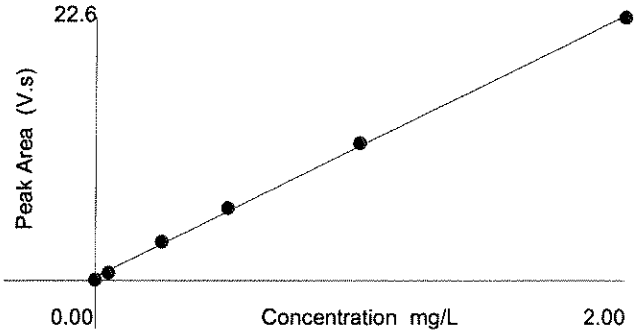
Area = 10.0 * Conc + 0.145
Conc = 0.0997 * Area - 0.0142
Correlation Coefficient (r) = 0.99984

Weighting : None

Table : 2 (NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	22.6	2.10	0.0	0.9	1.98	8/20/2021	12:43:18 PM
2	1.00	1	11.8	1.13	0.0	-2.1	1.02	8/20/2021	12:44:28 PM
3	0.500	1	6.21	0.590	0.0	-4.5	0.524	8/20/2021	12:45:38 PM
4	0.250	1	3.31	0.317	0.0	-5.9	0.267	8/20/2021	12:46:49 PM
5	0.0500	1	0.655	0.0607	0.0	25.1	0.0310	8/20/2021	12:48:00 PM
6	0.00	1	0.0418	2.36e-3			-0.0234	8/20/2021	12:49:12 PM

Figure : 2 (NITRITE)



Area = 11.3 * Conc + 0.312
Conc = 0.0887 * Area - 0.0271
Correlation Coefficient (r) = 0.99955

Weighting : None

WET CHEMISTRY BATCH REPORT
Aug 24 2021, 11:21 am
Batch: WG304926

Parameter: Solids-Filterable Residue

Date Analyzed: 24-AUG-21

Analyst Initials: JJ

Prep Date: 23-AUG-21

Prep Method: STDM 2540C

Prep Chemist: JJ

Sample	Samp Type	Method	Tare Amt.	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	STDM 2540C	102.2917g		102.3609g	1	692	690 mg/L	NA	10	5.02	10.		
SO5512-1	SAMP	STDM 2540C	102.6212g		102.6454g	1	242	240 mg/L	NA	10	5.02	10.		
SO5556-2	SAMP	STDM 2540C	87.93400g		87.99700g	1	630	630 mg/L	NA	10	5.02	10.		
SO5557-1	SAMP	STDM 2540C	88.83130g		88.85850g	1	272	270 mg/L	NA	10	5.02	10.		
SO5557-3	SAMP	STDM 2540C	80.63630g		80.66460g	1	283	280 mg/L	NA	10	5.02	10.		
WG304926-1	MBLANK	STDM 2540C	89.13350g		89.13290g	1	-6	U8.0 mg/L	NA	10	5.02	10.		
WG304926-2	LCS	STDM 2540C	85.52910g		85.59980g	1	707	710 mg/L	NA	10	5.02	10.		94
WG304926-3	LCSD	STDM 2540C	91.07390g		91.14410g	1	702	700 mg/L	NA	10	5.02	10.	1	94
WG304926-4	DUP	STDM 2540C	100.1774g		100.2055g	1	281	280 mg/L	NA	10	5.02	10.	1	

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG304926-1	SO5557-3
WG304926-2	SO5557-3
WG304926-3	SO5557-3
WG304926-4	SO5557-3

Entered by: JJ Date: 8/24/21 Accepted by: ZF Date: 8/24/21

WG304926
R575102

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2 Total Suspended Solids: SM 2540D PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W20284

Filter Lot # SWL 4792

ASTM Class Weights

Balance ID:

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.1000	0.0999
1.0000	1.0001	0.9996
10.0000	9.9999	10.0000
100.0000	100.0001	100.0001

Notes:

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 02

In Temp. 180	Date: 8/23/21	Time: 15:30
Out Temp. 180	Date: 8/24/21	Time: 6:50
In Temp. 180	Date: 8/24/21	Time: 8:25
Out Temp. 180	Date: 8/24/21	Time: 9:35
In Temp.	Date:	Time:
Out Temp.	Date:	Time:

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis)
Blank	~~250~~ 180	10:06	WS1	89.1335	89.1336	89.1329	11:10
LCS	↓	↓	AL8	85.5291	85.5998	85.5998	↓
LCSD	↓	↓	POF	91.0739	91.1440	91.1441	↓
S055506-6	↓	↓	W33	102.2917	102.3614	102.3609	↓
S05512-1	↓	↓	J741	102.6212	102.6461	102.6454	↓
S05556-2	↓	↓	BP6	87.9340	87.9976	87.9970	↓
S05557-1	↓	↓	AL2	88.8313	88.8590	88.8585	↓
-3	↓	↓	AL11	80.6363	80.6648	80.6646	↓
-3 DUP	↓	10:22	W31	100.1774	100.2052	100.2055	11:15

JS 8/23

Analyst: JS Date: 8/23/21

Checked By: ZF Date: 8/24/21

WET CHEMISTRY BATCH REPORT
Aug 24 2021, 11:34 am
Batch: WG304987 Run ID 1: R575105 Run ID 2: NONE

Parameter: Chemical Oxygen Demand

Date Analyzed: 23-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5546-1	SAMP	EPA 410.4	2.00mL	2.00mL	1	85.8	86. mg/L	NA	15	3.1	15.		
WG304987-1	MBLANK	EPA 410.4	2.00mL	2.00mL	1	-.02	U10. mg/L	NA	15	3.1	15.		
WG304987-2	LCS	EPA 410.4	2.00mL	2.00mL	1	74.3	74. mg/L	NA	15	3.1	15.		99

Comments:

WG304987-1 SO5546-1
WG304987-2 SO5546-1

Entered by: JL Date: 8/25/21 Accepted by: ZF Date: 8/24/21

WET CHEMISTRY BATCH REPORT
Aug 24 2021, 11:34 am
Batch: WG304988 Run ID 1: R575106 Run ID 2: NONE

Parameter: COD-Color

Date Analyzed: 23-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5463-1	SAMP	SM 5220	2.00mL	2.00mL	1	15	U15. mg/L	NA	15	5.7	15.		
SO5463-2	SAMP	SM 5220	2.00mL	2.00mL	1	3.9	U15. mg/L	NA	15	5.7	15.		
SO5512-1	SAMP	SM 5220	2.00mL	2.00mL	1	-1.5	U15. mg/L	NA	15	5.7	15.		
SO5557-1	SAMP	SM 5220	2.00mL	2.00mL	1	3.5	U15. mg/L	NA	15	5.7	15.		
SO5557-3	SAMP	SM 5220	2.00mL	2.00mL	1	-6.2	U15. mg/L	NA	15	5.7	15.		
WG304988-1	MBLANK	SM 5220	2.00mL	2.00mL	1	-.2	U10. mg/L	NA	15	5.7	15.		
WG304988-2	LCS	SM 5220	2.00mL	2.00mL	1	74.3	74. mg/L	NA	15	5.7	15.		99
WG304988-3	MS	SM 5220	1.50mL	2.00mL	1.3	78.7	100 mg/L	NA	15	7.5	20.		105
WG304988-4	DUP	SM 5220	2.00mL	2.00mL	1	3.9	U15. mg/L	NA	15	5.7	15.	NC	

Comments:

SO5463-1	Anions report Cl & SO4.
SO5463-2	MS/MSD, Anions report Cl & SO4.
SO5512-1	Anions please report Cl & SO4.
WG304988-1	SO5463-2
WG304988-2	SO5463-2
WG304988-3	SO5463-2
WG304988-4	SO5463-2

Entered by: JL Date: 8/24/21 Accepted by: ZF Date: 8/25/21

CHEMICAL_OXYGEN_DEMAND - LOW LEVEL (Closed Reflux, Twist Tubes)

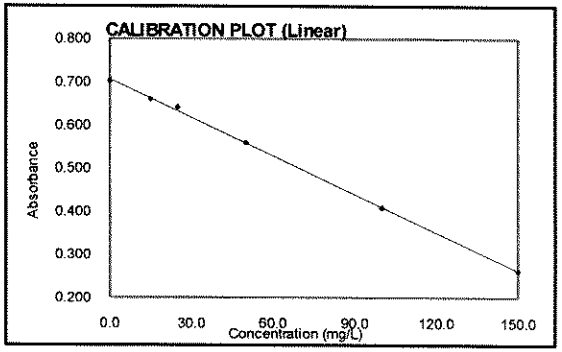
Method (Check one): SM5220D-11 E410.4

CALIBRATION INFORMATION

Cal. Anal. Date: 6-30-21
Calib. Analyst: KD
Stock Std. ID: W19395
Stock Std. Conc. (mg/L): 1000

Standard Name		Vol. Stock Added (ml)	Final Vol. (mL)	Std. Conc. (mg/L)	Meas. Abs.
Calib. Blank		0.000	2	0.0	0.703
Std. 1		0.030	2	15.0	0.660
Std. 2		0.050	2	25.0	0.642
Std. 3		0.100	2	50.0	0.560
Std. 4		0.200	2	100.0	0.409
Std. 5		0.300	2	150.0	0.262

No. of points:	6
Corr. Coeff. (R):	**0.9996285368702**
Slope (m):	-0.002968241206
Intercept (b):	0.7075336683417



SAMPLE ANALYSIS

Analyst: JL
Analysis Date: 23-Aug-21
CCV Stock Std. ID / Conc. (mg/L): W19873 / 50
LCS Stock Std. ID / Conc. (mg/L): W19875 / 75

Sample ID	Analyst	Date (14-Mar-13)	Time (13:30	Sample Type	Initial Vol. (mL)	Final Vol. (mL)	Spike Added (mg/L)	Abs. @ 420 nm		Conc in FV (mg/L)	Conc in IV (mg/L)	Reported Conc. (mg/L)	Rcvy (%)	DUP RPD (%)
CCV	JL	23-Aug-21	15:29	CCV	2.000	2.000	50	0.559		50.0	50.0	50.0	100.1%	
CCB	JL	23-Aug-21		BLANK	2.000	2.000		0.708		-0.2	-0.2	< 15.0		
LCS	JL	23-Aug-21		LCS	2.000	2.000	75	0.487		74.3	74.3	74.3	99.1%	
5422-1	JL	23-Aug-21		Sample	2.000	2.000		0.140		191.2	191.2	191.2		
5463-1	JL	23-Aug-21		Sample	2.000	2.000		0.663		15.0	15.0	15.0		
-2	JL	23-Aug-21		Sample	2.000	2.000		0.696		3.9	3.9	< 15.0		
-2 DUP	JL	23-Aug-21		Sample	2.000	2.000		0.696		3.9	3.9	< 15.0		
-2 MS	JL	23-Aug-21		Sample	~~2.000~~ 1.5	2.000	100	0.474		78.7	78.7	78.7		
5512-1	JL	23-Aug-21		Sample	2.000	2.000		0.712		-1.5	-1.5	< 15.0		
5557-1	JL	23-Aug-21		Sample	2.000	2.000		0.697		3.5	3.5	< 15.0		
5546-1	JL	23-Aug-21		Sample	2.000	2.000		0.453		85.8	85.8	85.8		
5557-3	JL	23-Aug-21		Sample	2.000	2.000		0.726		-6.2	-6.2	< 15.0		
CCV	JL	23-Aug-21		CCV	2.000	2.000	50	0.570		46.3	46.3	46.3	92.7%	
CCB	JL	23-Aug-21	15:35	BLANK	2.000	2.000		0.705		0.9	0.9	< 15.0		

KATAHDIN ANALYTICAL SERVICES

CHEMICAL OXYGEN DEMAND	EPA Method 410.4 PQL = 15 mg/L

COD Vials

Low Level: ✓	High Level:	Mfr.: Env. Express	Lot ID: SWL4793
Digestion Start Time: 1304		End Time: 1504	Pipette IDs:
COD Digestion Block Start Temp.: 148		End Temp.: 151.5	W7
Calibration Date:		Spectrophotometer Used:	FOOD #1

Standard	True Value (mg/L)	Source Std. ID	Source Std. Added (mL)
CCV	50	W21033	2
LCS	75	W21035	2
MS	100	W21034	.5

Notes: WG304987 - E4104 R575105
WG304988 - SMCOD

KAS Sample ID	Analysis Time	Initial Vol (mL)	Final Vol (mL)	Abs @	Comments
CCV	1529	2	2	.559	
CCB				.708	
LCS				.487	
5422-1				.140	
5463-1				.663	
-2				.696	
-2Dup				.696	
-2MS				.474	
5512				.712	
5517-1				.697	
5546-1				.453	
5557-3				.726	
CCV				.570	
CCB	1535			.705	

JR 8/23/21

ANALYST: JR	DATE: 8/23/21
REVIEWED BY: ZF	DATE: 8/24/21

WET CHEMISTRY BATCH REPORT
Aug 26 2021, 10:12 am
Batch: WG305135 Run ID 1: R575269 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 25-AUG-21

Analyst Initials: ZL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5494-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	68.432	68. mg/L	NA	5	0.23	5.0		
SO5512-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	126.495	130 mg/L	NA	5	0.23	5.0		
SO5523-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	16.295	16. mg/L	NA	5	0.23	5.0		
SO5557-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	182.201	180 mg/L	NA	5	0.23	5.0		
SO5557-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	196.823	200 mg/L	NA	5	0.23	5.0		
WG305135-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	1.607	J1.6 mg/L	NA	5	0.23	5.0		
WG305135-2	LCS	STDM 2320B	50.0mL	50.0mL	1	135.321	140 mg/L	NA	5	0.23	5.0		113
WG305135-3	MS	STDM 2320B	50.0mL	50.0mL	1	209.938	210 mg/L	NA	5	0.23	5.0		82
WG305135-4	LCSD	STDM 2320B	50.0mL	50.0mL	1	134.492	130 mg/L	NA	5	0.23	5.0	1	112

Comments:

SO5512-1	Anions please report Cl & SO4.
WG305135-1	SO5512-1
WG305135-2	SO5512-1
WG305135-3	SO5512-1
WG305135-4	SO5512-1

Entered by: ZL Date: 8/26/21 Accepted by: ZF Date: 8/26/21

Katahdin Analytical Services 5000032

Start time:	8/25/2021 9:05						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	RECOVERY
1/4	CCV	8/25/2021	R1 =	72.762	mg/L	P Alkalinity- pH8.2	
			R2 =	134.968	mg/L	Total Alkalinity	107.97%
			R3 =	10.293	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	
2/4	CCB	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1.607	mg/L	Total Alkalinity	
			R3 =	5.408	pH	pH	
			R4 =	20.9	oC	TEMPERATURE	
3/4	LCS	8/25/2021	R1 =	106.626	mg/L	P Alkalinity- pH8.2	
			R2 =	135.321	mg/L	Total Alkalinity	
			R3 =	10.655	pH	pH	
			R4 =	20.6	oC	TEMPERATURE	
4/4	LCSD	8/25/2021	R1 =	95.511	mg/L	P Alkalinity- pH8.2	
			R2 =	134.492	mg/L	Total Alkalinity	
			R3 =	10.651	pH	pH	
			R4 =	20.6	oC	TEMPERATURE	
1/8	SO5494-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	68.432	mg/L	Total Alkalinity	
			R3 =	6.229	pH	pH	
			R4 =	14.6	oC	TEMPERATURE	
2/8	SO5512-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	126.495	mg/L	Total Alkalinity	
			R3 =	5.936	pH	pH	
			R4 =	14	oC	TEMPERATURE	
3/8	SO5512-1 MS	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	209.938	mg/L	Total Alkalinity	
			R3 =	6.386	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
4/8	SO5523-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	16.295	mg/L	Total Alkalinity	
			R3 =	6.256	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
5/8	SO5557-1	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	182.201	mg/L	Total Alkalinity	
			R3 =	6.719	pH	pH	
			R4 =	14.8	oC	TEMPERATURE	
6/8	SO5557-3	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	196.823	mg/L	Total Alkalinity	
			R3 =	6.105	pH	pH	
			R4 =	15.6	oC	TEMPERATURE	
7/8	CCV	8/25/2021	R1 =	72.648	mg/L	P Alkalinity- pH8.2	
			R2 =	129.996	mg/L	Total Alkalinity	104.00%
			R3 =	10.259	pH	pH	
			R4 =	20.4	oC	TEMPERATURE	

8/8	CCB	8/25/2021	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1.614	mg/L	Total Alkalinity	
			R3 =	5.422	pH	pH	
			R4 =	21	oC	TEMPERATURE	
Start time:	8/25/2021 8:50						
Results							
No.	Comment / ID	Start time	Rx	Result	Unit	Name	
Calibration data							
	Number of segm	1					
	Slope	-57.28 mV/pH					
	Zero point	6.970 pH					
	Calibration temp	20.6 oC					

WG305135 R579269

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID: DGH1-SC	
Alkalinity Acid Reagent: W20286	**Buffer pH 4 ID:** SWL 4740
Acid Concentration: 0.02N	**Buffer pH 7 ID:** 4739
Alkalinity Check Standard: W20260 TV=125mg/L	**Buffer pH 10 ID:** 4788
Alkalinity MS: W20307 TV=120mg/L	**Pipette IDs:** W11

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50				
CCB	2					
LCS	3					
LCSD	4					
S494-1	1	50				
S512-1	2					
-1MS	3	44				
S523-1	4	50				
S557-1	5					
-3	6					
CCV	7					
CCB	8					
	ZL					
	8/26/21					

Analyst: ZL/JL	**Date:** 8/25/21
Checked By: ZF	**Date:** 8/26/21

WL-003 - Revision 3 - 06/22/2017

WET CHEMISTRY BATCH REPORT
Aug 30 2021, 09:12 am
Batch: WG305308 Run ID 1: R575520 Run ID 2: R575523

Parameter: Dissolved Organic Carbon (1)

Date Analyzed: 27-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5303-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.738	2.7 mg/L	NA	1	0.32	1.0		
SO5303-2	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.986	4.0 mg/L	NA	1	0.32	1.0		
SO5303-3	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.743	3.7 mg/L	NA	1	0.32	1.0		
SO5303-4	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.728	3.7 mg/L	NA	1	0.32	1.0		
SO5303-5	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.353	3.4 mg/L	NA	1	0.32	1.0		
SO5303-6	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.968	3.0 mg/L	NA	1	0.32	1.0		
SO5303-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.767	3.8 mg/L	NA	1	0.32	1.0		
SO5303-8	SAMP	SW846 9060A	20.000mL	20.000mL	1	.1042	U1.0 mg/L	NA	1	0.32	1.0		
WG305308-1	MBLANK	SW846 9060A	20.000mL	20.000mL	1	.1098	U0.50 mg/L	NA	1	0.32	1.0		
WG305308-2	LCS	SW846 9060A	20.000mL	20.000mL	1	52.02	52. mg/L	NA	1	0.32	1.0		104
WG305308-3	MS	SW846 9060A	20.000mL	20.000mL	1	115.1	120 mg/L	NA	1	0.32	1.0		112
WG305308-4	MSD	SW846 9060A	20.000mL	20.000mL	1	101.7	100 mg/L	NA	1	0.32	1.0	12	98

Comments:

SO5303-5	ms/msd
WG305308-1	SO5303-5
WG305308-2	SO5303-5
WG305308-3	SO5303-5
WG305308-4	SO5303-5

Katahdin Analytical Services 5000036

Entered by: JL Date: 8/30/21 Accepted by: ZF Date: 8/30/21

WET CHEMISTRY BATCH REPORT
Aug 30 2021, 09:17 am
Batch: WG305310 Run ID 1: R575521 Run ID 2: R575525

Parameter: Total Organic Carbon

Date Analyzed: 27-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5454-1	SAMP	SM5310B	20.000mL	20.000mL	1	6.63	6.6 mg/L	NA	1	0.10	1.0		
SO5494-1	SAMP	SM5310B	20.000mL	20.000mL	1	2.551	2.6 mg/L	NA	1	0.10	1.0		
WG305310-1	MBLANK	SM5310B	20.000mL	20.000mL	1	.1961	J0.20 mg/L	NA	1	0.10	1.0		
WG305310-2	LCS	SM5310B	20.000mL	20.000mL	1	52.18	52. mg/L	NA	1	0.10	1.0		104

Comments:

WG305310-1 SO5454-1
WG305310-2 SO5454-1

Entered by: JR Date: 8/30/21 Accepted by: ZF Date: 8/30/21

Katahdin Analytical Services 5000037

WET CHEMISTRY BATCH REPORT
Aug 30 2021, 09:19 am
Batch: WG305311 Run ID 1: R575522 Run ID 2: R575526

Parameter: Total Organic Carbon (1)

Date Analyzed: 27-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5506-6	SAMP	SW846 9060A	20.000mL	20.000mL	1	.1851	U0.50 mg/L	NA	1	0.25	1.0		
SO5512-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	1.483	1.5 mg/L	NA	1	0.10	1.0		
SO5556-2	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.414	2.4 mg/L	NA	1	0.25	1.0		
SO5557-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.556	3.6 mg/L	NA	1	0.10	1.0		
SO5557-3	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.327	2.3 mg/L	NA	1	0.10	1.0		
WG305311-1	MBLANK	SW846 9060A	20.000mL	20.000mL	1	.1961	J0.20 mg/L	NA	1	0.10	1.0		
WG305311-2	LCS	SW846 9060A	20.000mL	20.000mL	1	52.18	52. mg/L	NA	1	0.10	1.0		104

Comments:

SO5512-1	Anions please report Cl & SO4.
SO5556-2	Anions= NO2, NO3, SO4, CL
WG305311-1	SO5506-6
WG305311-2	SO5506-6

Entered by: JL Date: 8/30/21 Accepted by: ZF Date: 8/30/21

KATAHDIN ANALYTICAL SERVICES, LLC
CARBON ANALYSIS RUN INFORMATION SHEET

INSTR. ID: WC2 (Shimadzu TOC-V_{CPH}) **ANALYST:** JL **DATE:** 08/30/21

FILE NAME: DOC1082721
SMTOC082721
TOC1082721

METHOD(S):

TOC	DOC	TIC
• EPA 415.1	• EPA 415.1	• EPA 415.1
• SM5310B	• SM5310B	• SM5310B
• _____	• _____	• _____

CALIBRATION DATE: 07-23-21 **CALIBRATION ANALYST:** KD/JL

Calibration standards were prepared by performing dilutions of the following standard on the day of calibration:

Calibration Source Standard ID	Prep Date	Expiration Date	Standard Conc. (mg/L)
W20214	07/23/21	10/23/21	2000

Note: Calibration must be performed quarterly or whenever a change in analysis conditions warrant. A copy of the associated calibration data is attached to this run.

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
CCV	W20215	07/23/21	10/23/21	100 mg C/L
LCS	W20212	07/23/21	10/23/21	50 mg C/L
MS Stock Std. *	W20214	07/23/21	10/23/21	2000 mg C/L
Alkalinity Check	W20213	07/23/21	10/23/21	15 mg/L (Inorg. C)

* Matrix spikes are prepared by adding 2.0 mL of MS Stock Std. to 38 mL of sample.

Additional Comments and Notes:

JL 8/30/21

	Sample Name	Dilution	Result	Comment	Date / Time	Vial
1	ALK	1.000	NPOC:0.2196 mg/L		8/27/2021 4:08:32 PM	1
2	CCV	1.000	NPOC:96.43 mg/L	96%	8/27/2021 4:23:04 PM	2
3	BLANK	1.000	NPOC:0.1098 mg/L		8/27/2021 4:33:59 PM	6
4	LCS	1.000	NPOC:52.02 mg/L		8/27/2021 4:47:58 PM	10
5	LCS	1.000	NPOC:52.18 mg/L		8/27/2021 4:59:57 PM	10
6	SO5303-1	1.000	NPOC:2.738 mg/L		8/27/2021 5:11:52 PM	11
7	SO5303-2	1.000	NPOC:3.986 mg/L		8/27/2021 5:24:01 PM	12
8	SO5303-3	1.000	NPOC:3.743 mg/L		8/27/2021 5:36:08 PM	13
9	SO5303-4	1.000	NPOC:3.728 mg/L		8/27/2021 5:48:20 PM	14
10	SO5303-5	1.000	NPOC:3.353 mg/L		8/27/2021 6:00:33 PM	15
11	SO5303-5 MS	1.000	NPOC:115.1 mg/L		8/27/2021 6:14:29 PM	16
12	SO5303-5 MSD	1.000	NPOC:101.7 mg/L		8/27/2021 6:28:23 PM	17
13	SO5303-6	1.000	NPOC:2.968 mg/L		8/27/2021 6:41:11 PM	18
14	CCV	1.000	NPOC:96.01 mg/L	96%	8/27/2021 6:55:47 PM	2
15	BLANK	1.000	NPOC:0.1961 mg/L		8/27/2021 7:07:03 PM	6
16	SO5303-7	1.000	NPOC:3.767 mg/L		8/27/2021 7:19:14 PM	19
17	SO5303-8	1.000	NPOC:0.1042 mg/L		8/27/2021 7:30:04 PM	20
18	SO5454-1	1.000	NPOC:6.630 mg/L		8/27/2021 7:42:36 PM	21
19	SO5494-1	1.000	NPOC:2.551 mg/L		8/27/2021 7:54:37 PM	22
20	SO5506-6	1.000	NPOC:0.1851 mg/L		8/27/2021 8:05:41 PM	23
21	SO5512-1	1.000	NPOC:1.483 mg/L		8/27/2021 8:17:28 PM	24
22	SO5556-2	1.000	NPOC:2.414 mg/L		8/27/2021 8:29:30 PM	25
23	SO5557-1	1.000	NPOC:3.556 mg/L		8/27/2021 8:41:51 PM	26
24	SO5557-3	1.000	NPOC:2.327 mg/L		8/27/2021 8:53:49 PM	27
25	CCV	1.000	NPOC:97.00 mg/L	97%	8/27/2021 9:08:03 PM	3
26	BLANK	1.000	NPOC:0.000 mg/L		8/27/2021 9:18:56 PM	7
27						
28						
29						
30						

Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Sample

Sample Name:	ALK
Sample ID:	<Untitled>
Origin:	DOUBLE INJECTION B.met
Chk. Result	

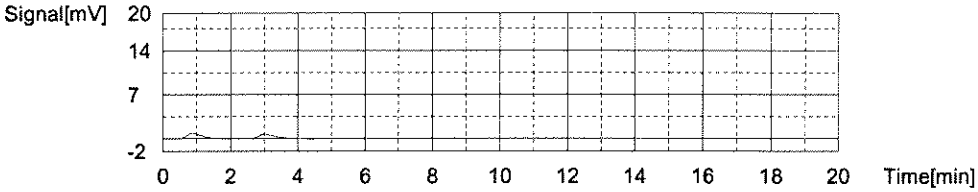
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2196 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.490	0.2368mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:06:00 PM
2	2.129	0.2025mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:08:32 PM

Mean Area	2.309
Mean Conc.	0.2196mg/L



Sample

Sample Name:	CCV
Sample ID:	<Untitled>
Origin:	DOUBLE INJECTION B.met
Chk. Result	

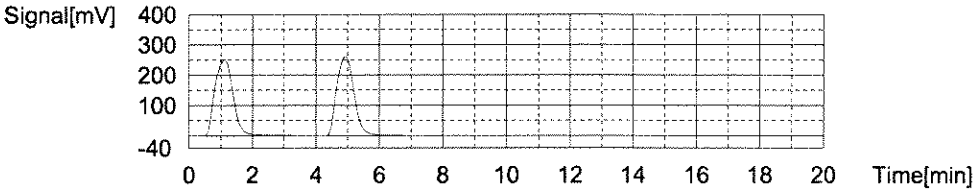
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:96.43 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1018	96.81mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:19:15 PM
2	1010	96.05mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:23:04 PM

Mean Area	1014
Mean Conc.	96.43mg/L



Katahdin Analytical Services 5000041

Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.1098 / Control within range!

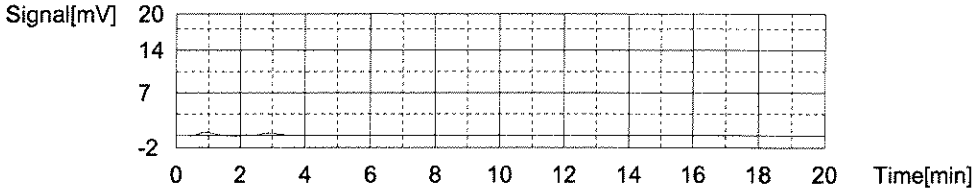
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1098 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.468	0.1396mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:31:53 PM
2	0.8414	0.08002mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:33:59 PM

Mean Area 1.155
Mean Conc. 0.1098mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCS DOUBLE INJECTION.tpl
Chk. Result Control value: 52.02 / Control within range!

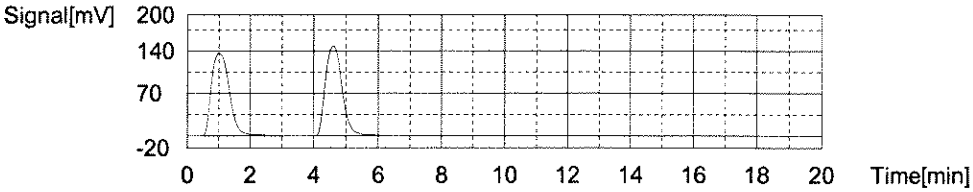
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:52.02 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	547.9	52.11mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:44:27 PM
2	546.1	51.94mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:47:58 PM

Mean Area 547.0
Mean Conc. 52.02mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCS DOUBLE INJECTION.tpl
Chk. Result Control value: 52.18 / Control within range!

Katahdin Analytical Services 5000042

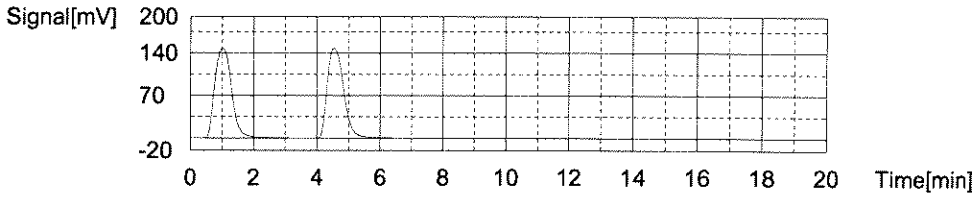
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:52.18 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	551.7	52.47mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:56:24 PM
2	545.6	51.89mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 4:59:57 PM

Mean Area 548.7
Mean Conc. 52.18mg/L



Sample

Sample Name: SO5303-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

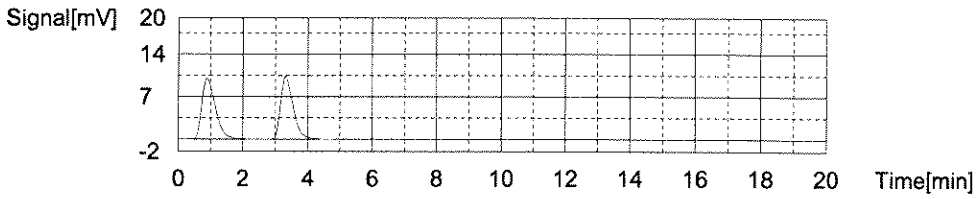
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.738 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.05	2.763mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:09:15 PM
2	28.53	2.713mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:11:52 PM

Mean Area 28.79
Mean Conc. 2.738mg/L



Sample

Sample Name: SO5303-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

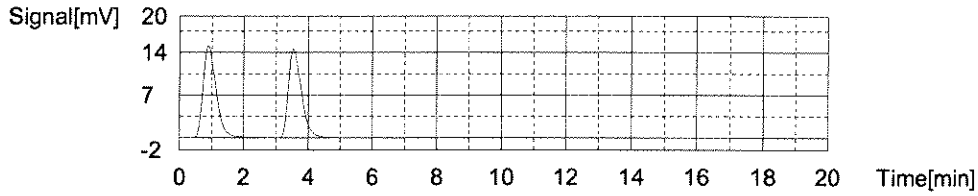
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.986 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.51	4.043mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:21:23 PM
2	41.32	3.930mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:24:01 PM

Mean Area 41.92
Mean Conc. 3.986mg/L



Sample

Sample Name: SO5303-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

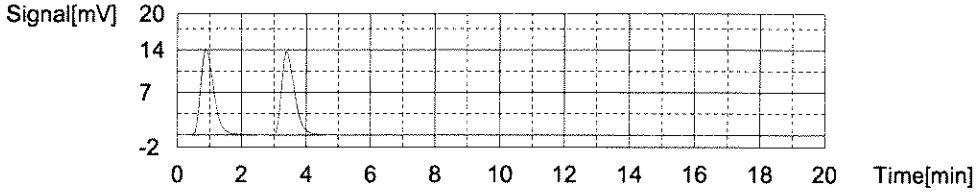
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.743 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.35	3.742mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:33:23 PM
2	39.36	3.743mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:36:08 PM

Mean Area 39.36
Mean Conc. 3.743mg/L



Sample

Sample Name: SO5303-4
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

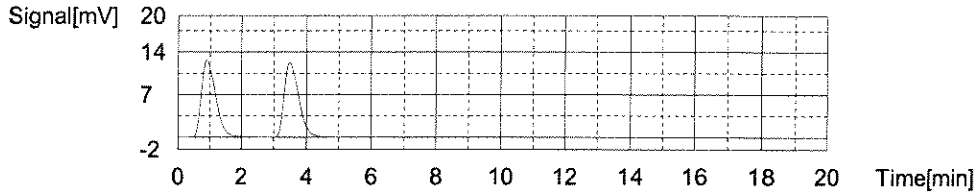
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.728 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.62	3.768mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:45:35 PM
2	38.79	3.689mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:48:20 PM

Mean Area 39.20
Mean Conc. 3.728mg/L



Sample

Sample Name: SO5303-5
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

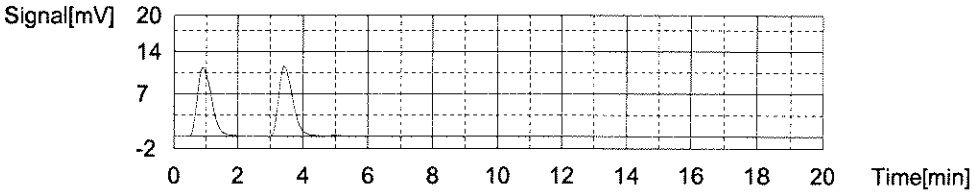
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.353 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.25	3.352mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 5:57:43 PM
2	35.26	3.353mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:00:33 PM

Mean Area 35.26
Mean Conc. 3.353mg/L



Sample

Sample Name: SO5303-5 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

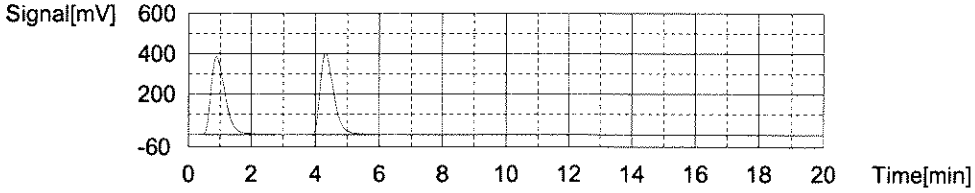
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:115.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1217	115.7mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:10:51 PM
2	1204	114.5mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:14:29 PM

Mean Area 1211
Mean Conc. 115.1mg/L



Sample

Sample Name: SO5303-5 MSD
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

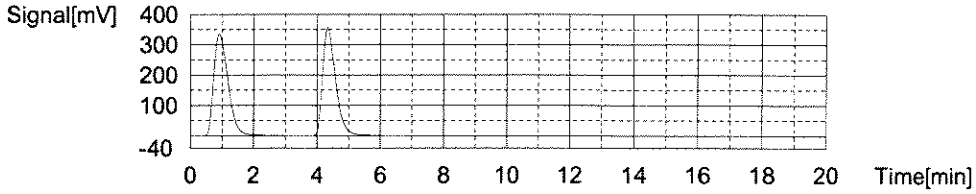
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:101.7 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1078	102.5mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:24:48 PM
2	1061	100.9mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:28:23 PM

Mean Area 1070
Mean Conc. 101.7mg/L



Sample

Sample Name: SO5303-6
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

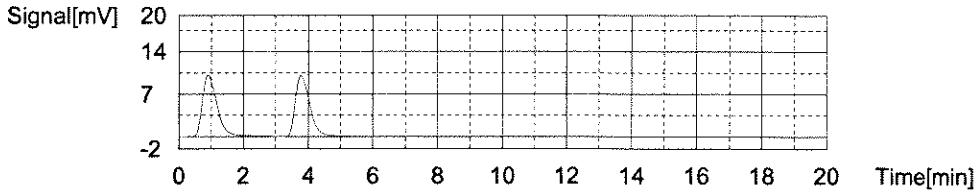
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.968 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.52	2.998mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:38:07 PM
2	30.90	2.939mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:41:11 PM

Mean Area 31.21
Mean Conc. 2.968mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCV DOUBLE INJECTION.tpl
Chk. Result Control value: 96.01 / Control within range!

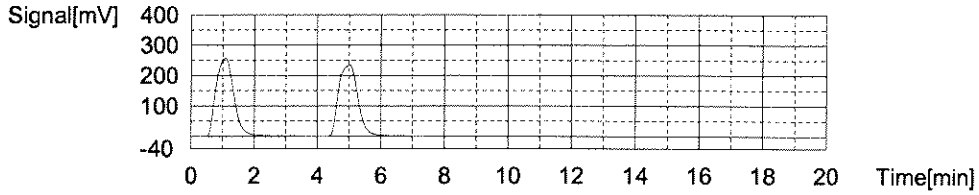
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:96.01 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1017	96.72mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:52:03 PM
2	1002	95.29mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 6:55:47 PM

Mean Area 1010
Mean Conc. 96.01mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.1961 / Control within range!

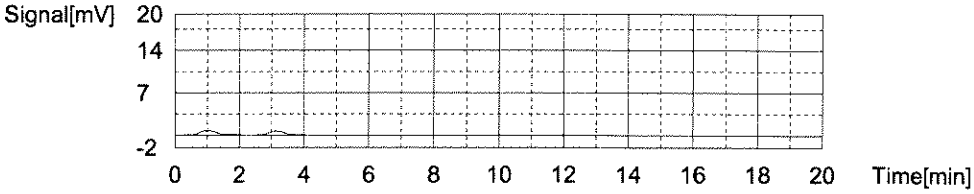
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1961 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.224	0.2115mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:04:48 PM
2	1.901	0.1808mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:07:03 PM

Mean Area 2.063
Mean Conc. 0.1961mg/L



Sample

Sample Name: SO5303-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

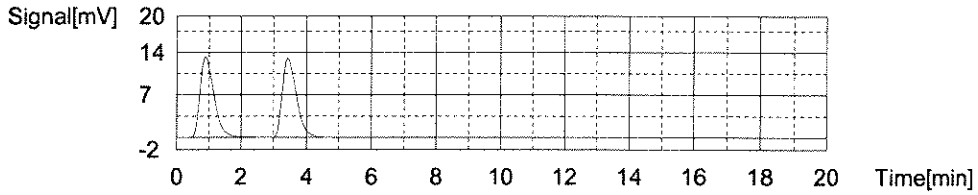
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.767 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.77	3.782mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:16:35 PM
2	39.44	3.751mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:19:14 PM

Mean Area 39.61
Mean Conc. 3.767mg/L



Sample

Sample Name: SO5303-8
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

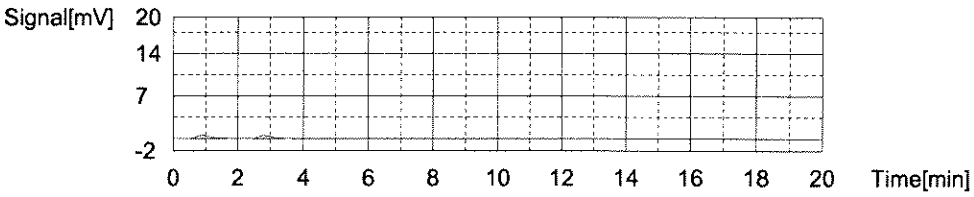
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1042 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.176	0.1118mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:28:00 PM
2	1.015	0.09653mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:30:04 PM

Mean Area 1.096
Mean Conc. 0.1042mg/L



Sample

Sample Name: SO5454-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

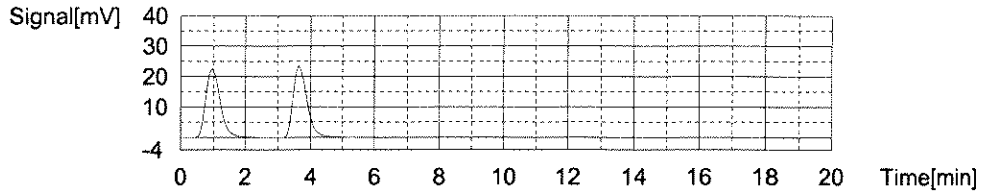
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.630 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.72	6.631mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:39:39 PM
2	69.71	6.630mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:42:36 PM

Mean Area 69.72
Mean Conc. 6.630mg/L



Sample

Sample Name: SO5494-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

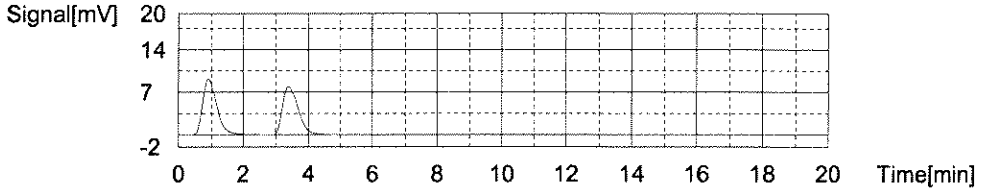
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.551 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.14	2.581mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:51:56 PM
2	26.50	2.520mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 7:54:37 PM

Mean Area 26.82
Mean Conc. 2.551mg/L



Sample

Sample Name: SO5506-6
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

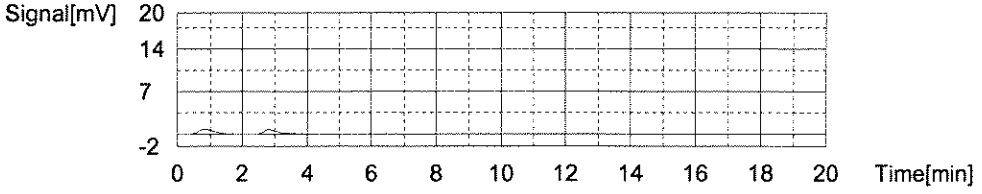
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1851 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.052	0.1951mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:03:26 PM
2	1.841	0.1751mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:05:41 PM

Mean Area 1.947
Mean Conc. 0.1851mg/L



Sample

Sample Name: SO5512-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

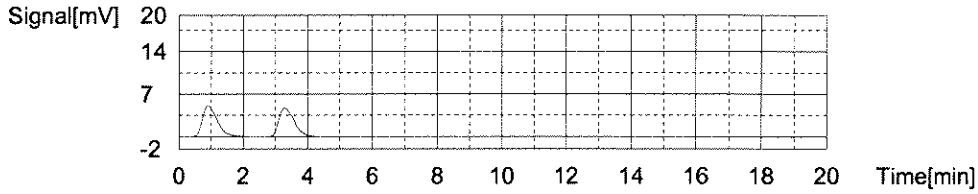
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.483 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.86	1.508mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:14:56 PM
2	15.32	1.457mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:17:28 PM

Mean Area 15.59
Mean Conc. 1.483mg/L



Sample

Sample Name: SO5556-2
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

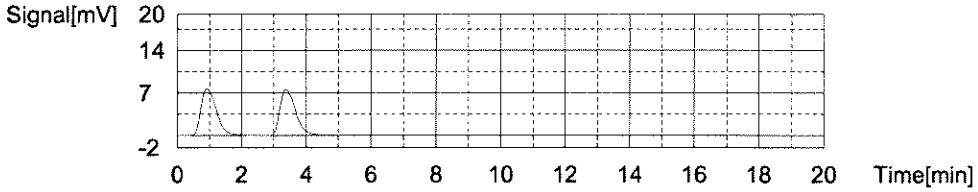
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.414 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.48	2.423mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:26:48 PM
2	25.29	2.405mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:29:30 PM

Mean Area 25.39
Mean Conc. 2.414mg/L



Sample

Sample Name: SO5557-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

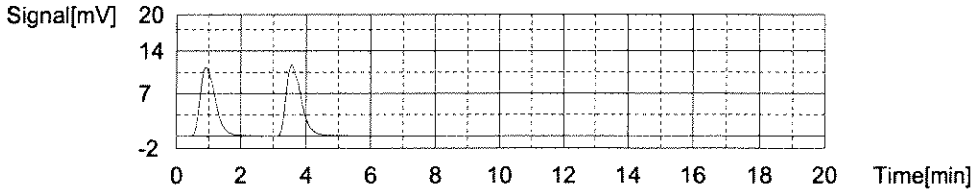
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.556 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.34	3.551mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:39:02 PM
2	37.44	3.561mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:41:51 PM

Mean Area 37.39
Mean Conc. 3.556mg/L



Sample

Sample Name: SO5557-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

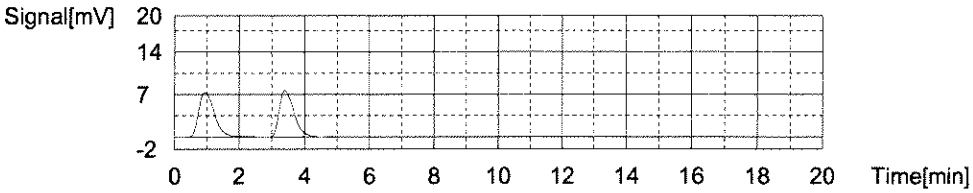
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.327 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.73	2.352mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:51:13 PM
2	24.21	2.302mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 8:53:49 PM

Mean Area 24.47
Mean Conc. 2.327mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCV DOUBLE INJECTION.tpl
Chk. Result Control value: 97.00 / Control within range!

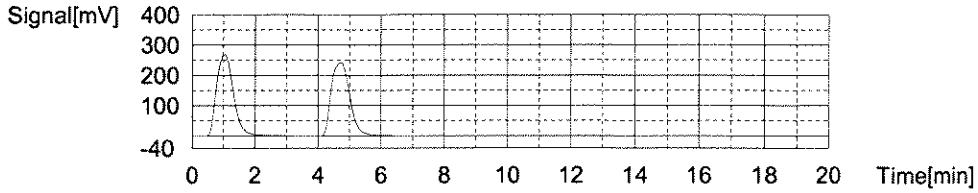
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:97.00 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1023	97.29mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:04:21 PM
2	1017	96.72mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:08:03 PM

Mean Area 1020
Mean Conc. 97.00mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.000 / Control within range!

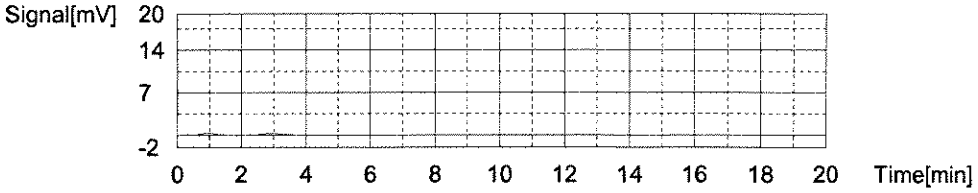
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.000 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:16:50 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/27/2021 9:18:56 PM

Mean Area 0.000
Mean Conc. 0.000mg/L



Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

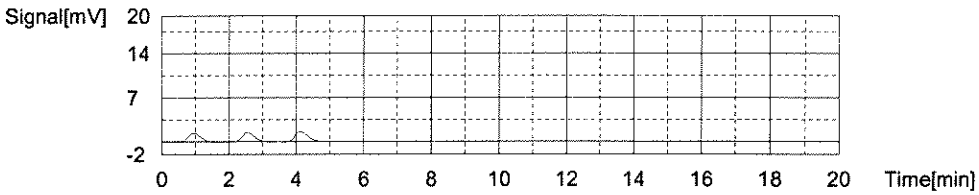
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	toc aq cal 072321.2021_07_23_11_47_50.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.743	50uL	1	*******		7/23/2021 11:56:00 AM
2	3.894	50uL	1	*******		7/23/2021 12:00:13 PM
3	4.231	50uL	1	*******	E	7/23/2021 12:04:26 PM

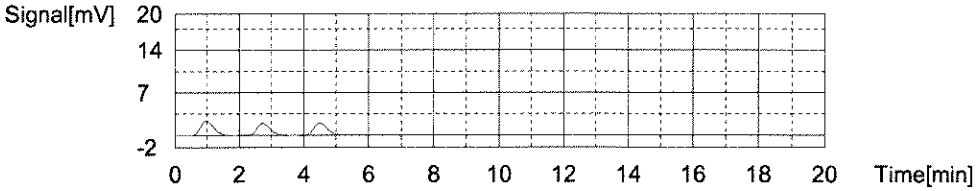
Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	3.819



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.081	50uL	1	*******	E	7/23/2021 12:13:01 PM
2	5.925	50uL	1	*******		7/23/2021 12:17:23 PM
3	5.824	50uL	1	*******		7/23/2021 12:21:43 PM

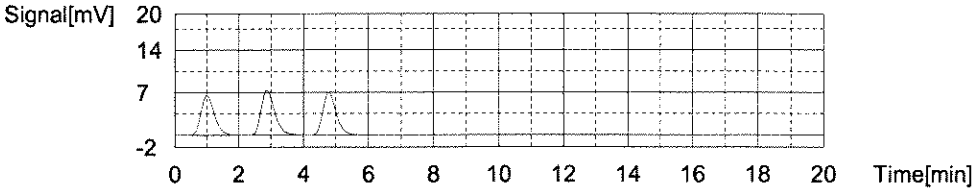
Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	5.875



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	19.47	50uL	1	*******		7/23/2021 12:30:26 PM
2	21.83	50uL	1	*******	E	7/23/2021 12:34:57 PM
3	20.53	50uL	1	*******		7/23/2021 12:39:28 PM

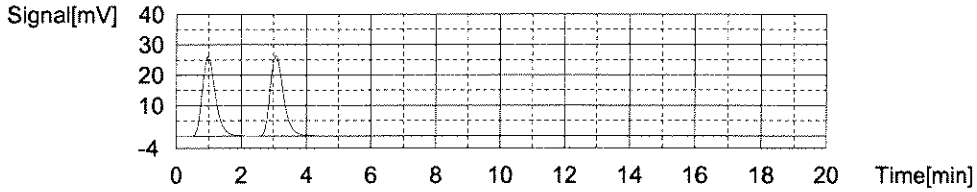
Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	20.00



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		7/23/2021 12:48:23 PM
2	74.91	50uL	1	*******		7/23/2021 12:53:11 PM

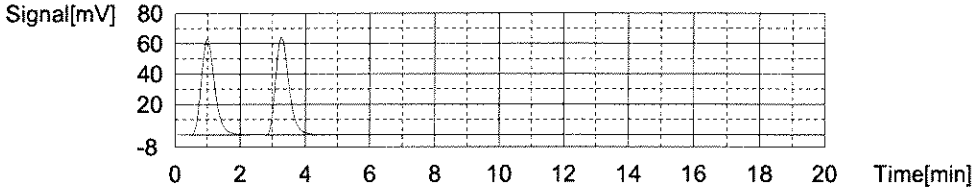
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 74.45



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	180.8	50uL	1	*******		7/23/2021 1:02:19 PM
2	180.2	50uL	1	*******		7/23/2021 1:07:15 PM

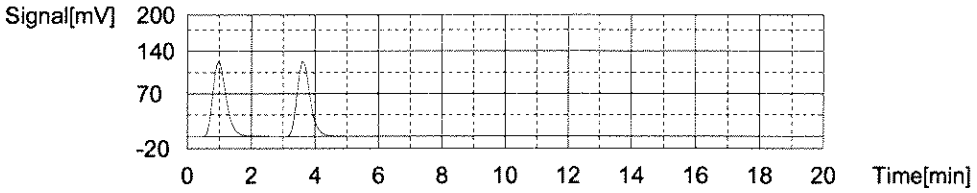
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 180.5



Conc: 100.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	355.3	50uL	1	*******		7/23/2021 1:16:42 PM
2	356.8	50uL	1	*******		7/23/2021 1:21:47 PM

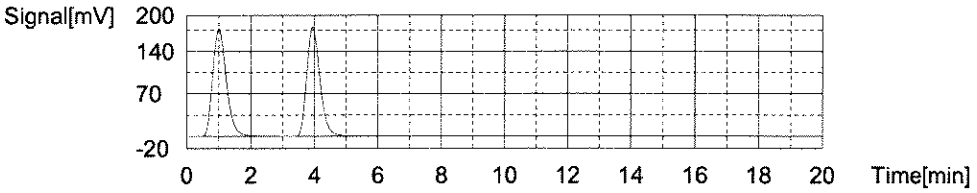
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 356.1



Conc: 150.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	525.6	50uL	1	*******		7/23/2021 1:31:32 PM
2	533.6	50uL	1	*******		7/23/2021 1:36:48 PM

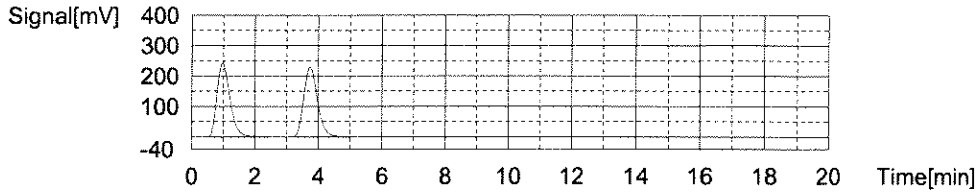
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 529.6



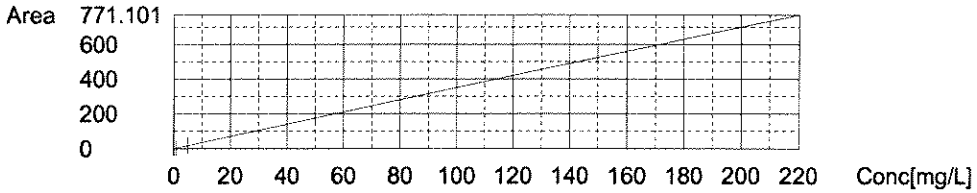
Conc: 200.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	700.5	50uL	1	*******		7/23/2021 1:46:20 PM
2	706.3	50uL	1	*******		7/23/2021 1:51:40 PM

Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	703.4



Slope:	3.505
Intercept	0.000
r^2	0.999978



Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS/ZF
Date Analyzed: 07-SEP-21

Batch: WG305703
Prep Method: N/A
Prep Chemist: SS/ZF

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO5463-1DLE	SAMP	SW846 9056A	Chloride	2	35.98	36	mg/L	2	4.0	.0993	0.20		
SO5512-1DLE	SAMP	SW846 9056A	Chloride	2	33.7715	34	mg/L	2	4.0	.0993	0.20		
SO5557-1DLE	SAMP	SW846 9056A	Sulfate	1	26.7868	27	mg/L	1	1.0	.0637	0.064		
SO5557-1DLF	SAMP	SW846 9056A	Chloride	5	46.0023	46	mg/L	2	10.	.0993	0.50		
SO5557-3DLE	SAMP	SW846 9056A	Chloride	2	27.5865	28	mg/L	2	4.0	.0993	0.20		
SO5557-3DLE	SAMP	SW846 9056A	Sulfate	2	17.8259	18	mg/L	1	2.0	.0637	0.13		
WG305703-1	MBLANK	SW846 9056A	Chloride	1	.1012	J 0.10	mg/L	2	2.0	.0993	0.099		
WG305703-1	MBLANK	SW846 9056A	Sulfate	1	.0147	U 1.0	mg/L	1	1.0	.0637	0.064		
WG305703-2	LCS	SW846 9056A	Chloride	1	3.5842	3.58	mg/L	2	2.0	.0993	0.099		95.5
WG305703-2DL	LCS	SW846 9056A	Sulfate	1	3.6281	3.63	mg/L	1	1.0	.0637	0.064		96.8

Comments:

SO5463-1	Anions report Cl & SO
SO5512-1	Anions please report C
WG305703-1	SO5463-1
WG305703-2	SO5463-1

Entered by: SS Date: 9/8/21 Accepted by: ZF Date: 9/11/21

IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

L MIX ID: W20334	Expiration Date:09/14/21	ICAL Date: 08/31/21

ALYTE	INITIAL AMOUNT (mL)	OF	STOCK CONC. (mg/L)	TO	FINAL VOLUME(mL)	=	FINAL CONC.(mg/L)
Cl	2.0	OF	1000			=	20
2 (as N)	0.8	OF	1000			=	8
3 (as N)	0.8	OF	1000			=	8
Br	4.0	OF	1000	TO	100	=	40
SO4	4.0	OF	1000			=	40
F	1.0	OF	1000			=	10
4 (as P)	1	OF	1000			=	10

WORKING STANDARDS Standards prepared on each day of use

.	INITIAL AMOUNT (mL)	OF	Final Volume (mL)	FINAL CONC. (mg/L)							STD ID*
				Cl	NO2	NO3	Br	SO4	PO4	F	
7	1	ICAL	1	20	8	8	40	40	10	10	IC7-083121
6	0.5	IC7	1	10	4	4	20	20	5	5	IC6-083121
5	0.25	IC7	1	5	2	2	10	10	2.5	2.5	IC5-083121
4	0.25	IC6	1	2.5	1	1	5	5	1.25	1.25	IC4-083121
3	0.1	IC6	1	1	0.4	0.4	2	2	0.5	.5	IC3-083121
2	0.1	IC3	1	0.1	0.04	0.04	0.2	0.2	0.05	.05	IC2-083121
V	0.5	IC7	1	10	4	4	20	20	5	5	CCV-090721

*** STD ID is prefix followed by the date of preparation (ie. IC6-020216)**

S/MATRIX SPIKE MIX ID: W20335	Expiration Date:091521

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

Cl	NO2 (as N)	NO3 (as N)	Br	SO4	PO4 (as P)	F	STD ID*
75	1.14	0.845	3.75	3.75	1.22	3.75	IC-LCS-090721

*** STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)**

Comments:
2x dil = 0.5mL 1x→1.0mL
20x dil = 0.05mL 1x→1.0mL

Pipettes: W3, W5
5x dil = 0.2mL 1x→1.0mL
50x dil = 0.02mL 1x→1.0mL

10x dil = 0.1mL 1x→1.0mL
100x dil = 0.1mL 10x→1.0mL

WL-068 – Revision 2 – 04/08/2019

Katahdin Analytical Services

ION CHROMATOGRAPHY RUNLOG

Dionex ICS-2100 (Instrument IC-3)

Analysis Date: 09/07/21	**Analytical Column S/N:** 191122078	**Calibration Date:** 08/31/21
Analysis Sequence: 09072A	**Guard Column S/N:** 191120342	**Calibration Sequence:** 083121A Cal
Analyst: SS/ZF	**Suppressor S/N:** 180825029	☐ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes: ✓ Report without manipulation; S Report, peak automatically reintegrated with SmartPeak; M Report, peak manually integrated; A Report, peak manually assigned; R Do not report, reanalyze sample

Method Codes: E EPA 300.0; SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
CCS			✓	✓	✓		✓	✓		
LCS						✓				
SO 5463-1	2	S		✓						MSD was missspiked, remn
5463-2	2			R ✓						at 2x for CL.
-2 MS	⊥			R ✓						⊥
-2 MSD				R						
5512-1	2			✓						
5557-1	1					✓				
5557-1	5			✓						
5557-3	2			✓		✓				
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
5506-6	1	S		R		R				Cl 20x, SO4 1x
5556-2	1			R		R				Cl 20x, SO4 1x
5689-1	1			R		R				Cl 2x, SO4 1x
-3	1			R		R				Cl 2x, SO4 1x
-5	1			R		R				Cl 2x, SO4 1x
-7	1			R		R				Cl 2x, SO4 1x
-9	1	⊥		R		R				Cl 2x, SO4 1x
4882-16	1	E	R	R	R	R	R	R		10x

S: WG305703 → R576016
F: SL: WG305704 → R576015
SL: WG305718 → R576031

Reviewed by: ZF

Review Date: 9/11/21

WL-069-Revision 1 – 04/12/20016

QAWL1026 - 000343

00000

Katahdin Analytical Services 5000058

Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date:	**Analytical Column S/N:**	**Calibration Date:**
Analysis Sequence:	**Guard Column S/N:**	**Calibration Sequence:**
Analyst:	**Suppressor S/N:**	☑ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes:
✓ Report without manipulation
S Report, peak automatically reintegrated with SmartPeak
M Report, peak manually integrated
A Report, peak manually assigned
R Do not report, reanalyze sample

Method Codes:
E EPA 300.0
SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
SO 4882-L6	10	E	R	R		R	R	R		10X – Due to low Sample Cups must be reported
SL Blank 8/23			M	M	M	M	M	M		
CCV			R	R	R	R	R	R		remn. mis spiked - SS 9/8/21
CCB			M	M	M	M	M	M		
Soil LCS 08/23			✓	✓	✓	✓	✓	✓		
4882-6	1	E			R					10 x
4882-6	10	I			R					I – Due to low sample Cups must be reported
Soil Blank 9/07			M	M	M	M	M	M		
Soil LCS 9/07			✓	✓	✓	✓	✓	✓		
CCV			R	R	R	R	R	R		remn, mis spiked - SS 9/8/21
CCB			M	M	M	M	M	M		

SS 9/8/21

SS 9/08/21

WL-069-Revision 1 – 04/12/20016

Reviewed by: _____ **Review Date:** 9/11/21

QAWL1026 - 000343

0000016

Katahdin Analytical Services 5000059

Sequence Overview

Sequence Details

Name:	**090721A REPROC**	*Created On:*	**10/Feb/16 13:48:22**
Directory:	**Instrument Data\ICS-2100\2021\09-SEP**	*Created By:*	**Katahdin Analytical**
Data Vault:	**ChromeleonLocal**	*Updated On:*	**08/Sep/21 15:00:50**
No. of Injections:	**33**	*Updated By:*	**Katahdin Analytical**

Injection Details

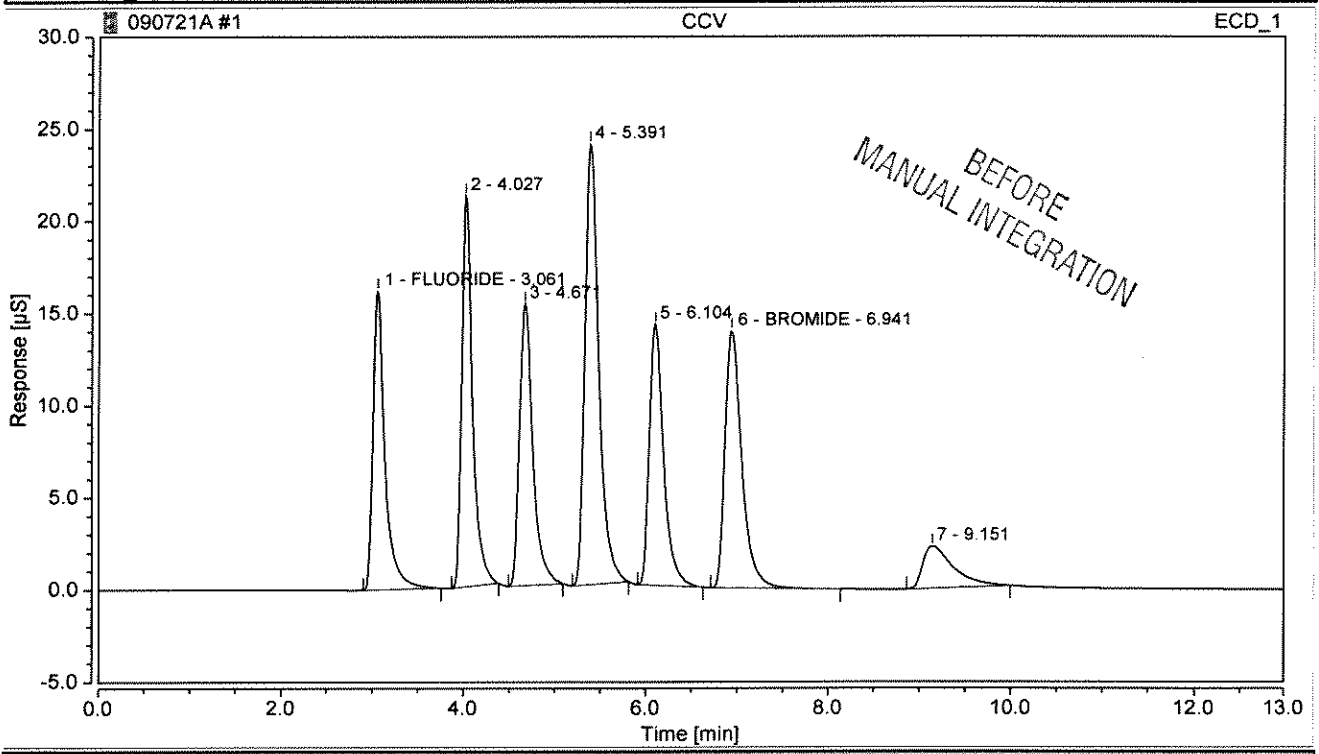
No.	Injection Name	Position	Type	Level	Inject Time	Status
1	CCV	1	Check Standard	06	07/Sep/21 15:42:34	Finished
2	CCB	2	Unknown		07/Sep/21 16:00:45	Finished
3	LCS	3	Check Standard	07	07/Sep/21 16:19:33	Finished
4	LCS	4	Check Standard	07	07/Sep/21 16:38:22	Finished
5	SO5463-1	5	Unknown		07/Sep/21 16:57:10	Finished
6	SO5463-2	6	Unknown		07/Sep/21 17:15:59	Finished
7	SO5463-2 MS	7	Unknown		07/Sep/21 17:34:47	Finished
8	SO5463-2 MSD	8	Unknown		07/Sep/21 17:53:35	Finished
9	SO5512-1	9	Unknown		07/Sep/21 18:12:23	Finished
10	SO5557-1	10	Unknown		07/Sep/21 18:31:12	Finished
11	SO5557-1	11	Unknown		07/Sep/21 18:50:00	Finished
12	SO5557-3	12	Unknown		07/Sep/21 19:08:48	Finished
13	CCV	13	Check Standard	06	07/Sep/21 19:27:36	Finished
14	CCB	14	Unknown		07/Sep/21 19:46:25	Finished
15	SO5506-6	15	Unknown		07/Sep/21 20:05:23	Finished
16	SO5556-2	16	Unknown		07/Sep/21 20:24:11	Finished
17	SO5689-1	17	Unknown		07/Sep/21 20:42:59	Finished
18	SO5689-3	18	Unknown		07/Sep/21 21:01:48	Finished
19	SO5689-5	19	Unknown		07/Sep/21 21:20:36	Finished
20	SO5689-7	20	Unknown		07/Sep/21 21:39:24	Finished
21	SO5689-9	21	Unknown		07/Sep/21 21:58:12	Finished
22	SO4882-16	22	Unknown		07/Sep/21 22:17:01	Finished
23	SO4882-16	23	Unknown		07/Sep/21 22:35:49	Finished
24	SOIL BLANK 08/23	24	Unknown		07/Sep/21 22:54:37	Finished
25	CCV	25	Check Standard	06	07/Sep/21 23:13:25	Finished
26	CCB	26	Unknown		07/Sep/21 23:32:14	Finished
27	SOIL LCS 08/23	27	Unknown		07/Sep/21 23:51:02	Finished
28	SO4882-6	28	Unknown		08/Sep/21 00:09:50	Finished
29	SO4882-6	29	Unknown		08/Sep/21 00:28:38	Finished
30	SOIL BLANK 09/07	30	Unknown		08/Sep/21 00:47:27	Finished
31	SOIL LCS 09/07	31	Unknown		08/Sep/21 01:06:15	Finished
32	CCV	32	Check Standard	06	08/Sep/21 01:25:03	Finished
33	CCB	33	Unknown		08/Sep/21 01:43:51	Finished

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 15:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

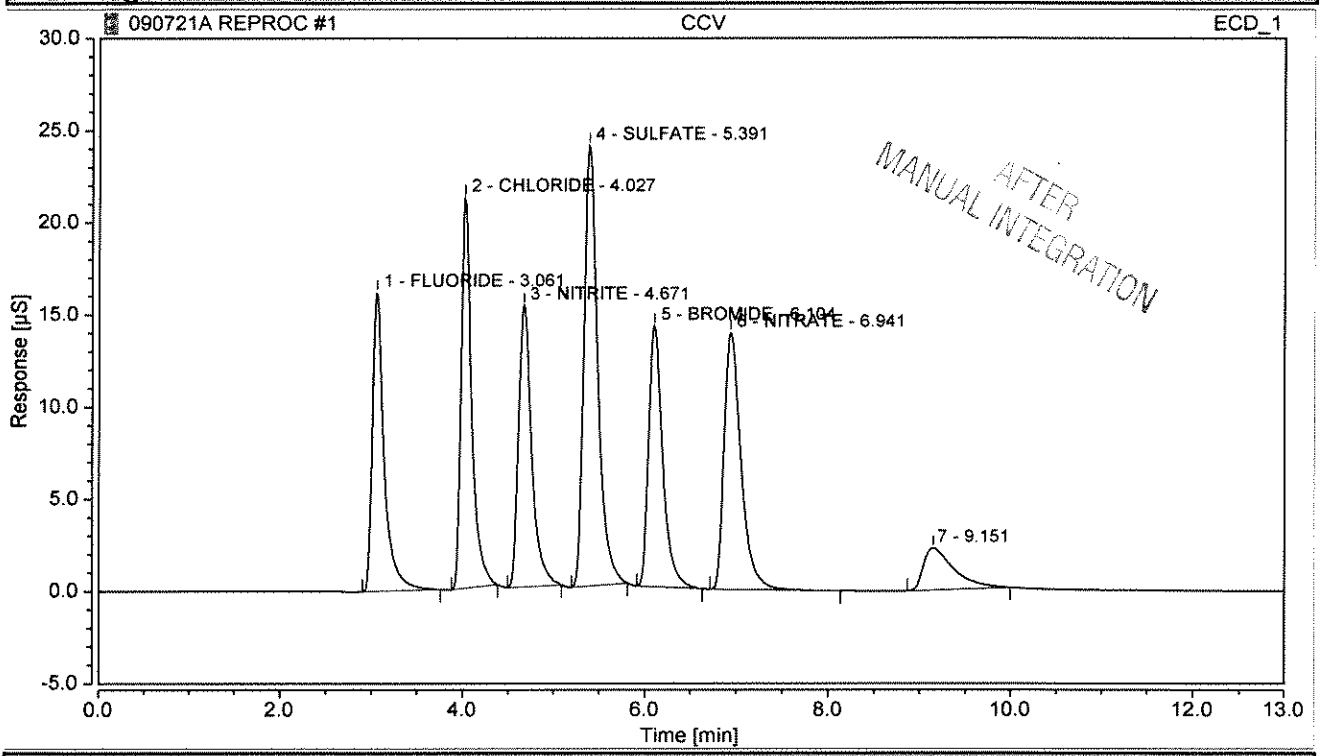
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.452	16.209	13.18	15.15	5.1965	3.9293
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.941	3.008	13.935	16.17	13.03	20.0325	0.1624
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.460**	**30.143**	**29.35**	**28.18**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 15:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

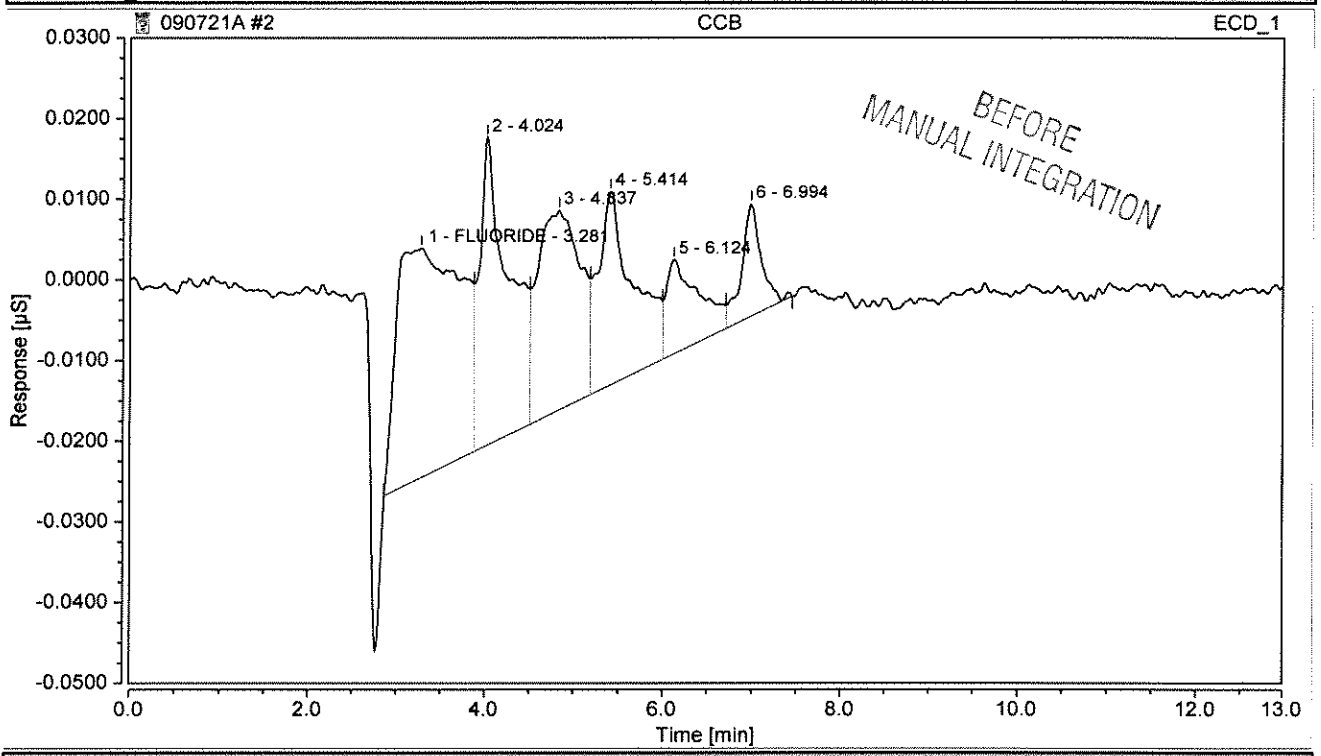
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.452	16.209	13.18	15.15	5.1965	3.9293
2	CHLORIDE	4.027	2.888	21.213	15.52	19.83	9.9805	-0.1955
3	NITRITE	4.671	2.584	15.275	13.89	14.28	4.2101	5.2537
4	SULFATE	5.391	4.211	23.903	22.63	22.34	19.7278	-1.3611
5	BROMIDE	6.104	2.576	14.162	13.85	13.24	20.3589	1.7944
6	NITRATE	6.941	3.008	13.935	16.17	13.03	4.0267	0.6671
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.719**	**104.696**	**95.24**	**97.87**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

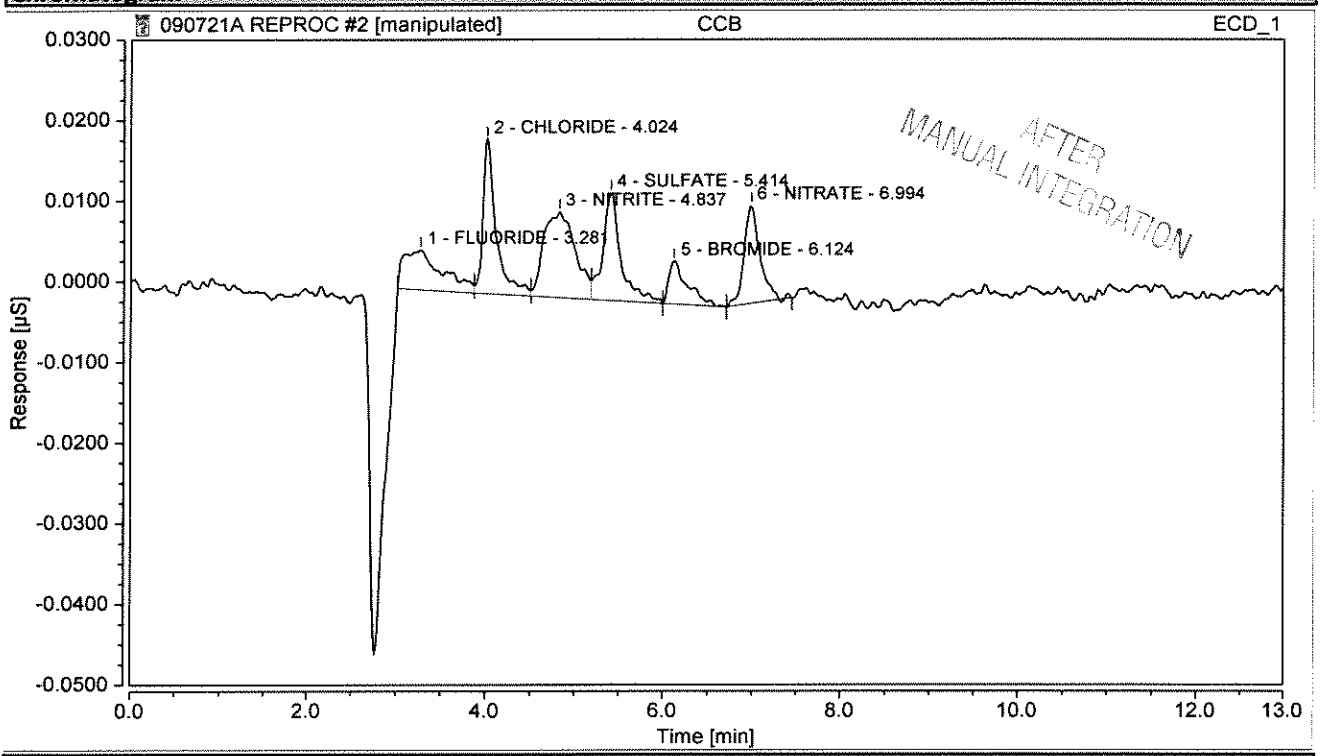
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.281	0.024	0.029	32.92	20.19	0.0499	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.024**	**0.029**	**32.92**	**20.19**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:00**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

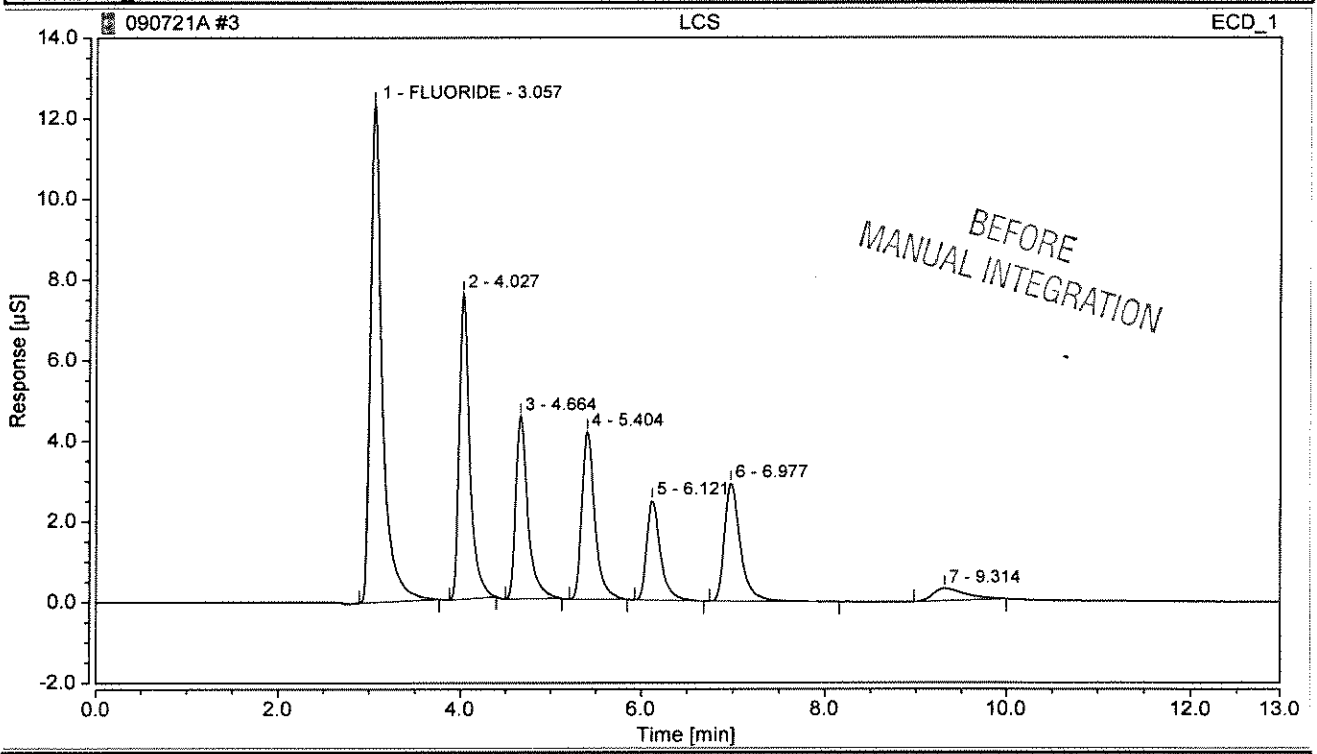
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.281	0.002	0.005	14.38	7.59	0.0052	n.a.
2	CHLORIDE	4.024	0.003	0.019	19.18	29.17	0.1012	n.a.
3	NITRITE	4.837	0.004	0.011	25.58	16.24	0.0071	n.a.
4	SULFATE	5.414	0.003	0.013	18.35	20.36	0.0147	n.a.
5	BROMIDE	6.124	0.001	0.005	7.43	8.10	0.0076	n.a.
6	NITRATE	6.994	0.003	0.012	15.07	18.54	0.0321	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.017**	**0.066**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

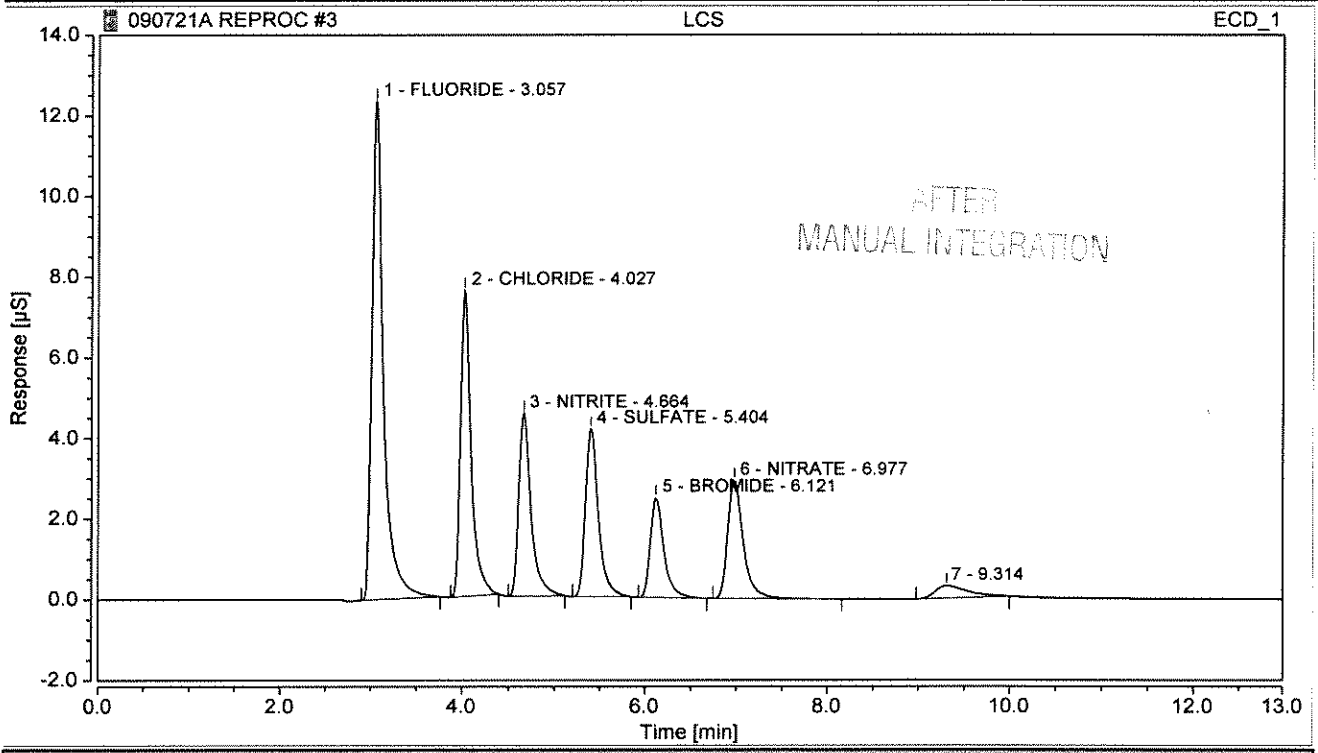
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.826	12.358	33.78	35.97	3.8699	3.1962
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**1.826**	**12.358**	**33.78**	**35.97**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

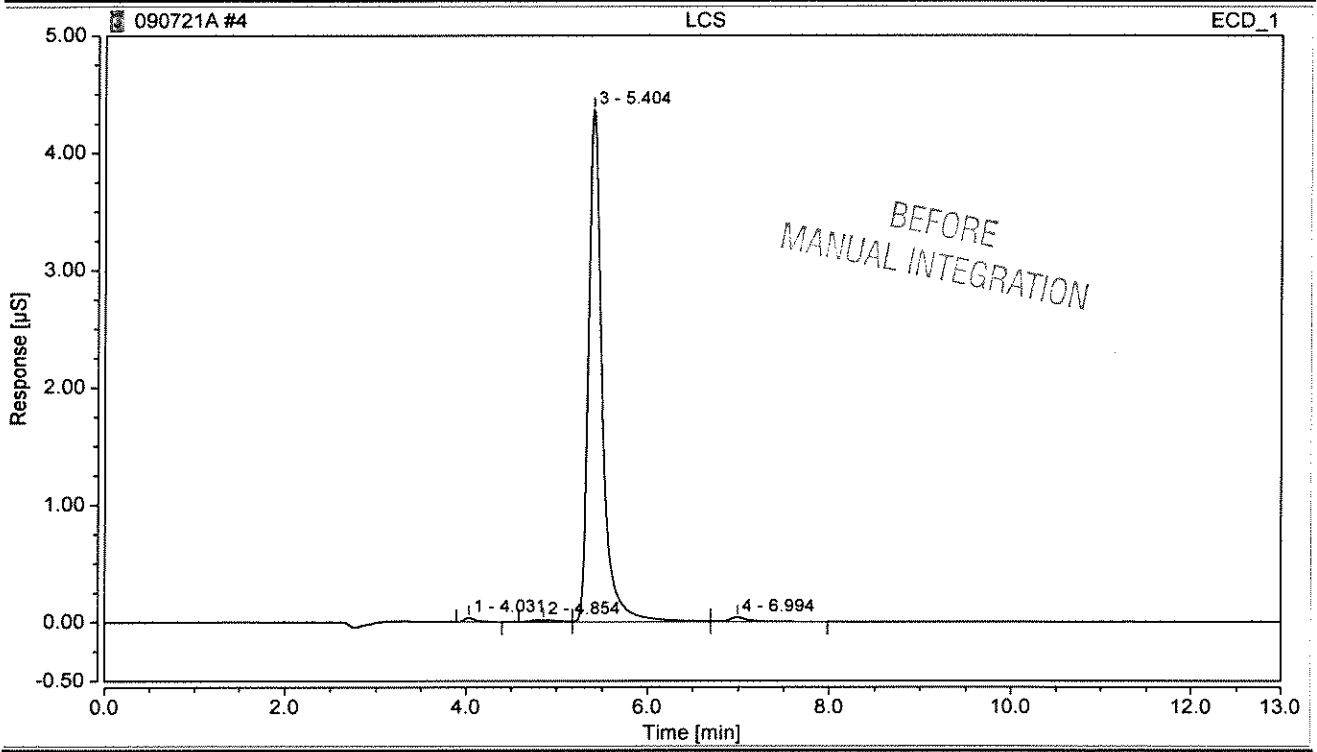
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.826	12.358	33.78	35.97	3.8699	3.1962
2	CHLORIDE	4.027	1.020	7.592	18.88	22.10	3.5842	-4.4214
3	NITRITE	4.664	0.710	4.534	13.14	13.20	1.1569	1.4835
4	SULFATE	5.404	0.698	4.161	12.91	12.11	3.2697	-12.8076
5	BROMIDE	6.121	0.433	2.474	8.01	7.20	3.5571	-5.1442
6	NITRATE	6.977	0.590	2.929	10.92	8.52	0.8136	-3.7143
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.278**	**34.048**	**97.64**	**99.10**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:38**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

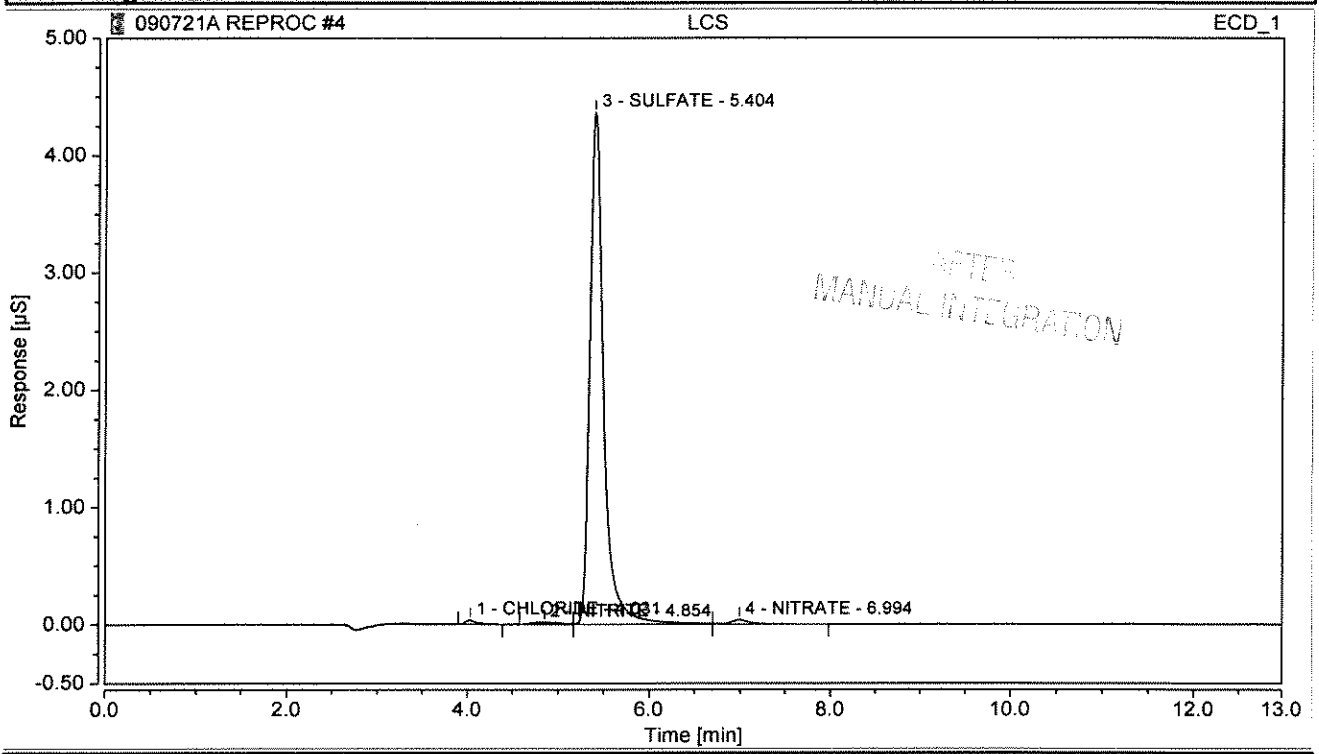
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 16:38**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

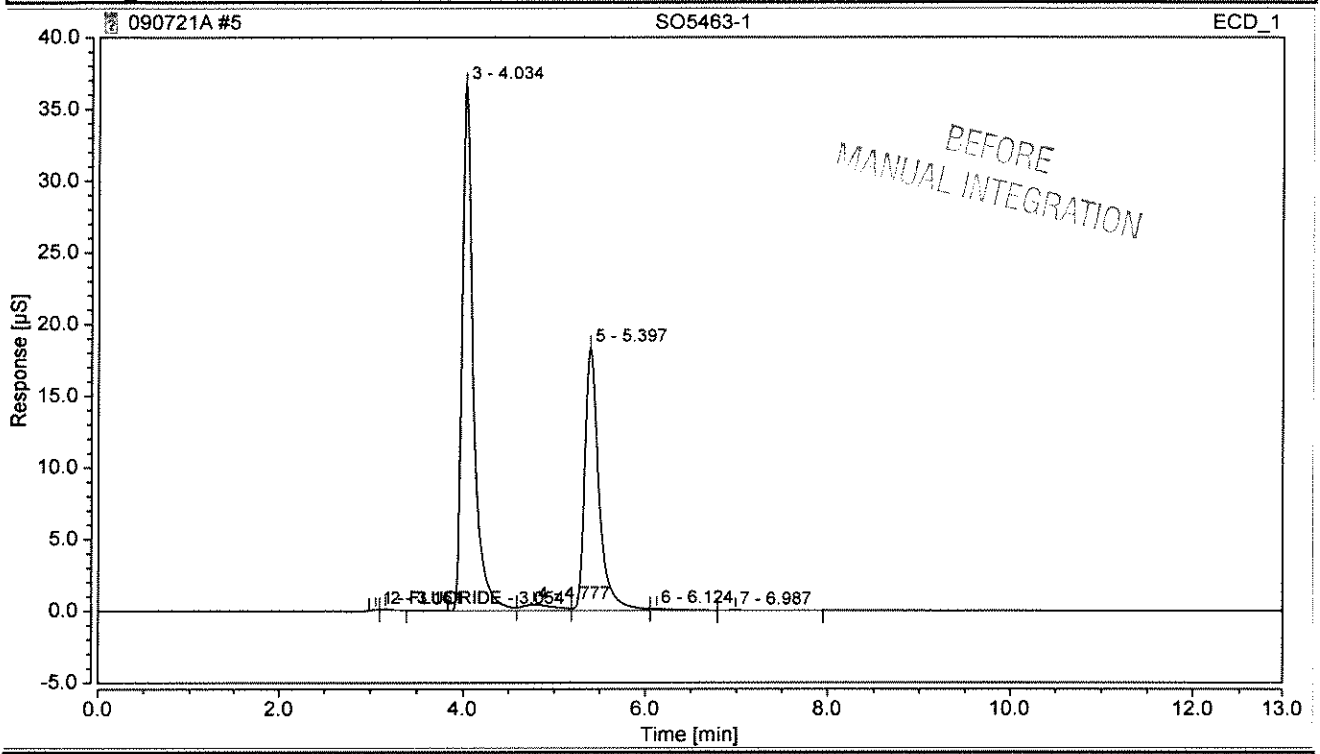
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.031	0.005	0.035	0.67	0.79	0.1081	-97.1174
2	NITRITE	4.854	0.006	0.017	0.73	0.38	0.0094	-99.1748
3	SULFATE	5.404	0.774	4.366	97.32	97.98	3.6281	-3.2509
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	NITRATE	6.994	0.010	0.038	1.29	0.85	0.0423	-94.9898
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.796**	**4.456**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-1**	*Run Time (min):*	**12.97**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 16:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

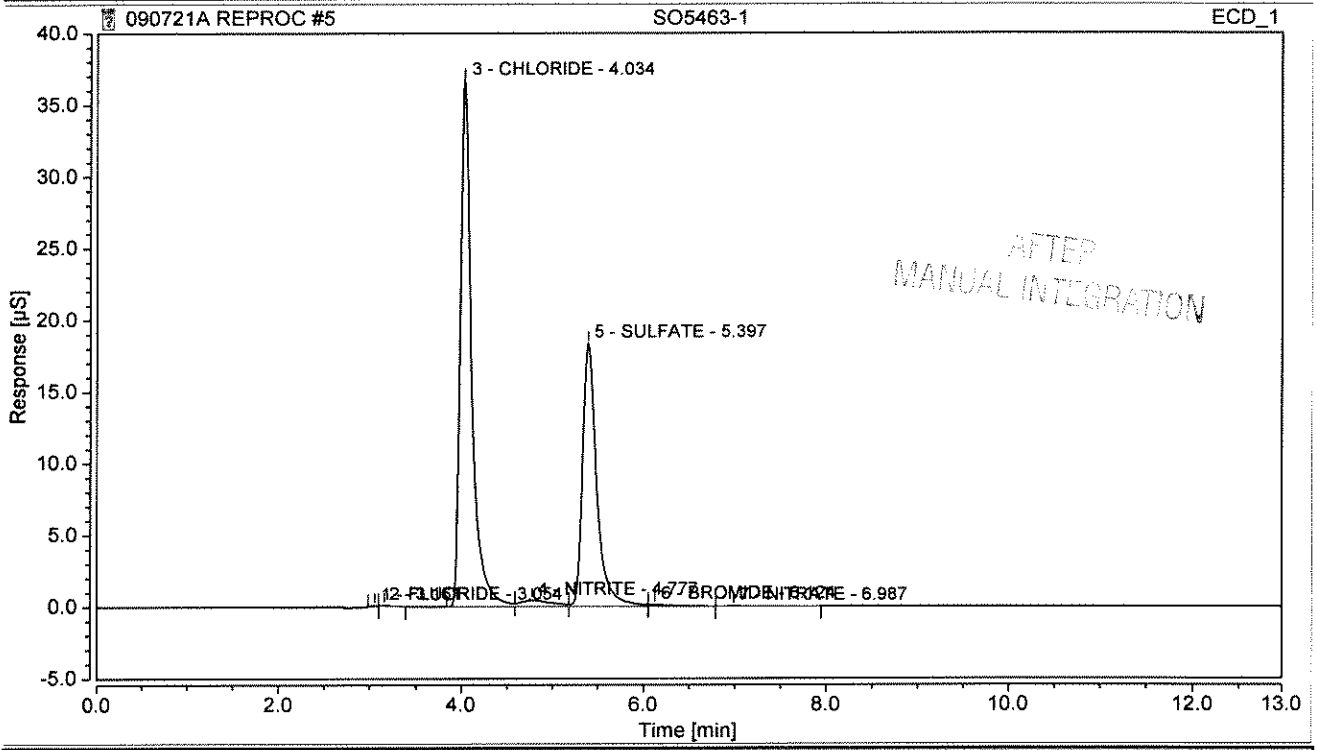
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.002	0.031	0.03	0.05	0.0101	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.002**	**0.031**	**0.03**	**0.05**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-1**	*Run Time (min):*	**12.97**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 16:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

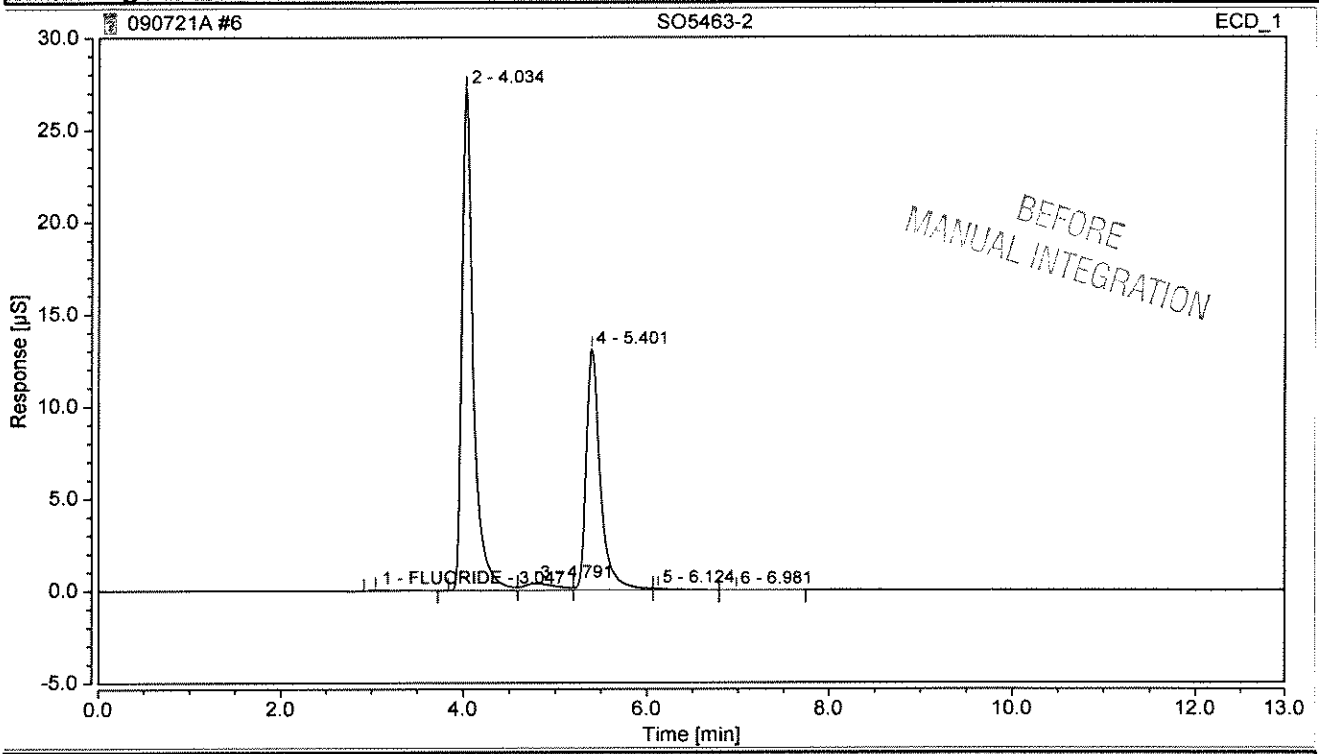
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.002	0.031	0.03	0.05	0.0101	n.a.
3	CHLORIDE	4.034	5.227	36.684	59.29	65.87	35.9800	n.a.
4	NITRITE	4.777	0.179	0.430	2.03	0.77	0.5837	n.a.
5	SULFATE	5.397	3.350	18.356	37.99	32.96	31.3867	n.a.
6	BROMIDE	6.124	0.042	0.122	0.48	0.22	0.3515	n.a.
7	NITRATE	6.987	0.011	0.025	0.13	0.04	0.0868	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.812**	**55.647**	**99.94**	**99.93**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2**	*Run Time (min):*	**12.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:15**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

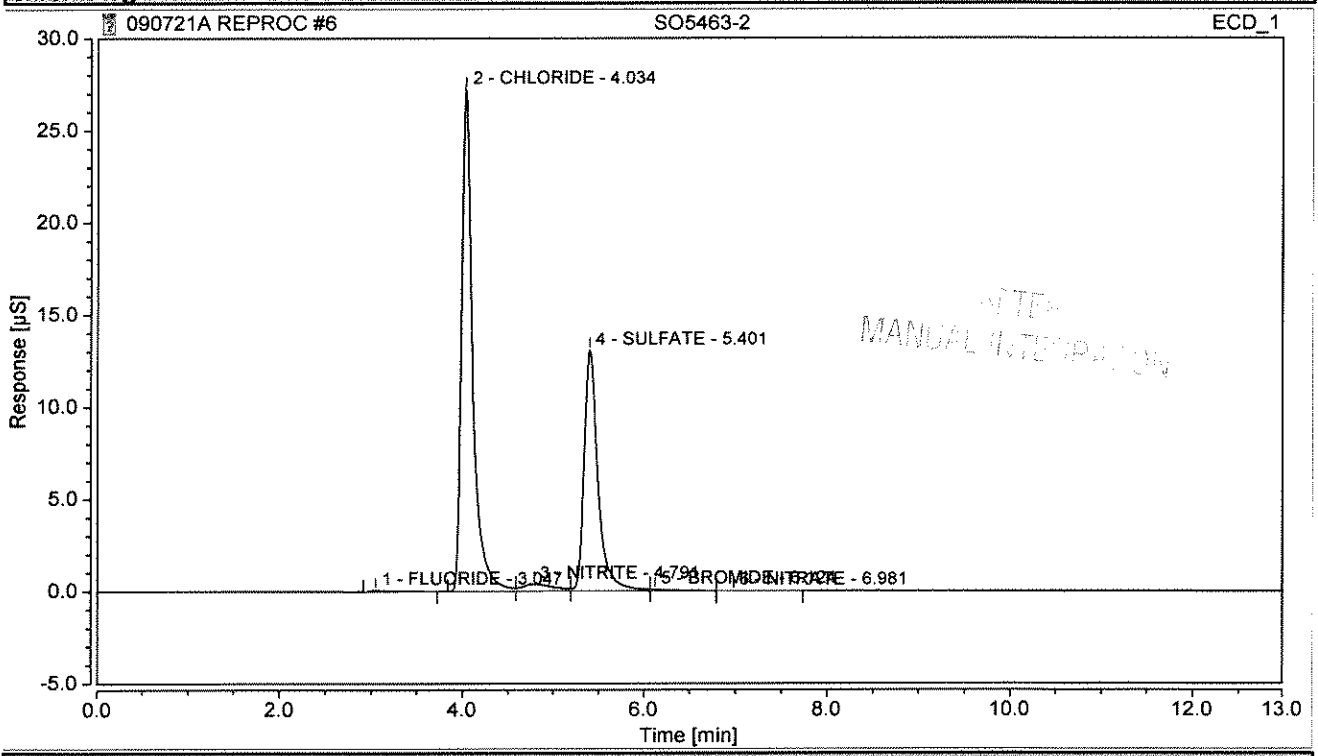
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.019	0.074	0.29	0.18	0.0789	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.019**	**0.074**	**0.29**	**0.18**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2**	*Run Time (min):*	**12.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:15**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

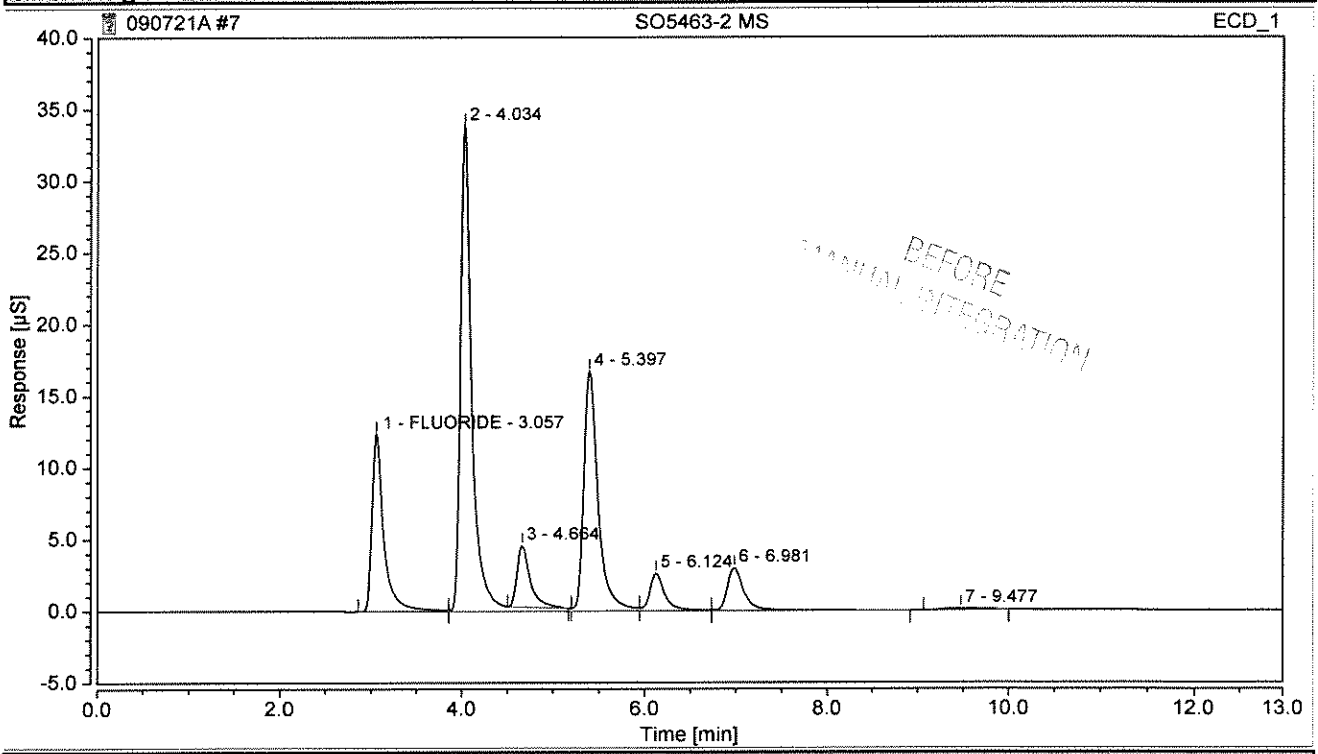
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.019	0.074	0.29	0.18	0.0789	n.a.
2	CHLORIDE	4.034	3.868	27.221	60.16	66.69	26.6735	n.a.
3	NITRITE	4.791	0.152	0.372	2.37	0.91	0.4968	n.a.
4	SULFATE	5.401	2.358	13.057	36.68	31.99	22.0987	n.a.
5	BROMIDE	6.124	0.026	0.078	0.41	0.19	0.2254	n.a.
6	NITRATE	6.981	0.006	0.015	0.10	0.04	0.0736	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.430**	**40.817**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MS**	*Run Time (min):*	**12.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:34**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

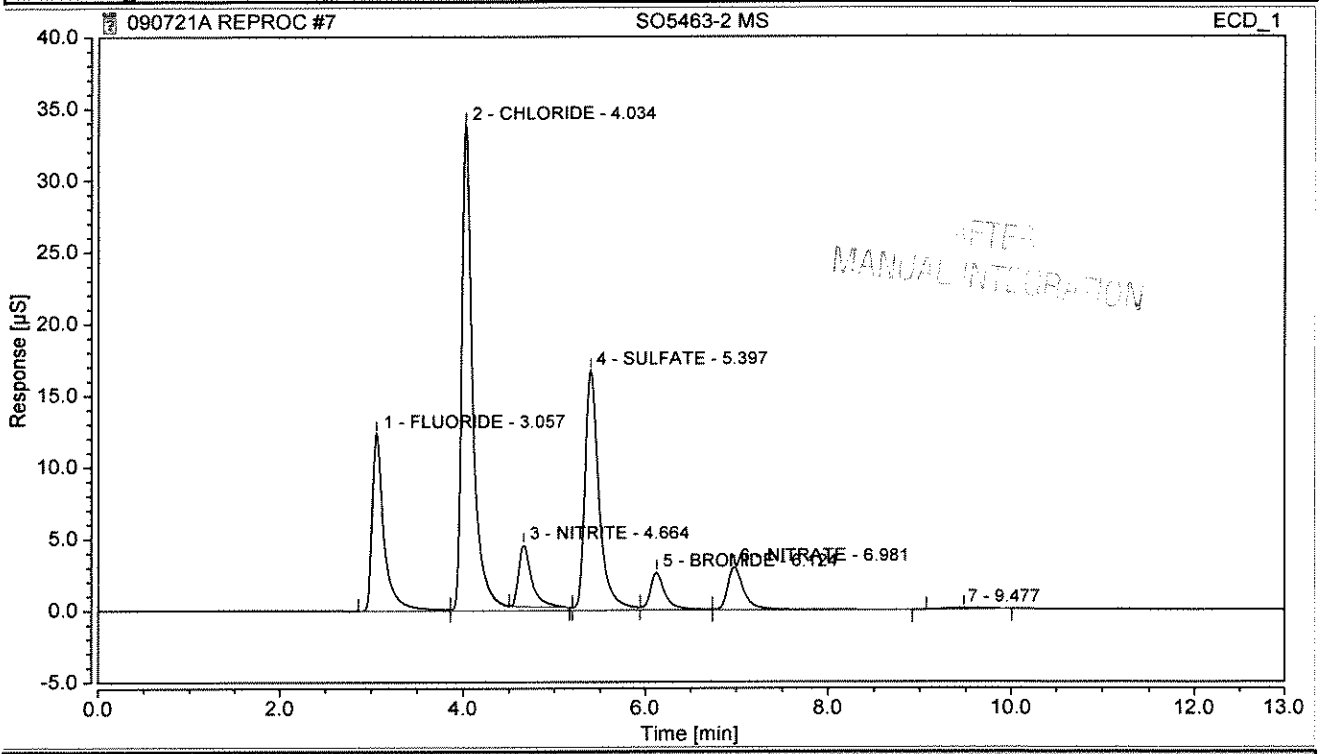
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.887	12.359	15.95	16.95	7.9983	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**1.887**	**12.359**	**15.95**	**16.95**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MS**	*Run Time (min):*	**12.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:34**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

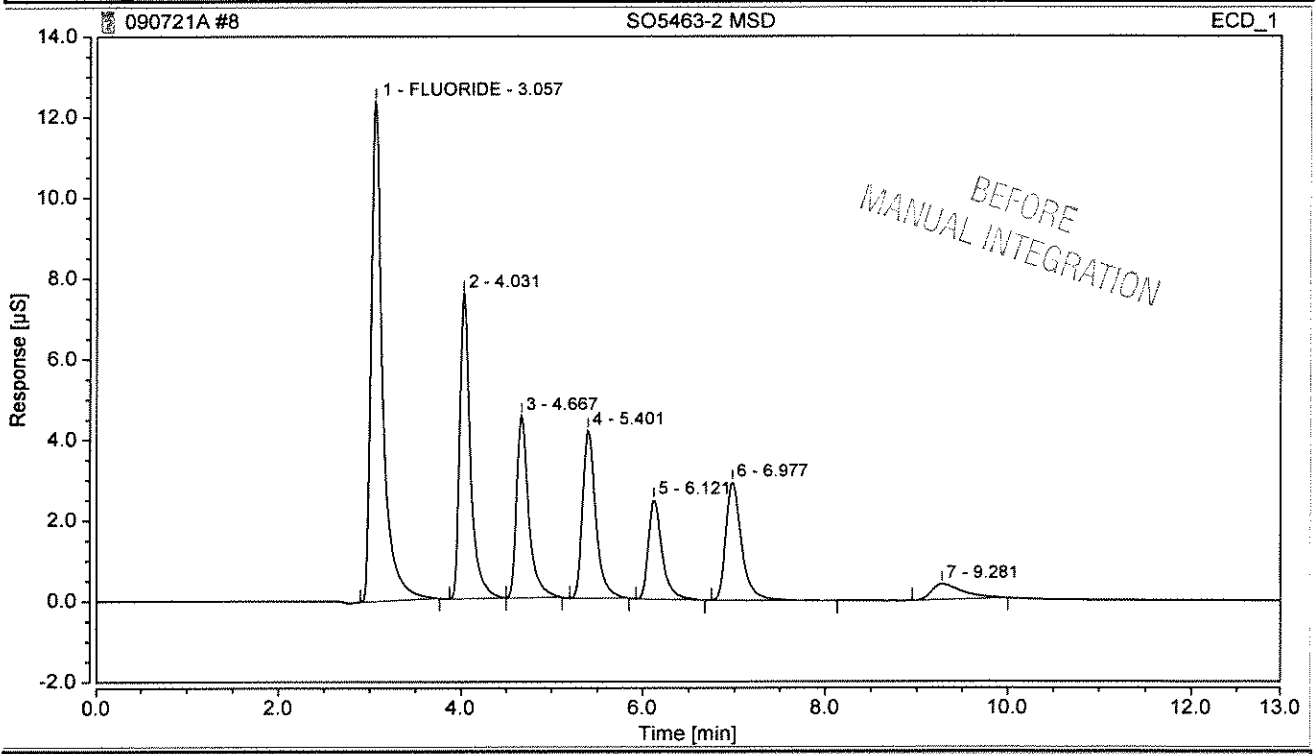
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.887	12.359	15.95	16.95	7.9983	n.a.
2	CHLORIDE	4.034	4.991	33.867	42.18	46.43	34.3606	n.a.
3	NITRITE	4.664	0.725	4.298	6.13	5.89	2.3626	n.a.
4	SULFATE	5.397	3.045	16.726	25.74	22.93	28.5311	n.a.
5	BROMIDE	6.124	0.512	2.628	4.33	3.60	7.5560	n.a.
6	NITRATE	6.981	0.631	2.975	5.33	4.08	1.7350	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.792**	**72.853**	**99.66**	**99.89**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MSD**	*Run Time (min):*	**12.98**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

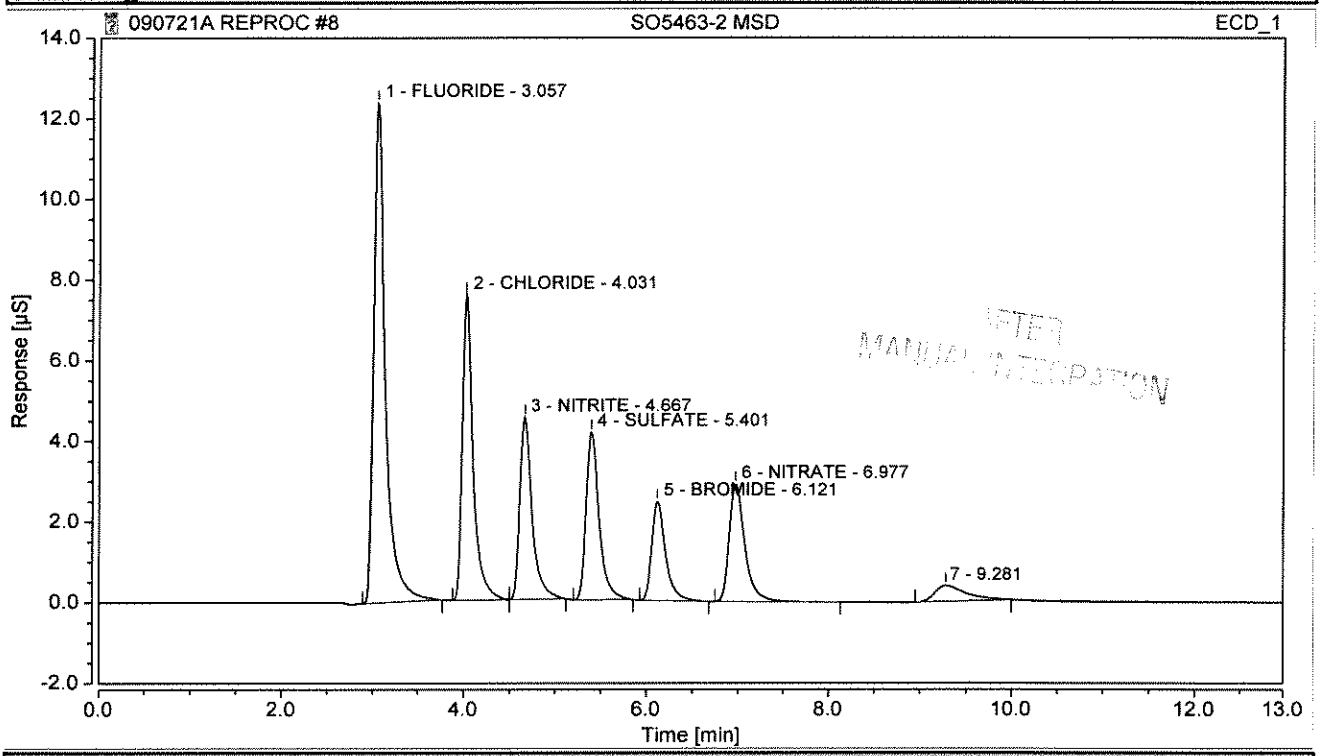
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.827	12.403	33.53	36.01	7.7439	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**1.827**	**12.403**	**33.53**	**36.01**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2 MSD**	*Run Time (min):*	**12.98**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 17:53**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

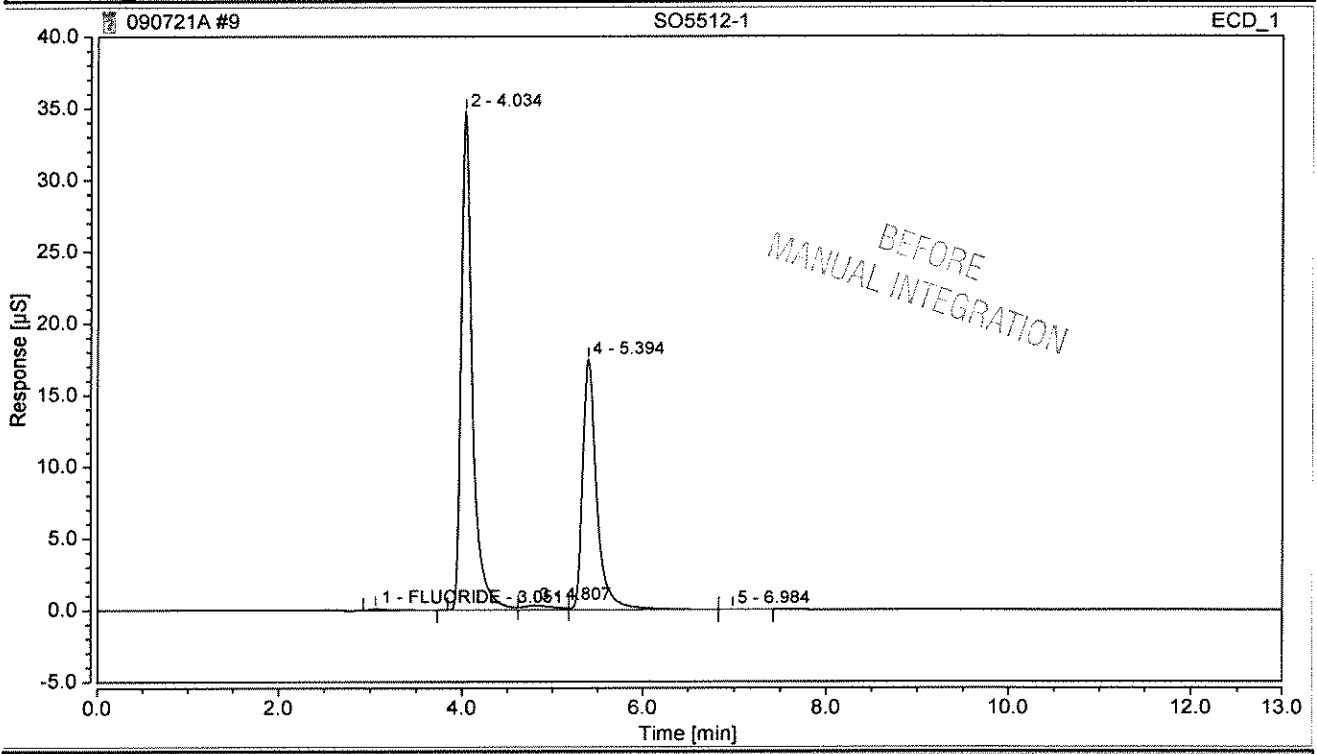
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.827	12.403	33.53	36.01	7.7439	n.a.
2	CHLORIDE	4.031	1.039	7.581	19.07	22.01	7.2957	n.a.
3	NITRITE	4.667	0.709	4.520	13.01	13.12	2.3106	n.a.
4	SULFATE	5.401	0.698	4.161	12.80	12.08	6.5378	n.a.
5	BROMIDE	6.121	0.431	2.464	7.91	7.15	7.0848	n.a.
6	NITRATE	6.977	0.589	2.924	10.81	8.49	1.6243	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.294**	**34.053**	**97.14**	**98.86**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5512-1**	*Run Time (min):*	**12.99**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 18:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

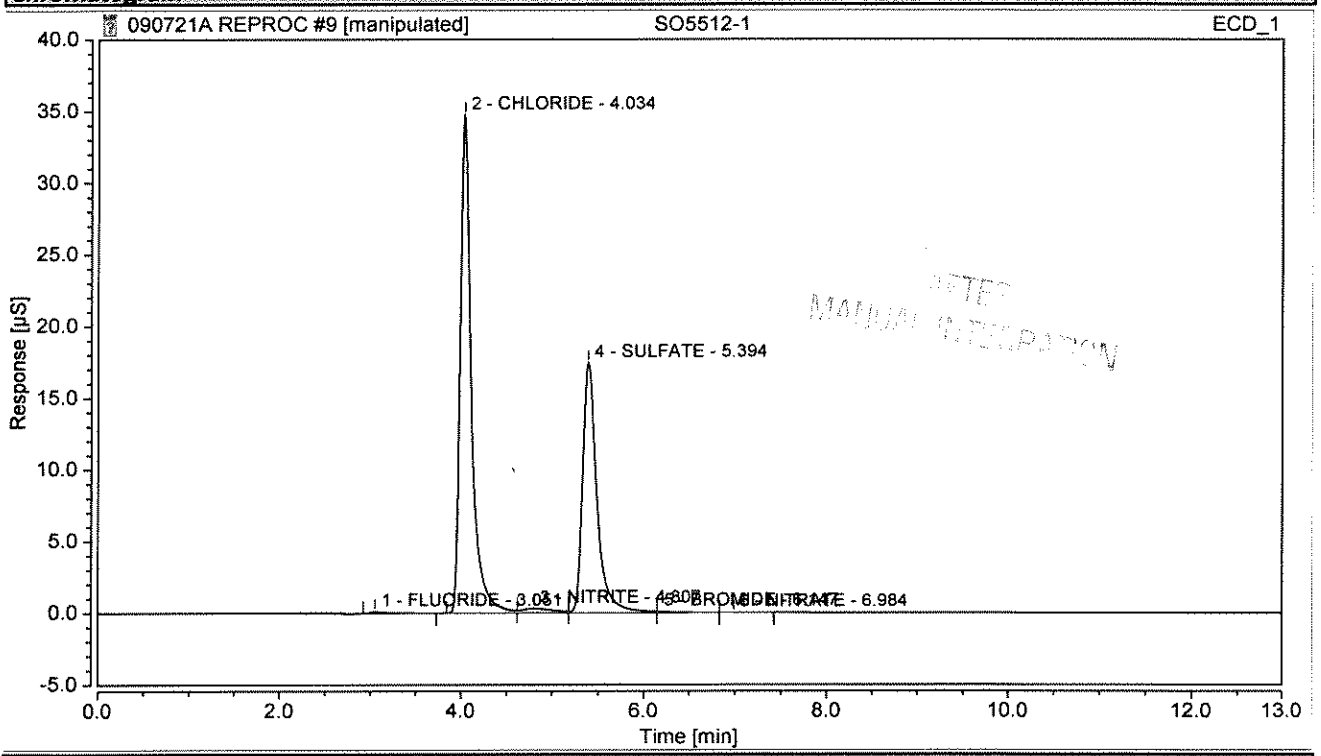
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.025	0.112	0.30	0.21	0.1048	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.025**	**0.112**	**0.30**	**0.21**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5512-1**	*Run Time (min):*	**12.99**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 18:12**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

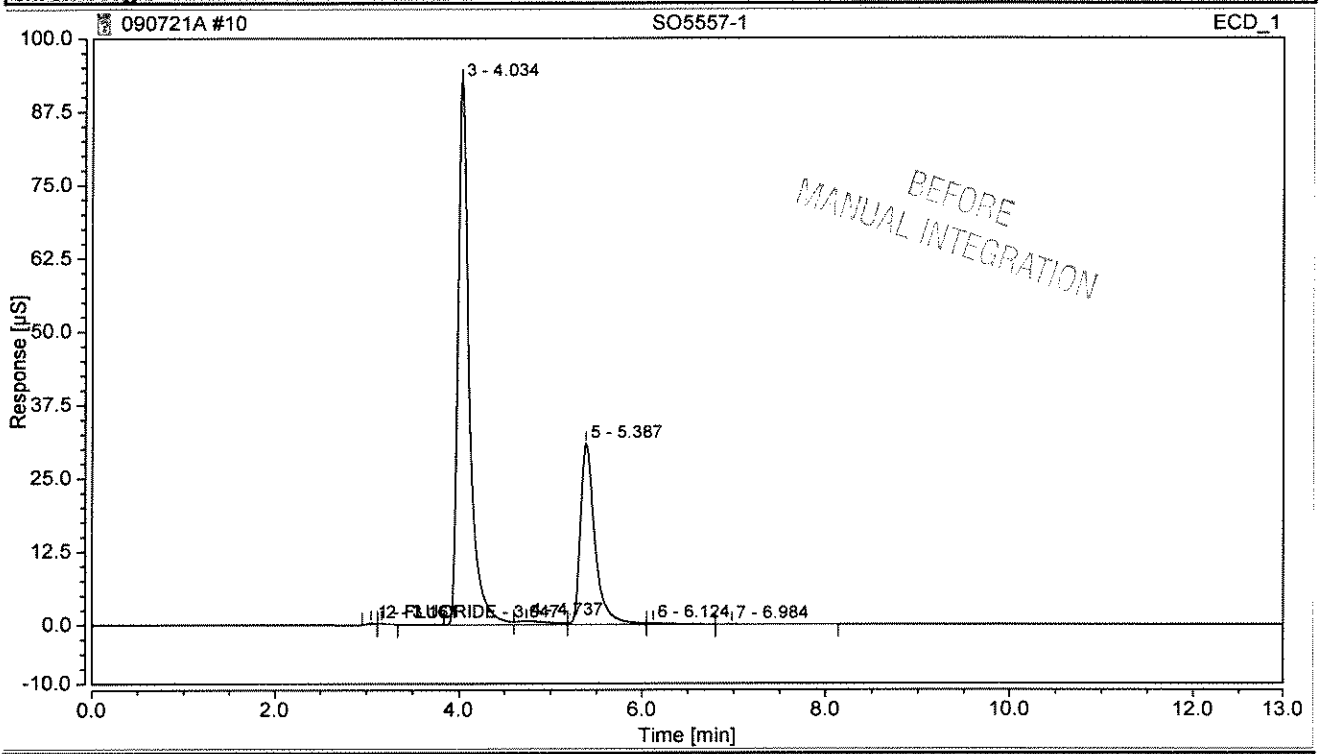
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.025	0.112	0.30	0.21	0.1048	n.a.
2	CHLORIDE	4.034	4.905	34.739	59.60	65.95	33.7715	n.a.
3	NITRITE	4.807	0.116	0.299	1.41	0.57	0.3784	n.a.
4	SULFATE	5.394	3.157	17.424	38.36	33.08	29.5787	n.a.
5	BROMIDE	6.147	0.021	0.082	0.26	0.16	0.2355	n.a.
6	NITRATE	6.984	0.005	0.018	0.06	0.03	0.0712	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.229**	**52.674**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 18:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

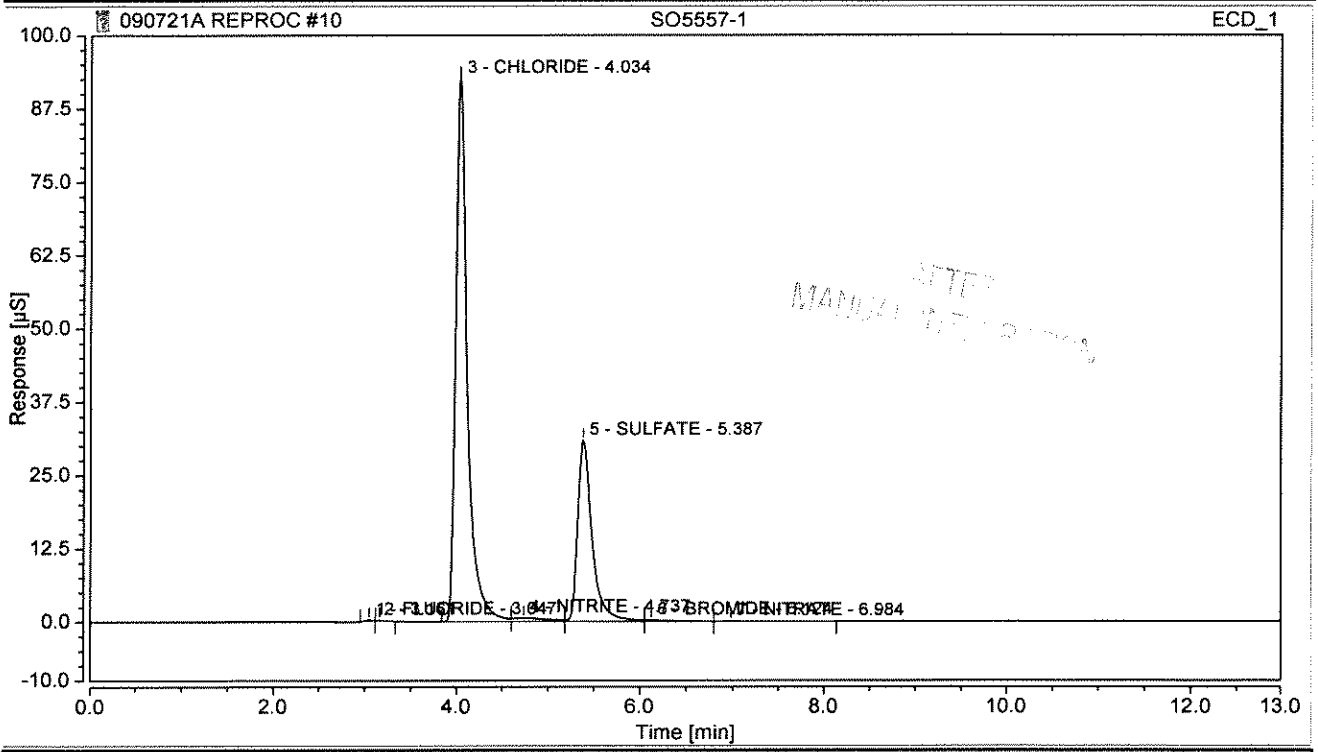
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.012	0.145	0.06	0.12	0.0250	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.012**	**0.145**	**0.06**	**0.12**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 18:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

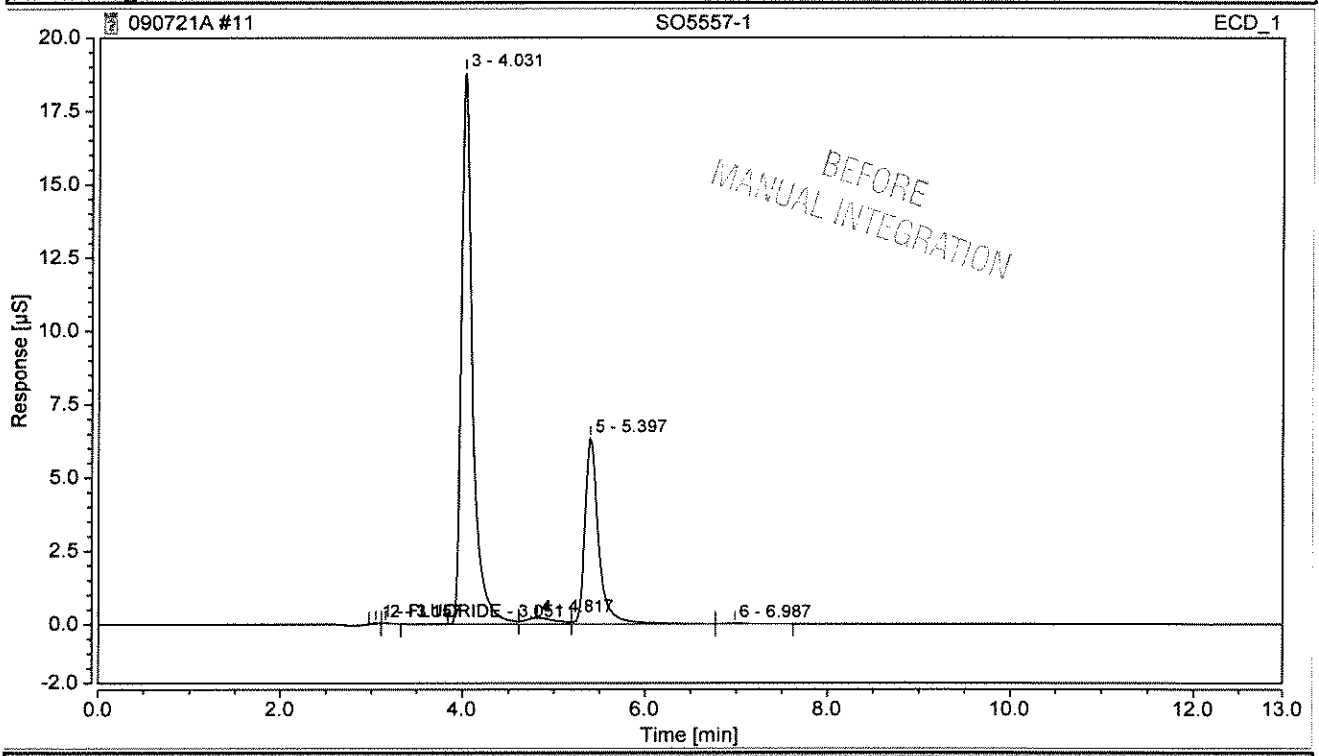
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.012	0.145	0.06	0.12	0.0250	n.a.
3	CHLORIDE	4.034	13.331	92.602	68.63	74.35	45.7398	n.a.
4	NITRITE	4.737	0.264	0.628	1.36	0.50	0.4296	n.a.
5	SULFATE	5.387	5.718	30.847	29.44	24.77	26.7868	n.a.
6	BROMIDE	6.124	0.073	0.208	0.38	0.17	0.2985	n.a.
7	NITRATE	6.984	0.020	0.045	0.10	0.04	0.0555	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**19.417**	**124.475**	**99.97**	**99.94**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**5.0**
Injection Date/Time:	**07/Sep/21 18:50**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

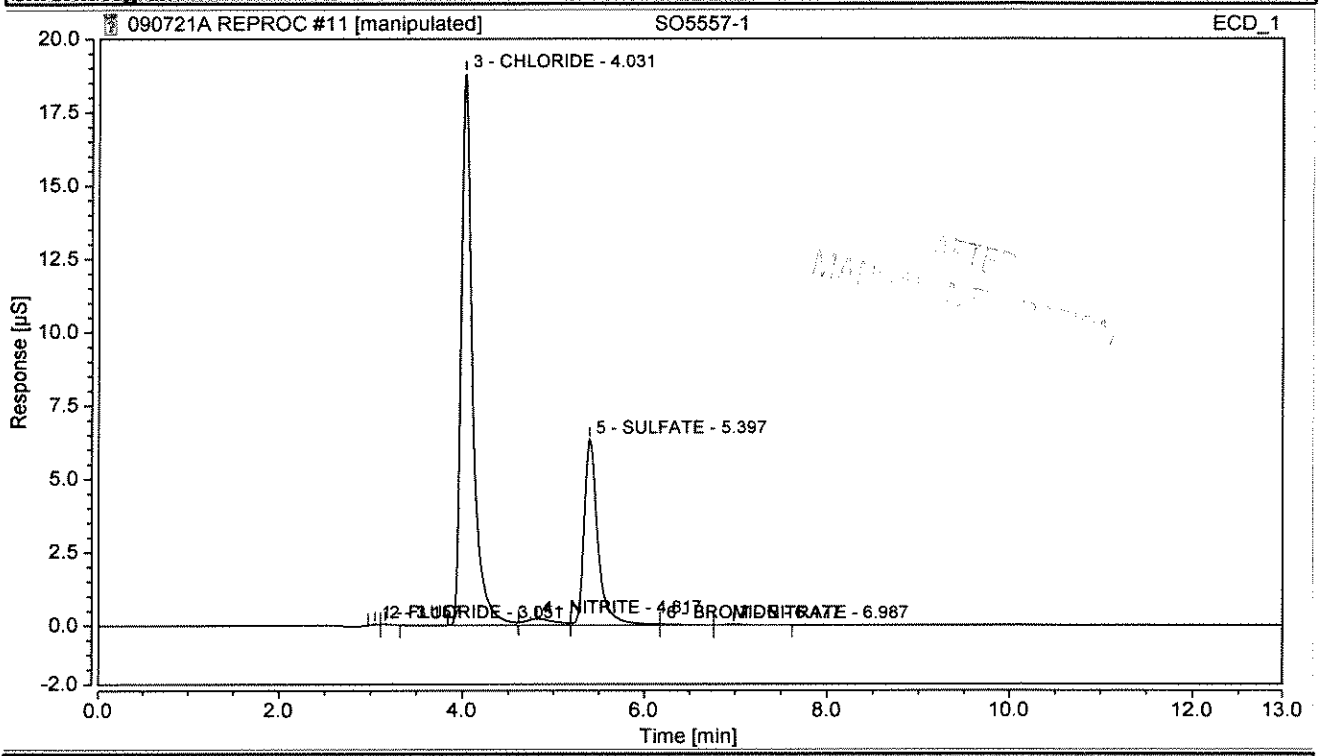
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.002	0.026	0.05	0.10	0.0215	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.002**	**0.026**	**0.05**	**0.10**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-1**	*Run Time (min):*	**12.98**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**5.0**
Injection Date/Time:	**07/Sep/21 18:50**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

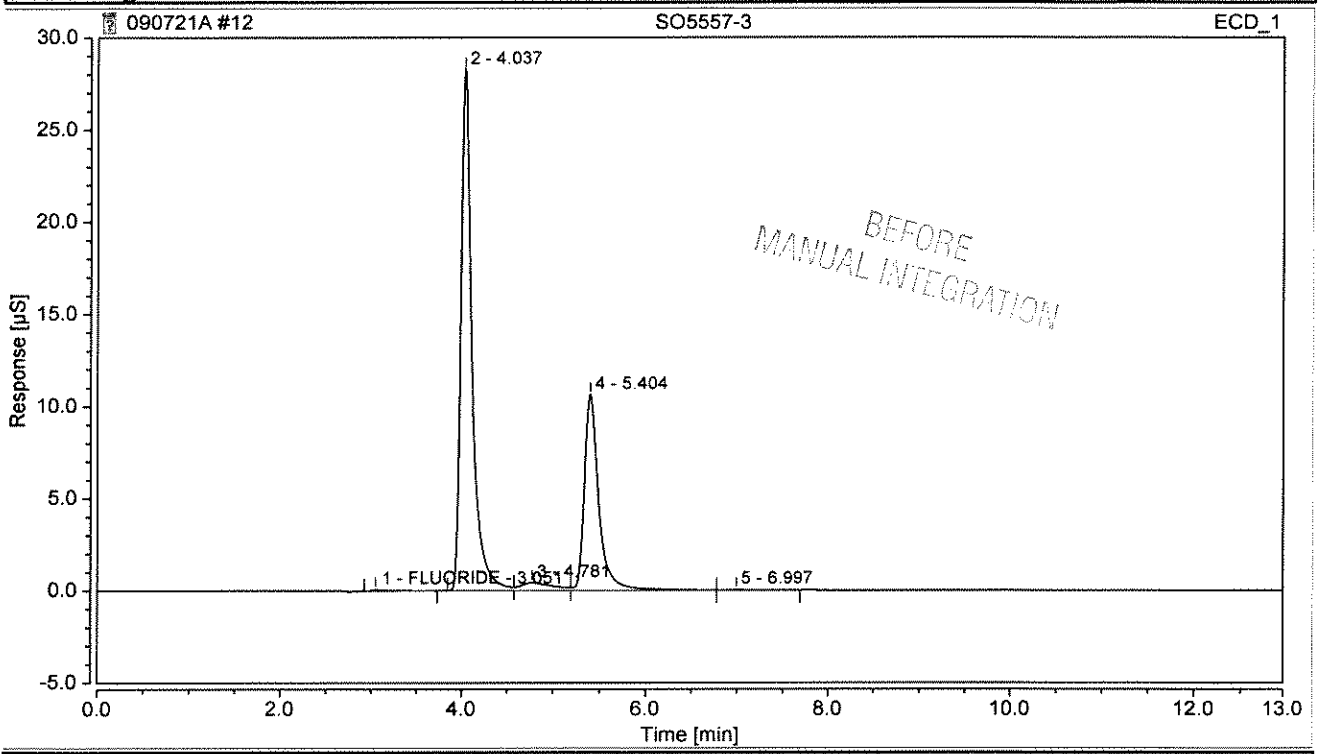
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.002	0.026	0.05	0.10	0.0215	n.a.
3	CHLORIDE	4.031	2.661	18.828	68.35	73.87	46.0023	n.a.
4	NITRITE	4.817	0.083	0.219	2.13	0.86	0.6758	n.a.
5	SULFATE	5.397	1.129	6.342	29.01	24.88	26.4463	n.a.
6	BROMIDE	6.177	0.010	0.035	0.25	0.14	0.2542	n.a.
7	NITRATE	6.987	0.007	0.026	0.17	0.10	0.1882	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.891**	**25.475**	**99.97**	**99.95**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-3**	*Run Time (min):*	**12.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 19:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

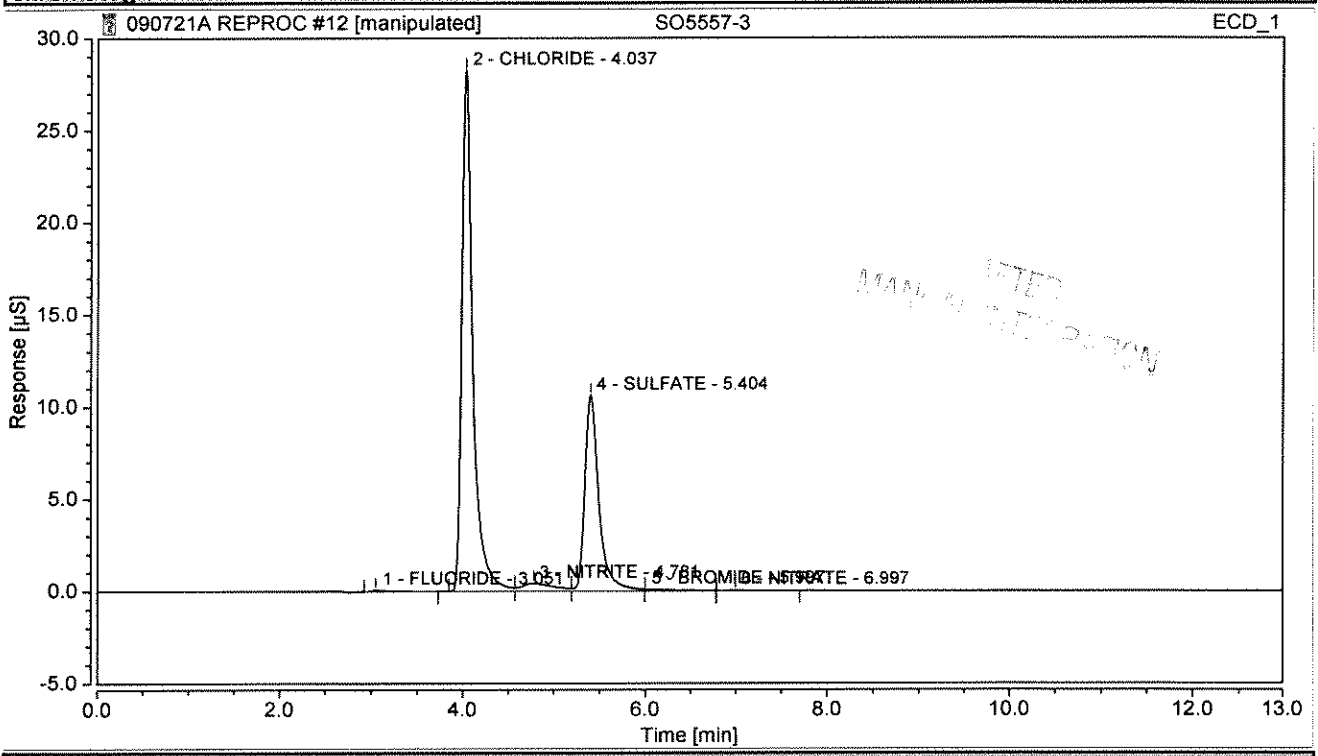
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.019	0.071	0.30	0.18	0.0790	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.019**	**0.071**	**0.30**	**0.18**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5557-3**	*Run Time (min):*	**12.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**07/Sep/21 19:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

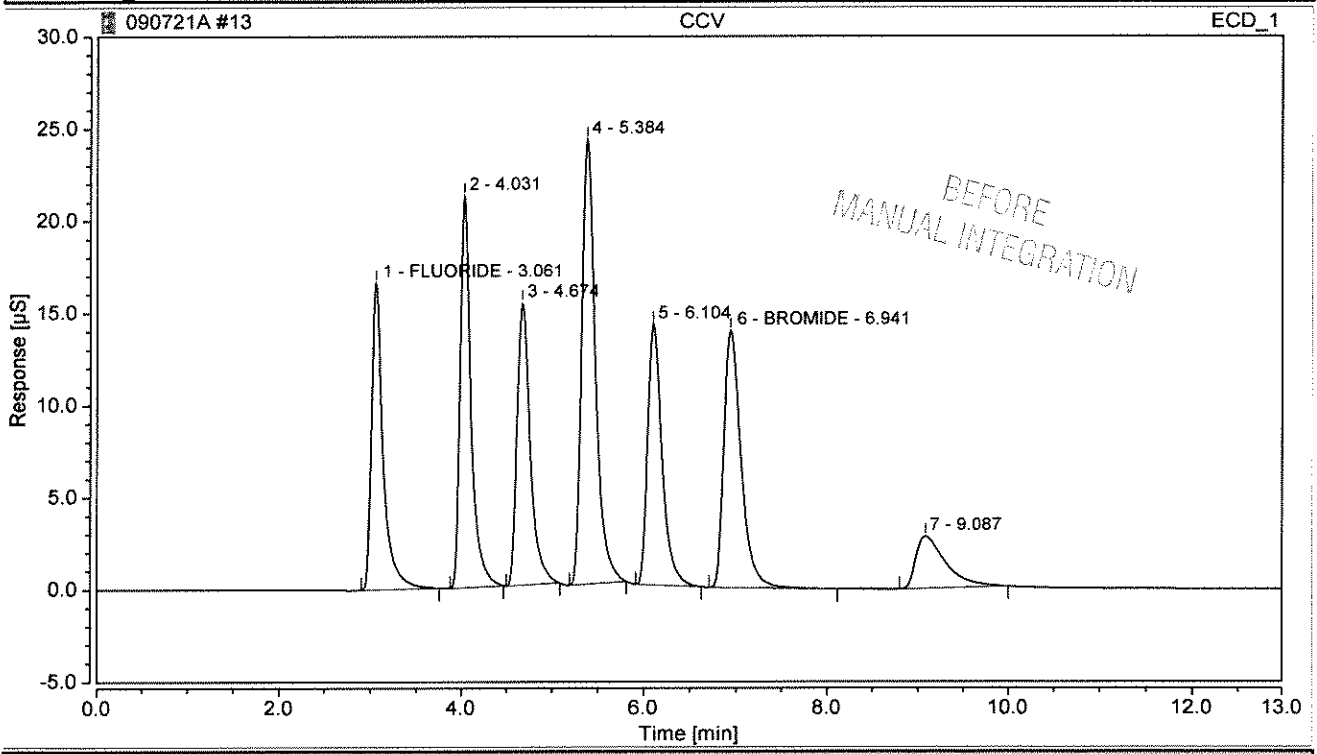
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.019	0.071	0.30	0.18	0.0790	n.a.
2	CHLORIDE	4.037	4.002	28.242	65.28	71.59	27.5865	n.a.
3	NITRITE	4.781	0.170	0.409	2.78	1.04	0.5547	n.a.
4	SULFATE	5.404	1.902	10.612	31.03	26.90	17.8259	n.a.
5	BROMIDE	5.997	0.029	0.089	0.48	0.23	0.2555	n.a.
6	NITRATE	6.997	0.008	0.027	0.13	0.07	0.0794	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.131**	**39.449**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:27**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

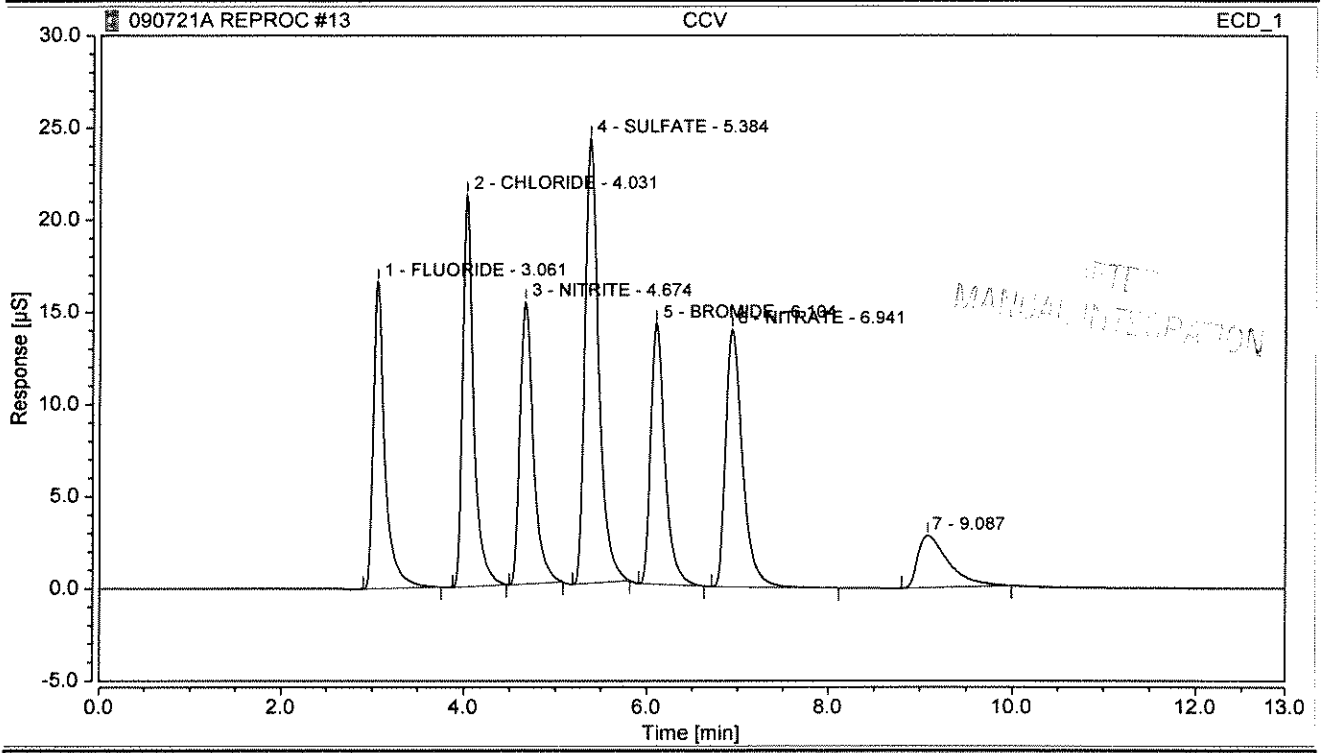
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.469	16.651	13.10	15.37	5.2315	4.6306
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.941	3.006	13.958	15.94	12.89	20.0667	0.3333
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.475**	**30.609**	**29.04**	**28.26**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:27**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

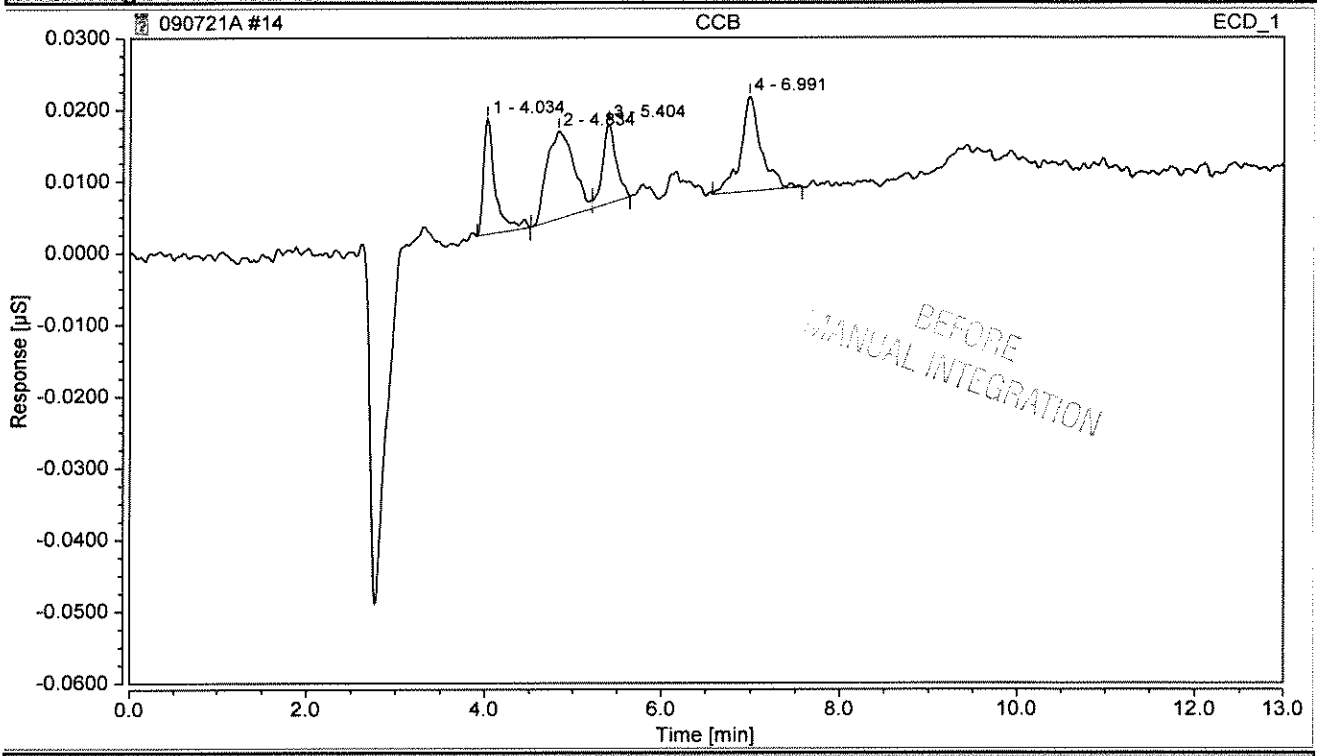
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.469	16.651	13.10	15.37	5.2315	4.6306
2	CHLORIDE	4.031	2.933	21.271	15.56	19.64	10.1334	1.3343
3	NITRITE	4.674	2.574	15.318	13.65	14.14	4.1939	4.8480
4	SULFATE	5.384	4.222	24.137	22.39	22.28	19.7799	-1.1003
5	BROMIDE	6.104	2.570	14.151	13.63	13.07	20.3433	1.7167
6	NITRATE	6.941	3.006	13.958	15.94	12.89	4.0246	0.6140
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.775**	**105.486**	**94.28**	**97.39**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:46**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

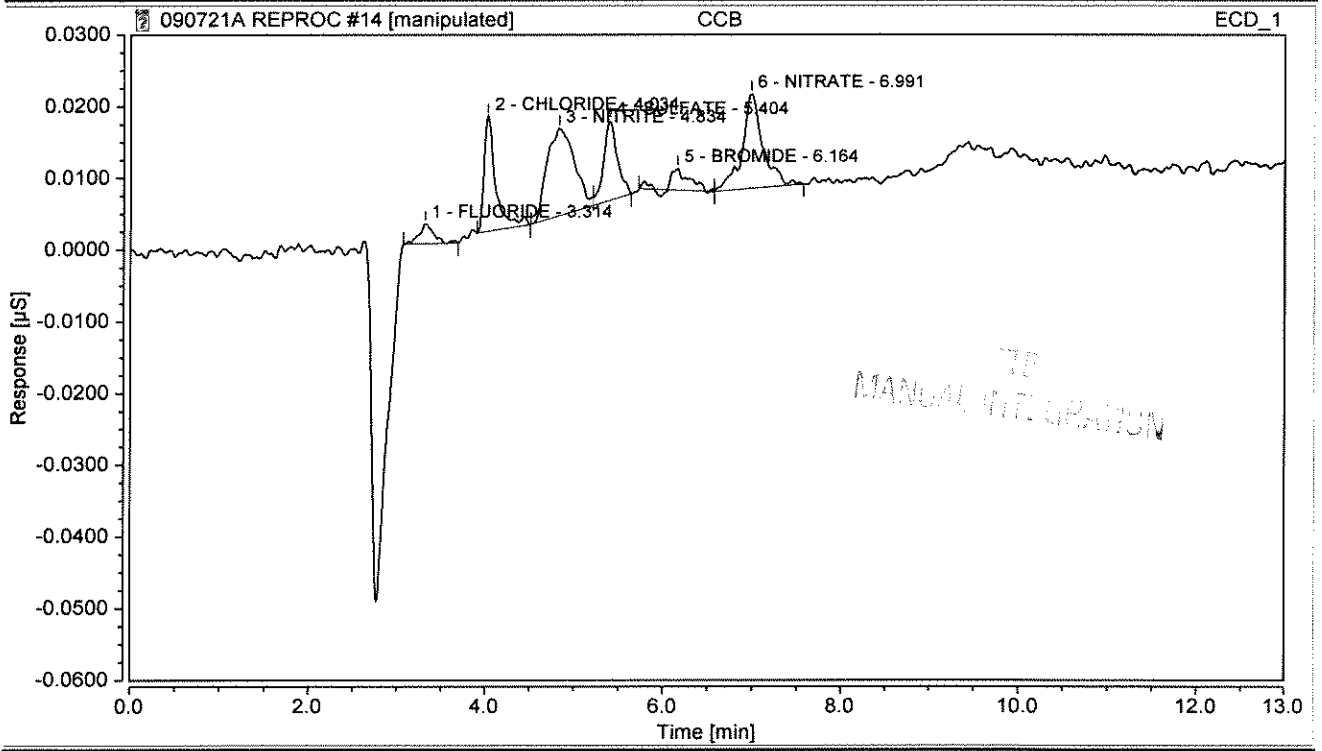
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 19:46**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

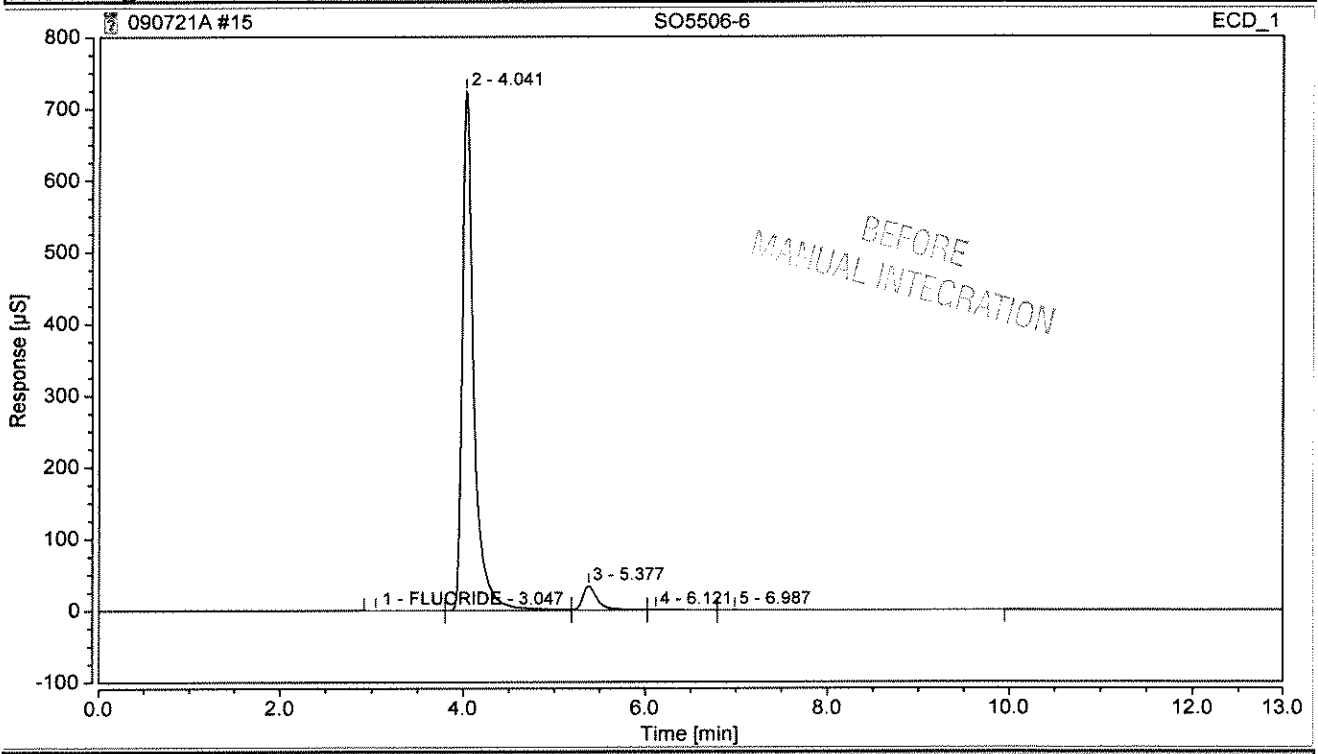
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.314	0.001	0.003	3.99	4.88	0.0012	n.a.
2	CHLORIDE	4.034	0.002	0.016	18.06	27.45	0.0984	n.a.
3	NITRITE	4.834	0.004	0.012	31.95	20.85	0.0071	n.a.
4	SULFATE	5.404	0.002	0.011	14.65	19.02	0.0094	n.a.
5	BROMIDE	6.164	0.001	0.003	5.23	5.25	0.0044	n.a.
6	NITRATE	6.991	0.004	0.013	26.11	22.55	0.0334	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.014**	**0.059**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

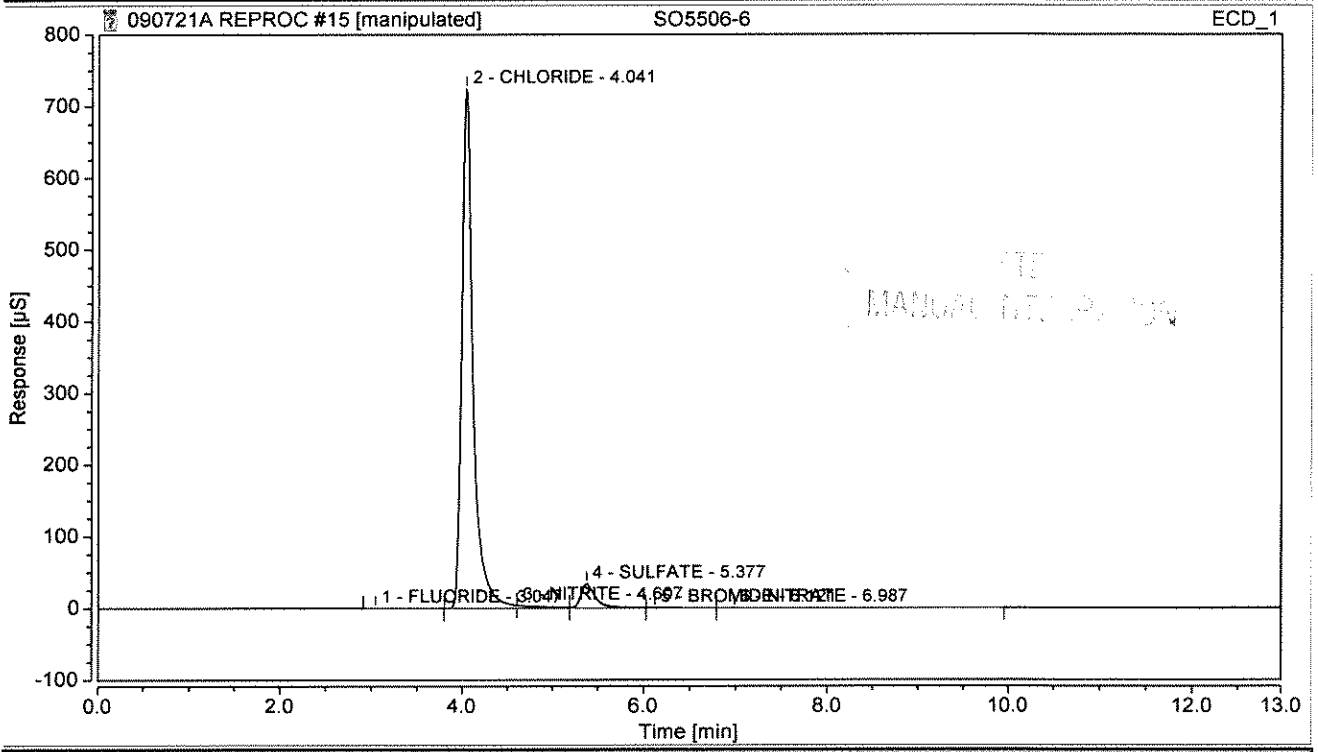
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.034	0.136	0.03	0.02	0.0718	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.034**	**0.136**	**0.03**	**0.02**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

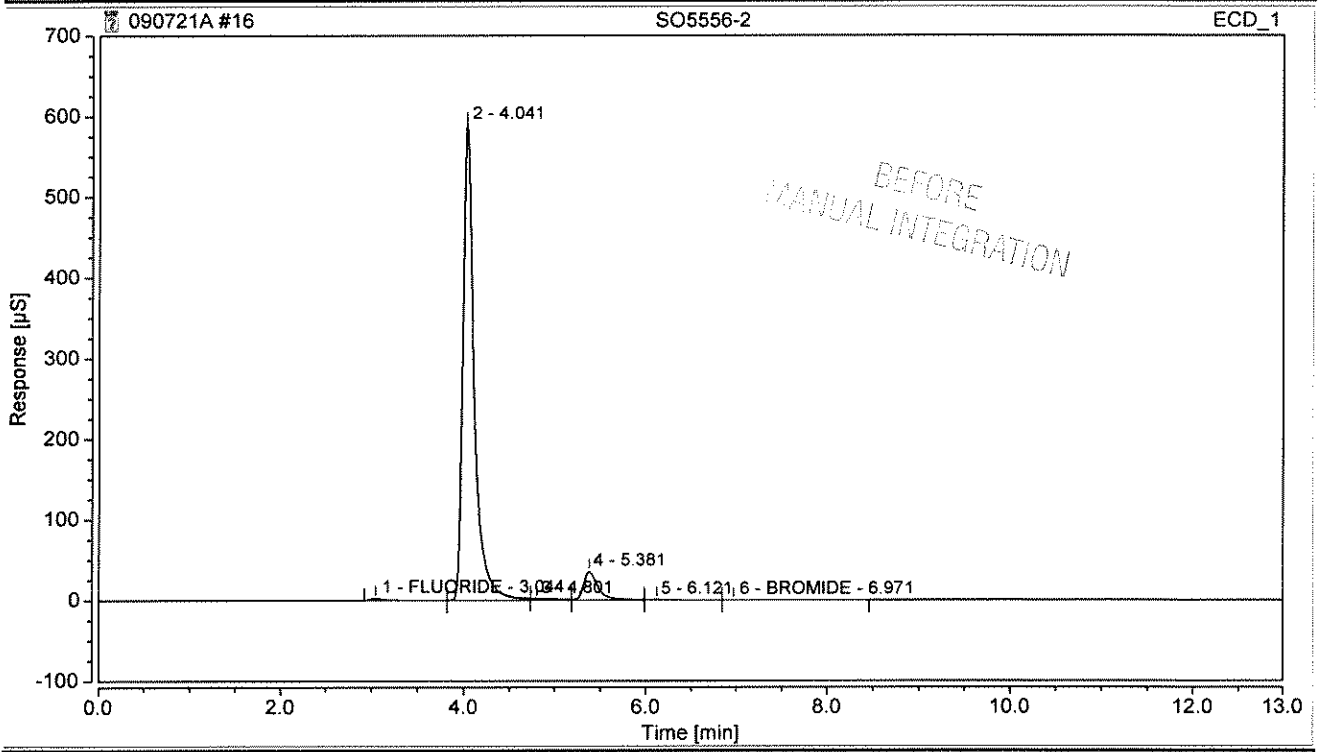
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.034	0.136	0.03	0.02	0.0718	n.a.
2	CHLORIDE	4.041	105.748	724.532	93.25	95.00	362.2040	n.a.
3	NITRITE	4.607	1.068	3.801	0.94	0.50	1.7402	n.a.
4	SULFATE	5.377	6.357	33.775	5.61	4.43	29.7817	n.a.
5	BROMIDE	6.121	0.125	0.302	0.11	0.04	0.4345	n.a.
6	NITRATE	6.987	0.076	0.133	0.07	0.02	0.1297	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**113.407**	**762.680**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.99**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

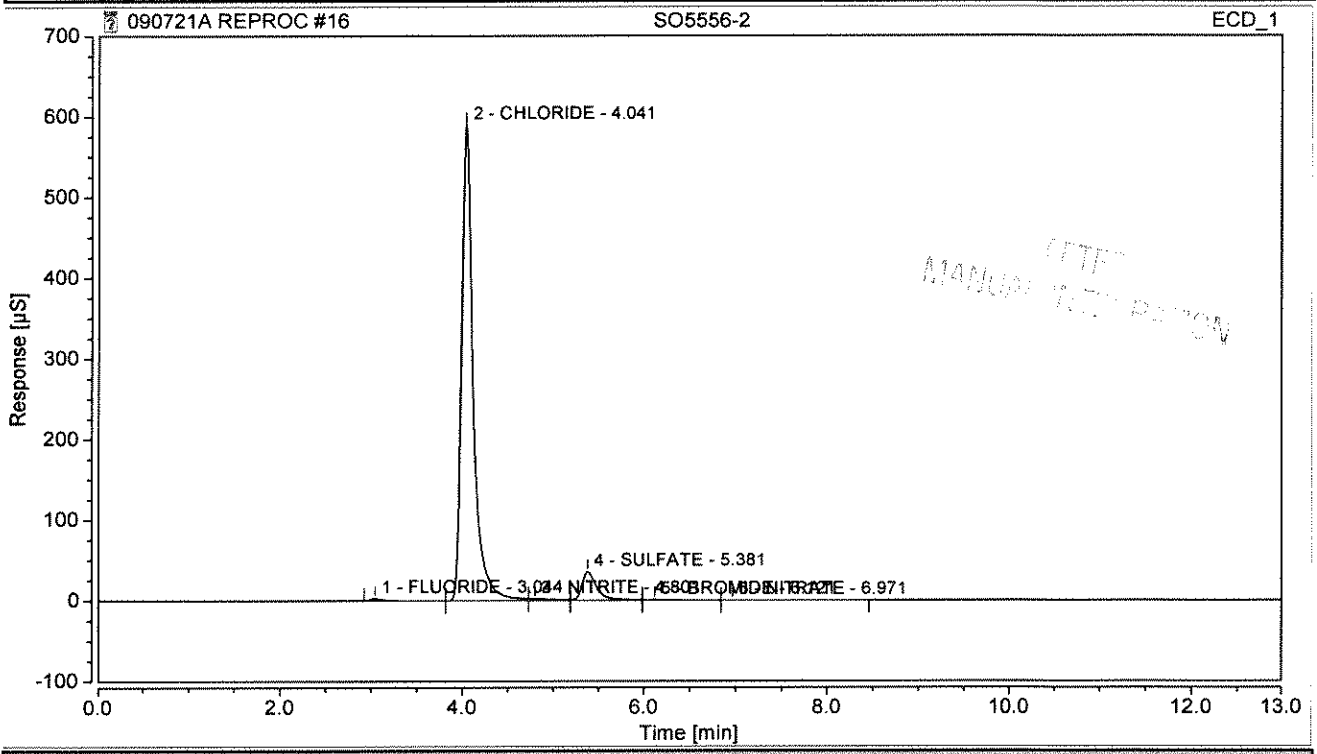
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.044	0.346	2.469	0.37	0.39	0.7330	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.971	0.027	0.048	0.03	0.01	0.0693	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.373**	**2.517**	**0.40**	**0.40**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.99**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:24**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

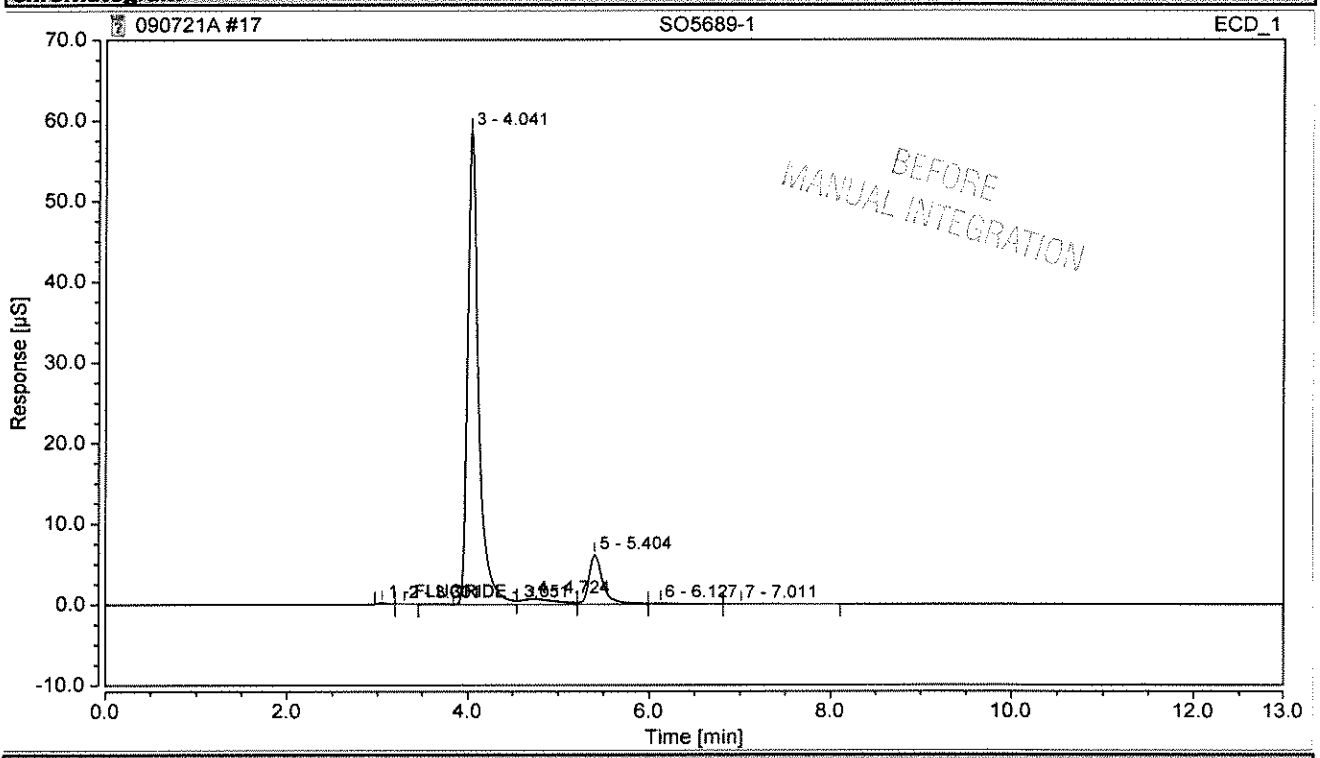
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.044	0.346	2.469	0.37	0.39	0.7330	n.a.
2	CHLORIDE	4.041	85.928	589.835	91.82	93.61	294.3357	n.a.
3	NITRITE	4.801	0.560	1.789	0.60	0.28	0.9116	n.a.
4	SULFATE	5.381	6.561	35.390	7.01	5.62	30.7370	n.a.
5	BROMIDE	6.121	0.165	0.543	0.18	0.09	0.7813	n.a.
6	NITRATE	6.971	0.027	0.048	0.03	0.01	0.0642	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**93.586**	**630.074**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1**	*Run Time (min):*	**12.99**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

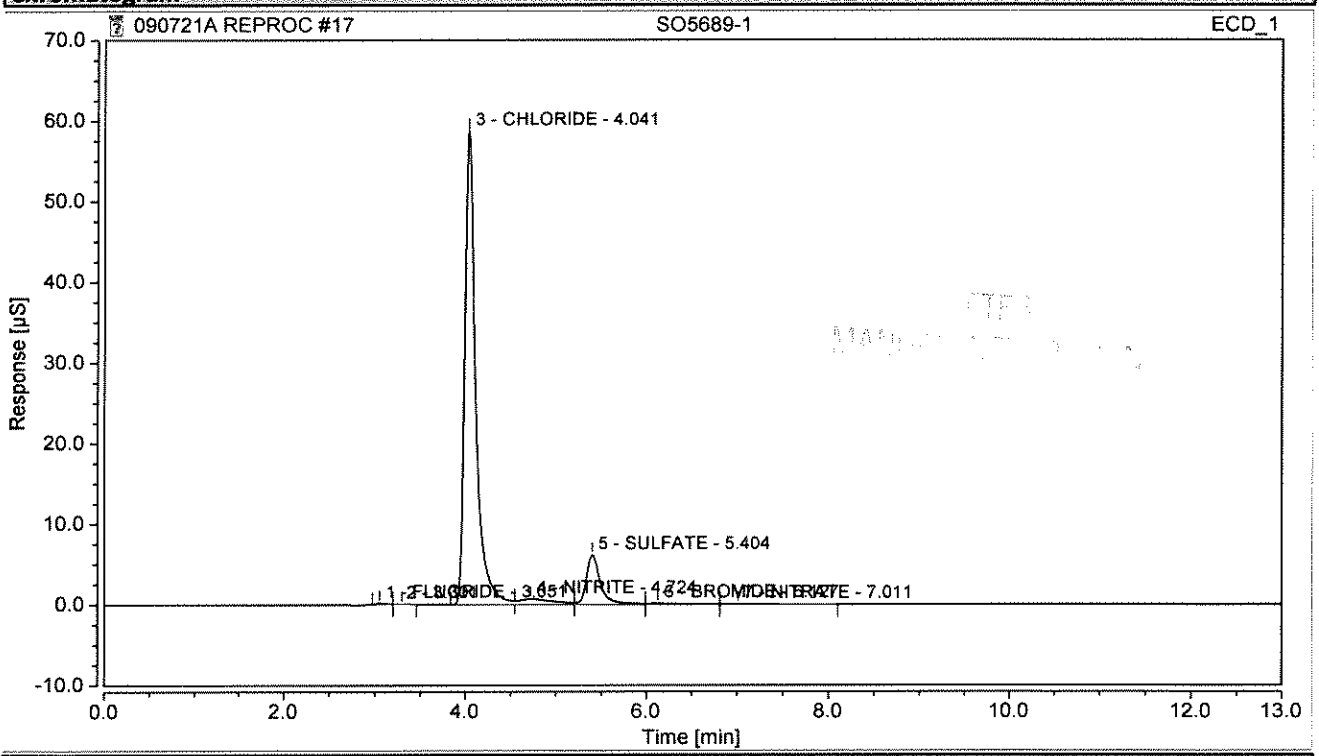
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.015	0.139	0.15	0.21	0.0312	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.015**	**0.139**	**0.15**	**0.21**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1**	*Run Time (min):*	**12.99**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 20:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

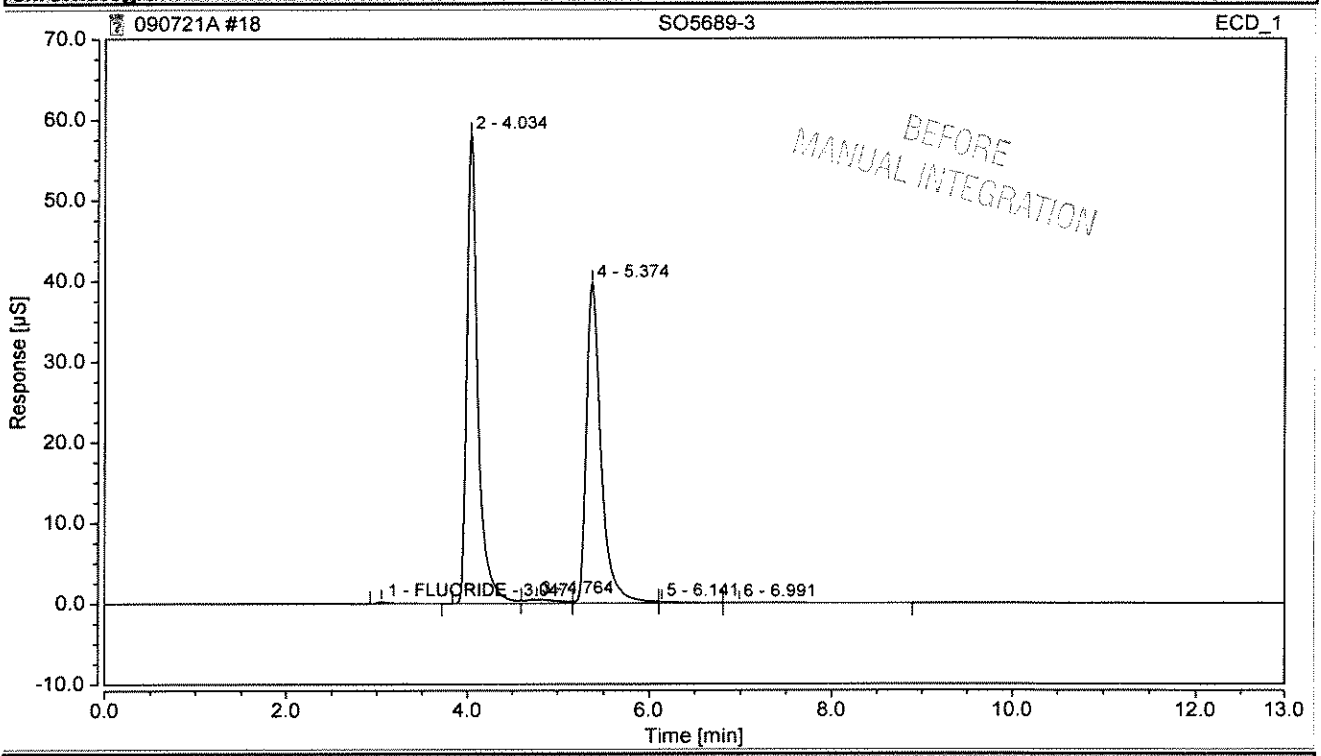
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.015	0.139	0.15	0.21	0.0312	n.a.
3	CHLORIDE	4.041	8.382	58.714	85.21	89.24	28.7913	n.a.
4	NITRITE	4.724	0.297	0.663	3.02	1.01	0.4841	n.a.
5	SULFATE	5.404	1.095	6.136	11.13	9.33	5.1282	n.a.
6	BROMIDE	6.127	0.038	0.108	0.39	0.16	0.1553	n.a.
7	NITRATE	7.011	0.010	0.022	0.10	0.03	0.0417	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**9.836**	**65.783**	**99.99**	**99.98**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-3**	*Run Time (min):*	**12.98**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:01**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

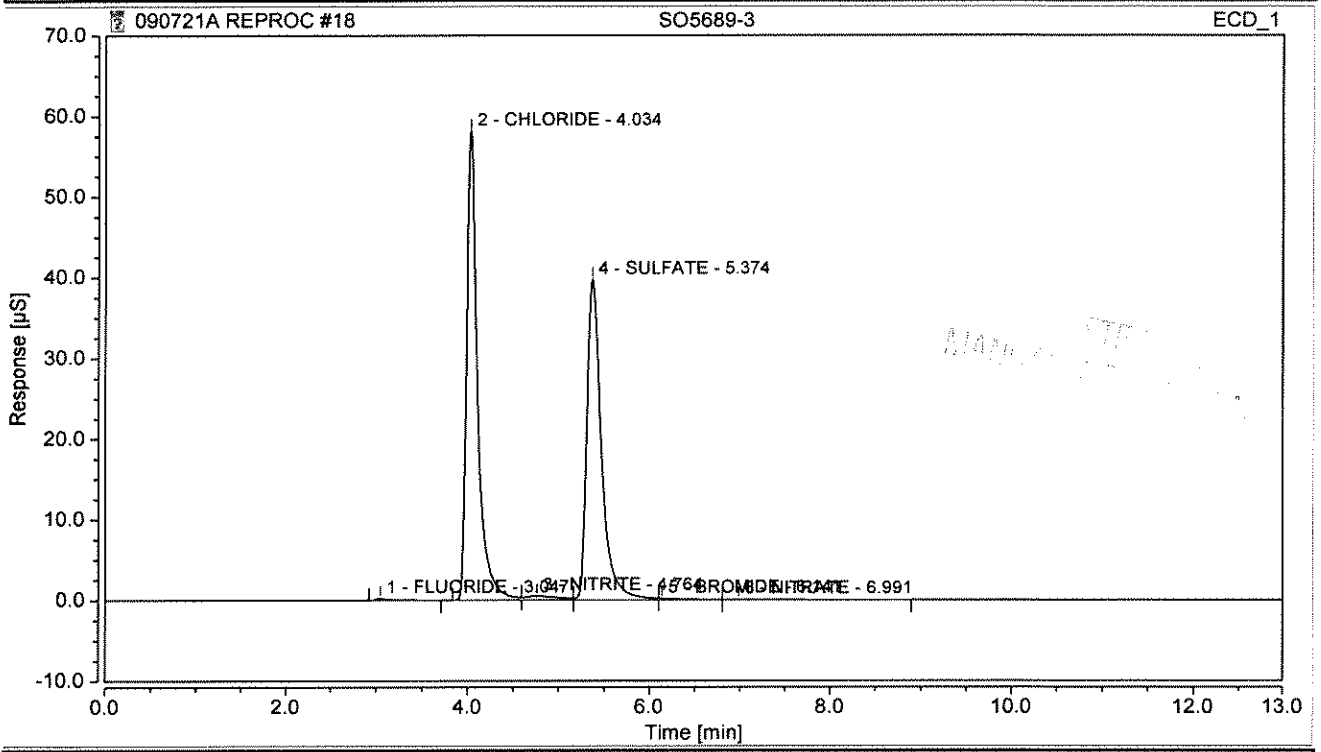
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.041	0.218	0.26	0.22	0.0872	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.041**	**0.218**	**0.26**	**0.22**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-3**	*Run Time (min):*	**12.98**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:01**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

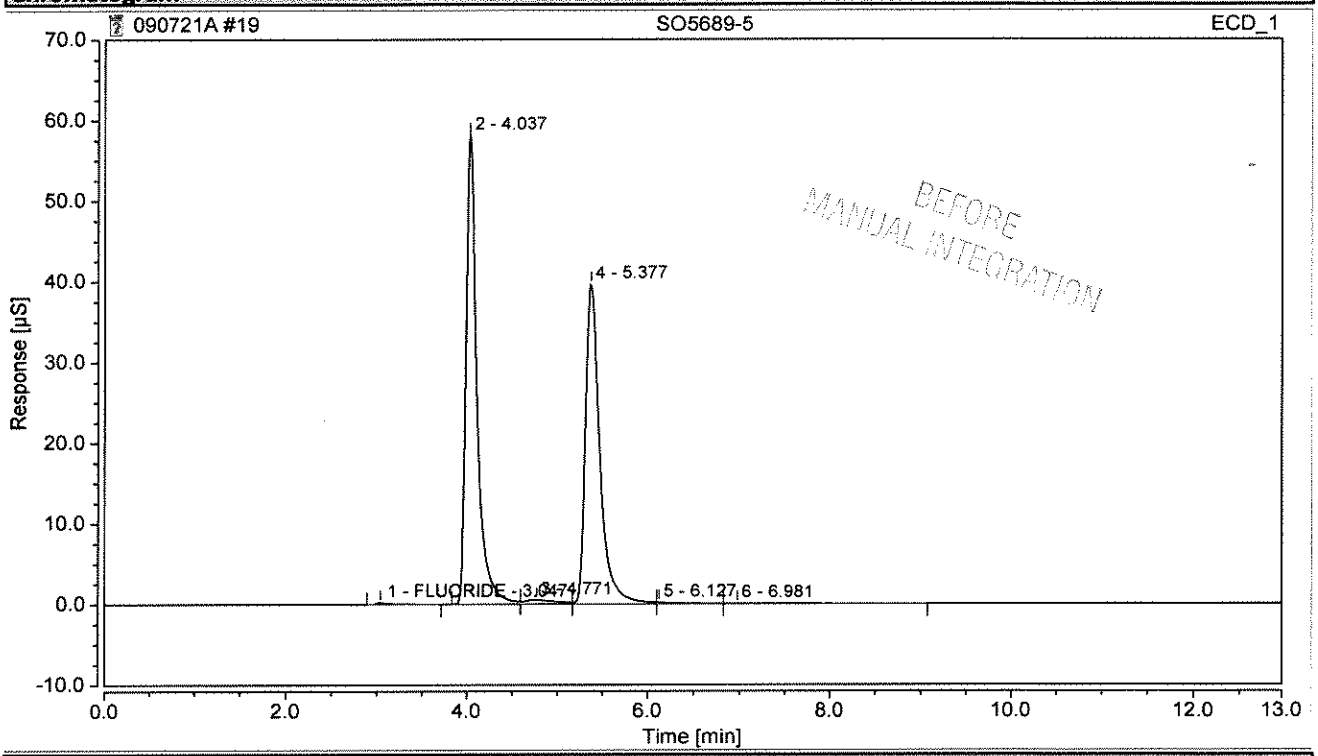
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.041	0.218	0.26	0.22	0.0872	n.a.
2	CHLORIDE	4.034	8.251	58.121	51.80	58.87	28.3455	n.a.
3	NITRITE	4.764	0.197	0.483	1.24	0.49	0.3211	n.a.
4	SULFATE	5.374	7.364	39.710	46.23	40.22	34.4998	n.a.
5	BROMIDE	6.141	0.052	0.161	0.33	0.16	0.2322	n.a.
6	NITRATE	6.991	0.024	0.042	0.15	0.04	0.0605	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.929**	**98.736**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-5**	*Run Time (min):*	**12.97**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:20**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

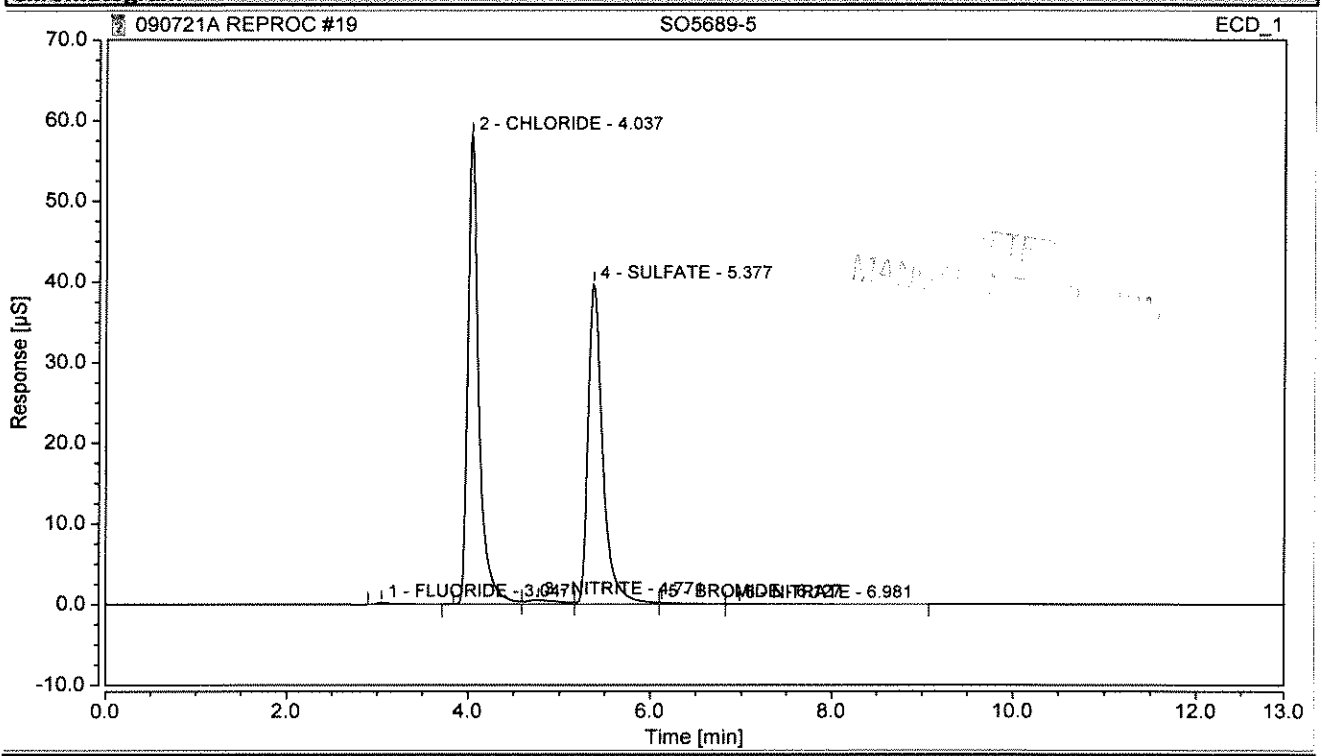
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.042	0.221	0.26	0.22	0.0884	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.042**	**0.221**	**0.26**	**0.22**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-5**	*Run Time (min):*	**12.97**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:20**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

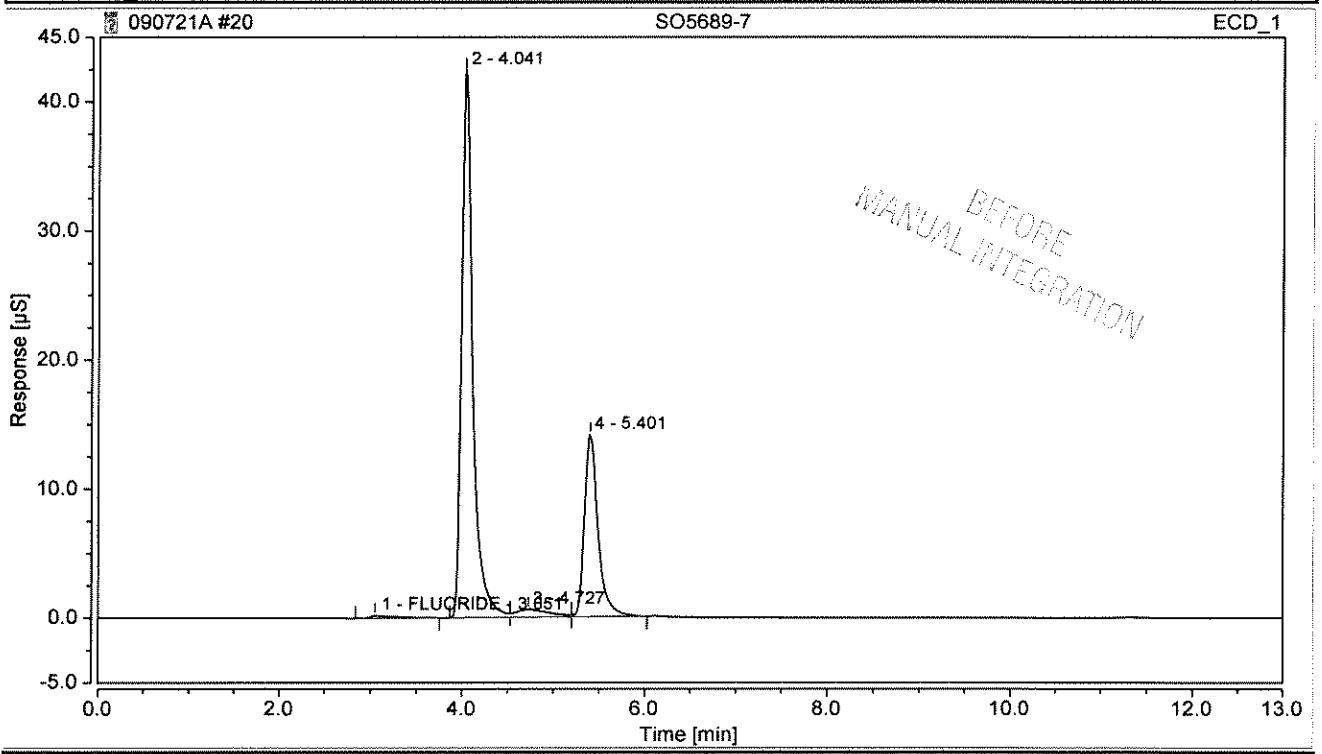
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.042	0.221	0.26	0.22	0.0884	n.a.
2	CHLORIDE	4.037	8.241	58.147	51.75	58.90	28.3115	n.a.
3	NITRITE	4.771	0.198	0.486	1.25	0.49	0.3230	n.a.
4	SULFATE	5.377	7.362	39.661	46.23	40.17	34.4927	n.a.
5	BROMIDE	6.127	0.056	0.172	0.35	0.17	0.2468	n.a.
6	NITRATE	6.981	0.024	0.038	0.15	0.04	0.0611	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**15.925**	**98.724**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-7**	*Run Time (min):*	**12.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

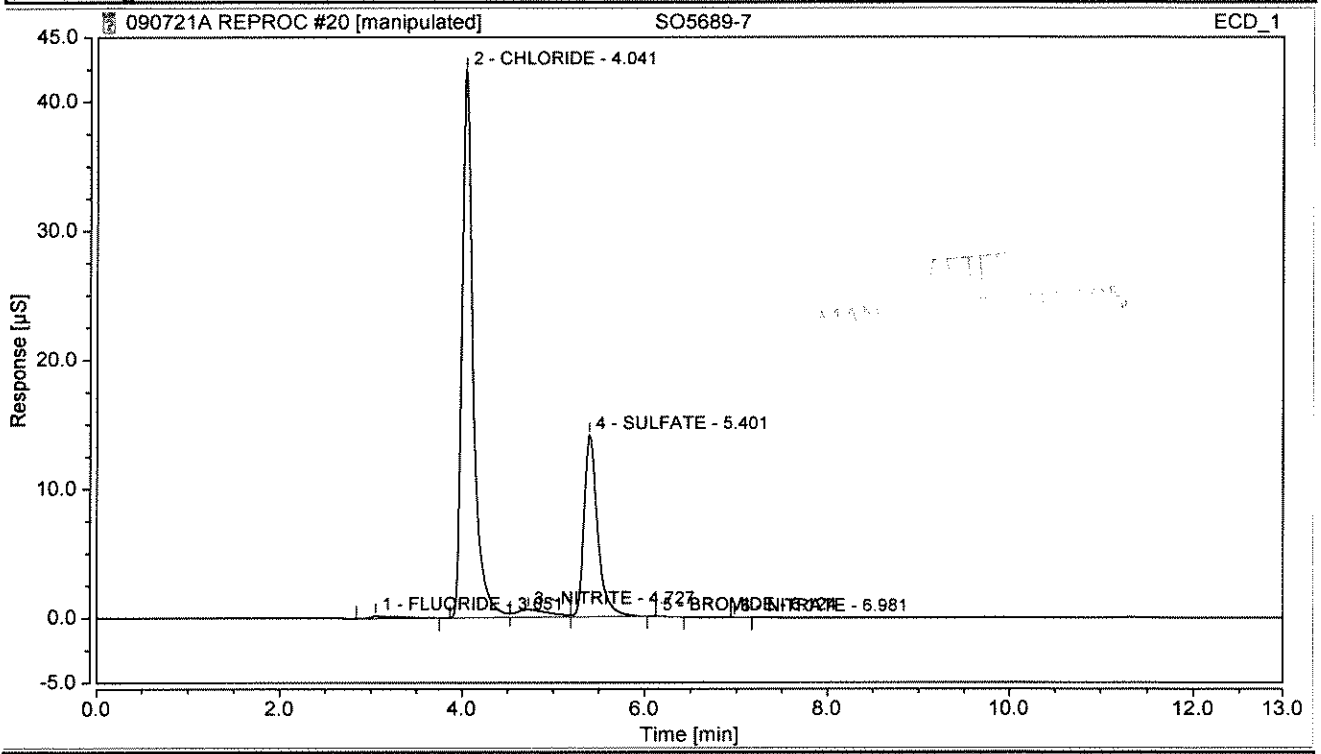
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.064	0.203	0.73	0.35	0.1353	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.064**	**0.203**	**0.73**	**0.35**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-7**	*Run Time (min):*	**12.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

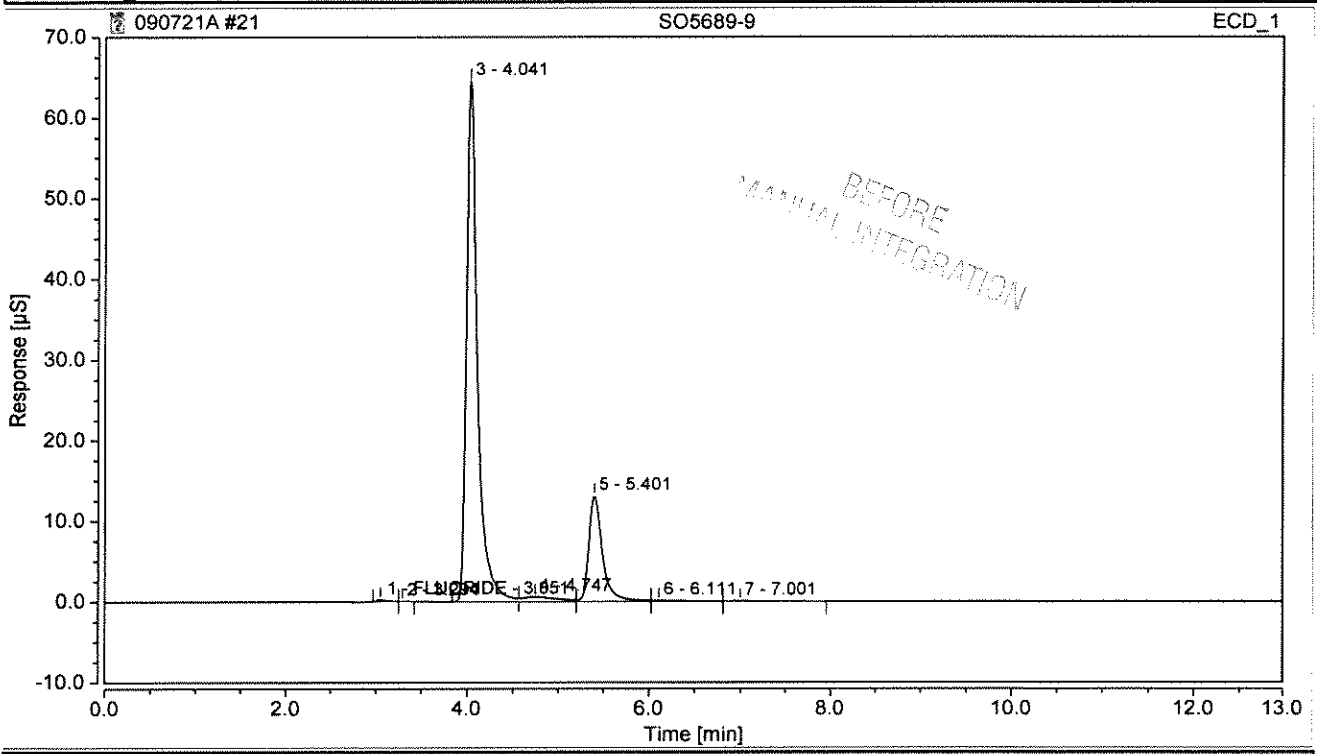
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.064	0.203	0.73	0.35	0.1353	n.a.
2	CHLORIDE	4.041	6.029	42.416	68.54	74.01	20.7343	n.a.
3	NITRITE	4.727	0.250	0.586	2.85	1.02	0.4080	n.a.
4	SULFATE	5.401	2.450	14.104	27.85	24.61	11.4775	n.a.
5	BROMIDE	6.124	0.002	0.000	0.02	0.00	0.0000	n.a.
6	NITRATE	6.981	0.001	0.005	0.01	0.01	0.0298	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.796**	**57.314**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-9**	*Run Time (min):*	**12.98**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

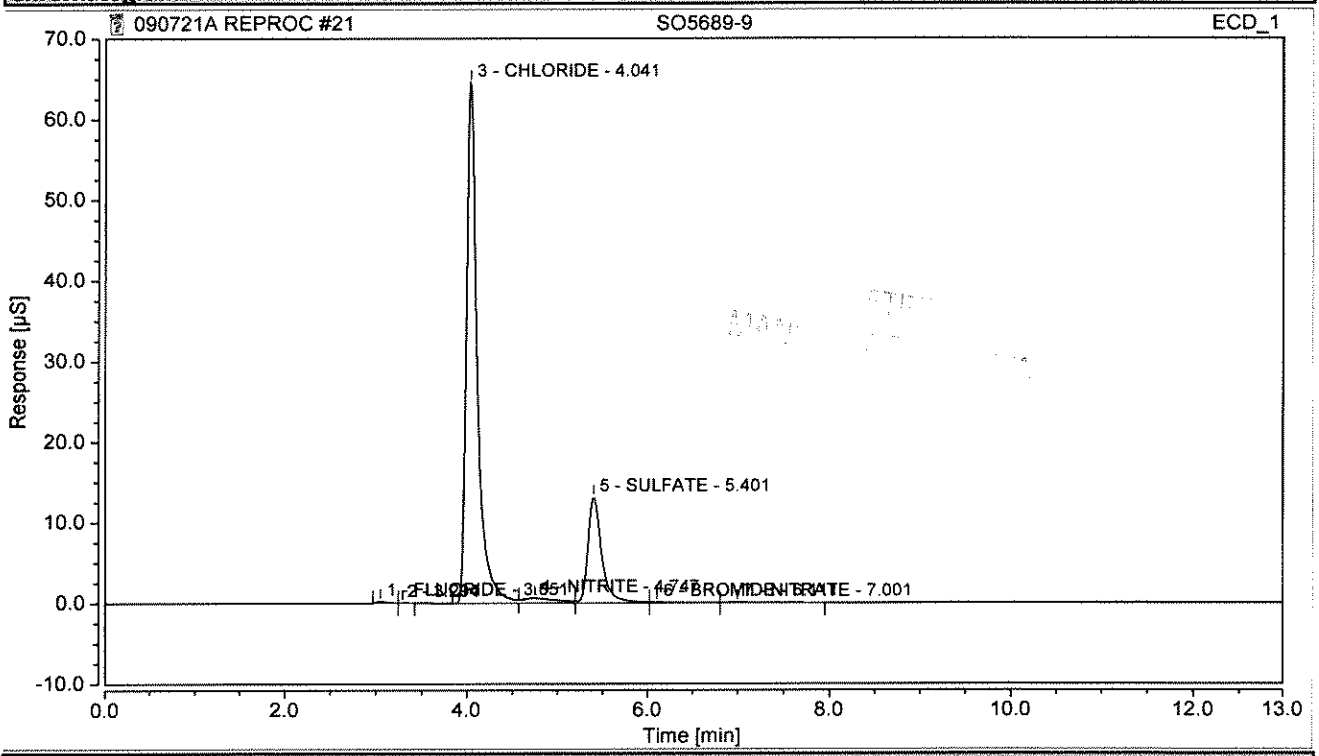
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.024	0.208	0.21	0.26	0.0516	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.024**	**0.208**	**0.21**	**0.26**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-9**	*Run Time (min):*	**12.98**
Vial Number:	**21**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 21:58**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

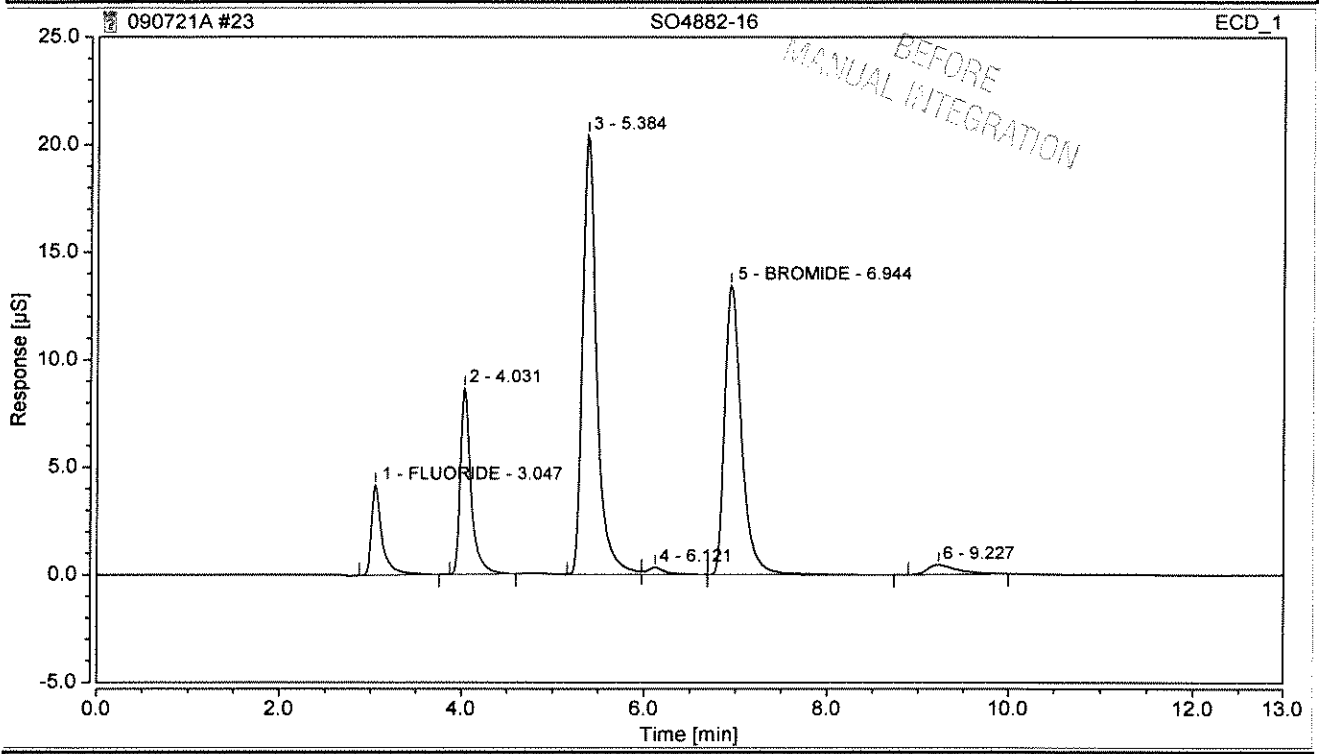
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.024	0.208	0.21	0.26	0.0516	n.a.
3	CHLORIDE	4.041	9.123	64.546	77.38	82.06	31.3293	n.a.
4	NITRITE	4.747	0.255	0.592	2.17	0.75	0.4162	n.a.
5	SULFATE	5.401	2.325	13.115	19.72	16.67	10.8944	n.a.
6	BROMIDE	6.111	0.039	0.099	0.33	0.13	0.1430	n.a.
7	NITRATE	7.001	0.022	0.078	0.18	0.10	0.0574	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.788**	**78.637**	**99.99**	**99.98**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.99**
Vial Number:	**23**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**07/Sep/21 22:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

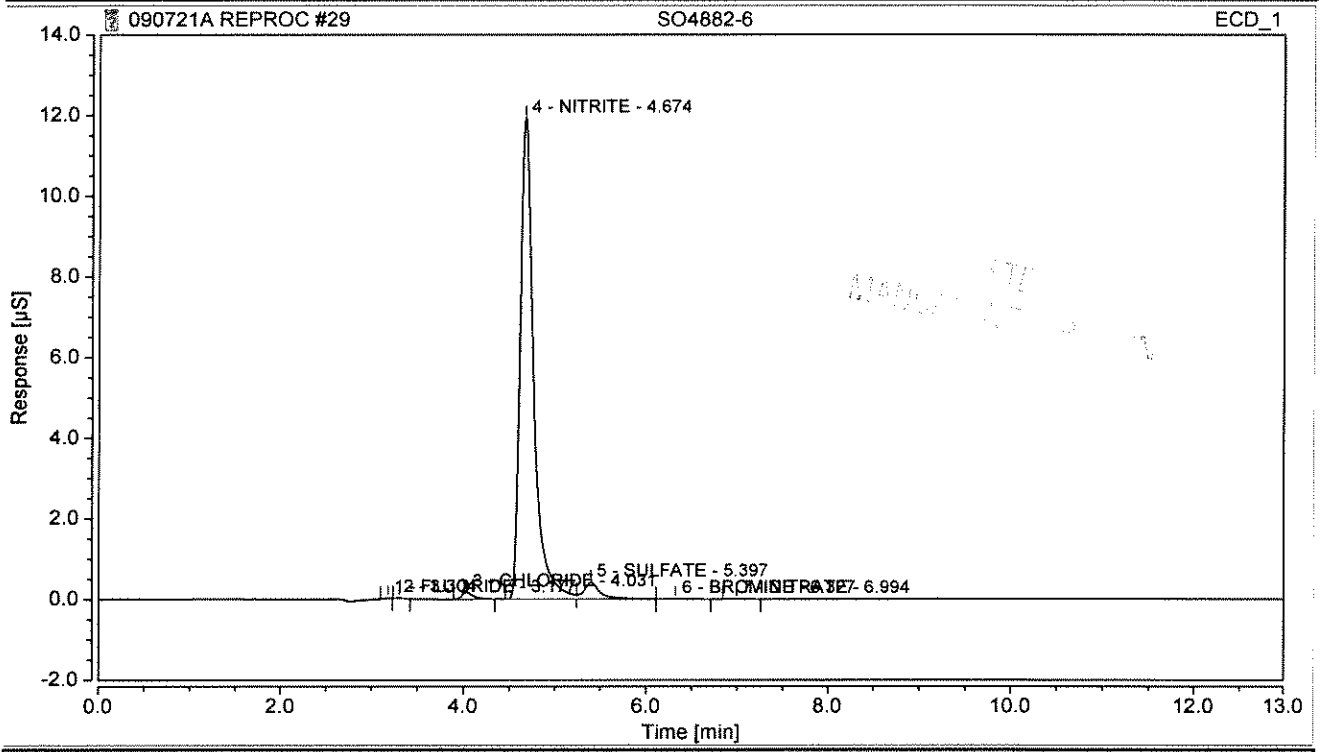
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.577	4.190	6.70	8.82	12.2186	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	BROMIDE	6.944	2.924	13.445	33.96	28.30	193.2900	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.501**	**17.635**	**40.66**	**37.11**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**29**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**08/Sep/21 00:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

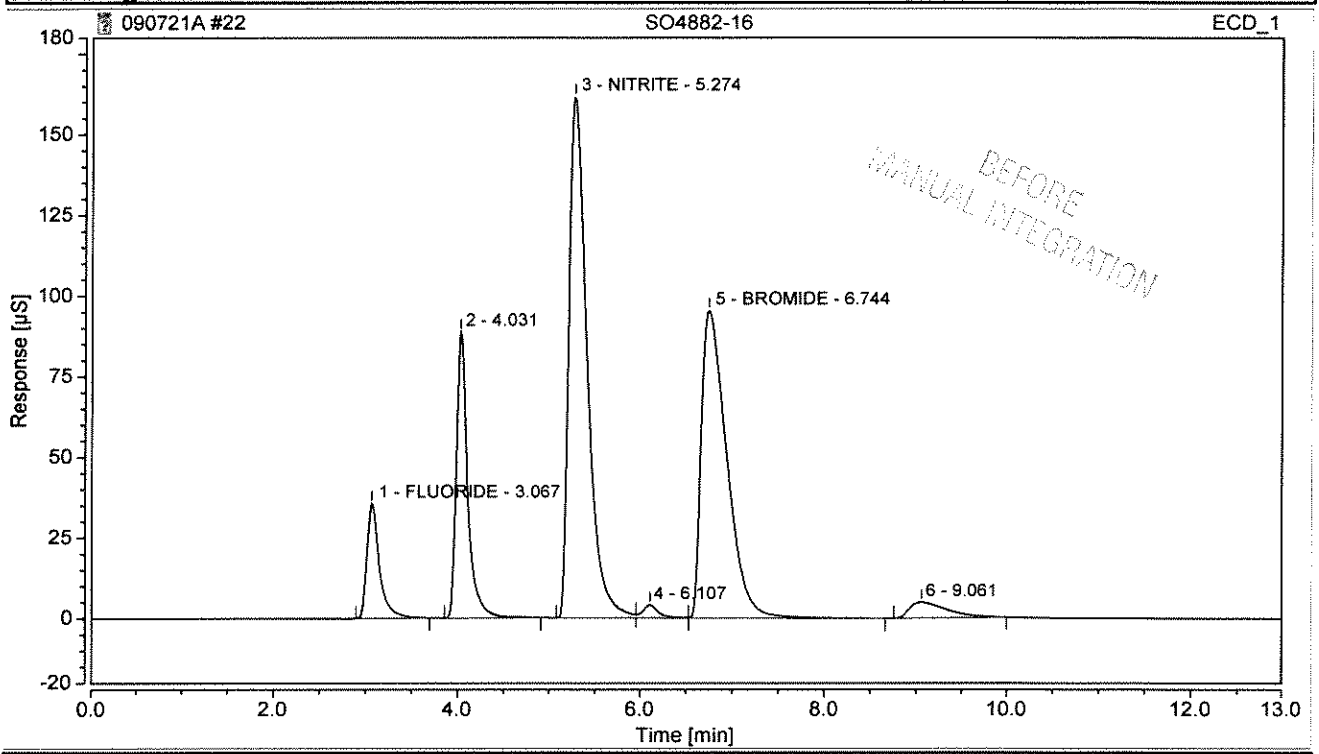
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	0.001	0.013	0.05	0.10	0.0227	n.a.
3	CHLORIDE	4.031	0.024	0.174	1.11	1.38	1.7187	n.a.
4	NITRITE	4.674	2.040	11.925	94.53	94.93	33.2412	n.a.
5	SULFATE	5.397	0.088	0.416	4.07	3.31	4.1143	n.a.
6	BROMIDE	6.327	0.002	0.008	0.09	0.07	0.1187	n.a.
7	NITRATE	6.994	0.002	0.009	0.08	0.07	0.3091	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.157**	**12.544**	**99.93**	**99.86**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.98**
Vial Number:	**22**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

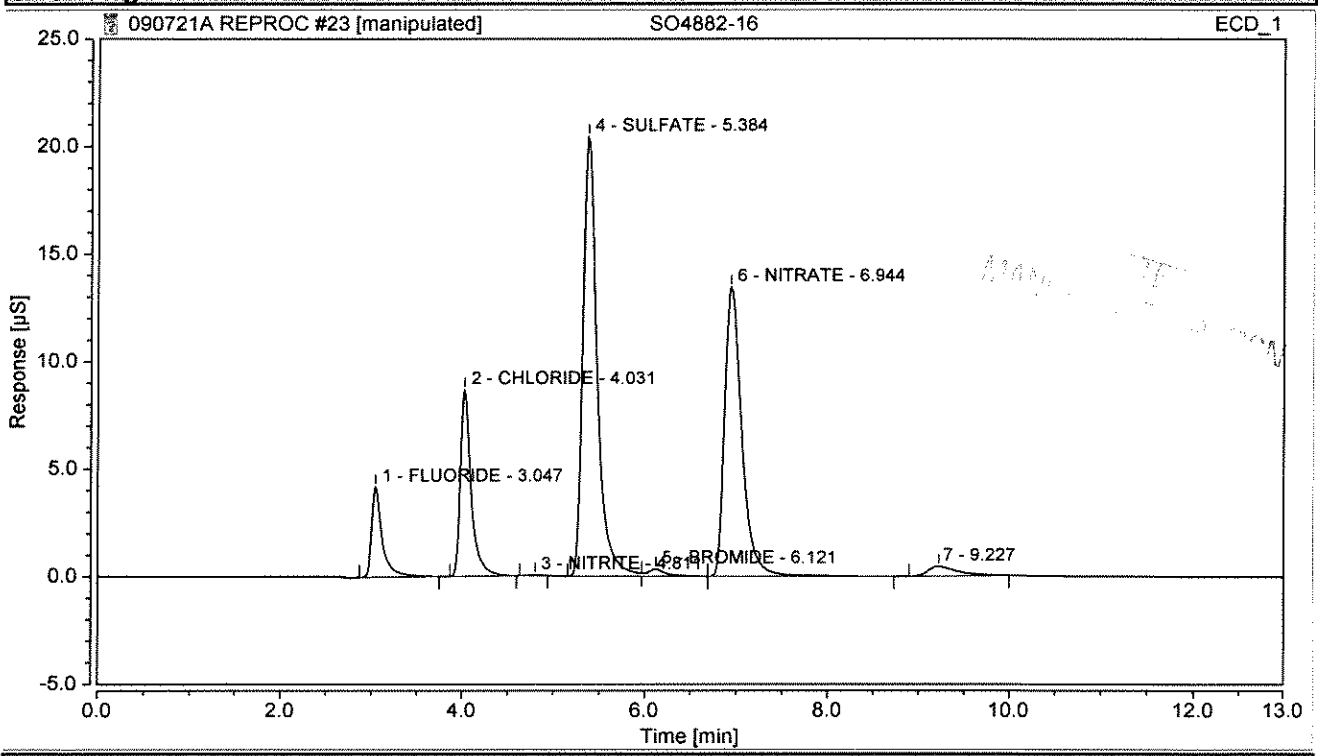
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	5.612	35.640	6.30	9.13	11.8905	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	NITRITE	5.274	37.236	161.612	41.81	41.40	60.6619	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	BROMIDE	6.744	30.453	95.366	34.19	24.43	137.0987	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**73.300**	**292.618**	**82.30**	**74.97**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.99**
Vial Number:	**23**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**07/Sep/21 22:35**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

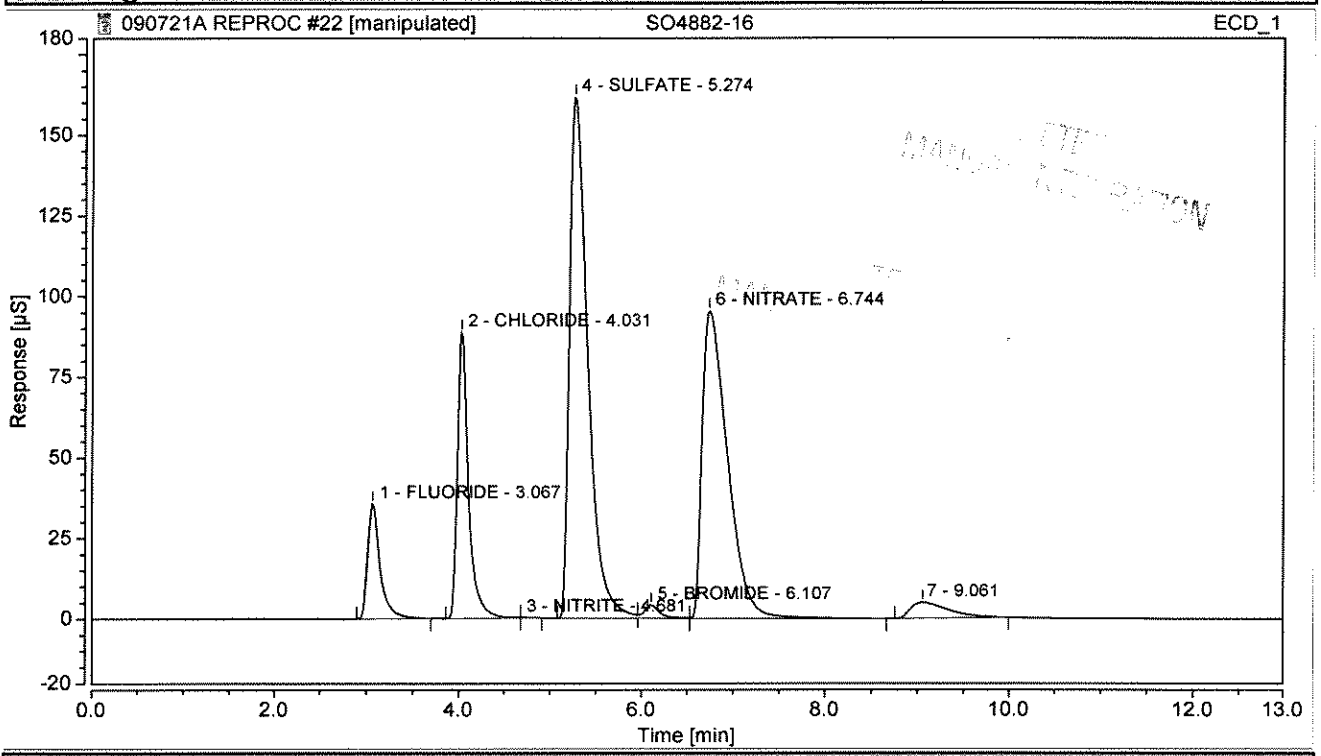
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.047	0.577	4.190	6.69	8.81	12.2186	n.a.
2	CHLORIDE	4.031	1.200	8.665	13.92	18.23	41.9750	n.a.
3	NITRITE	4.811	0.005	0.025	0.05	0.05	0.0735	n.a.
4	SULFATE	5.384	3.663	20.436	42.51	42.99	171.6054	n.a.
5	BROMIDE	6.121	0.076	0.336	0.88	0.71	4.8242	n.a.
6	NITRATE	6.944	2.924	13.445	33.94	28.28	39.1592	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.444**	**47.097**	**98.01**	**99.07**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-16**	*Run Time (min):*	**12.98**
Vial Number:	**22**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:17**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

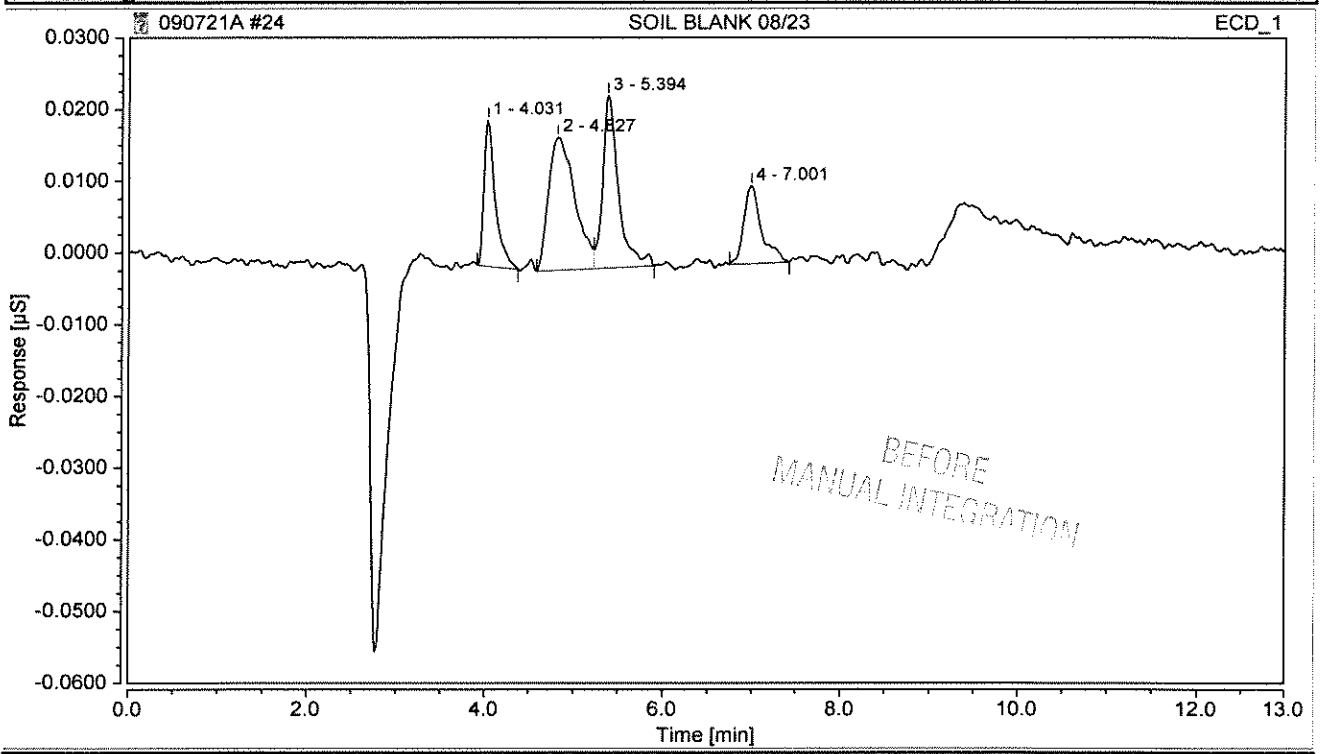
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	5.612	35.640	6.30	9.13	11.8905	n.a.
2	CHLORIDE	4.031	12.594	88.730	14.14	22.72	43.2151	n.a.
3	NITRITE	4.681	0.026	0.187	0.03	0.05	0.0417	n.a.
4	SULFATE	5.274	37.236	161.612	41.81	41.38	174.4508	n.a.
5	BROMIDE	6.107	0.820	4.111	0.92	1.05	5.9103	n.a.
6	NITRATE	6.744	30.453	95.366	34.19	24.42	40.5090	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**86.739**	**385.646**	**97.39**	**98.75**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 08/23**	*Run Time (min):*	**12.98**
Vial Number:	**24**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

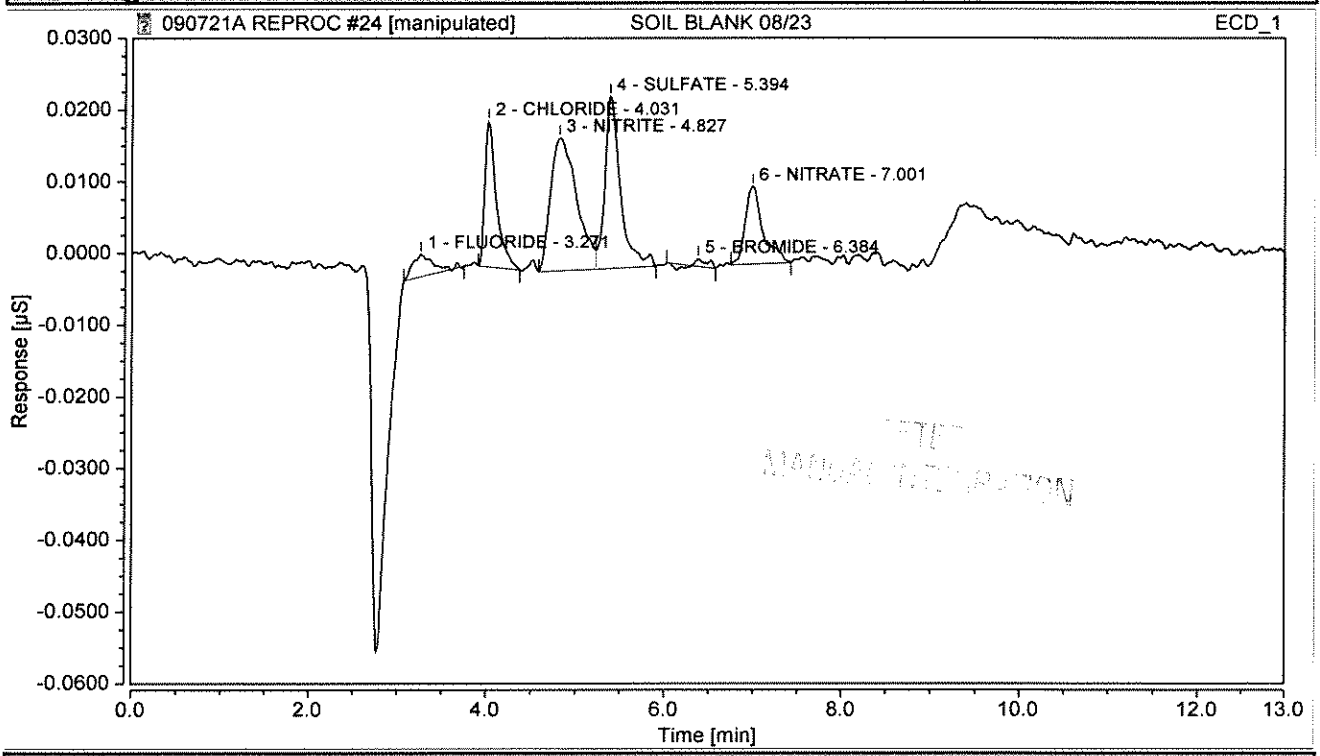
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 08/23**	*Run Time (min):*	**12.98**
Vial Number:	**24**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 22:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

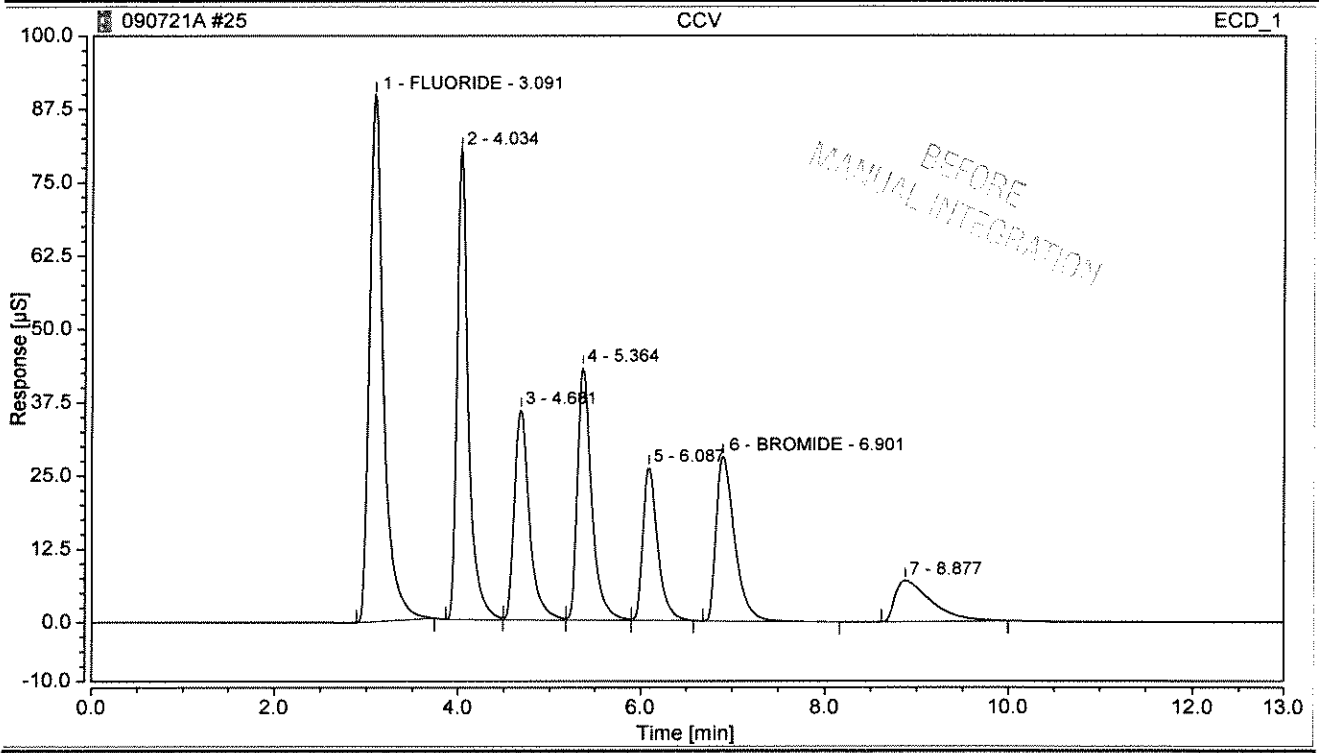
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.271	0.001	0.003	4.62	4.05	0.0017	n.a.
2	CHLORIDE	4.031	0.003	0.020	17.26	26.14	0.1004	n.a.
3	NITRITE	4.827	0.006	0.019	35.73	23.78	0.0103	n.a.
4	SULFATE	5.394	0.005	0.024	27.58	30.78	0.0229	n.a.
5	BROMIDE	6.384	0.000	0.001	0.48	1.36	0.0015	n.a.
6	NITRATE	7.001	0.003	0.011	14.33	13.89	0.0321	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.018**	**0.078**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**25**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:13**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

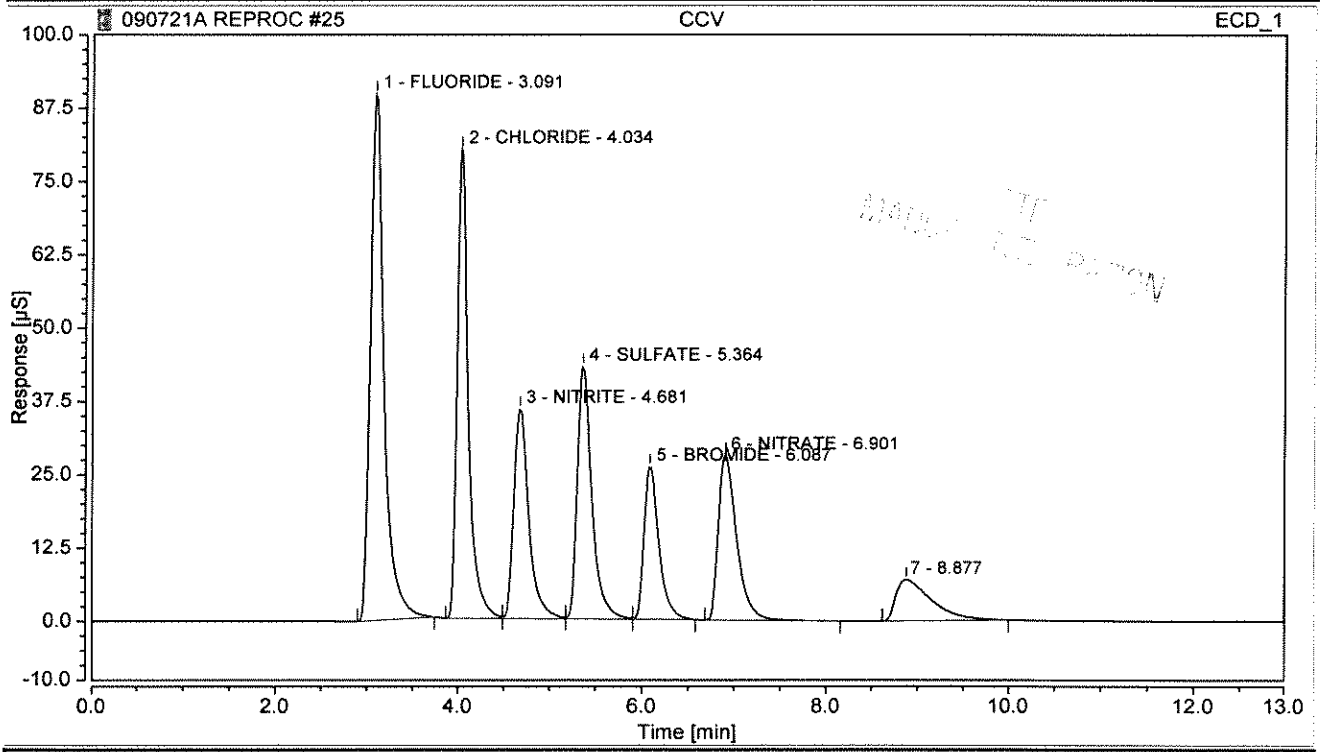
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.091	15.704	89.794	27.91	28.98	33.2753	565.5052
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.901	6.554	28.136	11.65	9.08	40.4488	102.2440
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**22.258**	**117.930**	**39.55**	**38.06**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**25**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:13**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

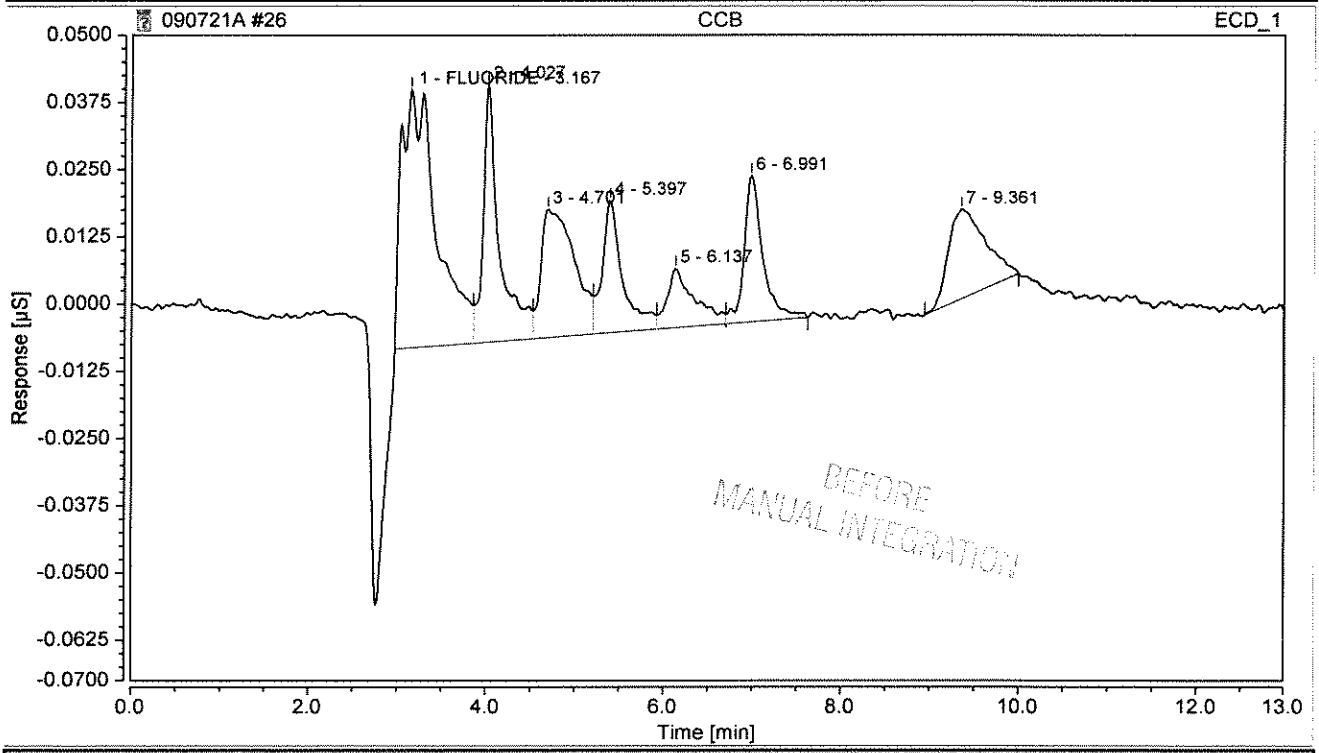
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.091	15.704	89.794	27.91	28.98	33.2753	565.5052
2	CHLORIDE	4.034	11.221	79.977	19.94	25.81	38.5128	285.1276
3	NITRITE	4.681	6.861	35.784	12.19	11.55	11.1773	179.4329
4	SULFATE	5.364	7.870	43.079	13.99	13.90	36.8727	84.3634
5	BROMIDE	6.087	4.891	26.050	8.69	8.41	37.4499	87.2495
6	NITRATE	6.901	6.554	28.136	11.65	9.08	8.7404	118.5104
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**53.100**	**302.820**	**94.36**	**97.73**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**26**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:32**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

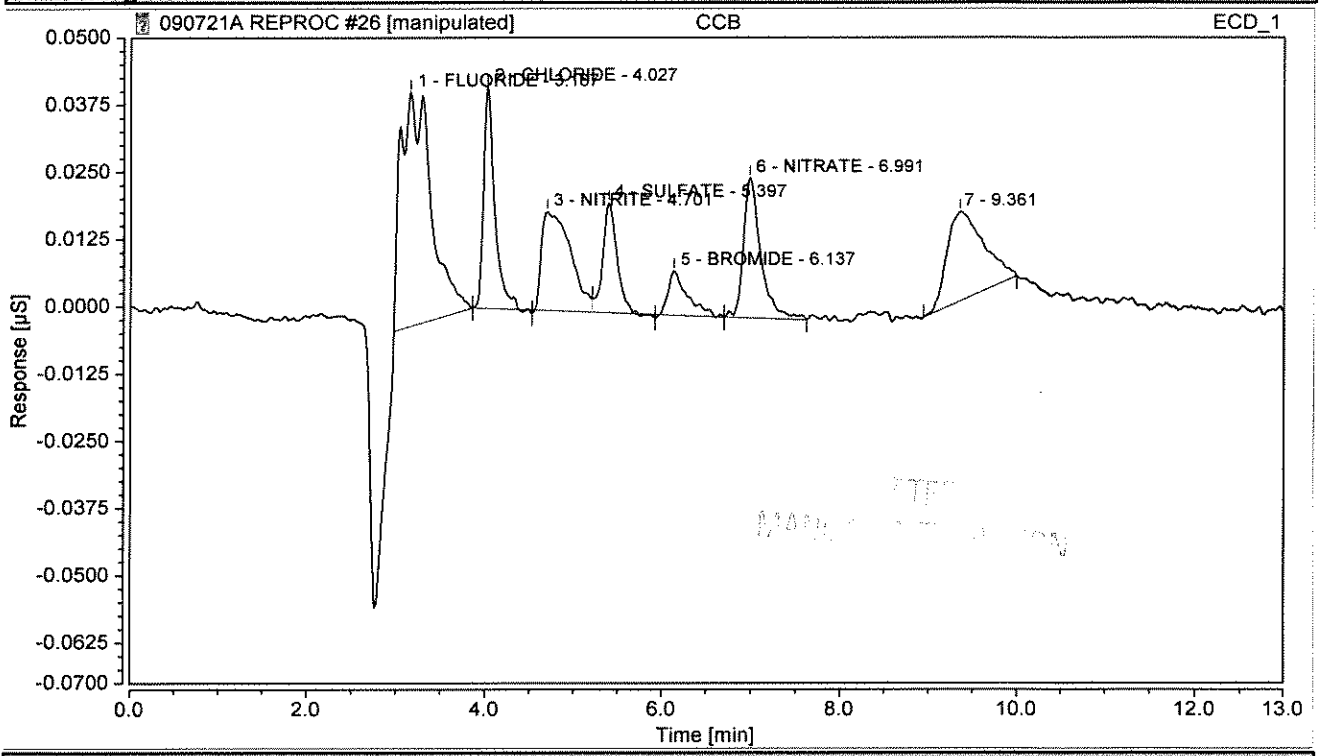
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.022	0.048	32.24	24.10	0.0464	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.022**	**0.048**	**32.24**	**24.10**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**26**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:32**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

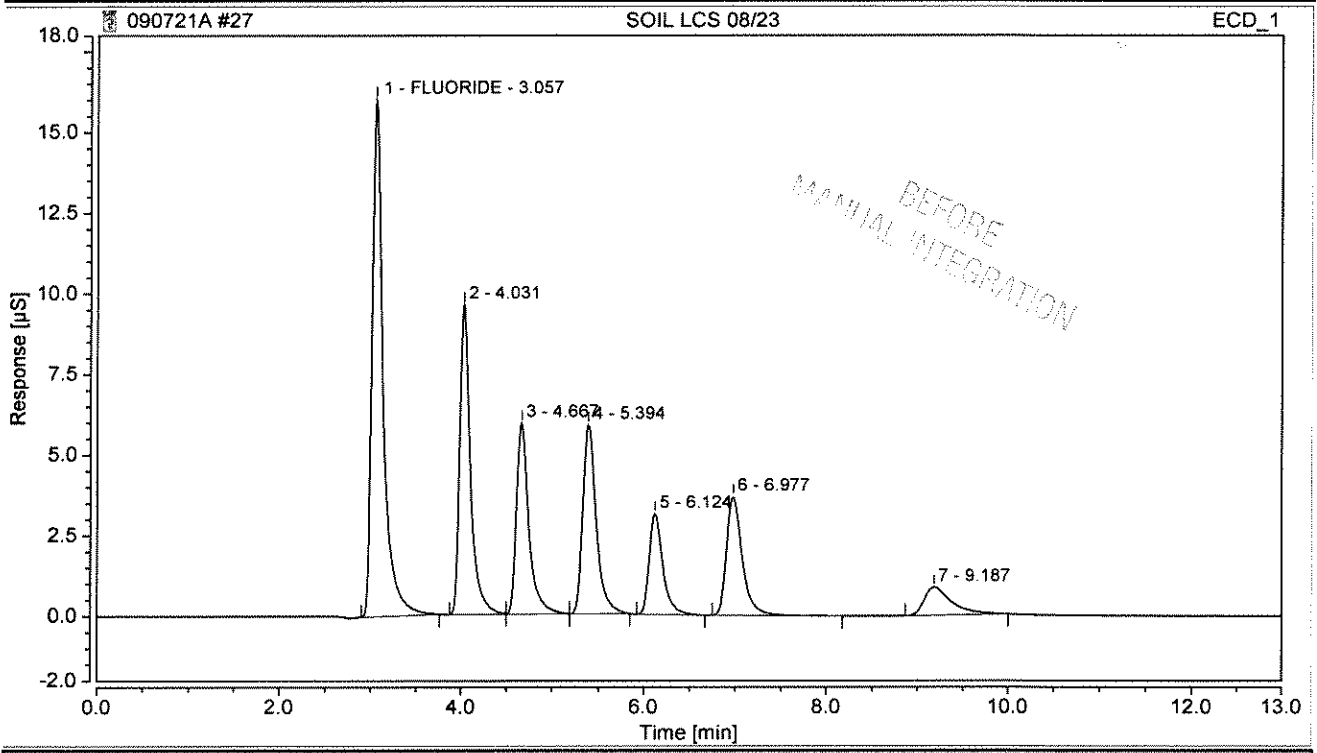
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.167	0.017	0.044	34.34	24.96	0.0363	n.a.
2	CHLORIDE	4.027	0.006	0.041	11.94	23.64	0.1103	n.a.
3	NITRITE	4.701	0.007	0.018	14.06	10.54	0.0114	n.a.
4	SULFATE	5.397	0.004	0.020	7.67	11.71	0.0179	n.a.
5	BROMIDE	6.137	0.002	0.008	4.12	4.72	0.0118	n.a.
6	NITRATE	6.991	0.006	0.026	11.84	14.90	0.0365	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.042**	**0.158**	**83.97**	**90.46**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 08/23**	*Run Time (min):*	**12.99**
Vial Number:	**27**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

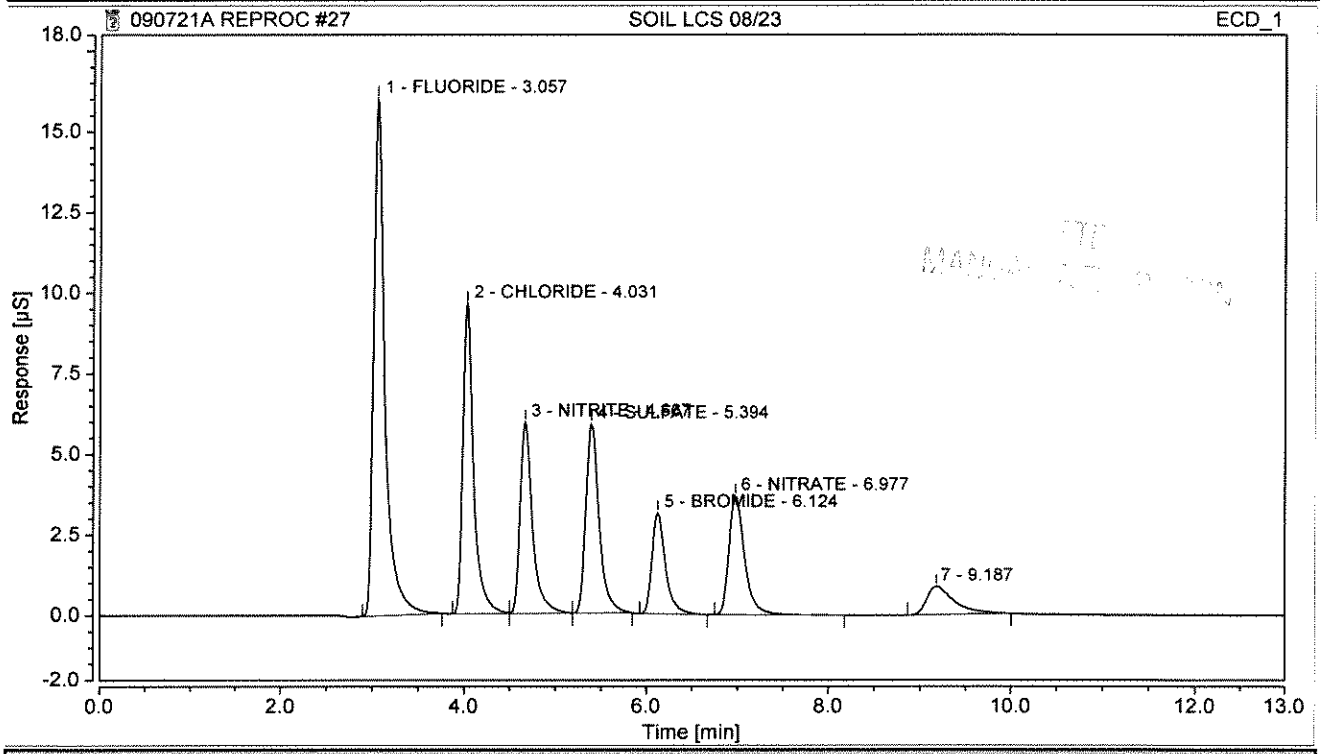
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.293	16.039	32.15	35.55	4.8596	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.293**	**16.039**	**32.15**	**35.55**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 08/23**	*Run Time (min):*	**12.99**
Vial Number:	**27**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**07/Sep/21 23:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

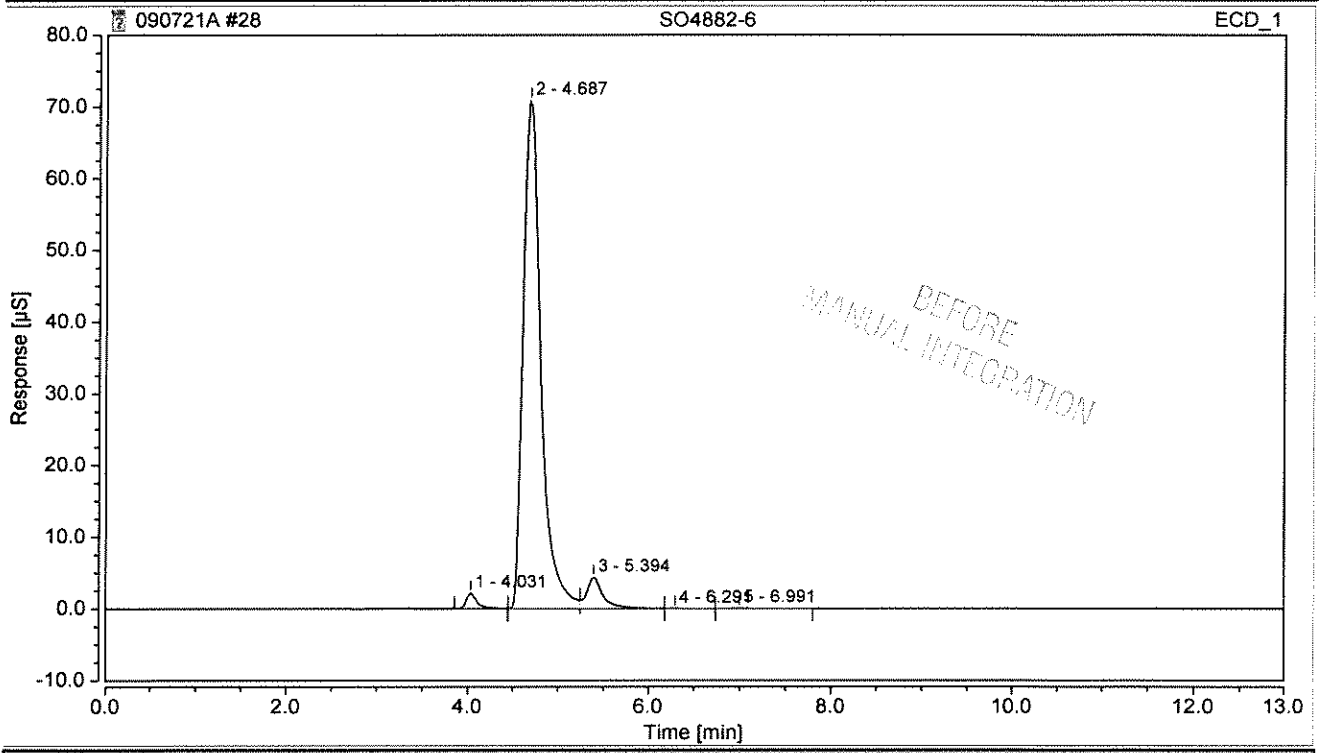
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.293	16.039	32.15	35.55	4.8596	n.a.
2	CHLORIDE	4.031	1.313	9.617	18.41	21.31	4.5860	n.a.
3	NITRITE	4.667	0.944	5.927	13.23	13.14	1.5371	n.a.
4	SULFATE	5.394	0.984	5.861	13.79	12.99	4.6081	n.a.
5	BROMIDE	6.124	0.545	3.124	7.64	6.92	4.4907	n.a.
6	NITRATE	6.977	0.743	3.677	10.41	8.15	1.0158	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.821**	**44.245**	**95.63**	**98.06**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**28**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:09**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

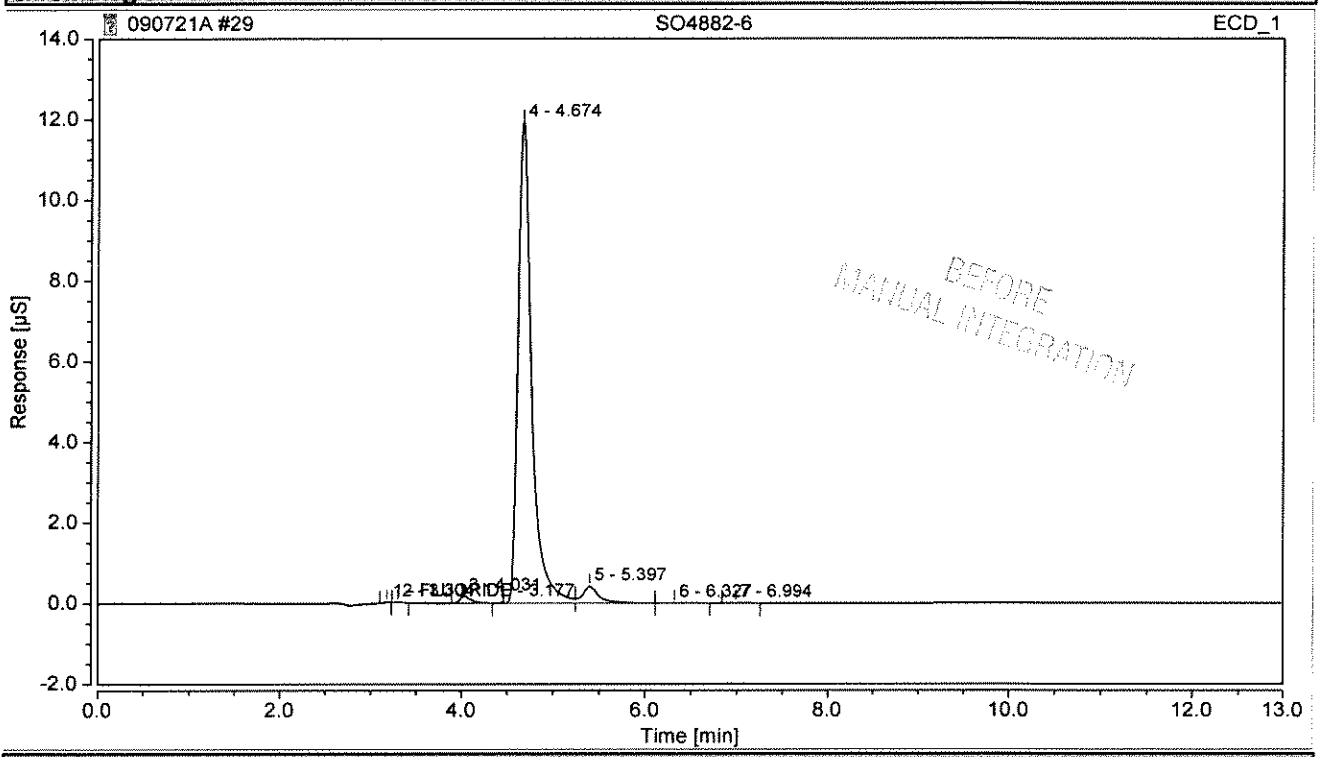
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**29**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**10.0**
Injection Date/Time:	**08/Sep/21 00:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

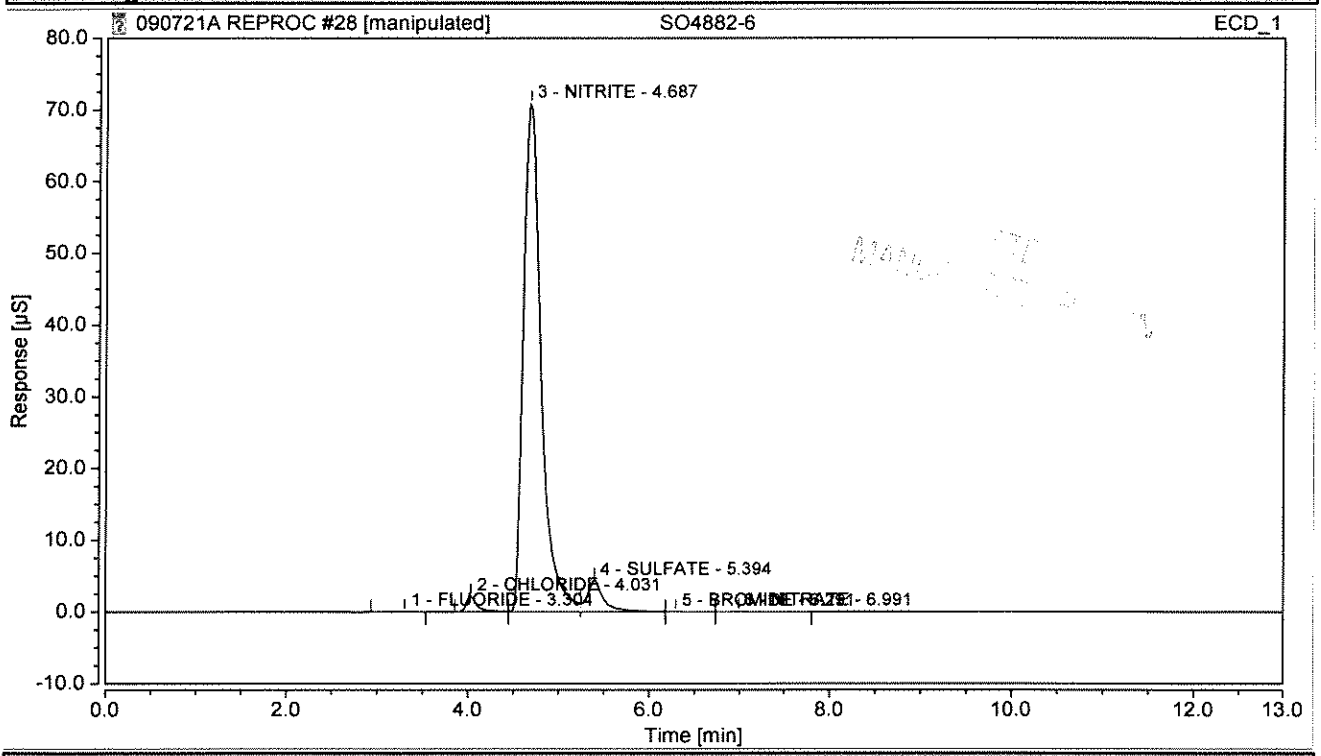
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.177	0.001	0.013	0.05	0.10	0.0227	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.001**	**0.013**	**0.05**	**0.10**		

Chromatogram and Results

Injection Details

Injection Name:	**SO4882-6**	*Run Time (min):*	**12.99**
Vial Number:	**28**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:09**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

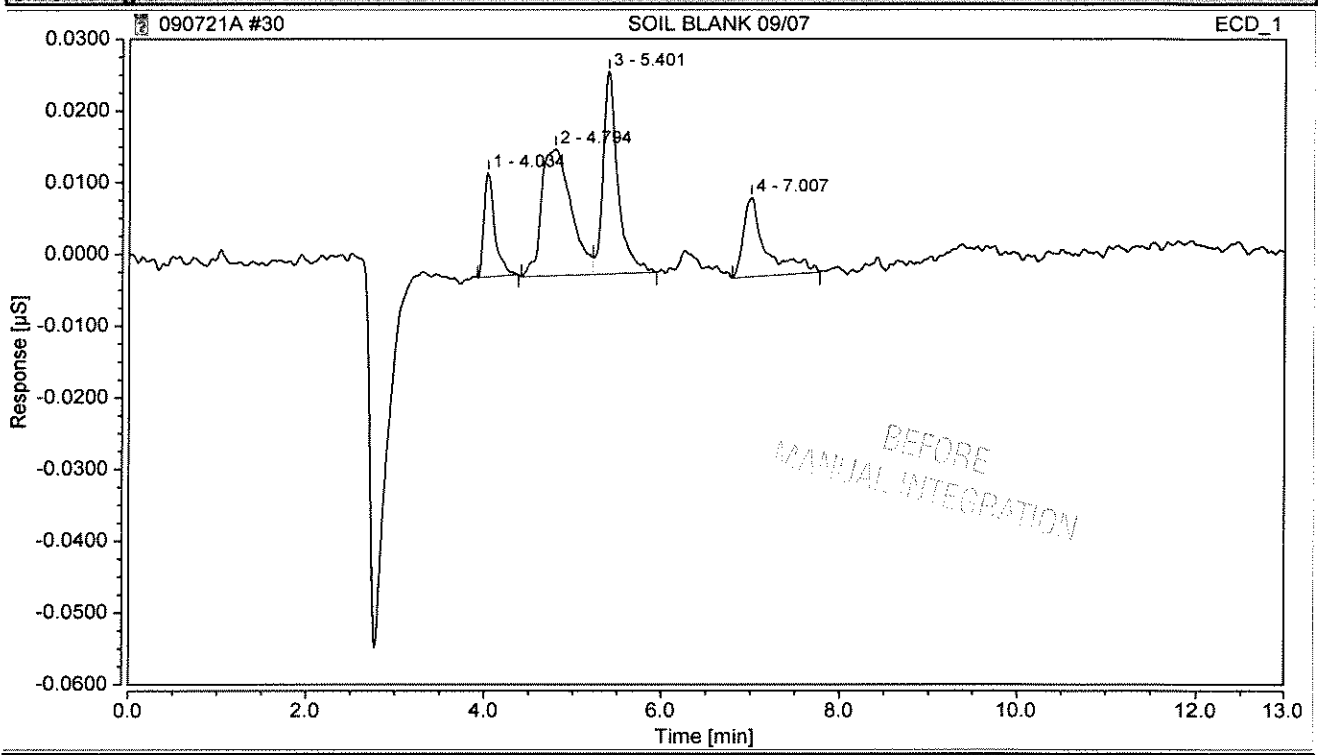
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.304	0.016	0.049	0.09	0.06	0.0337	n.a.
2	CHLORIDE	4.031	0.296	2.175	1.68	2.80	1.1019	n.a.
3	NITRITE	4.687	16.276	70.892	92.79	91.39	26.5162	n.a.
4	SULFATE	5.394	0.929	4.366	5.30	5.63	4.3535	n.a.
5	BROMIDE	6.291	0.011	0.033	0.06	0.04	0.0479	n.a.
6	NITRATE	6.991	0.014	0.059	0.08	0.08	0.0475	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**17.542**	**77.574**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**30**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:47**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

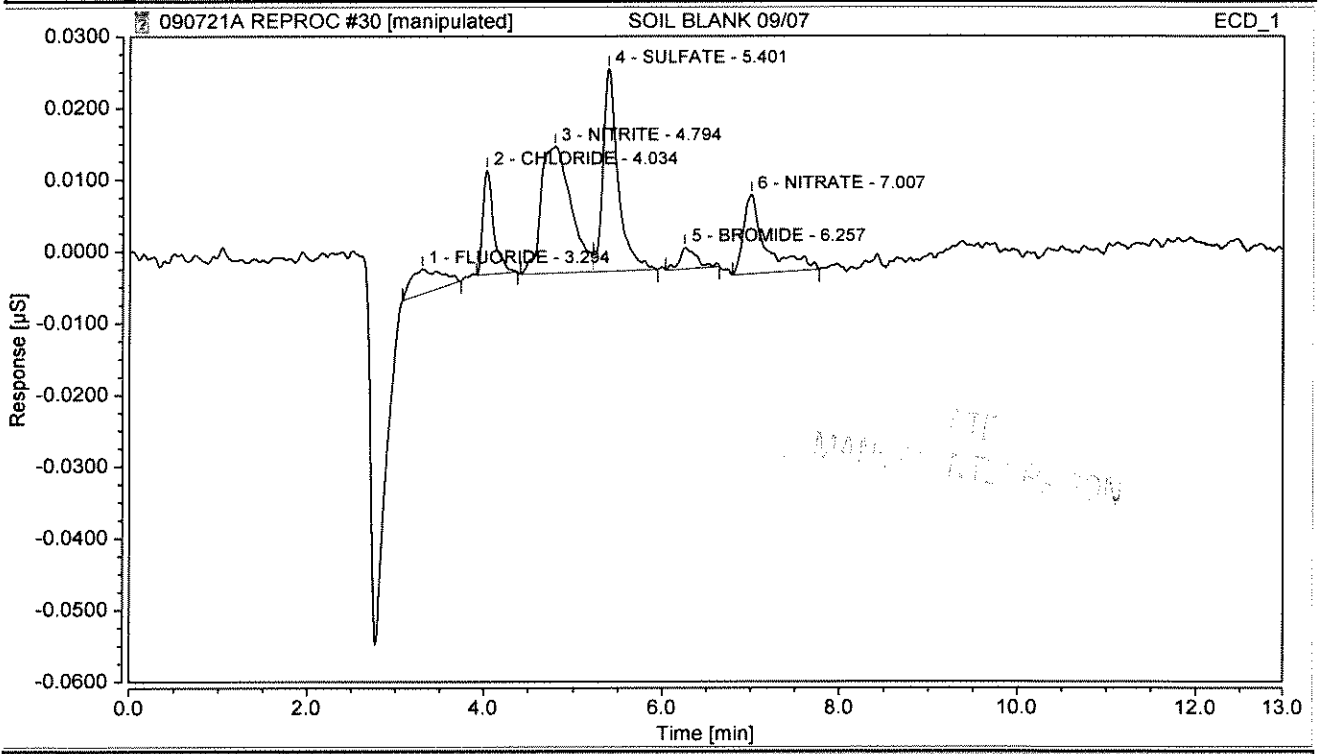
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL BLANK 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**30**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 00:47**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

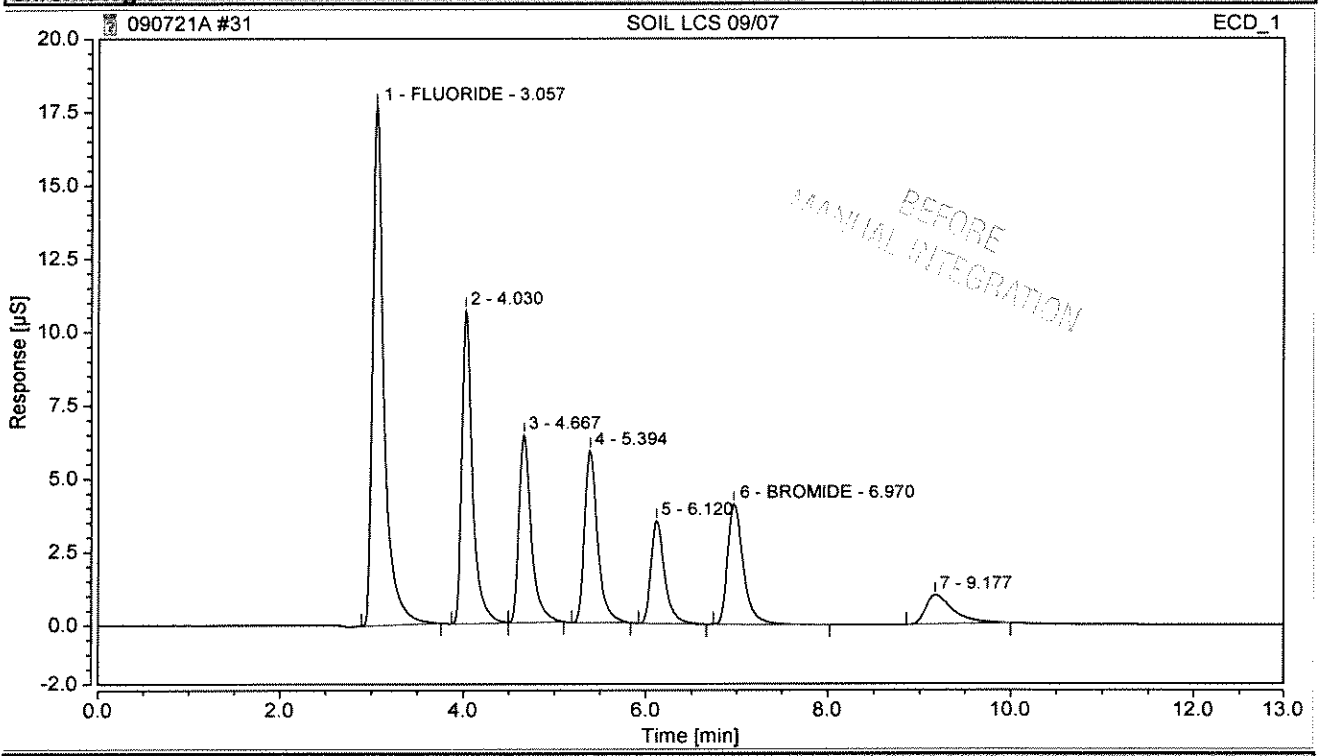
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.294	0.001	0.003	6.84	4.48	0.0029	n.a.
2	CHLORIDE	4.034	0.002	0.015	10.46	18.62	0.0970	n.a.
3	NITRITE	4.794	0.007	0.018	35.12	22.65	0.0113	n.a.
4	SULFATE	5.401	0.005	0.028	27.66	36.15	0.0256	n.a.
5	BROMIDE	6.257	0.001	0.003	3.41	3.93	0.0044	n.a.
6	NITRATE	7.007	0.003	0.011	16.52	14.17	0.0330	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.020**	**0.078**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**31**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:06**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

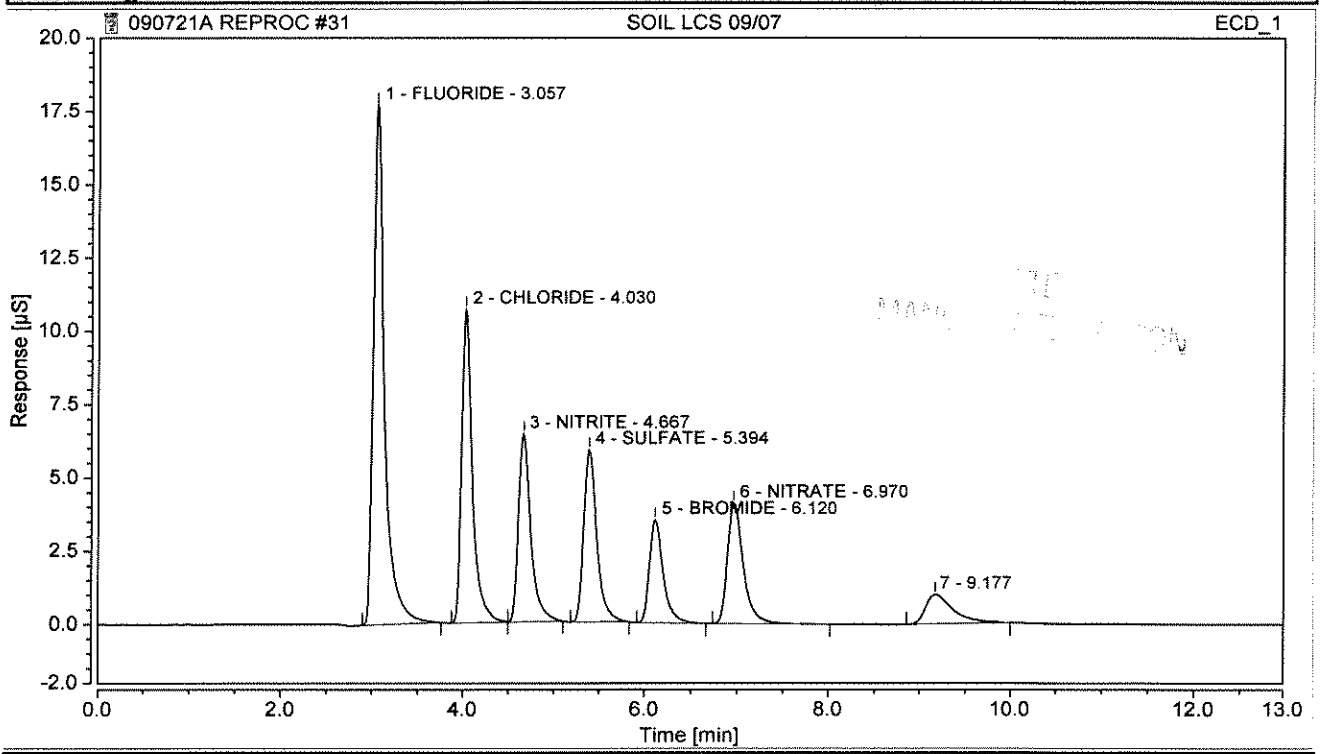
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.550	17.714	32.66	35.93	5.4023	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.970	0.832	4.108	10.66	8.33	5.9053	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**3.382**	**21.822**	**43.33**	**44.27**		

Chromatogram and Results

Injection Details

Injection Name:	**SOIL LCS 09/07**	*Run Time (min):*	**12.98**
Vial Number:	**31**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMisocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:06**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

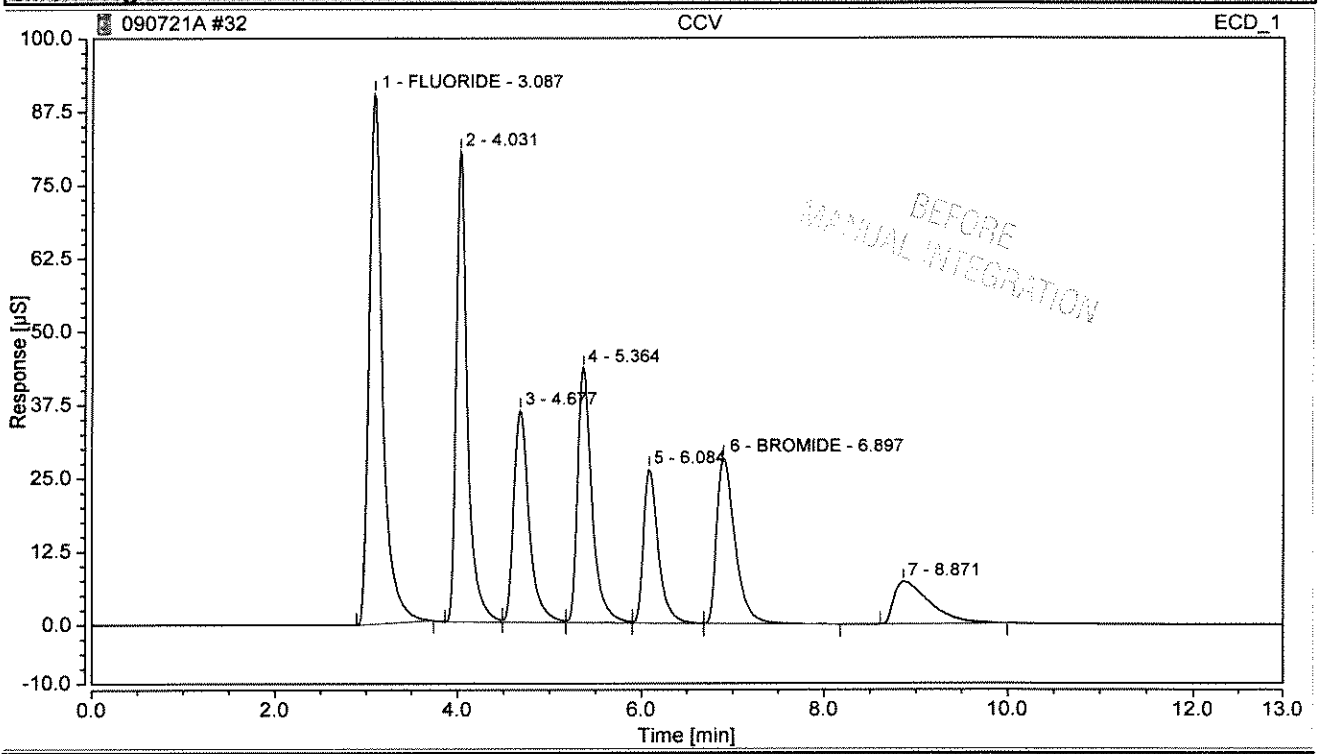
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	2.550	17.714	32.66	35.93	5.4023	n.a.
2	CHLORIDE	4.030	1.464	10.691	18.76	21.69	5.1047	n.a.
3	NITRITE	4.667	1.008	6.401	12.92	12.98	1.6428	n.a.
4	SULFATE	5.394	0.983	5.875	12.60	11.92	4.6071	n.a.
5	BROMIDE	6.120	0.615	3.508	7.87	7.12	5.0437	n.a.
6	NITRATE	6.970	0.832	4.108	10.66	8.33	1.1349	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.453**	**48.297**	**95.48**	**97.97**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.99**
Vial Number:	**32**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

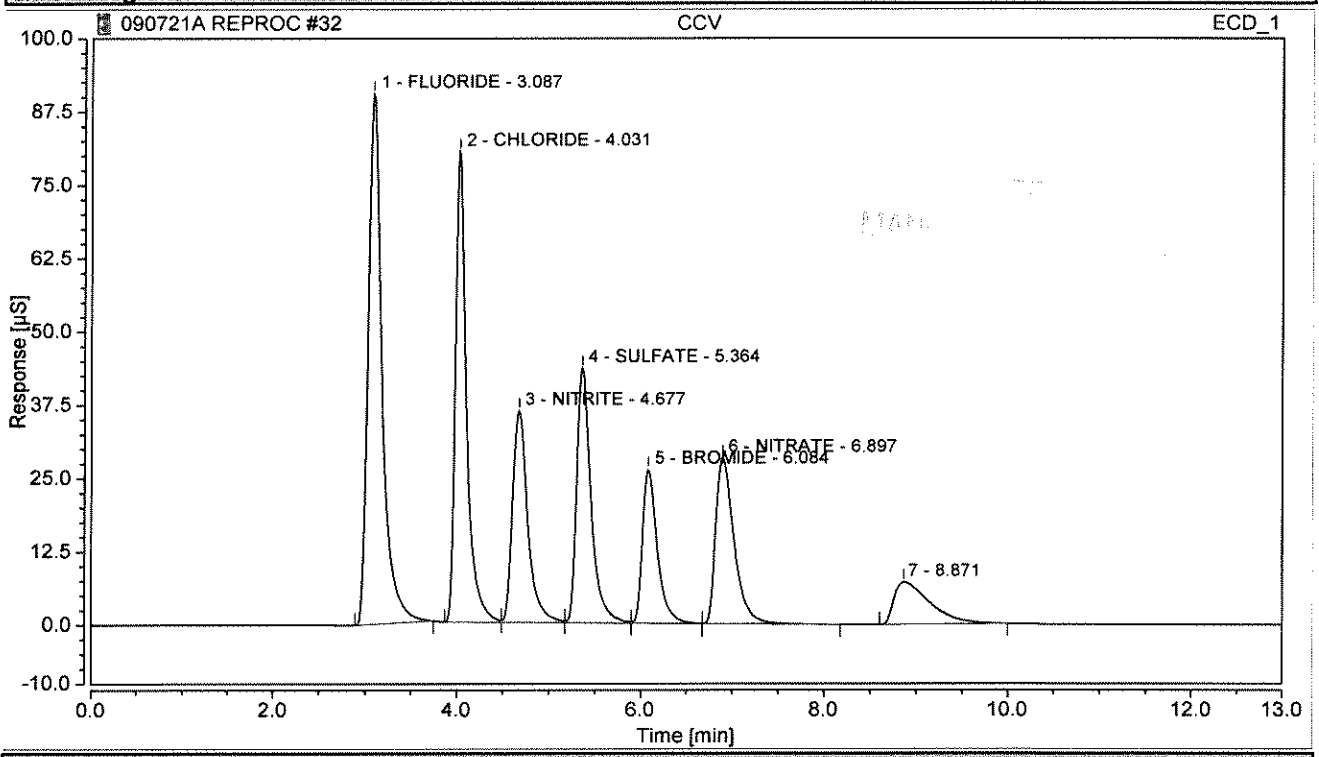
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.087	15.749	90.484	27.78	29.00	33.3711	567.4215
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.897	6.577	28.286	11.60	9.07	40.6638	103.3192
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**22.326**	**118.770**	**39.38**	**38.06**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.99**
Vial Number:	**32**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

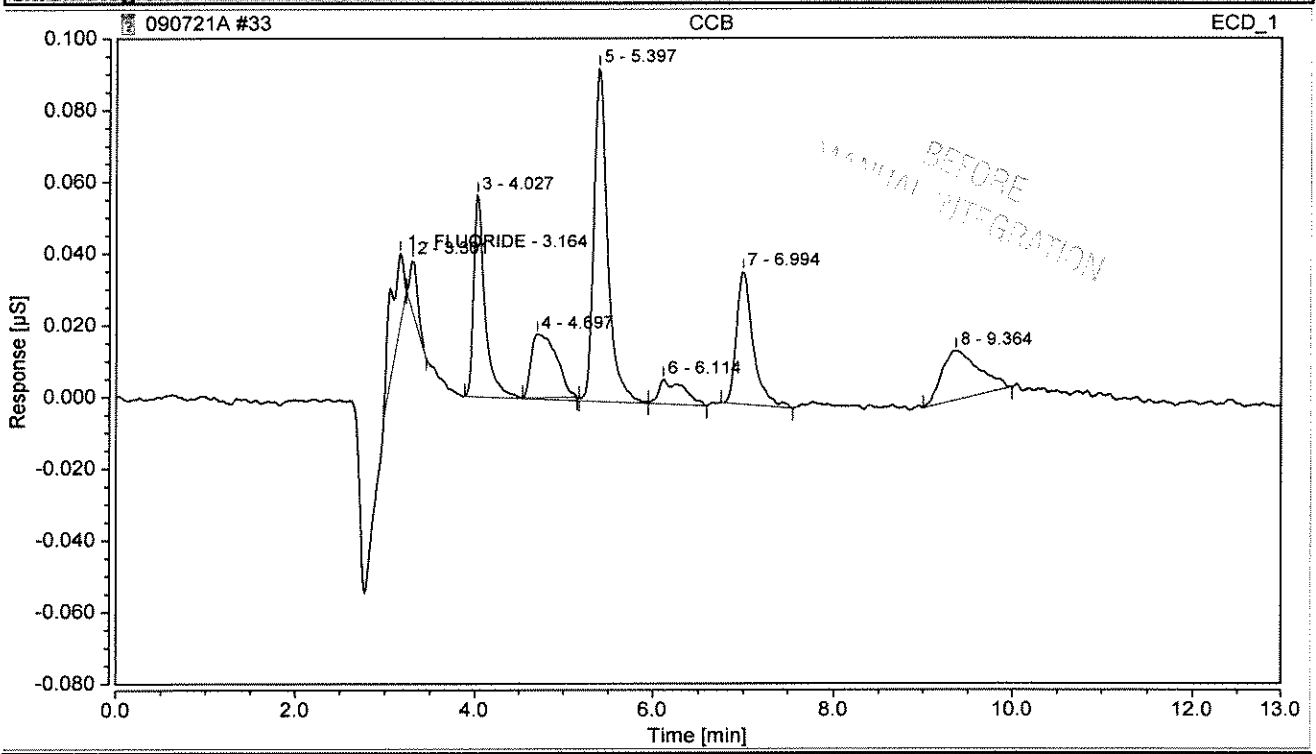
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.087	15.749	90.484	27.78	29.00	33.3711	567.4215
2	CHLORIDE	4.031	11.274	80.232	19.89	25.71	38.6946	286.9455
3	NITRITE	4.677	6.927	36.121	12.22	11.58	11.2846	182.1161
4	SULFATE	5.364	7.947	43.435	14.02	13.92	37.2332	86.1661
5	BROMIDE	6.084	4.964	26.234	8.76	8.41	37.7135	88.5673
6	NITRATE	6.897	6.577	28.286	11.60	9.07	8.7709	119.2715
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**53.438**	**304.792**	**94.27**	**97.68**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**33**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:43**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

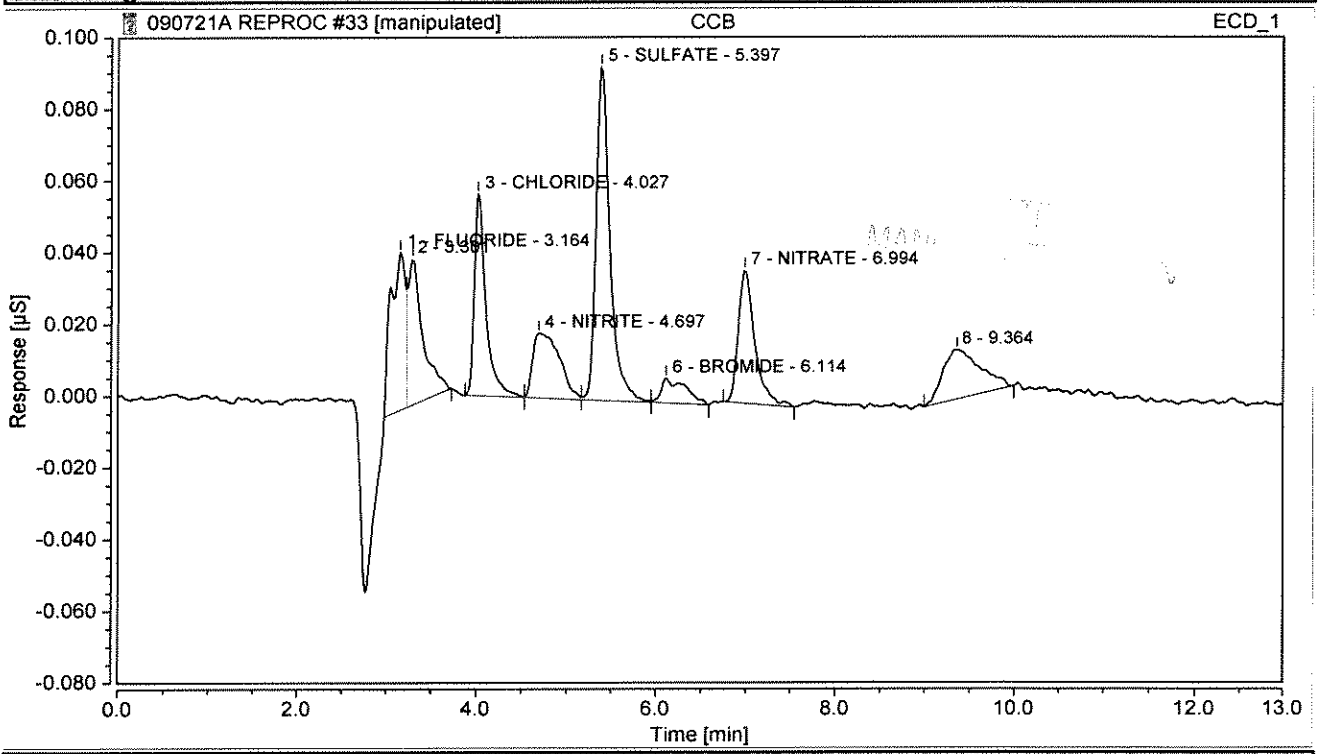
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.004	0.020	7.62	7.62	0.0087	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.004**	**0.020**	**7.62**	**7.62**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.99**
Vial Number:	**33**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**08/Sep/21 01:43**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.164	0.008	0.044	12.85	14.20	0.0175	n.a.
3	CHLORIDE	4.027	0.008	0.056	13.03	18.16	0.1186	n.a.
4	NITRITE	4.697	0.006	0.018	9.72	5.83	0.0102	n.a.
5	SULFATE	5.397	0.017	0.093	26.09	30.04	0.0785	n.a.
6	BROMIDE	6.114	0.002	0.007	3.35	2.23	0.0099	n.a.
7	NITRATE	6.994	0.008	0.037	12.46	11.96	0.0393	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.050**	**0.255**	**77.50**	**82.42**		

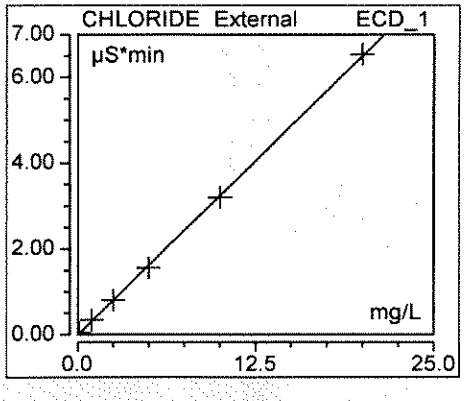
Calibration Batch Report

Sequence:	**083121A CAL**	*Injection Volume:*	**200.00**
Instrument Method:	**ASDV5MLCUPS**	*Operator:*	**Katahdin Analytical**
Inj. Date / Time:	**31-Aug-2021 / 17:56**	*Run Time:*	**12.993833**

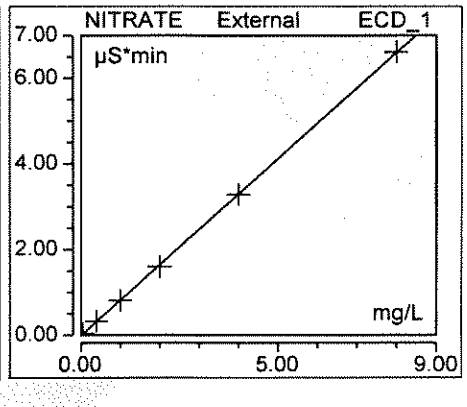
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
FLUORIDE	Area	Lin	6.000	0.000	0.526	0.000	99.7217
CHLORIDE	Area	in, WithOffse	7.000	-0.008	0.325	0.000	99.9739
NITRITE	Area	Lin	6.000	0.000	0.695	0.000	99.8794
SULFATE	Area	Lin	7.000	0.000	0.242	0.000	99.9905
BROMIDE	Height	Lin	6.000	0.000	0.734	0.000	99.9675
NITRATE	Area	in, WithOffse	7.000	-0.012	0.826	0.000	99.9923
		AVERAGE:		-0.0034	0.5579	0.0000	99.9209

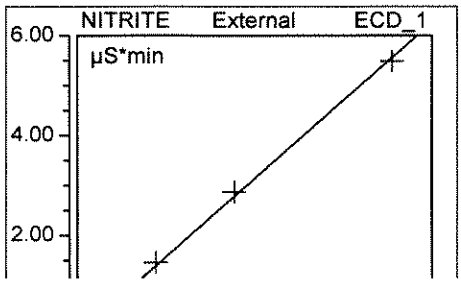
Injection Name **CHLORIDE**	Ret.Time min CHLORIDE	Area µS*min CHLORIDE	Height µS CHLORIDE	Amount mg/L CHLORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	4.034	0.0045	0.031	0.039
CAL 2	4.034	0.0261	0.175	0.106
CAL 3	4.034	0.2526	1.884	0.802
CAL 4	4.034	0.6935	5.136	2.157
CAL 5	4.034	1.4164	10.395	4.379
CAL 6	4.031	2.8556	20.827	8.802
CAL 7	4.034	5.8397	41.807	17.974
Average	4.033			
Rel. Std. Dev.	0.031 %			



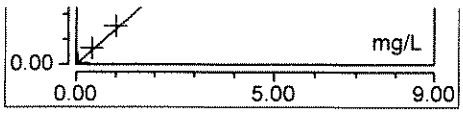
Injection Name **NITRATE**	Ret.Time min NITRATE	Area µS*min NITRATE	Height µS NITRATE	Amount mg/L NITRATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	7.011	0.0082	0.035	0.024
CAL 2	7.011	0.0265	0.127	0.047
CAL 3	7.004	0.2564	1.301	0.325
CAL 4	6.994	0.7128	3.556	0.877
CAL 5	6.981	1.4721	7.151	1.796
CAL 6	6.957	2.9835	13.912	3.626
CAL 7	6.921	6.0048	26.224	7.283
Average	6.982			
Rel. Std. Dev.	0.476 %			



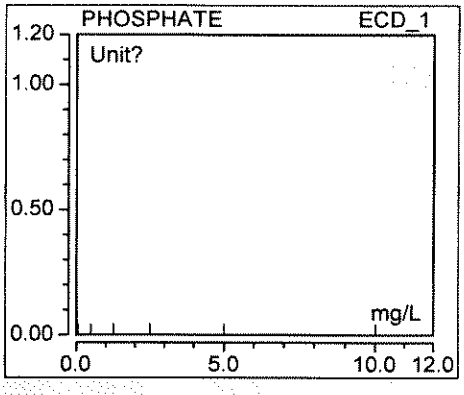
Injection Name **NITRITE**	Ret.Time min NITRITE	Area µS*min NITRITE	Height µS NITRITE	Amount mg/L NITRITE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	4.674	0.0221	0.114	0.032
CAL 3	4.671	0.2418	1.565	0.348
CAL 4	4.671	0.6591	4.201	0.948



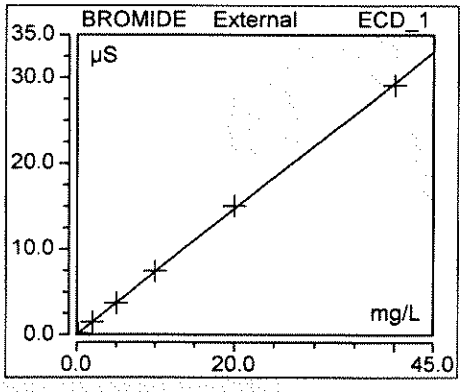
CAL 5	4.674	1.3297	8.181	1.914
CAL 6	4.677	2.5727	15.131	3.702
CAL 7	4.684	4.8209	26.707	6.938
Average	4.675			
Rel. Std. Dev.	0.107 %			



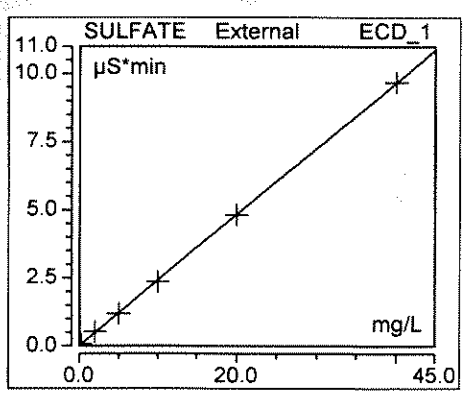
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
PHOSPHATE	PHOSPHATE	PHOSPHATE	PHOSPHATE	PHOSPHATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	n.a.	n.a.	n.a.	n.a.
CAL 3	n.a.	n.a.	n.a.	n.a.
CAL 4	n.a.	n.a.	n.a.	n.a.
CAL 5	n.a.	n.a.	n.a.	n.a.
CAL 6	n.a.	n.a.	n.a.	n.a.
CAL 7	n.a.	n.a.	n.a.	n.a.
Average	#DIV/0!			
Rel. Std. Dev.	#DIV/0!			



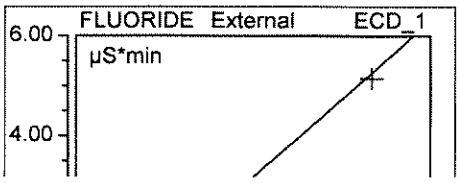
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
BROMIDE	BROMIDE	BROMIDE	BROMIDE	BROMIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	6.144	0.0185	0.095	0.130
CAL 3	6.137	0.2220	1.261	1.719
CAL 4	6.134	0.6055	3.477	4.740
CAL 5	6.127	1.2577	7.099	9.677
CAL 6	6.117	2.5482	14.093	19.211
CAL 7	6.097	5.2194	27.705	37.766
Average	6.126			
Rel. Std. Dev.	0.275 %			



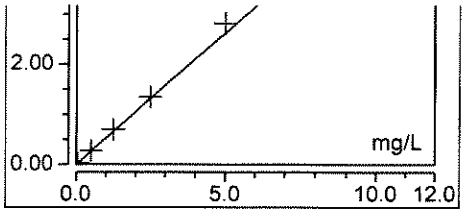
Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
SULFATE	SULFATE	SULFATE	SULFATE	SULFATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	5.454	0.0090	0.048	0.037
CAL 2	5.454	0.0339	0.184	0.140
CAL 3	5.451	0.3766	2.165	1.559
CAL 4	5.447	1.0175	5.855	4.211
CAL 5	5.441	2.0721	11.737	8.576
CAL 6	5.431	4.1763	23.325	17.285
CAL 7	5.411	8.6085	45.581	35.629
Average	5.441			
Rel. Std. Dev.	0.290 %			



Injection Name	Ret.Time min	Area µS*min	Height µS	Amount mg/L
FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE	FLUORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.



CAL 2	3.047	0.0274	0.122	0.052
CAL 3	3.047	0.2221	1.478	0.422
CAL 4	3.051	0.5987	3.998	1.139
CAL 5	3.054	1.2190	7.880	2.319
CAL 6	3.061	2.4107	15.024	4.585
CAL 7	3.071	4.6837	28.055	8.908
Average	3.055			
Rel. Std. Dev.	0.298 %			



Anion Summary Report

No. CHLORIDE	Name CHLORIDE	Time min CHLORIDE ECD_1	Area µS*min CHLORIDE ECD_1	Rel.Area % CHLORIDE ECD_1	Height µS CHLORIDE ECD_1	Rel.Height % CHLORIDE ECD_1	Amount mg/L CHLORIDE ECD_1
1	BLANK	4.034	0.0093	33.63	0.06	40.78	0.0542
2	CAL 1	4.034	0.0045	20.78	0.03	27.12	0.0395
3	CAL 2	4.034	0.0261	16.86	0.18	21.48	0.1057
4	CAL 3	4.034	0.2526	15.79	1.88	19.38	0.8019
5	CAL 4	4.034	0.6935	15.72	5.14	19.34	2.1572
6	CAL 5	4.034	1.4164	15.53	10.40	19.46	4.3791
7	CAL 6	4.031	2.8556	15.46	20.83	19.89	8.8024
8	CAL 7	4.034	5.8397	15.63	41.81	20.79	17.9740
	Sum:	32.267	11.098	149.401	80.317	188.233	34.314
	Average:	4.033	1.387	18.675	10.040	23.529	4.289
	Rel.Std.Dev:	0.029 %	147.768 %	33.736 %	146.452 %	31.596 %	146.886 %

No. NITRATE	Name NITRATE	Time min NITRATE ECD_1	Area µS*min NITRATE ECD_1	Rel.Area % NITRATE ECD_1	Height µS NITRATE ECD_1	Rel.Height % NITRATE ECD_1	Amount mg/L NITRATE ECD_1
1	BLANK	7.014	0.0120	43.23	0.06	38.01	0.0290
2	CAL 1	7.011	0.0082	37.58	0.04	30.91	0.0244
3	CAL 2	7.011	0.0265	17.16	0.13	15.55	0.0466
4	CAL 3	7.004	0.2564	16.03	1.30	13.38	0.3249
5	CAL 4	6.994	0.7128	16.16	3.56	13.39	0.8773
6	CAL 5	6.981	1.4721	16.14	7.15	13.39	1.7963
7	CAL 6	6.957	2.9835	16.15	13.91	13.29	3.6258
8	CAL 7	6.921	6.0048	16.07	26.22	13.04	7.2829
	Sum:	55.891	11.476	178.516	52.363	150.945	14.007
	Average:	6.986	1.435	22.314	6.545	18.868	1.751
	Rel.Std.Dev:	0.469 %	147.259 %	50.513 %	141.917 %	52.146 %	146.040 %

No. NITRITE	Name NITRITE	Time min NITRITE ECD_1	Area µS*min NITRITE ECD_1	Rel.Area % NITRITE ECD_1	Height µS NITRITE ECD_1	Rel.Height % NITRITE ECD_1	Amount mg/L NITRITE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	4.674	0.0221	14.33	0.11	13.90	0.0319
4	CAL 3	4.671	0.2418	15.12	1.56	16.09	0.3479
5	CAL 4	4.671	0.6591	14.94	4.20	15.82	0.9485
6	CAL 5	4.674	1.3297	14.58	8.18	15.32	1.9136
7	CAL 6	4.677	2.5727	13.93	15.13	14.45	3.7023
8	CAL 7	4.684	4.8209	12.90	26.71	13.28	6.9377
	Sum:	28.050	9.646	85.793	55.897	88.851	13.882
	Average:	4.675	1.608	14.299	9.316	14.809	2.314
	Rel.Std.Dev:	0.107 %	113.378 %	5.629 %	108.245 %	7.514 %	113.378 %

No. PHOSPHATE	Name PHOSPHATE	Time min PHOSPHATE ECD_1	Area µS*min PHOSPHATE ECD_1	Rel.Area % PHOSPHATE ECD_1	Height µS PHOSPHATE ECD_1	Rel.Height % PHOSPHATE ECD_1	Amount mg/L PHOSPHATE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

3	CAL 2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	CAL 3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	CAL 4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	CAL 5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	CAL 6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8	CAL 7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	0.000	0.000	0.000	0.000	0.000	0.000
	Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Rel.Std.Dev:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

No. BROMIDE	Name BROMIDE	Time min BROMIDE ECD_1	Area µS*min BROMIDE ECD_1	Rel.Area % BROMIDE ECD_1	Height µS BROMIDE ECD_1	Rel.Height % BROMIDE ECD_1	Amount mg/L BROMIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	6.144	0.0185	11.99	0.10	11.67	0.1298
4	CAL 3	6.137	0.2220	13.88	1.26	12.97	1.7191
5	CAL 4	6.134	0.6055	13.72	3.48	13.09	4.7398
6	CAL 5	6.127	1.2577	13.79	7.10	13.29	9.6766
7	CAL 6	6.117	2.5482	13.80	14.09	13.46	19.2109
8	CAL 7	6.097	5.2194	13.97	27.70	13.78	37.7657
	Sum:	36.756	9.871	81.149	53.730	78.247	73.242
	Average:	6.126	1.645	13.525	8.955	13.041	12.207
	Rel.Std.Dev:	0.275 %	120.014 %	5.597 %	117.024 %	5.609 %	117.024 %

No. SULFATE	Name SULFATE	Time min SULFATE ECD_1	Area µS*min SULFATE ECD_1	Rel.Area % SULFATE ECD_1	Height µS SULFATE ECD_1	Rel.Height % SULFATE ECD_1	Amount mg/L SULFATE ECD_1
1	BLANK	5.454	0.0064	23.14	0.03	21.21	0.0265
2	CAL 1	5.454	0.0090	41.65	0.05	41.97	0.0374
3	CAL 2	5.454	0.0339	21.96	0.18	22.48	0.1405
4	CAL 3	5.451	0.3766	23.55	2.17	22.26	1.5586
5	CAL 4	5.447	1.0175	23.06	5.85	22.05	4.2114
6	CAL 5	5.441	2.0721	22.72	11.74	21.97	8.5760
7	CAL 6	5.431	4.1763	22.61	23.32	22.27	17.2851
8	CAL 7	5.411	8.6085	23.04	45.58	22.66	35.6294
	Sum:	43.541	16.300	201.724	88.926	196.883	67.465
	Average:	5.443	2.038	25.216	11.116	24.610	8.433
	Rel.Std.Dev:	0.281 %	148.176 %	26.393 %	144.660 %	28.557 %	148.176 %

No. FLUORIDE	Name FLUORIDE	Time min FLUORIDE ECD_1	Area µS*min FLUORIDE ECD_1	Rel.Area % FLUORIDE ECD_1	Height µS FLUORIDE ECD_1	Rel.Height % FLUORIDE ECD_1	Amount mg/L FLUORIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	3.047	0.0274	17.71	0.12	14.92	0.0521
4	CAL 3	3.047	0.2221	13.89	1.48	15.19	0.4224
5	CAL 4	3.051	0.5987	13.57	4.00	15.05	1.1388
6	CAL 5	3.054	1.2190	13.36	7.88	14.75	2.3186
7	CAL 6	3.061	2.4107	13.05	15.02	14.35	4.5853
8	CAL 7	3.071	4.6837	12.54	28.06	13.95	8.9084
	Sum:	18.330	9.162	84.119	56.557	88.215	17.426
	Average:	3.055	1.527	14.020	9.426	14.702	2.904
	Rel.Std.Dev:	0.298 %	115.879 %	13.301 %	112.271 %	3.199 %	115.879 %

KATAHDIN ANALYTICAL SERVICES

SOIL PREPARATION BY METHOD E300

Balance ID: ~~Auto~~ 01

Pipette ID(s) Auto

PREP TIME	SAMPLE ID	WEIGHT (g)	TOTAL H20 ADDED(ml)	ANALYSIS REQUESTED	SPIKE ADDED
15:25	BLANK	–	100	Nor	.5 ml of MLA + MLB
↓	LCS	–	↓	↓	↓
↓	S04882-6	10.1388	↓	↓	1 ml of PT 6288-6
				SS 9/8/21	

NOTES:

ANALYST: SS DATE: 9/7/21

CHECKED BY: DATE:

KATAHDIN ANALYTICAL SERVICES

SOIL PREPARATION BY METHOD E300

Balance ID: 01 **Pipette ID(s)** auto

PREP TIME	SAMPLE ID	WEIGHT (g)	TOTAL H20 ADDED(ml)	ANALYSIS REQUESTED	SPIKE ADDED
14:03	BLANK	—	100	FL	
↓	LCS	—	↓	↓	
↓	804882-16	10.0228	↓	↓	
		8/23/21			

NOTES:

ANALYST: **DATE:** 8/23/21

CHECKED BY: **DATE:**

SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SO5689

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SO5689

Sample Receipt

The following samples were received on August 26, 2021 and were logged in under Katahdin Analytical Services work order number SO5689 for a hardcopy due date of September 14, 2021.

KATAHDIN Sample No.	SERES Sample Identification
SO5689-1	MW-21-3S-BASELINE
SO5689-2	MW-21-3S-BASELINE-FF
SO5689-3	MW-21-4D-BASELINE
SO5689-4	MW-21-4D-BASELINE-FF
SO5689-5	AS-DUP-BASELINE
SO5689-6	AS-DUP-BASELINE-FF
SO5689-7	MW-21-4S-BASELINE
SO5689-8	MW-21-4S-BASELINE-FF
SO5689-9	SHM-10-06-BASELINE
SO5689-10	SHM-10-06-BASELINE-FF

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Metals Analysis

The samples associated with Katahdin Work Order SO5689 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication

SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

Aqueous-matrix Katahdin Sample Numbers SO5689-(1-10) were digested for ICP analysis on 08/31/21 (QC Batch OH31CW1) in accordance USEPA Method 3010A.

ICP analyses of Katahdin Work Order SO5689 samples were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all applicable analytical run QC criteria were met, with the following exception:

The CCB analyzed at 14:10 in ICP analysis sequence IOI01A was above the project acceptance limit for calcium. All associated samples had calcium concentrations greater than ten times the CCB or less than ½ LOQ and were accepted without corrective action.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I, preparation blanks on Form IIIP, and matrix QC samples on Forms VA, VD, and VI have been reported using the laboratory's Practical Quantitation Limits (PQL). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the PQL are flagged with "U" in the C-qualifier column, and the PQL is listed in the concentration column. Results that fall between the MDL and the PQL are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. These PQLs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VB and IX for client samples, analysis QC samples (serial dilutions and post-digestion spikes) have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted MDL is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, and PQLs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of SO5689 were analyzed in accordance with the specific methods listed on the Report of Analysis.
Analyses for alkalinity, chemical oxygen demand, filterable residue, and total biochemical oxygen demand were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

Analyses for nitrate were performed according to "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA 600/R-93/100, August 1993.

Analyses for total organic carbon, chloride, and sulfate were performed according to "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOQ", where "LOQ" is the numerical value of the Limit of Quantitation.

All analyses were performed within analytical holding times. All quality control criteria were met, with the following exception:

The matrix spike recovery for chloride (83.8%) in Katahdin Sample No. SO5689-1 is outside the laboratory's acceptance limits of 90% - 110%.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond **Sep 16, 2021**

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: SERES	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GM	Delivered By: KAS
KAS Work Order#: S05689	KIMS Review By: HHM	Received By: GM
	Labeled By: GM	
SDG #:	Cooler: 1 of 2	Date/Time Rec.: 8/26/21 1430

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 4.5 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved?					
Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: SERES	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GM	Delivered By: KAS
KAS Work Order#: S05689	KIMS Review By: HHM	Received By: GM
	Labeled By: GM	
SDG #:	Cooler: 2 of 2	Date/Time Rec.: 8/26/21 1430

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 17.4 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?		✓			Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?		✓			The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?		✓			
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?		✓			Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

SHM-10-06 - extra sample didnt fit in other cooler. Field crew asked Katahdin courier to add ice, they did, but sample had not been on ice long enough before arriving at KAS to be fully cooled.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: SERES Engineering | Contact: Heather Levesque | Phone #: (614) 370-0374 | Fax #: ( )

Address: 669 Marion Dr. B7 | City: Charleston | State: SC | Zip Code: 29492

Purchase Order #: Ft Devens | Proj. Name / No.: Ft Devens | Katahdin Quote #:

Bill (if different than above): | Address:

Sampler (Print / Sign): Spencer Gust Spencer P Gust | Copies To:

LAB USE ONLY | WORK ORDER #: | KATAHDIN PROJECT NUMBER: SDS6689

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C _____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	TOC 40ml, Glass, H_2SO_4 (Filt. ☐Y ☐N)	Total Metals 250ml, HDPE, HNO_3 (Filt. ☐Y ☐N)	Diss. Metals 250ml, HDPE, HNO_3 (Filt. ☒Y ☐N)	COD 250ml, HDPE, H_2SO_4 (Filt. ☐Y ☐N)	BOD5, Alk, TDS 1000ml, HDPE, none (Filt. ☐Y ☐N)	Anions 250ml, HDPE, None (Filt. ☐Y ☐N)	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	MW-21-3S-Baseline	8.25.21/10:05	GW	7	2	1		1	2	1				
	MW-21-3S-Baseline-FF	8.25.21/10:05	GW	1			1							
	MW-21-4D-Baseline	8.25.21/11:35	GW	7	2	1		1	2	1				
	MW-21-4D-Baseline-FF	8.25.21/11:35	GW	1			1							
	AS-DUP-Baseline	8.25.21/11:40	GW	7	2	1		1	2	1				
	AS-DUP-Baseline-FF	8.25.21/11:40	GW	1			1							
	MW-21-4S-Baseline	8.25.21/14:15	GW	7	2	1		1	2	1				
	MW-21-4S-Baseline-FF	8.25.21/14:15	GW	1			1							
	SHM-10-06-Baseline	8.26.21/10:40	GW	7	2	1	~~1~~ 3	1	2	1				
	SHM-10-06-Baseline-FF	8.26.21/10:40	GW	1			1							
		/												
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		/												
		/												
		/												
		/												

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Spencer P Gust	8/26 11:45	08/26/2021 T Buchanan 11:45	08/26/2021 T Buchanan 14:27		
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 30, 2021
04:04 PM

Login Number: SO5689

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:

Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston, SC 29492
USA
halevesque@seres-es.com

Primary Invoice Address:

Mary Tunstall
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information:

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs. Anions list is for Cl & SO4, check sample comments for what to report.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	4.5, 17.4
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	ECC-091317-TXT
LOGIN INITIALS	:	GM
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

HHM

4:06 pm, Aug 30, 2021

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 30, 2021
04:04 PM

Login Number: SO5689

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO5689-1	MW-21-3S-BASELINE	25-AUG-21 10:05	26-AUG-21			14-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Service	S	COURIER-BILLING				**Anions please report Cl & SO4.**
Aqueous	S	E353.2-NITRATE	27-AUG-21	125mL Plastic		
Aqueous	S	SM2320B-ALKALINITY	08-SEP-21			
Aqueous	S	SM2540C-TDS	01-SEP-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	27-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	22-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	23-SEP-21			
Aqueous	S	SW9060-TOC(1)	22-SEP-21	40 mL Vial+H2SO4		

SO5689-2	MW-21-3S-BASELINE-FF	25-AUG-21 10:05	26-AUG-21			14-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	21-FEB-22	250mL Plastic+HNO3		

SO5689-3	MW-21-4D-BASELINE	25-AUG-21 11:35	26-AUG-21			14-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E353.2-NITRATE	27-AUG-21	125mL Plastic		**Anions please report Cl & SO4.**
Aqueous	S	SM2320B-ALKALINITY	08-SEP-21			
Aqueous	S	SM2540C-TDS	01-SEP-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	27-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	22-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	23-SEP-21			
Aqueous	S	SW9060-TOC(1)	22-SEP-21	40 mL Vial+H2SO4		

SO5689-4	MW-21-4D-BASELINE-FF	25-AUG-21 11:35	26-AUG-21			14-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	21-FEB-22	250mL Plastic+HNO3		

4:06 pm, Aug 30, 2021

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 30, 2021
04:04 PM

Login Number: SO5689

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO5689-5	AS-DUP-BASELINE	25-AUG-21 11:40	26-AUG-21			14-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E353.2-NITRATE	27-AUG-21	125mL Plastic		**Anions please report Cl & SO4.**
Aqueous	S	SM2320B-ALKALINITY	08-SEP-21			
Aqueous	S	SM2540C-TDS	01-SEP-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	27-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	22-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	23-SEP-21			
Aqueous	S	SW9060-TOC(1)	22-SEP-21	40 mL Vial+H2SO4		

SO5689-6	AS-DUP-BASELINE-FF	25-AUG-21 11:40	26-AUG-21			14-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	21-FEB-22	250mL Plastic+HNO3		

SO5689-7	MW-21-4S-BASELINE	25-AUG-21 14:15	26-AUG-21			14-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E353.2-NITRATE	27-AUG-21	125mL Plastic		**Anions please report Cl & SO4.**
Aqueous	S	SM2320B-ALKALINITY	08-SEP-21			
Aqueous	S	SM2540C-TDS	01-SEP-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	27-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	22-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	23-SEP-21			
Aqueous	S	SW9060-TOC(1)	22-SEP-21	40 mL Vial+H2SO4		

SO5689-8	MW-21-4S-BASELINE-FF	25-AUG-21 14:15	26-AUG-21			14-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	21-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	21-FEB-22	250mL Plastic+HNO3		

4:06 pm, Aug 30, 2021

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 30, 2021
04:04 PM

Login Number: SO5689

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO5689-9	SHM-10-06-BASELINE	26-AUG-21 10:40	26-AUG-21			14-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	E353.2-NITRATE	28-AUG-21	125mL Plastic		**Anions please report Cl & SO4.**
Aqueous	S	SM2320B-ALKALINITY	09-SEP-21			
Aqueous	S	SM2540C-TDS	02-SEP-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	28-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	23-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	23-SEP-21			
Aqueous	S	SW9060-TOC(1)	23-SEP-21	40 mL Vial+H2SO4		

SO5689-10	SHM-10-06-BASELINE-FF	26-AUG-21 10:40	26-AUG-21			14-SEP-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	22-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	22-FEB-22	250mL Plastic+HNO3		

Total Samples: 10 ***Total Analyses: 96***

4:06 pm, Aug 30, 2021

SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as “U” MDL have a 50% rate for false negatives compared to those results reported as “U” PQL/LOQ or “U” LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results <u>may</u> not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results <u>may</u> not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	162			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	45900			P	1	100	11	80
7439-89-6	IRON, TOTAL	60400			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7770			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2350			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11000			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	23000			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	176			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	62600			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2400			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1570			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	31700			P	1	100	11	80
7439-89-6	IRON, TOTAL	58200			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4880			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1140			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7750			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20800			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1490			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	56100			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1140			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1550			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	31400			P	1	100	11	80
7439-89-6	IRON, TOTAL	57800			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4800			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1130			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7630			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20300			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1470			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	56200			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1130			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	41.5			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	53100			P	1	100	11	80
7439-89-6	IRON, TOTAL	67000			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7920			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1940			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	21400			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	40.1			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	64400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1920			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1110			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	38700			P	1	100	11	80
7439-89-6	IRON, TOTAL	84300			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6520			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3240			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11700			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19200			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1070			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	81000			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3150			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-1
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-BASELINE	AQ	25-AUG-21 10:05:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	240 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:21:59	N/A	N/A	
COD-Color	U15. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	29 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 19:45:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:05:58	N/A	N/A	
Solids-Filterable Residue	290 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	5.0 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 19:45:00	N/A	N/A	
Total Biochemical Oxygen Demand	J4.3 mg/L	6.0	0.70	1	SM 5210B	WG305121	31-AUG-21 11:25:00	SM 5210B	26-AUG-21 1550	
Total Organic Carbon (1)	3.7 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 20:51:52	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-3
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-BASELINE	AQ	25-AUG-21 11:35:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	120 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:25:33	N/A	N/A	
COD-Color	J14. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 20:28:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:08:20	N/A	N/A	
Solids-Filterable Residue	230 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	34 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 20:28:00	N/A	N/A	
Total Biochemical Oxygen Demand	5.0 mg/L	4.0	0.47	1	SM 5210B	WG305121	31-AUG-21 11:39:00	SM 5210B	26-AUG-21 1611	
Total Organic Carbon (1)	1.9 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:03:59	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-5
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-BASELINE	AQ	25-AUG-21 11:40:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:28:11	N/A	N/A	
COD-Color	U15. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 21:11:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:09:30	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	34 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 21:11:00	N/A	N/A	
Total Biochemical Oxygen Demand	4.9 mg/L	3.0	0.35	1	SM 5210B	WG305121	31-AUG-21 11:45:00	SM 5210B	26-AUG-21 1620	
Total Organic Carbon (1)	2.0 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:15:57	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-7
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-BASELINE	AQ	25-AUG-21 14:15:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	240 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:30:47	N/A	N/A	
COD-Color	J11. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	20 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 21:25:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:10:41	N/A	N/A	
Solids-Filterable Residue	290 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	12 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 21:25:00	N/A	N/A	
Total Biochemical Oxygen Demand	J4.3 mg/L	6.0	0.70	1	SM 5210B	WG305301	01-SEP-21 13:17:00	SM 5210B	27-AUG-21 0815	
Total Organic Carbon (1)	4.3 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:28:01	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-9
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-BASELINE	AQ	26-AUG-21 10:40:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:34:46	N/A	N/A	
COD-Color	J11. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	30 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 21:39:00	N/A	N/A	
Nitrate As N	U0.25 mg/L	0.25	0.076	0.12	EPA 353.2	WG305199	26-AUG-21 15:14:55	N/A	N/A	
Solids-Filterable Residue	280 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	10 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 21:39:00	N/A	N/A	
Total Biochemical Oxygen Demand	6.4 mg/L	6.0	0.70	1	SM 5210B	WG305121	31-AUG-21 11:32:00	SM 5210B	26-AUG-21 1600	
Total Organic Carbon (1)	2.5 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:40:27	N/A	N/A	

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO5689 **SOW No.** SW846

Client Field ID	Lab Sample ID
AS-DUP-BASELINE	SO5689-005
AS-DUP-BASELINE-FF	SO5689-006
MW-21-3S-BASELINE	SO5689-001
MW-21-3S-BASELINE-FF	SO5689-002
MW-21-4D-BASELINE	SO5689-003
MW-21-4D-BASELINE-FF	SO5689-004
MW-21-4S-BASELINE	SO5689-007
MW-21-4S-BASELINE-FF	SO5689-008
SHM-10-06-BASELINE	SO5689-009
SHM-10-06-BASELINE-FF	SO5689-010

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Edward A Morgan Name: Edward A. Morgan

Date: September 3, 2021 Title: Data Management

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	162			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	45900			P	1	100	11	80
7439-89-6	IRON, TOTAL	60400			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7770			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	2350			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11000			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	23000			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-3S-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	176			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	62600			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	2400			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1570			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	31700			P	1	100	11	80
7439-89-6	IRON, TOTAL	58200			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4880			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1140			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7750			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20800			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4D-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1490			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	56100			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1140			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1550			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	31400			P	1	100	11	80
7439-89-6	IRON, TOTAL	57800			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	4800			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1130			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	7630			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	20300			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** AS-DUP-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1470			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	56200			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1130			P	1	5.0	1.1	4.0

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	41.5			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	53100			P	1	100	11	80
7439-89-6	IRON, TOTAL	67000			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	7920			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	1940			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11600			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	21400			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-4S-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	40.1			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	64400			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	1920			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-BASELINE

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1110			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	38700			P	1	100	11	80
7439-89-6	IRON, TOTAL	84300			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	6520			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	3240			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	11700			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	19200			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** SHM-10-06-BASELINE-FF

Matrix: WATER **SDG Name:** SO5689

Percent Solids: 0.00 **Lab Sample ID:** SO5689-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1070			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	81000			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	3150			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

QC Summary Section

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: ICV

File: IOI01A Sep 01, 2021 13:26

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10150.00	101.5
ARSENIC	400.0	384.70	96.2
CALCIUM	10000.0	10240.00	102.4
IRON	10000.0	10270.00	102.7
MAGNESIUM	10000.0	10290.00	102.9
MANGANESE	400.0	405.80	101.4
POTASSIUM	13600.0	13720.00	100.9
SODIUM	10000.0	10170.00	101.7

SAMPLE: CCV

File: IOI01A Sep 01, 2021 13:48

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13130.00	105.0
ARSENIC	500.0	512.30	102.5
CALCIUM	12500.0	13120.00	105.0
IRON	12500.0	13090.00	104.7
MAGNESIUM	12500.0	13250.00	106.0
MANGANESE	500.0	522.10	104.4
POTASSIUM	12500.0	12900.00	103.2
SODIUM	12500.0	13000.00	104.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: CCV

File: IOI01A Sep 01, 2021 14:06

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13260.00	106.1
ARSENIC	500.0	514.10	102.8
CALCIUM	12500.0	13180.00	105.4
IRON	12500.0	13300.00	106.4
MAGNESIUM	12500.0	13200.00	105.6
MANGANESE	500.0	526.40	105.3
POTASSIUM	12500.0	13180.00	105.4
SODIUM	12500.0	13210.00	105.7

SAMPLE: CCV

File: IOI01A Sep 01, 2021 14:58

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13180.00	105.4
ARSENIC	500.0	528.50	105.7
CALCIUM	12500.0	12860.00	102.9
IRON	12500.0	13250.00	106.0
MAGNESIUM	12500.0	13690.00	109.5
MANGANESE	500.0	519.80	104.0
POTASSIUM	12500.0	13150.00	105.2
SODIUM	12500.0	13310.00	106.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: CCV

File: IOI01A Sep 01, 2021 15:49

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13200.00	105.6
ARSENIC	500.0	523.00	104.6
CALCIUM	12500.0	12990.00	103.9
IRON	12500.0	13210.00	105.7
MAGNESIUM	12500.0	13560.00	108.5
MANGANESE	500.0	521.10	104.2
POTASSIUM	12500.0	13110.00	104.9
SODIUM	12500.0	13220.00	105.8

SAMPLE: CCV

File: IOI01A Sep 01, 2021 16:42

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12720.00	101.8
ARSENIC	500.0	519.20	103.8
CALCIUM	12500.0	12570.00	100.6
IRON	12500.0	12740.00	101.9
MAGNESIUM	12500.0	13390.00	107.1
MANGANESE	500.0	511.70	102.3
POTASSIUM	12500.0	12720.00	101.8
SODIUM	12500.0	12850.00	102.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: CCV

File: IOI01A Sep 01, 2021 17:34

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13010.00	104.1
ARSENIC	500.0	523.10	104.6
CALCIUM	12500.0	12730.00	101.8
IRON	12500.0	12740.00	101.9
MAGNESIUM	12500.0	13510.00	108.1
MANGANESE	500.0	509.80	102.0
POTASSIUM	12500.0	12830.00	102.6
SODIUM	12500.0	12950.00	103.6

SAMPLE: CCV

File: IOI01A Sep 01, 2021 18:26

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12800.00	102.4
ARSENIC	500.0	512.30	102.5
CALCIUM	12500.0	12620.00	101.0
IRON	12500.0	12850.00	102.8
MAGNESIUM	12500.0	13420.00	107.4
MANGANESE	500.0	500.90	100.2
POTASSIUM	12500.0	12750.00	102.0
SODIUM	12500.0	12740.00	101.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: CCV

File: IOI01A Sep 01, 2021 19:01

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12720.00	101.8
ARSENIC	500.0	512.50	102.5
CALCIUM	12500.0	12600.00	100.8
IRON	12500.0	12830.00	102.6
MAGNESIUM	12500.0	13310.00	106.5
MANGANESE	500.0	501.00	100.2
POTASSIUM	12500.0	12710.00	101.7
SODIUM	12500.0	12680.00	101.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: PQL

File: IOI01A Sep 01, 2021 13:34

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	299.10	99.7
ARSENIC	8.0	9.38	117.3
CALCIUM	100.0	109.30	109.3
IRON	100.0	105.90	105.9
MAGNESIUM	100.0	112.30	112.3
MANGANESE	5.0	5.24	104.8
POTASSIUM	1000.0	982.30	98.2

SAMPLE: PQL

File: IOI01A Sep 01, 2021 14:14

Analyte	TRUE	FOUND	% R
SODIUM	1000.0	1071.00	107.1

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: PQL

File: IOI01A Sep 01, 2021 18:56

Analyte	TRUE	FOUND	% R
SODIUM	1000.0	1008.00	100.8

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: ICB

File: IOI01A Sep 01, 2021 13:30

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	4.683	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOI01A Sep 01, 2021 13:52

Analyte	Result	C
ALUMINUM	66.360	J
ARSENIC	1.400	U
CALCIUM	71.440	B
IRON	43.420	J
MAGNESIUM	39.140	J
MANGANESE	1.056	J
POTASSIUM	73.000	U
SODIUM	17.920	J

SAMPLE: CCB

File: IOI01A Sep 01, 2021 14:10

Analyte	Result	C
ALUMINUM	55.110	J
ARSENIC	1.654	J
CALCIUM	70.770	B
IRON	46.400	J
MAGNESIUM	29.020	J
MANGANESE	1.114	J
POTASSIUM	86.200	J
SODIUM	47.130	J

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: CCB

File: IOI01A Sep 01, 2021 15:02

Analyte	Result	C
ALUMINUM	19.480	J
ARSENIC	1.400	U
CALCIUM	28.140	J
IRON	25.120	J
MAGNESIUM	24.360	J
MANGANESE	0.957	J
POTASSIUM	73.000	U
SODIUM	24.930	J

SAMPLE: CCB

File: IOI01A Sep 01, 2021 15:54

Analyte	Result	C
ALUMINUM	19.990	J
ARSENIC	1.578	J
CALCIUM	29.420	J
IRON	24.860	J
MAGNESIUM	27.580	J
MANGANESE	1.060	J
POTASSIUM	73.000	U
SODIUM	26.070	J

SAMPLE: CCB

File: IOI01A Sep 01, 2021 16:46

Analyte	Result	C
ALUMINUM	22.440	J
ARSENIC	1.400	U
CALCIUM	29.570	J
IRON	26.350	J
MAGNESIUM	27.870	J
MANGANESE	1.337	J
POTASSIUM	73.000	U
SODIUM	28.790	J

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: CCB

File: IOI01A Sep 01, 2021 17:38

Analyte	Result	C
ALUMINUM	17.540	J
ARSENIC	1.400	U
CALCIUM	30.240	J
IRON	25.720	J
MAGNESIUM	25.140	J
MANGANESE	1.139	J
POTASSIUM	73.000	U
SODIUM	23.120	J

SAMPLE: CCB

File: IOI01A Sep 01, 2021 18:30

Analyte	Result	C
ALUMINUM	17.790	J
ARSENIC	1.400	U
CALCIUM	33.590	J
IRON	32.960	J
MAGNESIUM	27.820	J
MANGANESE	1.114	J
POTASSIUM	73.000	U
SODIUM	28.260	J

SAMPLE: CCB

File: IOI01A Sep 01, 2021 19:05

Analyte	Result	C
ALUMINUM	21.310	J
ARSENIC	1.400	U
CALCIUM	31.010	J
IRON	30.140	J
MAGNESIUM	25.290	J
MANGANESE	0.871	J
POTASSIUM	73.000	U
SODIUM	24.760	J

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOH31ICW1

Matrix: WATER **SDG Name:** SO5689

QC Batch ID: OH31ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
CALCIUM	100	U
IRON	100	U
MAGNESIUM	100	U
MANGANESE	5.0	U
POTASSIUM	1000	U
SODIUM	1000	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Concentration Units: ug/L

SAMPLE: ICSA

File: IOI01A Sep 01, 2021 13:39

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	534000.00	106.8
ARSENIC	0	-1.09	
CALCIUM	500000.00	494800.00	99.0
IRON	200000.00	189900.00	95.0
MAGNESIUM	500000.00	437000.00	87.4
MANGANESE	0	0.06	
POTASSIUM	0	-39.19	
SODIUM	0	11.24	

SAMPLE: ICSAB

File: IOI01A Sep 01, 2021 13:43

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	529000.00	105.8
ARSENIC	100.00	98.11	98.0
CALCIUM	500000.00	483500.00	96.7
IRON	200000.00	189500.00	94.8
MAGNESIUM	500000.00	434100.00	86.8
MANGANESE	500.00	472.80	94.6
POTASSIUM	20000.00	21600.00	108.0
SODIUM	20000.00	21740.00	108.7

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOH31ICW1

Matrix: WATER **SDG Name:** SO5689

QC Batch ID: OH31ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	92.6	92.6	87	113
CALCIUM	2500	2360	94.2	87	113
IRON	1000	1100	110.3	87	115
MAGNESIUM	5000	4770	95.4	85	113
MANGANESE	500	556	111.3	90	114
POTASSIUM	10000	9330	93.3	86	114
SODIUM	7500	7210	96.1	87	115

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P
POTASSIUM	1000	73	P
SODIUM	1000	12	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	80	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	500	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	500	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	11	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	7.8	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	41	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	24	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P
POTASSIUM	5.00	300000	P
SODIUM	5.00	200000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OH31ICW1

Matrix: WATER **SDG Name:** SO5689

Method: P **Prep Date:** 08/31/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOH31ICW1	LCSWOH31ICW1	0.05	0.05	
PBWOH31ICW1	PBWOH31ICW1	0.05	0.05	
MW-21-3S-BASELINE	SO5689-001	0.05	0.05	C
MW-21-3S-BASELINE-FF	SO5689-002	0.05	0.05	A
MW-21-4D-BASELINE	SO5689-003	0.05	0.05	C
MW-21-4D-BASELINE-FF	SO5689-004	0.05	0.05	A
AS-DUP-BASELINE	SO5689-005	0.05	0.05	C
AS-DUP-BASELINE-FF	SO5689-006	0.05	0.05	A
MW-21-4S-BASELINE	SO5689-007	0.05	0.05	C
MW-21-4S-BASELINE-FF	SO5689-008	0.05	0.05	A
SHM-10-06-BASELINE	SO5689-009	0.05	0.05	C
SHM-10-06-BASELINE-FF	SO5689-010	0.05	0.05	A

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Instrument ID: THERMO ICAP 6500 **File Name:** IOI01A

Date: 09/01/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	13:17	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	13:22	AL	AS	CA	FE	MG MN	K	NA
ICV		1	13:26	AL	AS	CA	FE	MG MN	K	NA
ICB		1	13:30	AL	AS	CA	FE	MG MN	K	NA
PQL		1	13:34	AL	AS	CA	FE	MG MN	K	
ICSA		1	13:39	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	13:43	AL	AS	CA	FE	MG MN	K	NA
CCV		1	13:48	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:52	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:56							
ZZZZZZ		1	14:01							
CCV		1	14:06	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:10	AL	AS	CA	FE	MG MN	K	NA
PQL		1	14:14							NA
ZZZZZZ		1	14:19							
ZZZZZZ		1	14:23							
ZZZZZZ		1	14:28							
ZZZZZZ		1	14:32							
LCSWOH31ICW1		1	14:36		AS	CA	FE	MG MN	K	NA
PBWOH31ICW1		1	14:40		AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	14:45							
ZZZZZZ		1	14:49							
ZZZZZZ		1	14:53							
CCV		1	14:58	AL	AS	CA	FE	MG MN	K	NA
CCB		1	15:02	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	15:06							
ZZZZZZ		1	15:11							

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Instrument ID: THERMO ICAP 6500 **File Name:** IOI01A

Date: 09/01/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		5	15:15							
ZZZZZZ		1	15:19							
ZZZZZZ		1	15:24							
ZZZZZZ		1	15:28							
ZZZZZZ		1	15:32							
ZZZZZZ		1	15:36							
ZZZZZZ		5	15:41							
ZZZZZZ		1	15:45							
CCV		1	15:49	AL	AS	CA	FE	MG MN	K	NA
CCB		1	15:54	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	15:58							
ZZZZZZ		1	16:02							
ZZZZZZ		1	16:07							
ZZZZZZ		1	16:11							
ZZZZZZ		1	16:15							
ZZZZZZ		1	16:20							
ZZZZZZ		1	16:24							
ZZZZZZ		1	16:28							
ZZZZZZ		1	16:33							
ZZZZZZ		1	16:37							
CCV		1	16:42	AL	AS	CA	FE	MG MN	K	NA
CCB		1	16:46	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	16:50							
ZZZZZZ		1	16:54							
ZZZZZZ		1	16:59							
ZZZZZZ		1	17:03							
ZZZZZZ		1	17:08							

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5689

Instrument ID: THERMO ICAP 6500 **File Name:** IOI01A

Date: 09/01/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	17:12							
ZZZZZZ		1	17:16							
ZZZZZZ		1	17:21							
ZZZZZZ		1	17:25							
ZZZZZZ		1	17:29							
CCV		1	17:34	AL	AS	CA	FE	MG MN	K	NA
CCB		1	17:38	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	17:42							
ZZZZZZ		1	17:47							
ZZZZZZ		1	17:51							
ZZZZZZ		1	17:55							
ZZZZZZ		1	18:00							
SO5689-001	MW-21-3S-BASELINE	1	18:04		AS	CA	FE	MG MN	K	NA
SO5689-002	MW-21-3S-BASELINE-FF	1	18:09		AS		FE	MN		
SO5689-003	MW-21-4D-BASELINE	1	18:13		AS	CA	FE	MG MN	K	NA
SO5689-004	MW-21-4D-BASELINE-FF	1	18:17		AS		FE	MN		
SO5689-005	AS-DUP-BASELINE	1	18:22		AS	CA	FE	MG MN	K	NA
CCV		1	18:26	AL	AS	CA	FE	MG MN	K	NA
CCB		1	18:30	AL	AS	CA	FE	MG MN	K	NA
SO5689-006	AS-DUP-BASELINE-FF	1	18:35		AS		FE	MN		
SO5689-007	MW-21-4S-BASELINE	1	18:39		AS	CA	FE	MG MN	K	NA
SO5689-008	MW-21-4S-BASELINE-FF	1	18:43		AS		FE	MN		
SO5689-009	SHM-10-06-BASELINE	1	18:48		AS	CA	FE	MG MN	K	NA
SO5689-010	SHM-10-06-BASELINE-FF	1	18:52		AS		FE	MN		
PQL		1	18:56							NA
CCV		1	19:01	AL	AS	CA	FE	MG MN	K	NA
CCB		1	19:05	AL	AS	CA	FE	MG MN	K	NA

FORM XIV - IN

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST:** EP **ANALYSIS DATE:** 09/01/2021

METHOD: ICP
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOI01A

REVIEWED
09/03/21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed
to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by
EP (initals) on 9/1/21 (date). Client IDs verified

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20471	08/24/2021	08/24/2022	0 ug/L
Standard 1	MW20463	08/20/2021	09/11/2021	Varies by Element
ICV	MW20364	08/20/2021	11/04/2021	Varies by Element
PQL	MW20454	08/17/2021	9/11/2021	Varies by Element
LRS1	MW20479	08/31/2021	09/23/2021	Varies by Element
LRS2	MW20469	08/24/2021	09/11/2021	Varies by Element
ICSA	MW20453	08/17/2021	11/17/2021	Varies by Element
ICSAB	MW20412	08/05/2021	10/05/2021	Varies by Element
CCV	MW20468	08/24/2021	09/11/2021	Varies by Element
Internal Standard	MW20452	08/17/2021	11/17/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

PQL warned high for barium, failed low for sodium. Failing sodium value replaced with Sodium PQL value.

Initial CCV warned high for magnesium, thallium. Non-200.7 BQC accepted.

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

5x diln.: 1.6 mL of sample (pipet M25) + 6.4 mL of MW19407 (pipet M25)

Post Spike: 0.123mL MW20305 (pipet M27) to 6.0mL of sample (pipet M25)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOI01A	09/01/2021	13:17	EP
Std 1	1.000	IOI01A	09/01/2021	13:22	EP
ICV	1.000	IOI01A	09/01/2021	13:26	EP
ICB	1.000	IOI01A	09/01/2021	13:30	EP
PQL	1.000	IOI01A	09/01/2021	13:34	EP
ICSA	1.000	IOI01A	09/01/2021	13:39	EP
ICSAB	1.000	IOI01A	09/01/2021	13:43	EP
CCV	1.000	IOI01A	09/01/2021	13:48	EP
CCB	1.000	IOI01A	09/01/2021	13:52	EP
LRS1	1.000	IOI01A	09/01/2021	13:56	EP
LRS2	1.000	IOI01A	09/01/2021	14:01	EP
CCV	1.000	IOI01A	09/01/2021	14:06	EP
CCB	1.000	IOI01A	09/01/2021	14:10	EP
SODIUM PQL	1.000	IOI01A	09/01/2021	14:14	EP
SO5787-001	1.000	IOI01A	09/01/2021	14:19	EP
LC2OOH30ICS3	1.000	IOI01A	09/01/2021	14:23	EP
~~LCSOOH30ICS3~~ LCS00H30ICS3	1.000	IOI01A	09/01/2021	14:28	EP
~~PBSOH30ICS3~~ LCS00H30ICS4	1.000	IOI01A	09/01/2021	14:32	EP
LCSWOH31ICW1	1.000	IOI01A	09/01/2021	14:36	EP
PBWOH31ICW1	1.000	IOI01A	09/01/2021	14:40	EP
LCSWOI01ICW1	1.000	IOI01A	09/01/2021	14:45	EP
PBWOI01ICW1	1.000	IOI01A	09/01/2021	14:49	EP
SO5730-001	1.000	IOI01A	09/01/2021	14:53	EP
CCV	1.000	IOI01A	09/01/2021	14:58	EP
CCB	1.000	IOI01A	09/01/2021	15:02	EP
SO5772-001	1.000	IOI01A	09/01/2021	15:06	EP
SO5108-003	1.000	IOI01A	09/01/2021	15:11	EP
SO5108-003L	5.000	IOI01A	09/01/2021	15:15	EP
SO5108-003A	1.000	IOI01A	09/01/2021	15:19	EP
SO5108-003D	1.000	IOI01A	09/01/2021	15:24	EP
SO5108-003S	1.000	IOI01A	09/01/2021	15:28	EP
SO5108-009	1.000	IOI01A	09/01/2021	15:32	EP
SO5108-010	1.000	IOI01A	09/01/2021	15:36	EP
SO5108-010L	5.000	IOI01A	09/01/2021	15:41	EP
SO5108-010A	1.000	IOI01A	09/01/2021	15:45	EP
CCV	1.000	IOI01A	09/01/2021	15:49	EP
CCB	1.000	IOI01A	09/01/2021	15:54	EP
SO5108-010D	1.000	IOI01A	09/01/2021	15:58	EP
SO5108-010S	1.000	IOI01A	09/01/2021	16:02	EP
SO5108-011	1.000	IOI01A	09/01/2021	16:07	EP
SO5108-012	1.000	IOI01A	09/01/2021	16:11	EP
SO5108-013	1.000	IOI01A	09/01/2021	16:15	EP
SO4240-021	1.000	IOI01A	09/01/2021	16:20	EP
SO4240-022	1.000	IOI01A	09/01/2021	16:24	EP

EP 9/2/21

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO4240-023	1.000	IOI01A	09/01/2021	16:28	EP
SO4240-024	1.000	IOI01A	09/01/2021	16:33	EP
SO4240-025	1.000	IOI01A	09/01/2021	16:37	EP
CCV	1.000	IOI01A	09/01/2021	16:42	EP
CCB	1.000	IOI01A	09/01/2021	16:46	EP
SO4240-026	1.000	IOI01A	09/01/2021	16:50	EP
SO4240-027	1.000	IOI01A	09/01/2021	16:54	EP
SO4240-028	1.000	IOI01A	09/01/2021	16:59	EP
SO4240-029	1.000	IOI01A	09/01/2021	17:03	EP
SO4240-030	1.000	IOI01A	09/01/2021	17:08	EP
SO4247-001	1.000	IOI01A	09/01/2021	17:12	EP
SO4247-002	1.000	IOI01A	09/01/2021	17:16	EP
SO4247-003	1.000	IOI01A	09/01/2021	17:21	EP
SO4247-004	1.000	IOI01A	09/01/2021	17:25	EP
SO4247-005	1.000	IOI01A	09/01/2021	17:29	EP
CCV	1.000	IOI01A	09/01/2021	17:34	EP
CCB	1.000	IOI01A	09/01/2021	17:38	EP
SO4247-006	1.000	IOI01A	09/01/2021	17:42	EP
SO4247-007	1.000	IOI01A	09/01/2021	17:47	EP
SO4247-008	1.000	IOI01A	09/01/2021	17:51	EP
SO4247-009	1.000	IOI01A	09/01/2021	17:55	EP
SO4247-010	1.000	IOI01A	09/01/2021	18:00	EP
SO5689-001	1.000	IOI01A	09/01/2021	18:04	EP
SO5689-002	1.000	IOI01A	09/01/2021	18:09	EP
SO5689-003	1.000	IOI01A	09/01/2021	18:13	EP
SO5689-004	1.000	IOI01A	09/01/2021	18:17	EP
SO5689-005	1.000	IOI01A	09/01/2021	18:22	EP
CCV	1.000	IOI01A	09/01/2021	18:26	EP
CCB	1.000	IOI01A	09/01/2021	18:30	EP
SO5689-006	1.000	IOI01A	09/01/2021	18:35	EP
SO5689-007	1.000	IOI01A	09/01/2021	18:39	EP
SO5689-008	1.000	IOI01A	09/01/2021	18:43	EP
SO5689-009	1.000	IOI01A	09/01/2021	18:48	EP
SO5689-010	1.000	IOI01A	09/01/2021	18:52	EP
SODIUM PQL	1.000	IOI01A	09/01/2021	18:56	EP
CCV	1.000	IOI01A	09/01/2021	19:01	EP
CCB	1.000	IOI01A	09/01/2021	19:05	EP
PQL	1.000	IOI01A	09/01/2021	19:09	EP
ICSA	1.000	IOI01A	09/01/2021	19:14	EP
ICSAB	1.000	IOI01A	09/01/2021	19:18	EP
CCV	1.000	IOI01A	09/01/2021	19:23	EP
CCB	1.000	IOI01A	09/01/2021	19:27	EP

Intensity Report

Author:

Published: 9/2/2021 7:56:30AM

Notes:

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Method Name: FAST-2016_NO_AU

Method Revision: 1,011

Analyst Name: EP

Acquire Date: 9/1/2021 1:17:51PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001670	Cts/S	0.000001000	0.7059	-23.02
Al3961_R		0.00007000	Cts/S	0.0002590	370.1	1.319
As1891_A		-0.0003130	Cts/S	0.00001000	3.224	-2.353
B_2089_A		0.001330	Cts/S	0.00002100	1.573	9.993
Ba4554_R		0.0006690	Cts/S	0.0002780	41.53	12.76
Be3130_R		-0.0002020	Cts/S	0.0002110	104.3	-3.873
Ca3158_R		-0.001820	Cts/S	0.0002290	12.57	-34.75
Cd2265_A		-0.0001880	Cts/S	0.00007800	41.75	-1.412
Co2286_A		0.00005900	Cts/S	0.000002000	2.633	0.4436
Cr2677_A		0.000003000	Cts/S	0.000008000	267.9	-0.3877
Cu3273_A		-0.0002150	Cts/S	0.000002000	0.9359	-29.60
Fe2599_R		0.00005100	Cts/S	0.0001980	386.4	0.9645
K_7664_R		-0.001105	Cts/S	0.0004790	43.32	-21.14
Li6707_R		0.0009660	Cts/S	0.0006240	64.66	18.49
Mg2025_A		-0.0009540	Cts/S	0.00005800	6.072	-7.168
Mn2576_R		0.0001080	Cts/S	0.00004200	39.33	2.056
Mo2020_A		0.00005600	Cts/S	0.00003200	56.97	0.4215
Na5895_R		0.003486	Cts/S	0.0009330	26.77	66.67
Ni2316_A		-0.00004500	Cts/S	0.00001300	28.99	-0.3370
Pb2203_A		-0.0001520	Cts/S	0.00002600	17.02	-1.143
Sb2068_A		-0.00007700	Cts/S	0.00001400	18.06	-0.5753
Se1960_A		0.0001630	Cts/S	0.00003600	22.15	1.228
Si2516_R		0.003629	Cts/S	0.00003500	0.9613	69.32
Sn1899_A		0.0001510	Cts/S	0.00003100	20.27	1.133
Sr4215_R		-0.001921	Cts/S	0.00005200	2.684	-36.70
Ti3349_A		-0.0001060	Cts/S	0.000007000	6.378	-14.64
Tl1908_A		-0.0002450	Cts/S	0.00003500	14.34	-1.840
V_2924_A		-0.00004700	Cts/S	0.00001200	24.72	-6.500
Zn2062_A		-0.00001200	Cts/S	0.000001000	8.453	-0.09099
Y_3600_R		19,103	Cts/S	136.01	0.71195	19,103
Y_2243_A		7,514.7	Cts/S	12.888	0.17150	7,514.7
Y_3600_A		137,760	Cts/S	336.38	0.24418	137,760

Std 1

Method Name: FAST-2016_NO_AU

Method Revision: 1,011

Analyst Name: EP

Acquire Date: 9/1/2021 1:22:14PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1251	Cts/S	0.00008600	0.06841	16,650
Al3961_R		1.459	Cts/S	0.009492	0.6504	28,090
As1891_A		0.04347	Cts/S	0.0003100	0.7134	321.1
B_2089_A		0.1990	Cts/S	0.0009270	0.4659	1,470
Ba4554_R		3.993	Cts/S	0.01097	0.2747	76,860
Be3130_R		5.767	Cts/S	0.05317	0.9219	111,000
Ca3158_R		1.612	Cts/S	0.02076	1.288	31,030
Cd2265_A		1.570	Cts/S	0.009124	0.5810	11,600
Co2286_A		0.4307	Cts/S	0.002913	0.6763	3,181
Cr2677_A		0.08392	Cts/S	0.0003610	0.4299	11,170
Cu3273_A		0.1107	Cts/S	0.0002530	0.2283	14,740
Fe2599_R		2.660	Cts/S	0.02225	0.8365	51,200
K_7664_R		0.9362	Cts/S	0.009956	1.063	18,020
Li6707_R		0.8068	Cts/S	0.003819	0.4733	15,530

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:22:14PM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.156	Cts/S	0.005480	0.4740	8,539
Mn2576_R		0.4963	Cts/S	0.006044	1.218	9,552
Mo2020_A		0.3929	Cts/S	0.001892	0.4816	2,902
Na5895_R		3.246	Cts/S	0.02642	0.8140	62,480
Ni2316_A		0.2143	Cts/S	0.001294	0.6040	1,583
Pb2203_A		0.1198	Cts/S	0.0004370	0.3650	885.0
Sb2068_A		0.06901	Cts/S	0.0005220	0.7567	509.7
Se1960_A		0.03396	Cts/S	0.0001880	0.5528	250.8
Si2516_R		0.6611	Cts/S	0.006569	0.9936	12,720
Sn1899_A		0.05657	Cts/S	0.0003860	0.6819	417.9
Sr4215_R		5.381	Cts/S	0.02301	0.4277	103,600
Ti3349_A		0.1789	Cts/S	0.00009500	0.05291	23,830
Tl1908_A		0.06166	Cts/S	0.0003160	0.5127	455.5
V_2924_A		0.08288	Cts/S	0.0006060	0.7315	11,040
Zn2062_A		0.3109	Cts/S	0.001942	0.6246	2,296
Y_3600_R		19,248	Cts/S	317.33	1.6486	19,248
Y_2243_A		7,386.6	Cts/S	23.526	0.31850	7,386.6
Y_3600_A		133,160	Cts/S	60.736	0.045610	133,160

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:26:20PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		399.4	ug/L	6.729	1.685	6,776
Al3961_R		10,150	ug/L	107.1	1.055	11,390
As1891_A		384.7	ug/L	0.5911	0.1536	124.1
B_2089_A		401.3	ug/L	0.7633	0.1902	606.1
Ba4554_R		401.9	ug/L	1.640	0.4081	30,860
Be3130_R		410.9	ug/L	2.397	0.5834	45,550
Ca3158_R		10,240	ug/L	60.74	0.5929	12,680
Cd2265_A		400.7	ug/L	0.2128	0.05312	4,726
Co2286_A		406.4	ug/L	0.9754	0.2400	1,315
Cr2677_A		397.4	ug/L	6.633	1.669	4,534
Cu3273_A		399.9	ug/L	6.432	1.608	6,000
Fe2599_R		10,270	ug/L	77.76	0.7574	21,000
K_7664_R		13,720	ug/L	5.277	0.03847	9,866
Li6707_R		410.7	ug/L	1.680	0.4090	6,381
Mg2025_A		10,290	ug/L	12.64	0.1228	3,570
Mn2576_R		405.8	ug/L	5.284	1.302	3,873
Mo2020_A		409.0	ug/L	0.6181	0.1511	1,207
Na5895_R		10,170	ug/L	90.34	0.8879	25,440
Ni2316_A		406.0	ug/L	0.6944	0.1710	653.3
Pb2203_A		409.5	ug/L	0.7029	0.1716	367.9
Sb2068_A		397.9	ug/L	0.3763	0.09457	205.8
Se1960_A		399.4	ug/L	0.9640	0.2414	102.6
Si2516_R		10,040	ug/L	108.6	1.081	5,047
Sn1899_A		412.5	ug/L	1.552	0.3762	175.9
Sr4215_R		410.5	ug/L	2.891	0.7043	42,440
Ti3349_A		396.5	ug/L	6.996	1.764	9,636
Tl1908_A		414.5	ug/L	0.04196	0.01012	190.9
V_2924_A		398.4	ug/L	6.470	1.624	4,485
Zn2062_A		400.9	ug/L	1.030	0.2569	936.0
Y_3600_R		19,224	Cts/S	5.0343	0.026187	19,224
Y_2243_A		7,511.2	Cts/S	14.650	0.19504	7,511.2
Y_3600_A		135,980	Cts/S	1,493.0	1.0980	135,980

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ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:30:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.003172	ug/L	0.03692	1,164	-23.07
Al3961_R		0.9922	ug/L	12.92	1,302	2.410
As1891_A		0.1142	ug/L	0.3003	262.9	-2.279
B_2089_A		1.064	ug/L	0.4175	39.23	11.37
Ba4554_R		0.1296	ug/L	0.05363	41.39	22.46
Be3130_R		0.09662	ug/L	0.007941	8.219	6.724
Ca3158_R		5.029	ug/L	0.9680	19.25	-28.31
Cd2265_A		-0.03005	ug/L	0.03473	115.6	-1.730
Co2286_A		0.09814	ug/L	0.1060	108.0	0.7484
Cr2677_A		0.3205	ug/L	0.1366	42.61	3.318
Cu3273_A		0.05963	ug/L	0.2187	366.7	-28.67
Fe2599_R		4.683	ug/L	1.093	23.34	10.41
K_7664_R		-5.538	ug/L	1.297	23.42	-24.85
Li6707_R		-0.7085	ug/L	0.5006	70.66	7.489
Mg2025_A		0.4284	ug/L	1.459	340.6	-6.905
Mn2576_R		0.1349	ug/L	0.09550	70.77	3.305
Mo2020_A		0.5131	ug/L	0.2839	55.34	1.903
Na5895_R		-3.214	ug/L	1.310	40.75	58.10
Ni2316_A		-0.1782	ug/L	0.2014	113.0	-0.6081
Pb2203_A		0.2052	ug/L	1.362	664.0	-0.9391
Sb2068_A		0.07942	ug/L	0.7668	965.5	-0.5256
Se1960_A		0.7923	ug/L	0.1095	13.82	1.407
Si2516_R		14.05	ug/L	2.354	16.75	75.55
Sn1899_A		0.4188	ug/L	0.3085	73.67	1.291
Sr4215_R		0.2677	ug/L	0.03791	14.16	-9.097
Ti3349_A		0.1426	ug/L	0.1671	117.2	-11.11
Tl1908_A		0.005553	ug/L	0.2833	5,101	-1.808
V_2924_A		0.1067	ug/L	0.3239	303.5	-5.316
Zn2062_A		0.04449	ug/L	0.1184	266.1	0.01284
Y_3600_R		18,932	Cts/S	90.812	0.47967	18,932
Y_2243_A		7,397.3	Cts/S	41.876	0.56609	7,397.3
Y_3600_A		137,640	Cts/S	436.38	0.31704	137,640

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:34:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		10.13	ug/L	0.1085	1.071	151.6
Al3961_R		299.1	ug/L	2.458	0.8219	335.8
As1891_A		9.382	ug/L	1.045	11.13	0.7396
B_2089_A		49.84	ug/L	0.01270	0.02549	82.67
Ba4554_R	W	6.174	ug/L	0.04885	0.7912	485.4
Be3130_R		5.165	ug/L	0.05746	1.113	566.8
Ca3158_R		109.3	ug/L	0.8015	0.7331	100.4
Cd2265_A		5.117	ug/L	0.007642	0.1494	58.83
Co2286_A		10.49	ug/L	0.04150	0.3954	34.37
Cr2677_A		10.28	ug/L	0.3133	3.047	118.0
Cu3273_A		25.81	ug/L	0.02733	0.1059	363.3
Fe2599_R		105.9	ug/L	3.099	2.926	217.1
K_7664_R		982.3	ug/L	10.78	1.098	684.9
Li6707_R		101.6	ug/L	0.3578	0.3521	1,589
Mg2025_A		112.3	ug/L	0.2960	0.2637	32.16
Mn2576_R		5.243	ug/L	0.1480	2.823	51.92
Mo2020_A		10.41	ug/L	0.001895	0.01820	31.11
Na5895_R	F	0.7929	ug/L	1.649	208.0	68.81
Ni2316_A		10.71	ug/L	0.1685	1.573	16.88

PQL

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:34:56PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.373	ug/L	0.2337	4.350	3.682
Sb2068_A		8.506	ug/L	0.6970	8.194	3.320
Se1960_A		10.84	ug/L	0.1696	1.564	3.973
Si2516_R		189.2	ug/L	0.1086	0.05739	163.1
Sn1899_A		102.9	ug/L	0.3843	0.3733	44.70
Sr4215_R		10.47	ug/L	0.08471	0.8088	1,044
Ti3349_A		14.82	ug/L	0.004397	0.02966	349.5
Tl1908_A		17.17	ug/L	0.2129	1.240	6.131
V_2924_A		10.17	ug/L	0.1739	1.709	109.3
Zn2062_A	W	25.24	ug/L	0.02401	0.09510	58.82
Y_3600_R		19,173	Cts/S	35.516	0.18524	19,173
Y_2243_A		7,502.3	Cts/S	18.863	0.25144	7,502.3
Y_3600_A		137,220	Cts/S	601.77	0.43855	137,220

ICSA

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:39:20PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7285	ug/L	0.08489	11.65	-552.7
Al3961_R		534,000	ug/L	2,260	0.4232	564,600
As1891_A		-1.090	ug/L	1.916	175.7	-9.784
B_2089_A		-2.194	ug/L	0.3969	18.10	5.816
Ba4554_R		1.627	ug/L	0.006932	0.4260	130.0
Be3130_R		-0.03537	ug/L	0.06065	171.5	-7.537
Ca3158_R		494,800	ug/L	2,340	0.4728	579,600
Cd2265_A		-0.1808	ug/L	0.1077	59.55	335.5
Co2286_A		0.06899	ug/L	0.04368	63.32	2.977
Cr2677_A		-1.722	ug/L	0.2732	15.87	0.6247
Cu3273_A		1.184	ug/L	0.06391	5.397	-12.10
Fe2599_R		189,900	ug/L	925.4	0.4873	366,600
K_7664_R		-39.19	ug/L	10.37	26.47	-46.71
Li6707_R		4.074	ug/L	0.5610	13.77	77.07
Mg2025_A		437,000	ug/L	1,998	0.4573	130,700
Mn2576_R		0.06306	ug/L	0.3741	593.3	-1.711
Mo2020_A		-2.638	ug/L	0.2645	10.03	-6.377
Na5895_R		11.24	ug/L	0.1245	1.107	89.71
Ni2316_A		0.2938	ug/L	0.1231	41.91	-8.867
Pb2203_A		0.3375	ug/L	1.181	349.9	-28.71
Sb2068_A		-2.335	ug/L	2.193	93.94	1.714
Se1960_A		1.053	ug/L	3.022	286.9	3.562
Si2516_R		14.26	ug/L	3.976	27.88	57.68
Sn1899_A		9.968	ug/L	1.445	14.49	4.640
Sr4215_R	W	5.286	ug/L	0.05667	1.072	481.3
Ti3349_A		0.9020	ug/L	0.1719	19.06	6.516
Tl1908_A		0.7052	ug/L	1.505	213.5	-0.7788
V_2924_A		-1.648	ug/L	0.2676	16.24	1.383
Zn2062_A		4.718	ug/L	0.1158	2.455	9.471
Y_3600_R		18,143	Cts/S	57.232	0.31545	18,143
Y_2243_A		6,504.6	Cts/S	18.596	0.28589	6,504.6
Y_3600_A		119,230	Cts/S	707.48	0.59337	119,230

ICSAB

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:43:55PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:43:55PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		218.2	ug/L	1.453	0.6661	2,655
Al3961_R		529,000	ug/L	452.7	0.08558	554,400
As1891_A		98.11	ug/L	0.7047	0.7183	18.48
B_2089_A		490.5	ug/L	3.800	0.7748	635.3
Ba4554_R		494.0	ug/L	1.052	0.2130	35,470
Be3130_R		504.8	ug/L	2.848	0.5642	52,340
Ca3158_R		483,500	ug/L	765.6	0.1583	561,300
Cd2265_A		916.8	ug/L	3.837	0.4185	9,601
Co2286_A		453.3	ug/L	2.677	0.5907	1,265
Cr2677_A		471.9	ug/L	5.718	1.212	4,646
Cu3273_A		537.8	ug/L	7.021	1.305	6,947
Fe2599_R		189,500	ug/L	275.2	0.1452	362,600
K_7664_R		21,600	ug/L	94.59	0.4380	14,540
Li6707_R		554.2	ug/L	1.952	0.3522	8,048
Mg2025_A		434,100	ug/L	2,294	0.5285	129,100
Mn2576_R		472.8	ug/L	2.652	0.5608	4,217
Mo2020_A		488.4	ug/L	2.366	0.4845	1,240
Na5895_R		21,740	ug/L	52.74	0.2426	50,760
Ni2316_A		887.4	ug/L	3.736	0.4210	1,217
Pb2203_A		45.07	ug/L	0.2649	0.5878	6.275
Sb2068_A		602.2	ug/L	0.8337	0.1384	271.7
Se1960_A		52.39	ug/L	2.843	5.426	14.77
Si2516_R		2,136	ug/L	3.943	0.1846	1,044
Sn1899_A		483.3	ug/L	4.744	0.9817	177.2
Sr4215_R		521.1	ug/L	0.7263	0.1394	50,400
Ti3349_A		504.6	ug/L	3.675	0.7283	10,550
Tl1908_A		81.37	ug/L	0.6048	0.7432	31.84
V_2924_A		482.7	ug/L	6.589	1.365	4,696
Zn2062_A		900.7	ug/L	3.263	0.3622	1,811
Y_3600_R		17,981	Cts/S	128.00	0.71186	17,981
Y_2243_A		6,463.8	Cts/S	22.818	0.35301	6,463.8
Y_3600_A		116,930	Cts/S	1,206.7	1.0320	116,930

CCV

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:48:24PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		512.8	ug/L	0.4266	0.08320	8,600
Al3961_R		13,130	ug/L	111.3	0.8477	14,520
As1891_A		512.3	ug/L	3.277	0.6396	162.6
B_2089_A		520.1	ug/L	4.434	0.8525	765.9
Ba4554_R		518.1	ug/L	6.636	1.281	39,190
Be3130_R		521.2	ug/L	6.631	1.272	56,940
Ca3158_R		13,120	ug/L	31.41	0.2394	16,010
Cd2265_A		519.8	ug/L	5.215	1.003	6,001
Co2286_A		523.1	ug/L	4.548	0.8695	1,657
Cr2677_A		511.8	ug/L	0.01063	0.002077	5,768
Cu3273_A		514.3	ug/L	1.307	0.2541	7,630
Fe2599_R		13,090	ug/L	160.7	1.228	26,380
K_7664_R		12,900	ug/L	125.7	0.9743	9,140
Li6707_R		521.3	ug/L	4.695	0.9005	7,976
Mg2025_A	W	13,250	ug/L	106.5	0.8035	4,502
Mn2576_R		522.1	ug/L	6.732	1.289	4,909
Mo2020_A		521.4	ug/L	2.823	0.5414	1,506
Na5895_R		13,000	ug/L	123.7	0.9512	32,010
Ni2316_A		524.7	ug/L	4.820	0.9185	826.5

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:48:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		525.5	ug/L	5.893	1.122	462.3
Sb2068_A		519.8	ug/L	1.889	0.3634	263.4
Se1960_A		515.1	ug/L	4.206	0.8165	129.2
Si2516_R		13,370	ug/L	118.2	0.8840	6,598
Sn1899_A		524.4	ug/L	5.161	0.9843	218.6
Sr4215_R		520.4	ug/L	4.598	0.8836	53,020
Ti3349_A		511.0	ug/L	1.203	0.2355	12,270
Tl1908_A	W	534.4	ug/L	3.210	0.6007	241.4
V_2924_A		509.6	ug/L	0.7840	0.1538	5,669
Zn2062_A		519.3	ug/L	4.659	0.8972	1,187
Y_3600_R		18,942	Cts/S	51.127	0.26991	18,942
Y_2243_A		7,352.4	Cts/S	42.415	0.57690	7,352.4
Y_3600_A		134,310	Cts/S	213.62	0.15906	134,310

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:52:33PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.8798	ug/L	0.03154	3.585	-7.793
Al3961_R		66.36	ug/L	5.436	8.191	73.86
As1891_A		1.092	ug/L	0.5523	50.57	-1.968
B_2089_A		1.140	ug/L	0.2212	19.41	11.54
Ba4554_R		0.9026	ug/L	0.04146	4.594	80.09
Be3130_R		0.9125	ug/L	0.04143	4.540	94.89
Ca3158_R		71.44	ug/L	5.867	8.213	52.33
Cd2265_A		0.8096	ug/L	0.07172	8.859	8.082
Co2286_A		0.9125	ug/L	0.02771	3.036	3.351
Cr2677_A		0.6870	ug/L	0.07419	10.80	7.447
Cu3273_A		1.028	ug/L	0.1133	11.02	-13.69
Fe2599_R		43.42	ug/L	3.642	8.388	87.56
K_7664_R		12.12	ug/L	7.962	65.70	-12.19
Li6707_R		0.4061	ug/L	0.8835	217.6	24.22
Mg2025_A		39.14	ug/L	4.782	12.22	6.327
Mn2576_R		1.056	ug/L	0.4150	39.30	11.83
Mo2020_A		1.284	ug/L	0.2501	19.47	4.157
Na5895_R		17.92	ug/L	1.679	9.367	108.9
Ni2316_A		0.8603	ug/L	0.02893	3.363	1.038
Pb2203_A		0.7534	ug/L	0.2936	38.97	-0.4602
Sb2068_A		0.8387	ug/L	1.234	147.2	-0.1369
Se1960_A		1.197	ug/L	0.8803	73.57	1.512
Si2516_R		30.77	ug/L	0.2007	0.6522	82.89
Sn1899_A		0.6568	ug/L	0.4491	68.37	1.393
Sr4215_R		1.128	ug/L	0.01862	1.651	77.79
Ti3349_A		0.7230	ug/L	0.1448	20.02	3.145
Tl1908_A		1.289	ug/L	0.5886	45.68	-1.225
V_2924_A		1.142	ug/L	0.01700	1.489	6.454
Zn2062_A		1.048	ug/L	0.02276	2.171	2.328
Y_3600_R		18,745	Cts/S	51.701	0.27581	18,745
Y_2243_A		7,416.4	Cts/S	5.0541	0.068148	7,416.4
Y_3600_A		135,750	Cts/S	749.98	0.55249	135,750

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:56:58PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 1:56:58PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1,997	ug/L	20.36	1.019	32,390
Al3961_R		14.87	ug/L	17.14	115.2	224.8
As1891_A		19,970	ug/L	174.0	0.8712	6,190
B_2089_A		20,000	ug/L	164.7	0.8232	27,480
Ba4554_R		19,750	ug/L	207.2	1.049	1,488,000
Be3130_R		20,030	ug/L	218.2	1.090	2,179,000
Ca3158_R		19.71	ug/L	6.977	35.40	4.265
Cd2265_A		19,590	ug/L	201.4	1.028	216,200
Co2286_A		20,280	ug/L	184.7	0.9109	61,630
Cr2677_A		19,860	ug/L	86.63	0.4363	216,500
Cu3273_A		20,290	ug/L	135.1	0.6660	292,400
Fe2599_R		2.695	ug/L	0.8273	30.70	6.364
K_7664_R		-3.930	ug/L	25.88	658.5	-23.77
Li6707_R		20,300	ug/L	828.1	4.079	308,700
Mg2025_A		549.9	ug/L	8.047	1.463	1,125
Mn2576_R		19,780	ug/L	390.6	1.975	185,200
Mo2020_A		5,094	ug/L	49.21	0.9660	14,120
Na5895_R		25.55	ug/L	0.5662	2.216	128.3
Ni2316_A		20,240	ug/L	178.5	0.8821	30,480
Pb2203_A		20,900	ug/L	208.8	0.9992	17,720
Sb2068_A		20,410	ug/L	188.6	0.9239	9,947
Se1960_A		20,210	ug/L	178.4	0.8826	4,818
Si2516_R		131.4	ug/L	6.898	5.249	247.9
Sn1899_A		20,340	ug/L	183.8	0.9037	8,098
Sr4215_R		19,830	ug/L	14.36	0.07241	2,014,000
Ti3349_A		19,650	ug/L	131.9	0.6714	456,900
Tl1908_A		20,080	ug/L	197.7	0.9846	8,770
V_2924_A		19,960	ug/L	96.50	0.4835	215,900
Zn2062_A		18,900	ug/L	190.6	1.008	41,470
Y_3600_R		18,869	Cts/S	286.89	1.5204	18,869
Y_2243_A		7,057.7	Cts/S	40.080	0.56789	7,057.7
Y_3600_A		129,950	Cts/S	449.57	0.34595	129,950

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:01:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.118	ug/L	0.2559	22.88	-652.1
Al3961_R		517,400	ug/L	4,642	0.8972	546,700
As1891_A		3.835	ug/L	1.496	39.00	-10.10
B_2089_A		31.78	ug/L	4.112	12.94	48.44
Ba4554_R		2.531	ug/L	0.04745	1.875	195.3
Be3130_R		0.9924	ug/L	0.02634	2.654	99.84
Ca3158_R		478,000	ug/L	6,842	1.431	559,400
Cd2265_A		-0.1649	ug/L	1.073	651.0	407.4
Co2286_A		1.807	ug/L	0.2878	15.93	8.329
Cr2677_A		-2.679	ug/L	0.1378	5.143	-4.881
Cu3273_A		3.928	ug/L	0.3243	8.256	15.88
Fe2599_R		231,300	ug/L	2,480	1.072	446,200
K_7664_R		306,800	ug/L	1,113	0.3628	208,500
Li6707_R		3.533	ug/L	0.5364	15.18	69.15
Mg2025_A		183,600	ug/L	212.3	0.1156	54,660
Mn2576_R		12.83	ug/L	0.3117	2.430	35.17
Mo2020_A		0.8957	ug/L	0.5900	65.87	2.639
Na5895_R		209,200	ug/L	930.6	0.4449	492,000
Ni2316_A		2.745	ug/L	0.3165	11.53	-7.353

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:01:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		3.064	ug/L	0.3961	12.93	-24.11
Sb2068_A		-2.058	ug/L	3.136	152.4	2.380
Se1960_A		6.063	ug/L	1.036	17.08	4.759
Si2516_R		51,970	ug/L	140.0	0.2694	24,330
Sn1899_A		12.55	ug/L	1.103	8.795	5.557
Sr4215_R		5.312	ug/L	0.05323	1.002	483.5
Ti3349_A		3.058	ug/L	0.4997	16.34	51.51
Tl1908_A		1.218	ug/L	0.01401	1.150	-0.6224
V_2924_A		-0.6505	ug/L	0.03071	4.721	15.87
Zn2062_A		8.255	ug/L	0.5149	6.237	16.55
Y_3600_R		18,130	Cts/S	85.466	0.47141	18,130
Y_2243_A		6,471.8	Cts/S	0.82322	0.012720	6,471.8
Y_3600_A		116,840	Cts/S	37.028	0.031692	116,840

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:06:16PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		503.6	ug/L	2.889	0.5738	8,388
Al3961_R	W	13,260	ug/L	133.1	1.004	14,660
As1891_A		514.1	ug/L	1.791	0.3483	161.6
B_2089_A	W	542.1	ug/L	1.591	0.2936	789.4
Ba4554_R		525.7	ug/L	6.148	1.169	39,770
Be3130_R	W	530.1	ug/L	4.290	0.8094	57,900
Ca3158_R	W	13,180	ug/L	96.08	0.7292	16,080
Cd2265_A		520.3	ug/L	0.1689	0.03247	5,950
Co2286_A		520.2	ug/L	0.9157	0.1760	1,632
Cr2677_A		510.5	ug/L	1.821	0.3568	5,715
Cu3273_A		517.7	ug/L	0.6611	0.1277	7,630
Fe2599_R	W	13,300	ug/L	156.3	1.175	26,810
K_7664_R	W	13,180	ug/L	65.14	0.4943	9,338
Li6707_R	W	531.6	ug/L	6.920	1.302	8,134
Mg2025_A	W	13,200	ug/L	6.755	0.05118	4,440
Mn2576_R		526.4	ug/L	1.171	0.2225	4,950
Mo2020_A		519.8	ug/L	0.8678	0.1670	1,487
Na5895_R	W	13,210	ug/L	68.61	0.5195	32,520
Ni2316_A		525.5	ug/L	0.3910	0.07441	819.7
Pb2203_A	W	527.7	ug/L	0.1646	0.03118	459.9
Sb2068_A		523.5	ug/L	0.5171	0.09877	262.8
Se1960_A		514.3	ug/L	3.102	0.6031	127.8
Si2516_R	W	13,550	ug/L	44.47	0.3281	6,689
Sn1899_A		527.0	ug/L	3.585	0.6803	217.6
Sr4215_R	W	527.6	ug/L	4.745	0.8992	53,760
Ti3349_A		506.2	ug/L	3.213	0.6348	12,080
Tl1908_A	W	537.1	ug/L	0.3112	0.05795	240.3
V_2924_A		514.0	ug/L	0.5648	0.1099	5,680
Zn2062_A		517.9	ug/L	0.4088	0.07894	1,172
Y_3600_R		18,943	Cts/S	32.287	0.17044	18,943
Y_2243_A		7,282.0	Cts/S	1.9223	0.026399	7,282.0
Y_3600_A		133,420	Cts/S	230.43	0.17271	133,420

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.283	ug/L	0.03674	2.865	-0.9119
Al3961_R		55.11	ug/L	19.77	35.88	61.27
As1891_A		1.654	ug/L	0.5836	35.29	-1.763
B_2089_A	W	15.10	ug/L	0.3333	2.207	31.20
Ba4554_R		1.084	ug/L	0.08476	7.817	93.23
Be3130_R	W	1.023	ug/L	0.1336	13.06	106.3
Ca3158_R		70.77	ug/L	23.80	33.64	51.22
Cd2265_A		0.8446	ug/L	0.08527	10.10	8.388
Co2286_A		0.8919	ug/L	0.2301	25.80	3.245
Cr2677_A		0.9970	ug/L	0.08760	8.786	10.87
Cu3273_A		1.530	ug/L	0.1451	9.484	-6.085
Fe2599_R		46.40	ug/L	11.44	24.66	93.01
K_7664_R		86.20	ug/L	16.19	18.79	39.65
Li6707_R		1.327	ug/L	0.4646	35.01	37.94
Mg2025_A		29.02	ug/L	1.647	5.676	2.839
Mn2576_R		1.114	ug/L	0.1295	11.62	12.31
Mo2020_A		1.721	ug/L	0.08183	4.753	5.363
Na5895_R		47.13	ug/L	11.22	23.80	179.0
Ni2316_A		0.7704	ug/L	0.1746	22.67	0.8900
Pb2203_A		0.8870	ug/L	0.1106	12.47	-0.3363
Sb2068_A		0.8934	ug/L	0.4214	47.17	-0.1096
Se1960_A		1.890	ug/L	0.08003	4.235	1.665
Si2516_R		37.81	ug/L	6.076	16.07	85.86
Sn1899_A		1.134	ug/L	0.4546	40.08	1.573
Sr4215_R		1.208	ug/L	0.1082	8.962	85.40
Ti3349_A		1.073	ug/L	0.2211	20.61	11.51
Tl1908_A		1.011	ug/L	0.2513	24.85	-1.335
V_2924_A		1.042	ug/L	0.04877	4.680	5.230
Zn2062_A		1.186	ug/L	0.02155	1.817	2.612
Y_3600_R		18,652	Cts/S	60.073	0.32208	18,652
Y_2243_A		7,324.1	Cts/S	22.209	0.30323	7,324.1
Y_3600_A		134,290	Cts/S	1,194.6	0.88956	134,290

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:14:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2183	ug/L	0.1881	86.14	-18.81
Al3961_R		-4.841	ug/L	3.582	73.99	-3.964
As1891_A		-0.02575	ug/L	0.2457	954.0	-2.317
B_2089_A		10.39	ug/L	0.2739	2.635	24.64
Ba4554_R		0.1019	ug/L	0.03667	35.99	20.16
Be3130_R		-0.01132	ug/L	0.006468	57.13	-5.005
Ca3158_R		11.61	ug/L	3.349	28.85	-20.04
Cd2265_A		-0.004819	ug/L	0.01267	262.8	-1.435
Co2286_A		-0.1030	ug/L	0.08900	86.40	0.1087
Cr2677_A		0.05642	ug/L	0.04683	83.00	0.2612
Cu3273_A		0.09533	ug/L	0.01110	11.64	-27.51
Fe2599_R		3.415	ug/L	2.083	60.99	7.750
K_7664_R		-2.269	ug/L	20.33	895.9	-22.24
Li6707_R		0.2170	ug/L	0.5503	253.6	21.40
Mg2025_A		5.980	ug/L	1.365	22.83	-5.009
Mn2576_R		0.5105	ug/L	0.04866	9.531	6.765
Mo2020_A		0.2653	ug/L	0.1114	42.01	1.182
Na5895_R		1,071	ug/L	11.21	1.046	2,668
Ni2316_A		-0.07326	ug/L	0.08782	119.9	-0.4428

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:14:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.5607	ug/L	0.05390	9.612	-0.6238
Sb2068_A		0.1749	ug/L	0.8299	474.4	-0.4725
Se1960_A		-0.8964	ug/L	0.5246	58.52	0.9821
Si2516_R		-1.880	ug/L	3.961	210.6	67.06
Sn1899_A		-0.2300	ug/L	0.1837	79.84	1.016
Sr4215_R		0.1461	ug/L	0.02922	20.00	-21.25
Ti3349_A		0.09240	ug/L	0.1062	115.0	-12.08
Tl1908_A		-0.4914	ug/L	1.052	214.1	-2.028
V_2924_A		0.1655	ug/L	0.1964	118.7	-4.509
Zn2062_A		1.914	ug/L	0.08433	4.407	4.301
Y_3600_R		18,733	Cts/S	142.13	0.75871	18,733
Y_2243_A		7,372.5	Cts/S	27.167	0.36849	7,372.5
Y_3600_A		134,650	Cts/S	379.67	0.28196	134,650

SO5787-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:19:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06774	ug/L	0.1101	162.5	-36.59
Al3961_R		9,056	ug/L	49.42	0.5457	10,200
As1891_A		1.393	ug/L	1.430	102.7	-1.859
B_2089_A	W	3,064	ug/L	9.254	0.3020	3,855
Ba4554_R		74.58	ug/L	0.5629	0.7547	5,563
Be3130_R		0.03413	ug/L	0.04261	124.8	-0.008487
Ca3158_R	W	378,500	ug/L	1,566	0.4137	455,400
Cd2265_A		-0.03935	ug/L	0.05649	143.6	8.653
Co2286_A		5.444	ug/L	0.008749	0.1607	15.60
Cr2677_A		2.033	ug/L	0.09473	4.660	21.16
Cu3273_A		13.76	ug/L	0.1698	1.233	160.4
Fe2599_R		5,813	ug/L	40.64	0.6991	11,530
K_7664_R	W	96,060	ug/L	438.1	0.4560	67,110
Li6707_R		27.60	ug/L	0.2836	1.028	432.5
Mg2025_A		841.3	ug/L	5.206	0.6189	246.7
Mn2576_R		25.35	ug/L	0.2185	0.8620	233.9
Mo2020_A		586.3	ug/L	3.085	0.5262	1,488
Na5895_R	F	243,800	ug/L	1,086	0.4454	589,500
Ni2316_A		24.68	ug/L	0.2587	1.048	39.03
Pb2203_A		4.644	ug/L	0.2193	4.723	1.825
Sb2068_A		7.919	ug/L	0.3771	4.761	2.994
Se1960_A		6.617	ug/L	0.07080	1.070	2.550
Si2516_R		3,654	ug/L	41.20	1.128	1,824
Sn1899_A		2.404	ug/L	0.1049	4.363	1.850
Sr4215_R		644.4	ug/L	4.217	0.6545	64,620
Ti3349_A		2.950	ug/L	0.08244	2.795	60.30
Tl1908_A		-0.2241	ug/L	0.1512	67.47	-1.666
V_2924_A		4.424	ug/L	0.1327	2.999	6.621
Zn2062_A		32.00	ug/L	0.002155	0.006735	64.26
Y_3600_R		18,640	Cts/S	131.72	0.70666	18,640
Y_2243_A		6,460.6	Cts/S	53.290	0.82485	6,460.6
Y_3600_A		122,600	Cts/S	443.12	0.36143	122,600

LC2OOH30ICS3

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:23:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LC2OOH30ICS3

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:23:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		45.71	ug/L	0.7260	1.588	705.4
Al3961_R		2,083	ug/L	14.37	0.6898	2,250
As1891_A		99.59	ug/L	0.03032	0.03044	28.18
B_2089_A		513.3	ug/L	3.127	0.6092	702.4
Ba4554_R		2,083	ug/L	10.23	0.4914	153,700
Be3130_R		52.14	ug/L	0.02845	0.05456	5,554
Ca3158_R		2,632	ug/L	38.98	1.481	3,108
Cd2265_A		258.2	ug/L	0.1752	0.06786	2,805
Co2286_A		521.3	ug/L	1.942	0.3725	1,560
Cr2677_A		199.7	ug/L	1.480	0.7413	2,145
Cu3273_A		268.4	ug/L	2.067	0.7700	3,782
Fe2599_R		1,057	ug/L	1.886	0.1784	2,081
K_7664_R		10,440	ug/L	132.5	1.269	7,213
Li6707_R		544.6	ug/L	4.362	0.8010	8,129
Mg2025_A		5,165	ug/L	33.90	0.6563	1,667
Mn2576_R		508.2	ug/L	0.6634	0.1305	4,665
Mo2020_A		107.9	ug/L	1.118	1.037	294.6
Na5895_R		8,055	ug/L	88.37	1.097	19,380
Ni2316_A		523.2	ug/L	1.935	0.3698	774.9
Pb2203_A		104.3	ug/L	0.9200	0.8822	85.86
Sb2068_A		103.1	ug/L	1.107	1.073	46.51
Se1960_A		102.7	ug/L	1.511	1.471	25.28
Si2516_R		1,071	ug/L	6.738	0.6291	579.9
Sn1899_A		572.3	ug/L	2.643	0.4618	225.3
Sr4215_R		530.7	ug/L	2.565	0.4832	52,760
Ti3349_A		504.3	ug/L	4.649	0.9218	11,540
Tl1908_A		101.9	ug/L	1.334	1.310	42.55
V_2924_A		512.4	ug/L	4.637	0.9049	5,466
Zn2062_A		502.6	ug/L	0.5081	0.1011	1,086
Y_3600_R		18,483	Cts/S	170.30	0.92137	18,483
Y_2243_A		6,946.3	Cts/S	69.975	1.0074	6,946.3
Y_3600_A		128,040	Cts/S	1,504.9	1.1753	128,040

LCSOOH30ICS3

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:28:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		48.73	ug/L	0.3953	0.8111	754.5
Al3961_R		2,109	ug/L	15.06	0.7142	2,258
As1891_A		101.0	ug/L	0.6491	0.6429	28.92
B_2089_A		517.3	ug/L	1.506	0.2911	715.6
Ba4554_R		2,159	ug/L	16.85	0.7804	157,900
Be3130_R		54.45	ug/L	0.6243	1.146	5,751
Ca3158_R		2,638	ug/L	42.26	1.601	3,088
Cd2265_A		265.9	ug/L	0.7829	0.2945	2,921
Co2286_A		531.5	ug/L	2.001	0.3765	1,608
Cr2677_A		208.7	ug/L	1.561	0.7480	2,244
Cu3273_A		273.9	ug/L	2.254	0.8229	3,864
Fe2599_R		1,087	ug/L	10.10	0.9295	2,120
K_7664_R		10,670	ug/L	99.37	0.9316	7,307
Li6707_R		555.8	ug/L	4.369	0.7861	8,225
Mg2025_A		5,214	ug/L	28.69	0.5502	1,702
Mn2576_R		529.2	ug/L	6.068	1.147	4,816
Mo2020_A		108.5	ug/L	0.7959	0.7337	299.5
Na5895_R		8,144	ug/L	42.24	0.5187	19,420
Ni2316_A		538.1	ug/L	1.506	0.2799	805.8

LCSOOH30ICS3

Method Name: FAST-2016_NO_AU
Analyst Name: EP
Acquire Date: 9/1/2021 2:28:00PM
Method Revision: 1,011
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		106.9	ug/L	0.7166	0.6700	89.06
Sb2068_A		105.4	ug/L	0.2009	0.1906	48.11
Se1960_A		103.3	ug/L	0.2848	0.2758	25.70
Si2516_R		1,089	ug/L	0.3331	0.03060	583.4
Sn1899_A		587.3	ug/L	1.539	0.2620	233.8
Sr4215_R		546.4	ug/L	4.373	0.8004	53,850
Ti3349_A		519.3	ug/L	4.454	0.8576	11,890
Tl1908_A		104.8	ug/L	0.4743	0.4526	44.29
V_2924_A		535.1	ug/L	4.077	0.7619	5,713
Zn2062_A		514.3	ug/L	2.397	0.4660	1,124
Y_3600_R		18,323	Cts/S	30.471	0.16631	18,323
Y_2243_A		7,023.5	Cts/S	40.955	0.58311	7,023.5
Y_3600_A		128,150	Cts/S	1,207.6	0.94237	128,150

~~PBSOH30ICS1~~ LCSOOH30ICS4

Method Name: FAST-2016_NO_AU
Analyst Name: EP
Acquire Date: 9/1/2021 2:32:12PM
Method Revision: 1,011
Sample Type: Unknown

09-03-21

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A	F	48.12	ug/L	0.2567	0.5335	748.7
Al3961_R	F	2,114	ug/L	7.612	0.3600	2,275
As1891_A	F	101.2	ug/L	0.6159	0.6083	29.15
B_2089_A	F	521.5	ug/L	3.603	0.6910	724.8
Ba4554_R	F	2,141	ug/L	17.56	0.8202	157,400
Be3130_R	F	54.26	ug/L	0.4490	0.8275	5,760
Ca3158_R	F	2,889	ug/L	22.79	0.7891	3,401
Cd2265_A	F	266.7	ug/L	1.187	0.4451	2,944
Co2286_A	F	528.0	ug/L	2.785	0.5274	1,605
Cr2677_A	F	207.6	ug/L	1.657	0.7982	2,244
Cu3273_A	F	270.7	ug/L	1.559	0.5758	3,839
Fe2599_R	F	1,097	ug/L	10.04	0.9156	2,150
K_7664_R	F	10,540	ug/L	45.82	0.4349	7,253
Li6707_R	F	551.2	ug/L	2.304	0.4179	8,197
Mg2025_A	F	5,238	ug/L	36.28	0.6927	1,718
Mn2576_R	F	531.8	ug/L	2.944	0.5536	4,864
Mo2020_A	F	107.6	ug/L	0.4891	0.4545	298.6
Na5895_R	F	8,073	ug/L	25.83	0.3200	19,350
Ni2316_A	F	537.2	ug/L	3.046	0.5670	808.4
Pb2203_A	F	107.9	ug/L	0.1718	0.1592	90.32
Sb2068_A	F	106.5	ug/L	1.434	1.347	48.84
Se1960_A	F	106.4	ug/L	1.885	1.772	26.57
Si2516_R	F	1,081	ug/L	19.74	1.825	582.7
Sn1899_A	F	590.2	ug/L	4.708	0.7978	236.1
Sr4215_R	F	540.9	ug/L	3.230	0.5972	53,580
Ti3349_A	F	514.5	ug/L	2.082	0.4046	11,850
Tl1908_A	F	105.9	ug/L	0.3564	0.3365	44.98
V_2924_A	F	533.0	ug/L	1.272	0.2386	5,722
Zn2062_A	F	528.6	ug/L	3.368	0.6371	1,160
Y_3600_R		18,414	Cts/S	18.153	0.098581	18,414
Y_2243_A		7,057.6	Cts/S	26.349	0.37334	7,057.6
Y_3600_A		128,840	Cts/S	153.30	0.11899	128,840

LCSWOH31ICSW1

Method Name: FAST-2016_NO_AU
Analyst Name: EP
Acquire Date: 9/1/2021 2:36:25PM
Method Revision: 1,011
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000053

LCSWOH31ICSW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:36:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.45	ug/L	0.2081	0.4125	793.0
Al3961_R		2,165	ug/L	32.31	1.493	2,347
As1891_A		92.58	ug/L	0.5351	0.5780	26.74
B_2089_A		541.7	ug/L	1.076	0.1986	760.4
Ba4554_R		2,177	ug/L	37.12	1.705	161,300
Be3130_R		55.91	ug/L	0.7817	1.398	5,980
Ca3158_R		2,356	ug/L	18.52	0.7861	2,789
Cd2265_A		237.2	ug/L	0.2454	0.1034	2,646
Co2286_A		544.2	ug/L	2.747	0.5047	1,672
Cr2677_A		213.0	ug/L	0.8674	0.4073	2,322
Cu3273_A		279.3	ug/L	2.143	0.7673	3,996
Fe2599_R		1,103	ug/L	14.98	1.358	2,179
K_7664_R		9,327	ug/L	77.64	0.8325	6,468
Li6707_R		558.3	ug/L	8.781	1.573	8,366
Mg2025_A		4,772	ug/L	18.32	0.3839	1,584
Mn2576_R		556.4	ug/L	5.493	0.9871	5,128
Mo2020_A		108.5	ug/L	0.6908	0.6369	304.1
Na5895_R		7,206	ug/L	91.60	1.271	17,410
Ni2316_A		551.0	ug/L	1.727	0.3133	837.9
Pb2203_A		97.10	ug/L	0.9277	0.9554	82.00
Sb2068_A		95.31	ug/L	0.9359	0.9819	44.03
Se1960_A		94.45	ug/L	1.008	1.068	23.98
Si2516_R	F	1,240	ug/L	20.15	1.625	663.1
Sn1899_A		551.5	ug/L	1.196	0.2169	223.0
Sr4215_R		550.1	ug/L	7.034	1.279	54,910
Ti3349_A		524.8	ug/L	1.583	0.3016	12,190
Tl1908_A		95.45	ug/L	0.7818	0.8191	40.87
V_2924_A		547.9	ug/L	3.322	0.6063	5,931
Zn2062_A		533.0	ug/L	0.9984	0.1873	1,182
Y_3600_R		18,555	Cts/S	67.899	0.36593	18,555
Y_2243_A		7,131.9	Cts/S	22.881	0.32082	7,131.9
Y_3600_A		129,930	Cts/S	542.76	0.41775	129,930

PBWOH31ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:40:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1562	ug/L	0.1082	69.23	-19.52
Al3961_R		-2.154	ug/L	1.292	59.99	-1.013
As1891_A		-0.4207	ug/L	0.03990	9.485	-2.403
B_2089_A		9.118	ug/L	0.2430	2.665	22.42
Ba4554_R		0.09049	ug/L	0.03807	42.07	19.13
Be3130_R		-0.007673	ug/L	0.01275	166.2	-4.566
Ca3158_R		8.659	ug/L	1.394	16.09	-23.41
Cd2265_A		0.003332	ug/L	0.007490	224.8	-1.314
Co2286_A		0.0007520	ug/L	0.2666	35,470	0.4310
Cr2677_A		0.09655	ug/L	0.1532	158.7	0.7003
Cu3273_A		0.1680	ug/L	0.1428	85.01	-25.97
Fe2599_R		4.879	ug/L	1.256	25.75	10.59
K_7664_R		-20.96	ug/L	2.085	9.947	-35.11
Li6707_R		-0.9300	ug/L	0.1402	15.07	4.008
Mg2025_A		5.484	ug/L	0.3526	6.429	-5.083
Mn2576_R		0.3908	ug/L	0.1316	33.66	5.606
Mo2020_A		0.1499	ug/L	0.03543	23.64	0.8325
Na5895_R		6.138	ug/L	2.156	35.12	79.50
Ni2316_A		-0.2855	ug/L	0.08682	30.41	-0.7641

PBWOH31ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:40:37PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.1274	ug/L	0.1898	148.9	-0.9900
Sb2068_A		0.6284	ug/L	0.9006	143.3	-0.2417
Se1960_A		-0.1420	ug/L	0.1156	81.43	1.149
Si2516_R	W	102.6	ug/L	16.12	15.71	116.4
Sn1899_A		0.8938	ug/L	0.2009	22.48	1.458
Sr4215_R		0.2012	ug/L	0.01998	9.930	-15.55
Ti3349_A		-0.02408	ug/L	0.08441	350.6	-14.63
Tl1908_A		-0.1599	ug/L	0.4761	297.7	-1.846
V_2924_A		0.02130	ug/L	0.005252	24.66	-6.023
Zn2062_A		1.016	ug/L	0.006761	0.6656	2.202
Y_3600_R		18,567	Cts/S	90.422	0.48701	18,567
Y_2243_A		7,245.3	Cts/S	22.238	0.30694	7,245.3
Y_3600_A		132,330	Cts/S	188.43	0.14239	132,330

LCSWOI01ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:45:02PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.55	ug/L	0.6269	1.216	843.7
Al3961_R		2,119	ug/L	21.20	1.000	2,385
As1891_A		108.9	ug/L	1.264	1.160	32.73
B_2089_A		556.3	ug/L	1.407	0.2529	801.7
Ba4554_R		2,106	ug/L	16.86	0.8002	162,000
Be3130_R		53.75	ug/L	0.5907	1.099	5,966
Ca3158_R		2,675	ug/L	38.48	1.439	3,291
Cd2265_A		272.4	ug/L	0.5651	0.2075	3,121
Co2286_A		540.3	ug/L	1.001	0.1852	1,705
Cr2677_A		204.5	ug/L	2.830	1.384	2,318
Cu3273_A		267.5	ug/L	1.427	0.5335	3,979
Fe2599_R		1,075	ug/L	6.699	0.6230	2,204
K_7664_R		10,650	ug/L	146.0	1.371	7,670
Li6707_R		539.1	ug/L	0.9335	0.1732	8,385
Mg2025_A	F	5,790	ug/L	20.00	0.3454	1,970
Mn2576_R		535.9	ug/L	6.344	1.184	5,125
Mo2020_A		104.0	ug/L	0.4827	0.4639	299.7
Na5895_R		8,091	ug/L	73.70	0.9109	20,280
Ni2316_A		546.8	ug/L	0.9704	0.1775	854.1
Pb2203_A		112.6	ug/L	1.335	1.185	97.90
Sb2068_A		109.1	ug/L	0.4299	0.3941	52.27
Se1960_A		113.0	ug/L	1.135	1.005	29.21
Si2516_R	F	1,189	ug/L	2.177	0.1831	662.9
Sn1899_A		544.7	ug/L	1.783	0.3273	226.3
Sr4215_R		535.5	ug/L	3.909	0.7300	55,470
Ti3349_A		504.2	ug/L	7.741	1.535	12,170
Tl1908_A		115.3	ug/L	1.040	0.9017	50.98
V_2924_A		519.7	ug/L	6.342	1.220	5,850
Zn2062_A		534.7	ug/L	0.6389	0.1195	1,219
Y_3600_R		19,258	Cts/S	167.83	0.87152	19,258
Y_2243_A		7,326.1	Cts/S	42.953	0.58631	7,326.1
Y_3600_A		135,100	Cts/S	869.43	0.64353	135,100

PBWOI01ICW1

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:49:15PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOI01ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:49:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2779	ug/L	0.01602	5.764	-18.02
Al3961_R		1.038	ug/L	2.229	214.7	2.578
As1891_A		2.017	ug/L	0.6892	34.17	-1.669
B_2089_A		6.228	ug/L	0.5399	8.669	18.86
Ba4554_R		0.2190	ug/L	0.08263	37.73	30.19
Be3130_R		-0.02375	ug/L	0.01358	57.16	-6.632
Ca3158_R		-1.226	ug/L	2.673	218.0	-37.22
Cd2265_A		0.05423	ug/L	0.01466	27.03	-0.7603
Co2286_A		0.2733	ug/L	0.02319	8.484	1.313
Cr2677_A		-0.1027	ug/L	0.03425	33.35	-1.556
Cu3273_A		0.03718	ug/L	0.1023	275.1	-28.73
Fe2599_R		3.247	ug/L	0.6993	21.54	7.778
K_7664_R		-29.94	ug/L	3.982	13.30	-43.64
Li6707_R		-0.9980	ug/L	0.4379	43.87	3.197
Mg2025_A		10.17	ug/L	0.04399	0.4325	-3.601
Mn2576_R		0.1098	ug/L	0.07563	68.88	3.176
Mo2020_A		0.2400	ug/L	0.06352	26.47	1.118
Na5895_R		2.428	ug/L	2.769	114.1	74.42
Ni2316_A		-0.08068	ug/L	0.03147	39.01	-0.4589
Pb2203_A		0.5980	ug/L	0.1103	18.45	-0.5962
Sb2068_A		-0.1650	ug/L	0.5959	361.1	-0.6555
Se1960_A		-0.6058	ug/L	0.1696	28.00	1.063
Si2516_R		89.16	ug/L	5.130	5.753	116.1
Sn1899_A		0.09777	ug/L	0.8129	831.5	1.162
Sr4215_R		0.2428	ug/L	0.004573	1.883	-12.03
Ti3349_A		0.1464	ug/L	0.05162	35.25	-10.91
Tl1908_A		1.137	ug/L	0.2287	20.11	-1.298
V_2924_A		0.1399	ug/L	0.2557	182.8	-4.851
Zn2062_A		0.5195	ug/L	0.1050	20.22	1.113
Y_3600_R		19,586	Cts/S	212.36	1.0842	19,586
Y_2243_A		7,436.2	Cts/S	12.433	0.16720	7,436.2
Y_3600_A		136,310	Cts/S	12.179	0.0089350	136,310

SO5730-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:53:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2481	ug/L	0.3620	145.9	-18.02
Al3961_R		-1.691	ug/L	0.03377	1.997	0.1164
As1891_A		50.05	ug/L	0.5551	1.109	13.41
B_2089_A		20.28	ug/L	0.2837	1.399	37.37
Ba4554_R		0.1319	ug/L	0.04011	30.42	23.03
Be3130_R		0.001152	ug/L	0.01381	1,199	-3.737
Ca3158_R		700.4	ug/L	29.98	4.280	837.1
Cd2265_A		-0.02992	ug/L	0.03645	121.8	-1.663
Co2286_A		0.2643	ug/L	0.02043	7.730	1.227
Cr2677_A		0.07574	ug/L	0.09379	123.8	0.4746
Cu3273_A		5.280	ug/L	0.007325	0.1387	49.22
Fe2599_R		3.691	ug/L	0.2983	8.082	8.574
K_7664_R		148.7	ug/L	2.805	1.887	86.21
Li6707_R		-0.4092	ug/L	0.9505	232.3	12.11
Mg2025_A		133.2	ug/L	1.063	0.7979	36.79
Mn2576_R		0.3412	ug/L	0.4485	131.5	5.433
Mo2020_A		0.009135	ug/L	0.08838	967.5	0.4235
Na5895_R	W	64,320	ug/L	1,989	3.092	161,000
Ni2316_A		-0.2864	ug/L	0.07498	26.18	-0.7533

SO5730-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:53:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.7937	ug/L	0.9922	125.0	-0.3995
Sb2068_A		-0.5939	ug/L	0.5316	89.51	-0.8378
Se1960_A		-0.7753	ug/L	0.3431	44.25	0.9773
Si2516_R		6,295	ug/L	208.4	3.311	3,200
Sn1899_A		0.2482	ug/L	0.1975	79.58	1.172
Sr4215_R		3.502	ug/L	0.07594	2.169	326.6
Ti3349_A		-0.02719	ug/L	0.008177	30.07	-14.74
Tl1908_A		2.192	ug/L	0.2724	12.43	-0.7779
V_2924_A		0.2003	ug/L	0.09870	49.28	-4.043
Zn2062_A		1.379	ug/L	0.07943	5.760	2.965
Y_3600_R		19,299	Cts/S	418.78	2.1699	19,299
Y_2243_A		7,112.1	Cts/S	33.737	0.47437	7,112.1
Y_3600_A		132,700	Cts/S	766.62	0.57773	132,700

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 2:58:07PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		511.4	ug/L	4.144	0.8103	8,314
Al3961_R	W	13,180	ug/L	1.738	0.01319	14,510
As1891_A	W	528.5	ug/L	1.211	0.2291	160.4
B_2089_A	W	539.2	ug/L	3.595	0.6667	758.1
Ba4554_R	W	538.5	ug/L	6.235	1.158	40,570
Be3130_R	W	531.2	ug/L	6.951	1.308	57,800
Ca3158_R		12,860	ug/L	27.38	0.2129	15,640
Cd2265_A	W	531.6	ug/L	2.940	0.5531	5,864
Co2286_A	W	534.5	ug/L	3.193	0.5974	1,617
Cr2677_A		515.3	ug/L	0.8632	0.1675	5,630
Cu3273_A	W	532.1	ug/L	3.404	0.6398	7,652
Fe2599_R	W	13,250	ug/L	141.8	1.071	26,600
K_7664_R		13,150	ug/L	54.30	0.4128	9,283
Li6707_R	W	543.8	ug/L	6.774	1.246	8,286
Mg2025_A	W	13,690	ug/L	68.42	0.4999	4,443
Mn2576_R		519.8	ug/L	4.332	0.8334	4,868
Mo2020_A	W	533.4	ug/L	2.523	0.4731	1,472
Na5895_R	W	13,310	ug/L	13.54	0.1017	32,650
Ni2316_A	W	539.8	ug/L	3.089	0.5722	812.5
Pb2203_A	W	540.0	ug/L	3.976	0.7363	454.1
Sb2068_A	W	539.4	ug/L	2.626	0.4869	261.2
Se1960_A	W	531.9	ug/L	1.704	0.3203	127.4
Si2516_R		13,370	ug/L	72.46	0.5420	6,572
Sn1899_A	W	539.4	ug/L	3.227	0.5983	214.9
Sr4215_R	W	536.9	ug/L	4.286	0.7983	54,490
Ti3349_A		514.4	ug/L	1.646	0.3199	11,980
Tl1908_A	W	549.0	ug/L	3.184	0.5800	237.1
V_2924_A		520.1	ug/L	2.159	0.4151	5,608
Zn2062_A		524.3	ug/L	3.283	0.6262	1,145
Y_3600_R		18,867	Cts/S	38.112	0.20200	18,867
Y_2243_A		7,025.7	Cts/S	37.871	0.53903	7,025.7
Y_3600_A		130,180	Cts/S	50.046	0.038444	130,180

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:02:16PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:02:16PM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9120	ug/L	0.1162	12.75	-7.019
Al3961_R		19.48	ug/L	1.690	8.675	22.50
As1891_A		0.6226	ug/L	0.5235	84.08	-2.050
B_2089_A		3.379	ug/L	0.1096	3.244	14.27
Ba4554_R		1.016	ug/L	0.02255	2.219	87.96
Be3130_R		0.9149	ug/L	0.01889	2.064	94.44
Ca3158_R		28.14	ug/L	2.082	7.398	-0.07017
Cd2265_A		0.8574	ug/L	0.03951	4.608	8.318
Co2286_A		0.9341	ug/L	0.09197	9.846	3.308
Cr2677_A		0.9189	ug/L	0.2019	21.97	9.850
Cu3273_A		1.143	ug/L	0.1485	12.99	-11.68
Fe2599_R		25.12	ug/L	1.114	4.435	50.71
K_7664_R		12.22	ug/L	1.307	10.70	-12.03
Li6707_R		0.2225	ug/L	0.9486	426.3	21.35
Mg2025_A		24.36	ug/L	1.024	4.203	1.245
Mn2576_R		0.9569	ug/L	0.1986	20.75	10.85
Mo2020_A		1.474	ug/L	0.04941	3.351	4.556
Na5895_R		24.93	ug/L	1.227	4.921	125.1
Ni2316_A		0.6394	ug/L	0.006036	0.9440	0.6696
Pb2203_A		1.198	ug/L	0.7523	62.78	-0.05825
Sb2068_A		1.314	ug/L	0.1287	9.789	0.1016
Se1960_A		1.883	ug/L	0.5758	30.58	1.628
Si2516_R		39.77	ug/L	6.495	16.33	86.61
Sn1899_A		1.283	ug/L	0.05739	4.475	1.601
Sr4215_R		1.104	ug/L	0.000005000	0.0004890	74.85
Ti3349_A		0.8067	ug/L	0.1357	16.82	5.070
Tl1908_A		1.045	ug/L	0.5690	54.45	-1.293
V_2924_A		0.9383	ug/L	0.2635	28.08	4.022
Zn2062_A		1.169	ug/L	0.08147	6.972	2.519
Y_3600_R		18,609	Cts/S	130.73	0.70252	18,609
Y_2243_A		7,172.8	Cts/S	16.093	0.22436	7,172.8
Y_3600_A		132,570	Cts/S	191.79	0.14467	132,570

SO5772-001

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:06:41PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2411	ug/L	0.03100	12.86	-18.29
Al3961_R		-8.121	ug/L	6.194	76.27	23.61
As1891_A		4.047	ug/L	1.577	38.97	-0.9732
B_2089_A		10.23	ug/L	0.2067	2.021	23.81
Ba4554_R		5.380	ug/L	0.1193	2.218	429.7
Be3130_R		0.01015	ug/L	0.009899	97.55	-2.703
Ca3158_R	W	32,790	ug/L	312.3	0.9523	41,040
Cd2265_A		0.01240	ug/L	0.05622	453.5	-1.209
Co2286_A		0.3341	ug/L	0.07967	23.85	1.457
Cr2677_A		1.060	ug/L	0.1820	17.16	11.52
Cu3273_A		43.10	ug/L	0.01679	0.03895	610.8
Fe2599_R		2.823	ug/L	0.05887	2.085	6.821
K_7664_R		3,828	ug/L	20.39	0.5326	2,763
Li6707_R		12.87	ug/L	0.8550	6.643	219.9
Mg2025_A		7,603	ug/L	1.852	0.02436	2,509
Mn2576_R		0.1023	ug/L	0.05758	56.29	5.310
Mo2020_A		0.1415	ug/L	0.05611	39.64	0.8034
Na5895_R		16,650	ug/L	35.10	0.2107	41,980
Ni2316_A		1.212	ug/L	0.1472	12.14	1.536

SO5772-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:06:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3905	ug/L	0.09208	23.58	-0.7463
Sb2068_A		-0.7944	ug/L	0.5064	63.74	-0.9466
Se1960_A		0.09966	ug/L	1.539	1,545	1.201
Si2516_R		10,500	ug/L	17.62	0.1679	5,318
Sn1899_A		0.1362	ug/L	0.7818	574.2	1.141
Sr4215_R		145.1	ug/L	0.8380	0.5775	15,120
Ti3349_A		-0.1964	ug/L	0.06008	30.60	-18.90
Tl1908_A		1.276	ug/L	0.09377	7.348	-1.192
V_2924_A		0.8299	ug/L	0.03347	4.032	2.919
Zn2062_A		6.582	ug/L	0.04867	0.7395	14.65
Y_3600_R		19,402	Cts/S	104.66	0.53944	19,402
Y_2243_A		7,195.2	Cts/S	15.328	0.21303	7,195.2
Y_3600_A		133,720	Cts/S	279.17	0.20878	133,720

SO5108-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:11:05PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1112	ug/L	0.03644	32.76	-26.67
Al3961_R		4.809	ug/L	0.01835	0.3816	26.13
As1891_A		0.3945	ug/L	0.5438	137.8	-2.153
B_2089_A		45.39	ug/L	0.4281	0.9431	70.11
Ba4554_R		20.52	ug/L	0.5824	2.838	1,556
Be3130_R		0.1122	ug/L	0.002052	1.828	8.419
Ca3158_R		21,000	ug/L	506.0	2.409	25,510
Cd2265_A		-0.02921	ug/L	0.01937	66.29	2.676
Co2286_A		5.407	ug/L	0.1656	3.063	16.55
Cr2677_A		0.06152	ug/L	0.1141	185.4	1.037
Cu3273_A		-0.006856	ug/L	0.09471	1,381	-28.13
Fe2599_R		2,266	ug/L	61.23	2.703	4,542
K_7664_R		2,847	ug/L	82.22	2.888	1,990
Li6707_R		9.102	ug/L	0.1535	1.686	156.4
Mg2025_A		8,709	ug/L	23.32	0.2678	2,770
Mn2576_R		560.2	ug/L	12.29	2.194	5,243
Mo2020_A		0.1504	ug/L	0.003876	2.577	0.7670
Na5895_R	W	43,210	ug/L	983.7	2.276	105,700
Ni2316_A		6.827	ug/L	0.01666	0.2440	9.657
Pb2203_A		-0.06132	ug/L	0.7702	1,256	-1.030
Sb2068_A		-0.5832	ug/L	0.2015	34.55	-0.7840
Se1960_A		1.061	ug/L	0.3770	35.52	1.461
Si2516_R		11,120	ug/L	221.2	1.988	5,469
Sn1899_A		1.068	ug/L	0.5922	55.46	1.463
Sr4215_R		153.6	ug/L	3.794	2.471	15,540
Ti3349_A		-0.3441	ug/L	0.04761	13.83	-21.57
Tl1908_A		-0.8455	ug/L	0.1905	22.53	-2.301
V_2924_A		0.04527	ug/L	0.08440	186.5	-7.375
Zn2062_A		47.13	ug/L	0.2751	0.5837	101.6
Y_3600_R		18,842	Cts/S	221.95	1.1780	18,842
Y_2243_A		6,931.7	Cts/S	15.223	0.21962	6,931.7
Y_3600_A		128,570	Cts/S	9.0565	0.0070440	128,570

SO5108-003L

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:15:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000059

SO5108-003L

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:15:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5732	ug/L	1.203	209.8	-21.79
Al3961_R		-20.66	ug/L	7.778	37.65	0.7999
As1891_A		3.474	ug/L	3.560	102.5	-2.070
B_2089_A		46.91	ug/L	0.7025	1.497	22.80
Ba4554_R		21.34	ug/L	0.1764	0.8267	334.8
Be3130_R		0.01548	ug/L	0.1507	973.5	-3.471
Ca3158_R		21,570	ug/L	212.5	0.9852	5,233
Cd2265_A		0.1509	ug/L	0.04713	31.23	-0.1094
Co2286_A		5.065	ug/L	0.06464	1.276	3.589
Cr2677_A		0.5646	ug/L	0.7635	135.2	1.053
Cu3273_A		1.347	ug/L	0.7525	55.88	-24.72
Fe2599_R		2,298	ug/L	20.80	0.9052	925.9
K_7664_R		2,744	ug/L	51.87	1.890	368.2
Li6707_R		5.033	ug/L	8.020	159.4	33.61
Mg2025_A		8,901	ug/L	37.21	0.4180	586.5
Mn2576_R		578.6	ug/L	13.00	2.247	1,089
Mo2020_A		-0.1186	ug/L	0.7414	625.4	0.3323
Na5895_R		43,540	ug/L	43.56	0.1000	21,420
Ni2316_A		7.302	ug/L	1.931	26.45	1.905
Pb2203_A		-2.562	ug/L	0.7881	30.76	-1.532
Sb2068_A		-0.5826	ug/L	1.836	315.2	-0.6069
Se1960_A		-0.2246	ug/L	16.40	7,304	1.191
Si2516_R		11,160	ug/L	112.6	1.009	1,157
Sn1899_A		0.9407	ug/L	1.882	200.1	1.170
Sr4215_R		155.3	ug/L	0.8064	0.5192	3,125
Ti3349_A		-0.8256	ug/L	0.3407	41.27	-18.10
Tl1908_A		-1.029	ug/L	0.4540	44.12	-1.919
V_2924_A		-0.1827	ug/L	0.5468	299.3	-7.087
Zn2062_A		54.52	ug/L	0.7310	1.341	24.50
Y_3600_R		18,910	Cts/S	19.771	0.10455	18,910
Y_2243_A		7,246.7	Cts/S	10.228	0.14115	7,246.7
Y_3600_A		133,240	Cts/S	1,333.2	1.0006	133,240

SO5108-003A

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:19:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		163.2	ug/L	0.02878	0.01764	2,587
Al3961_R		10,960	ug/L	291.5	2.660	12,090
As1891_A		495.9	ug/L	2.831	0.5709	149.4
B_2089_A		550.8	ug/L	4.741	0.8608	767.8
Ba4554_R		530.1	ug/L	10.64	2.008	39,950
Be3130_R		520.2	ug/L	12.11	2.329	56,620
Ca3158_R	W	26,230	ug/L	678.9	2.588	31,930
Cd2265_A		500.2	ug/L	3.760	0.7516	5,468
Co2286_A		515.9	ug/L	2.573	0.4987	1,549
Cr2677_A		490.5	ug/L	3.596	0.7331	5,286
Cu3273_A		510.5	ug/L	4.293	0.8409	7,243
Fe2599_R		7,846	ug/L	166.8	2.126	15,760
K_7664_R		13,030	ug/L	273.6	2.100	9,201
Li6707_R		538.5	ug/L	13.02	2.417	8,209
Mg2025_A		14,010	ug/L	116.4	0.8303	4,514
Mn2576_R	W	1,053	ug/L	28.25	2.682	9,868
Mo2020_A		523.9	ug/L	2.603	0.4970	1,435
Na5895_R	W	48,310	ug/L	1,220	2.524	118,300
Ni2316_A		510.7	ug/L	3.688	0.7221	763.4

SO5108-003A

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:19:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		507.3	ug/L	4.184	0.8248	423.3
Sb2068_A		507.8	ug/L	5.365	1.057	243.9
Se1960_A		508.2	ug/L	5.559	1.094	120.9
Si2516_R		11,320	ug/L	339.4	2.999	5,577
Sn1899_A		522.5	ug/L	5.094	0.9750	206.6
Sr4215_R		672.1	ug/L	15.23	2.266	68,240
Ti3349_A		496.7	ug/L	3.232	0.6506	11,410
Tl1908_A		504.1	ug/L	4.271	0.8471	215.7
V_2924_A		501.7	ug/L	3.898	0.7770	5,333
Zn2062_A		538.4	ug/L	3.110	0.5776	1,167
Y_3600_R		18,876	Cts/S	189.70	1.0050	18,876
Y_2243_A		6,973.6	Cts/S	45.503	0.65251	6,973.6
Y_3600_A		128,430	Cts/S	636.93	0.49594	128,430

SO5108-003D

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:24:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5121	ug/L	0.1481	28.93	-20.51
Al3961_R		4.121	ug/L	7.708	187.0	26.11
As1891_A		-0.4154	ug/L	0.7552	181.8	-2.443
B_2089_A		45.72	ug/L	0.5858	1.281	71.86
Ba4554_R		21.03	ug/L	0.1356	0.6449	1,614
Be3130_R		0.2451	ug/L	0.02559	10.44	23.13
Ca3158_R		21,420	ug/L	287.2	1.341	26,330
Cd2265_A		-0.02007	ug/L	0.02465	122.8	2.822
Co2286_A		5.610	ug/L	0.05922	1.056	17.47
Cr2677_A		0.1458	ug/L	0.06992	47.96	1.986
Cu3273_A		0.1743	ug/L	0.2164	124.2	-25.97
Fe2599_R		2,263	ug/L	27.25	1.204	4,593
K_7664_R		2,893	ug/L	33.85	1.170	2,046
Li6707_R		8.856	ug/L	0.4539	5.125	154.5
Mg2025_A		8,728	ug/L	17.91	0.2052	2,827
Mn2576_R		569.0	ug/L	5.202	0.9143	5,388
Mo2020_A		0.5071	ug/L	0.1819	35.87	1.770
Na5895_R	W	43,320	ug/L	186.5	0.4305	107,200
Ni2316_A		6.827	ug/L	0.1277	1.870	9.838
Pb2203_A		-0.4111	ug/L	0.1986	48.31	-1.345
Sb2068_A		0.5317	ug/L	0.6968	131.1	-0.2459
Se1960_A		1.113	ug/L	0.3111	27.95	1.501
Si2516_R		11,240	ug/L	41.27	0.3672	5,591
Sn1899_A		-0.01808	ug/L	0.05479	303.1	1.057
Sr4215_R		153.1	ug/L	1.434	0.9368	15,670
Ti3349_A		-0.1880	ug/L	0.1842	97.99	-18.27
Tl1908_A		-0.4125	ug/L	0.8528	206.7	-2.158
V_2924_A		0.1716	ug/L	0.07054	41.12	-6.172
Zn2062_A		47.20	ug/L	0.1235	0.2616	103.6
Y_3600_R		19,066	Cts/S	107.44	0.56350	19,066
Y_2243_A		7,058.5	Cts/S	3.8469	0.054500	7,058.5
Y_3600_A		130,650	Cts/S	22.935	0.017554	130,650

SO5108-003S

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:28:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5108-003S

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:28:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		49.77	ug/L	0.08944	0.1797	767.1
Al3961_R		2,137	ug/L	5.422	0.2537	2,357
As1891_A		106.3	ug/L	0.2396	0.2253	30.13
B_2089_A		578.5	ug/L	2.425	0.4192	790.0
Ba4554_R	W	2,151	ug/L	1.115	0.05184	160,700
Be3130_R		54.16	ug/L	0.2181	0.4027	5,840
Ca3158_R		24,220	ug/L	172.0	0.7100	29,220
Cd2265_A		265.6	ug/L	1.105	0.4159	2,889
Co2286_A		539.1	ug/L	2.574	0.4774	1,613
Cr2677_A		204.4	ug/L	0.2454	0.1201	2,206
Cu3273_A		268.1	ug/L	1.127	0.4202	3,795
Fe2599_R		3,387	ug/L	12.60	0.3722	6,743
K_7664_R		13,720	ug/L	1.318	0.009608	9,602
Li6707_R		563.9	ug/L	2.015	0.3573	8,521
Mg2025_A		13,990	ug/L	98.71	0.7058	4,486
Mn2576_R	W	1,097	ug/L	6.649	0.6059	10,200
Mo2020_A		109.3	ug/L	0.3496	0.3199	298.3
Na5895_R	W	52,390	ug/L	13.03	0.02487	127,200
Ni2316_A		535.9	ug/L	2.643	0.4932	793.6
Pb2203_A		105.8	ug/L	0.1719	0.1625	87.20
Sb2068_A		106.9	ug/L	1.046	0.9782	48.56
Se1960_A		110.5	ug/L	2.857	2.585	27.19
Si2516_R		12,530	ug/L	33.36	0.2661	6,114
Sn1899_A		539.3	ug/L	5.219	0.9679	212.4
Sr4215_R		702.8	ug/L	0.4976	0.07080	70,740
Ti3349_A		526.1	ug/L	1.022	0.1943	12,090
Tl1908_A		103.6	ug/L	1.824	1.760	43.04
V_2924_A		518.7	ug/L	0.4476	0.08629	5,557
Zn2062_A		561.3	ug/L	2.125	0.3786	1,213
Y_3600_R		18,710	Cts/S	9.5942	0.051278	18,710
Y_2243_A		6,945.4	Cts/S	30.053	0.43271	6,945.4
Y_3600_A		128,630	Cts/S	2.2075	0.0017160	128,630

SO5108-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:32:35PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1262	ug/L	0.4006	317.4	-19.47
Al3961_R		3.268	ug/L	4.631	141.7	9.359
As1891_A		-0.5585	ug/L	0.5176	92.68	-2.358
B_2089_A		11.65	ug/L	0.3651	3.132	25.03
Ba4554_R		20.44	ug/L	0.4632	2.267	1,543
Be3130_R		0.04700	ug/L	0.04212	89.62	1.306
Ca3158_R		4,817	ug/L	16.52	0.3428	5,802
Cd2265_A		0.01358	ug/L	0.04622	340.3	-1.138
Co2286_A		0.5662	ug/L	0.1406	24.82	2.112
Cr2677_A		0.4589	ug/L	0.1627	35.45	4.595
Cu3273_A		2.083	ug/L	0.2815	13.51	2.088
Fe2599_R		15.89	ug/L	0.3124	1.966	32.69
K_7664_R		2,843	ug/L	11.76	0.4136	1,979
Li6707_R		0.3929	ug/L	0.4208	107.1	24.07
Mg2025_A		2,210	ug/L	14.39	0.6509	703.0
Mn2576_R		15.73	ug/L	0.01623	0.1032	149.2
Mo2020_A		0.2053	ug/L	0.05430	26.44	0.9531
Na5895_R	W	100,100	ug/L	403.9	0.4036	243,600
Ni2316_A		2.609	ug/L	0.02104	0.8064	3.568

SO5108-009

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:32:35PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4403	ug/L	1.392	316.3	-0.6936
Sb2068_A		-0.7100	ug/L	0.03236	4.557	-0.8985
Se1960_A		2.069	ug/L	2.037	98.45	1.629
Si2516_R		5,577	ug/L	17.31	0.3104	2,765
Sn1899_A		4.035	ug/L	0.1786	4.426	2.641
Sr4215_R		54.43	ug/L	0.1374	0.2524	5,461
Ti3349_A		0.06064	ug/L	0.009988	16.47	-12.24
Tl1908_A		0.4080	ug/L	0.8151	199.8	-1.538
V_2924_A		0.2556	ug/L	0.4513	176.6	-3.403
Zn2062_A		18.15	ug/L	0.1712	0.9431	39.35
Y_3600_R		18,765	Cts/S	37.416	0.19939	18,765
Y_2243_A		6,980.4	Cts/S	28.332	0.40588	6,980.4
Y_3600_A		128,370	Cts/S	264.46	0.20601	128,370

SO5108-010

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:36:58PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2507	ug/L	0.07312	29.17	-24.72
Al3961_R		0.5517	ug/L	1.287	233.3	21.70
As1891_A		0.06473	ug/L	1.244	1,922	-2.282
B_2089_A		44.30	ug/L	0.1786	0.4032	69.53
Ba4554_R		20.36	ug/L	0.1383	0.6793	1,537
Be3130_R		0.1142	ug/L	0.01967	17.22	8.621
Ca3158_R		21,370	ug/L	242.3	1.134	25,840
Cd2265_A		-0.08955	ug/L	0.03464	38.68	2.029
Co2286_A		5.237	ug/L	0.1019	1.946	16.25
Cr2677_A		0.3688	ug/L	0.06098	16.53	4.402
Cu3273_A		0.2778	ug/L	0.4646	167.3	-24.26
Fe2599_R		2,256	ug/L	25.49	1.130	4,502
K_7664_R		2,856	ug/L	49.87	1.746	1,987
Li6707_R		8.778	ug/L	0.2071	2.360	150.8
Mg2025_A		8,547	ug/L	33.35	0.3903	2,753
Mn2576_R		568.2	ug/L	3.633	0.6394	5,292
Mo2020_A		0.1954	ug/L	0.03831	19.61	0.9004
Na5895_R	W	43,180	ug/L	413.0	0.9564	105,100
Ni2316_A		6.617	ug/L	0.3551	5.367	9.468
Pb2203_A		0.4621	ug/L	0.02597	5.620	-0.6009
Sb2068_A		0.6922	ug/L	0.8610	124.4	-0.1718
Se1960_A		0.6829	ug/L	0.4653	68.13	1.391
Si2516_R		11,200	ug/L	90.24	0.8057	5,481
Sn1899_A		1.034	ug/L	0.5799	56.10	1.468
Sr4215_R		152.4	ug/L	1.315	0.8631	15,350
Ti3349_A		-0.5111	ug/L	0.04524	8.852	-25.72
Tl1908_A		0.3466	ug/L	0.8257	238.3	-1.817
V_2924_A		0.1895	ug/L	0.2106	111.1	-5.987
Zn2062_A		13.32	ug/L	0.01648	0.1237	29.02
Y_3600_R		18,751	Cts/S	82.247	0.43862	18,751
Y_2243_A		7,020.8	Cts/S	8.8356	0.12585	7,020.8
Y_3600_A		130,250	Cts/S	4,679.1	3.5925	130,250

SO5108-010L

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:41:20PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5108-010L

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:41:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.163	ug/L	1.585	136.2	-20.05
Al3961_R		-3.063	ug/L	11.45	373.8	4.680
As1891_A		1.811	ug/L	4.163	229.9	-2.174
B_2089_A		43.55	ug/L	1.490	3.422	21.84
Ba4554_R		20.84	ug/L	0.6978	3.348	331.3
Be3130_R		0.05867	ug/L	0.006974	11.89	-2.552
Ca3158_R		21,290	ug/L	156.2	0.7338	5,226
Cd2265_A		-0.01349	ug/L	0.3438	2,548	-0.4970
Co2286_A		5.563	ug/L	0.5266	9.467	3.896
Cr2677_A		-0.09623	ug/L	0.08792	91.36	-0.4409
Cu3273_A		3.505	ug/L	1.054	30.09	-18.59
Fe2599_R		2,262	ug/L	2.769	0.1224	922.2
K_7664_R		2,840	ug/L	28.51	1.004	386.3
Li6707_R		5.742	ug/L	0.3900	6.791	36.19
Mg2025_A		8,973	ug/L	44.70	0.4982	591.0
Mn2576_R		568.9	ug/L	3.424	0.6018	1,083
Mo2020_A		0.3980	ug/L	0.1692	42.50	0.6257
Na5895_R		42,990	ug/L	154.1	0.3584	21,410
Ni2316_A		6.114	ug/L	0.6286	10.28	1.538
Pb2203_A		-2.306	ug/L	5.264	228.3	-1.488
Sb2068_A		0.7917	ug/L	3.283	414.7	-0.4691
Se1960_A		9.414	ug/L	0.07808	0.8294	1.661
Si2516_R		10,970	ug/L	42.62	0.3885	1,151
Sn1899_A		1.587	ug/L	2.069	130.4	1.222
Sr4215_R		152.3	ug/L	0.4957	0.3255	3,101
Ti3349_A		-1.018	ug/L	0.4043	39.70	-19.25
Tl1908_A		-0.4759	ug/L	1.128	237.1	-1.867
V_2924_A		0.3226	ug/L	1.246	386.3	-6.030
Zn2062_A		23.89	ug/L	0.1174	0.4915	10.68
Y_3600_R		19,136	Cts/S	28.710	0.15003	19,136
Y_2243_A		7,243.0	Cts/S	22.974	0.31719	7,243.0
Y_3600_A		134,920	Cts/S	294.85	0.21854	134,920

SO5108-010A

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:45:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		707.7	ug/L	1.484	0.2097	11,410
Al3961_R		11,090	ug/L	98.64	0.8892	12,230
As1891_A		495.6	ug/L	4.465	0.9009	150.1
B_2089_A		552.0	ug/L	1.474	0.2671	773.7
Ba4554_R		530.9	ug/L	3.610	0.6800	40,000
Be3130_R		522.0	ug/L	6.592	1.263	56,790
Ca3158_R	W	26,210	ug/L	402.8	1.537	31,890
Cd2265_A		503.2	ug/L	0.7238	0.1438	5,530
Co2286_A		518.5	ug/L	0.7055	0.1361	1,566
Cr2677_A		500.0	ug/L	1.287	0.2575	5,396
Cu3273_A		519.3	ug/L	0.7294	0.1405	7,379
Fe2599_R		7,878	ug/L	107.5	1.364	15,810
K_7664_R		13,090	ug/L	137.8	1.053	9,235
Li6707_R		538.1	ug/L	2.671	0.4964	8,198
Mg2025_A		13,950	ug/L	49.91	0.3577	4,519
Mn2576_R	W	1,051	ug/L	19.93	1.896	9,845
Mo2020_A		526.8	ug/L	0.3481	0.06609	1,451
Na5895_R	W	47,780	ug/L	432.5	0.9050	117,000
Ni2316_A		514.8	ug/L	0.4505	0.08751	773.5

SO5108-010A

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:45:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		508.6	ug/L	1.019	0.2002	426.6
Sb2068_A		512.4	ug/L	1.526	0.2979	247.4
Se1960_A		512.1	ug/L	3.248	0.6342	122.5
Si2516_R		11,150	ug/L	146.9	1.317	5,493
Sn1899_A		527.3	ug/L	2.900	0.5500	209.6
Sr4215_R		671.0	ug/L	5.471	0.8153	68,100
Ti3349_A		505.7	ug/L	0.8826	0.1745	11,630
Tl1908_A		508.2	ug/L	0.4389	0.08636	218.6
V_2924_A		509.5	ug/L	1.686	0.3310	5,424
Zn2062_A		508.1	ug/L	1.673	0.3293	1,107
Y_3600_R		18,866	Cts/S	249.14	1.3206	18,866
Y_2243_A		7,010.7	Cts/S	18.032	0.25721	7,010.7
Y_3600_A		128,610	Cts/S	281.30	0.21872	128,610

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:49:54PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		509.7	ug/L	4.976	0.9763	8,459
Al3961_R	W	13,200	ug/L	231.0	1.750	14,590
As1891_A		523.0	ug/L	1.910	0.3652	161.7
B_2089_A	W	529.9	ug/L	0.4087	0.07713	759.8
Ba4554_R	W	532.3	ug/L	9.885	1.857	40,260
Be3130_R	W	528.7	ug/L	10.23	1.935	57,740
Ca3158_R		12,990	ug/L	194.5	1.498	15,850
Cd2265_A		523.0	ug/L	0.4993	0.09546	5,882
Co2286_A	W	531.2	ug/L	0.6020	0.1133	1,639
Cr2677_A		509.3	ug/L	7.431	1.459	5,680
Cu3273_A		519.1	ug/L	6.238	1.202	7,622
Fe2599_R	W	13,210	ug/L	223.8	1.695	26,620
K_7664_R		13,110	ug/L	148.6	1.134	9,285
Li6707_R	W	536.1	ug/L	8.741	1.630	8,202
Mg2025_A	W	13,560	ug/L	18.91	0.1394	4,488
Mn2576_R		521.1	ug/L	8.607	1.652	4,899
Mo2020_A	W	529.6	ug/L	0.1983	0.03744	1,490
Na5895_R	W	13,220	ug/L	183.3	1.386	32,550
Ni2316_A	W	530.6	ug/L	0.3271	0.06165	814.0
Pb2203_A	W	534.0	ug/L	0.3184	0.05963	457.7
Sb2068_A	W	529.3	ug/L	1.512	0.2856	261.3
Se1960_A	W	527.4	ug/L	3.402	0.6451	128.8
Si2516_R		13,430	ug/L	251.2	1.870	6,627
Sn1899_A	W	529.2	ug/L	0.05892	0.01113	214.9
Sr4215_R	W	532.8	ug/L	10.19	1.913	54,280
Ti3349_A		509.1	ug/L	5.841	1.147	12,100
Tl1908_A	W	540.0	ug/L	1.539	0.2850	237.7
V_2924_A		509.9	ug/L	8.288	1.625	5,612
Zn2062_A		518.3	ug/L	1.572	0.3033	1,154
Y_3600_R		18,941	Cts/S	123.14	0.65011	18,941
Y_2243_A		7,161.7	Cts/S	8.3998	0.11729	7,161.7
Y_3600_A		132,920	Cts/S	1,607.2	1.2091	132,920

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:54:03PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:54:03PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9798	ug/L	0.1502	15.33	-5.984
Al3961_R		19.99	ug/L	3.570	17.86	23.59
As1891_A		1.578	ug/L	0.2179	13.81	-1.775
B_2089_A		1.990	ug/L	0.2024	10.17	12.53
Ba4554_R		0.9037	ug/L	0.004197	0.4645	81.47
Be3130_R		0.9334	ug/L	0.04890	5.238	98.74
Ca3158_R		29.42	ug/L	3.527	11.99	1.523
Cd2265_A		0.9238	ug/L	0.01162	1.258	9.195
Co2286_A		0.9750	ug/L	0.0008260	0.08476	3.485
Cr2677_A		0.7943	ug/L	0.08244	10.38	8.613
Cu3273_A		1.131	ug/L	0.08553	7.565	-12.07
Fe2599_R		24.86	ug/L	0.5541	2.229	51.37
K_7664_R		6.851	ug/L	17.62	257.2	-16.19
Li6707_R		0.2309	ug/L	0.6093	263.9	21.92
Mg2025_A		27.58	ug/L	0.7408	2.686	2.345
Mn2576_R		1.060	ug/L	0.4549	42.93	12.06
Mo2020_A		1.485	ug/L	0.1063	7.160	4.653
Na5895_R		26.07	ug/L	3.861	14.81	130.8
Ni2316_A		0.9516	ug/L	0.07272	7.642	1.164
Pb2203_A		1.080	ug/L	0.4319	39.98	-0.1626
Sb2068_A		0.6856	ug/L	0.6707	97.83	-0.2121
Se1960_A		0.9791	ug/L	0.8710	88.96	1.431
Si2516_R		26.85	ug/L	1.943	7.237	82.31
Sn1899_A		0.7100	ug/L	0.4996	70.36	1.389
Sr4215_R		1.089	ug/L	0.03928	3.606	75.09
Ti3349_A		0.7877	ug/L	0.2462	31.26	4.705
Tl1908_A		1.521	ug/L	0.6042	39.71	-1.097
V_2924_A		1.059	ug/L	0.2757	26.02	5.456
Zn2062_A		1.262	ug/L	0.1429	11.32	2.770
Y_3600_R		19,051	Cts/S	90.659	0.47587	19,051
Y_2243_A		7,278.3	Cts/S	17.672	0.24280	7,278.3
Y_3600_A		134,850	Cts/S	294.43	0.21834	134,850

SO5108-010D

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:58:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3742	ug/L	0.2771	74.05	-22.52
Al3961_R		-4.242	ug/L	4.401	103.8	16.50
As1891_A		-0.6546	ug/L	0.5898	90.09	-2.497
B_2089_A		44.48	ug/L	0.1611	0.3622	69.61
Ba4554_R		20.93	ug/L	0.01514	0.07233	1,571
Be3130_R		0.1339	ug/L	0.01403	10.48	10.69
Ca3158_R		21,490	ug/L	98.98	0.4606	25,850
Cd2265_A		-0.07737	ug/L	0.01596	20.62	2.156
Co2286_A		5.278	ug/L	0.06026	1.142	16.33
Cr2677_A		0.06446	ug/L	0.002126	3.298	1.086
Cu3273_A		0.05709	ug/L	0.2712	475.0	-27.39
Fe2599_R		2,255	ug/L	2.095	0.09289	4,478
K_7664_R		2,871	ug/L	23.68	0.8248	1,988
Li6707_R		8.668	ug/L	0.4822	5.563	148.4
Mg2025_A		8,635	ug/L	27.83	0.3223	2,775
Mn2576_R		572.9	ug/L	4.255	0.7427	5,310
Mo2020_A		0.07725	ug/L	0.1214	157.1	0.5730
Na5895_R	W	43,730	ug/L	324.0	0.7409	105,900
Ni2316_A		6.886	ug/L	0.3192	4.636	9.845

SO5108-010D

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 3:58:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-1.032	ug/L	0.5612	54.36	-1.857
Sb2068_A		-0.4933	ug/L	0.4416	89.53	-0.7475
Se1960_A		-0.6330	ug/L	0.2408	38.04	1.077
Si2516_R		11,300	ug/L	86.97	0.7694	5,503
Sn1899_A		0.7133	ug/L	0.2275	31.89	1.338
Sr4215_R		154.2	ug/L	1.044	0.6772	15,450
Ti3349_A		-0.3958	ug/L	0.07226	18.26	-22.91
Tl1908_A		0.1482	ug/L	0.2986	201.5	-1.901
V_2924_A		0.2366	ug/L	0.03408	14.40	-5.398
Zn2062_A		12.71	ug/L	0.03638	0.2862	27.62
Y_3600_R		18,658	Cts/S	73.056	0.39154	18,658
Y_2243_A		7,003.7	Cts/S	1.4033	0.020036	7,003.7
Y_3600_A		129,400	Cts/S	261.85	0.20235	129,400

SO5108-010S

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:02:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.95	ug/L	0.1031	0.2023	790.4
Al3961_R		2,155	ug/L	38.05	1.765	2,398
As1891_A		108.8	ug/L	2.027	1.863	30.95
B_2089_A		592.6	ug/L	1.290	0.2177	810.6
Ba4554_R	W	2,163	ug/L	48.79	2.255	163,000
Be3130_R		54.81	ug/L	1.316	2.402	5,962
Ca3158_R		24,430	ug/L	523.9	2.145	29,740
Cd2265_A		272.1	ug/L	1.121	0.4120	2,966
Co2286_A		552.2	ug/L	1.384	0.2507	1,655
Cr2677_A		209.5	ug/L	0.3883	0.1853	2,274
Cu3273_A		274.6	ug/L	0.5055	0.1841	3,909
Fe2599_R		3,380	ug/L	78.02	2.309	6,789
K_7664_R		13,840	ug/L	240.0	1.734	9,774
Li6707_R		569.4	ug/L	12.07	2.119	8,680
Mg2025_A		14,280	ug/L	22.29	0.1561	4,591
Mn2576_R	W	1,110	ug/L	25.95	2.337	10,410
Mo2020_A		112.3	ug/L	0.5685	0.5064	307.1
Na5895_R	W	52,780	ug/L	918.4	1.740	129,300
Ni2316_A		548.8	ug/L	1.593	0.2903	814.2
Pb2203_A		108.3	ug/L	0.1233	0.1138	89.45
Sb2068_A		111.0	ug/L	1.400	1.262	50.56
Se1960_A		110.6	ug/L	1.379	1.248	27.26
Si2516_R		12,650	ug/L	290.1	2.293	6,226
Sn1899_A		552.1	ug/L	5.342	0.9676	217.8
Sr4215_R		706.6	ug/L	14.04	1.987	71,760
Ti3349_A		537.3	ug/L	1.261	0.2348	12,420
Tl1908_A		105.8	ug/L	1.022	0.9661	44.08
V_2924_A		531.0	ug/L	1.513	0.2849	5,720
Zn2062_A		542.2	ug/L	2.347	0.4328	1,174
Y_3600_R		18,879	Cts/S	248.39	1.3157	18,879
Y_2243_A		6,959.2	Cts/S	13.638	0.19597	6,959.2
Y_3600_A		129,340	Cts/S	117.15	0.090572	129,340

SO5108-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:07:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000067

SO5108-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:07:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1671	ug/L	0.1218	72.90	-19.85
Al3961_R		19.55	ug/L	5.037	25.77	24.26
As1891_A		3.695	ug/L	1.520	41.14	-1.085
B_2089_A		81.18	ug/L	0.3265	0.4021	122.0
Ba4554_R		4.535	ug/L	0.02774	0.6117	359.5
Be3130_R		-0.03987	ug/L	0.006764	16.97	-8.304
Ca3158_R		990.5	ug/L	8.999	0.9086	1,190
Cd2265_A		0.01969	ug/L	0.04276	217.2	-0.8466
Co2286_A		0.08013	ug/L	0.3206	400.1	0.6736
Cr2677_A		0.3815	ug/L	0.08506	22.30	3.984
Cu3273_A		0.7270	ug/L	0.06724	9.249	-17.85
Fe2599_R		141.3	ug/L	4.563	3.230	288.8
K_7664_R		3,171	ug/L	54.53	1.719	2,256
Li6707_R		1.407	ug/L	0.5104	36.27	40.19
Mg2025_A		2,061	ug/L	10.01	0.4858	671.0
Mn2576_R		100.8	ug/L	1.359	1.348	961.1
Mo2020_A		5.012	ug/L	0.1029	2.053	14.48
Na5895_R	W	25,090	ug/L	438.6	1.748	62,380
Ni2316_A		-0.1661	ug/L	0.0006790	0.4088	-0.5280
Pb2203_A		-0.4311	ug/L	0.08364	19.40	-1.458
Sb2068_A		0.08030	ug/L	0.2047	255.0	-0.5059
Se1960_A		1.847	ug/L	0.2013	10.90	1.628
Si2516_R		9,935	ug/L	204.2	2.056	4,973
Sn1899_A		0.1117	ug/L	0.8383	750.7	1.123
Sr4215_R		15.46	ug/L	0.1645	1.064	1,557
Ti3349_A		0.6646	ug/L	0.1674	25.18	1.760
Tl1908_A		0.001174	ug/L	0.3834	32,650	-1.797
V_2924_A		0.2140	ug/L	0.04310	20.14	-4.574
Zn2062_A		4.608	ug/L	0.09221	2.001	10.17
Y_3600_R		19,153	Cts/S	131.85	0.68843	19,153
Y_2243_A		7,151.3	Cts/S	3.3296	0.046559	7,151.3
Y_3600_A		132,740	Cts/S	68.669	0.051730	132,740

SO5108-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:11:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3156	ug/L	0.03117	9.876	-78.33
Al3961_R		10.59	ug/L	8.495	80.20	53.41
As1891_A		1.731	ug/L	0.09643	5.572	-2.571
B_2089_A		71.59	ug/L	0.1483	0.2071	106.3
Ba4554_R		33.78	ug/L	0.5098	1.509	2,544
Be3130_R		0.04263	ug/L	0.06521	153.0	0.7987
Ca3158_R	W	43,660	ug/L	951.3	2.179	52,880
Cd2265_A		-0.4198	ug/L	0.06336	15.09	32.36
Co2286_A		1.903	ug/L	0.1303	6.848	6.411
Cr2677_A		0.2501	ug/L	0.1372	54.86	6.539
Cu3273_A		0.4295	ug/L	0.1269	29.55	-25.28
Fe2599_R		19,940	ug/L	385.0	1.931	39,830
K_7664_R		3,936	ug/L	56.18	1.427	2,749
Li6707_R		13.03	ug/L	0.8961	6.877	215.2
Mg2025_A		11,980	ug/L	70.77	0.5906	3,853
Mn2576_R	W	2,364	ug/L	64.99	2.749	22,020
Mo2020_A		0.01080	ug/L	0.01900	175.8	0.2897
Na5895_R	W	41,790	ug/L	575.7	1.377	101,800
Ni2316_A		0.9200	ug/L	0.3132	34.04	0.04644

SO5108-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:11:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3972	ug/L	0.3411	85.88	-0.05679
Sb2068_A		-1.163	ug/L	0.3976	34.20	-0.8032
Se1960_A		0.1173	ug/L	0.7422	633.0	1.557
Si2516_R		12,320	ug/L	272.0	2.207	6,027
Sn1899_A		1.064	ug/L	0.9213	86.61	1.475
Sr4215_R		283.7	ug/L	4.698	1.656	28,630
Ti3349_A		0.001392	ug/L	0.01682	1,208	-13.70
Tl1908_A		-2.352	ug/L	1.276	54.24	-3.804
V_2924_A		0.3126	ug/L	0.1076	34.42	-8.900
Zn2062_A		9.069	ug/L	0.1760	1.941	19.68
Y_3600_R		18,773	Cts/S	250.06	1.3320	18,773
Y_2243_A		7,001.9	Cts/S	25.030	0.35747	7,001.9
Y_3600_A		129,210	Cts/S	42.449	0.032853	129,210

SO5108-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:15:52PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2047	ug/L	0.05910	28.87	-20.70
Al3961_R		12.11	ug/L	2.728	22.53	24.14
As1891_A		0.4541	ug/L	0.2372	52.23	-2.102
B_2089_A		67.18	ug/L	0.2276	0.3388	101.1
Ba4554_R		3.258	ug/L	0.1076	3.303	258.9
Be3130_R		0.03269	ug/L	0.01429	43.72	-0.2563
Ca3158_R		10,100	ug/L	45.81	0.4533	12,310
Cd2265_A		-0.03841	ug/L	0.03750	97.63	-0.2829
Co2286_A		0.5994	ug/L	0.04393	7.330	2.243
Cr2677_A		0.2656	ug/L	0.1969	74.13	2.834
Cu3273_A		1.183	ug/L	0.06351	5.369	-10.99
Fe2599_R		759.4	ug/L	1.547	0.2037	1,530
K_7664_R		2,610	ug/L	33.61	1.288	1,831
Li6707_R		12.75	ug/L	0.06293	0.4937	212.7
Mg2025_A		3,402	ug/L	27.39	0.8052	1,097
Mn2576_R		260.1	ug/L	0.6850	0.2633	2,447
Mo2020_A		1.239	ug/L	0.05181	4.182	3.812
Na5895_R	W	96,570	ug/L	901.2	0.9332	237,100
Ni2316_A		0.3775	ug/L	0.03351	8.879	0.2249
Pb2203_A		0.01262	ug/L	0.8480	6,720	-1.039
Sb2068_A		-0.3671	ug/L	1.134	308.8	-0.7156
Se1960_A		1.476	ug/L	0.8475	57.42	1.540
Si2516_R		12,260	ug/L	71.68	0.5845	6,051
Sn1899_A		1.294	ug/L	0.2258	17.45	1.578
Sr4215_R		81.61	ug/L	0.2245	0.2751	8,278
Ti3349_A		-0.09062	ug/L	0.07766	85.69	-15.86
Tl1908_A		-0.4772	ug/L	0.3079	64.52	-2.051
V_2924_A		-0.006623	ug/L	0.07470	1,128	-7.153
Zn2062_A		5.475	ug/L	0.03026	0.5526	11.93
Y_3600_R		18,928	Cts/S	185.16	0.97823	18,928
Y_2243_A		7,051.7	Cts/S	32.868	0.46610	7,051.7
Y_3600_A		129,740	Cts/S	734.77	0.56636	129,740

SO4240-021

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:20:16PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO4240-021

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:20:16PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4662	ug/L	0.3901	83.68	-15.42
Al3961_R		233.0	ug/L	1.484	0.6368	263.1
As1891_A		-4.143	ug/L	0.05437	1.312	-3.549
B_2089_A	W	2,015	ug/L	5.390	0.2676	2,795
Ba4554_R		15.89	ug/L	0.01064	0.06695	1,220
Be3130_R		0.00009700	ug/L	0.01577	16,280	-4.497
Ca3158_R		3,737	ug/L	12.85	0.3438	4,557
Cd2265_A		0.03273	ug/L	0.009069	27.71	-0.4507
Co2286_A		0.2899	ug/L	0.07581	26.15	1.366
Cr2677_A		2.702	ug/L	0.1781	6.592	29.84
Cu3273_A		10.68	ug/L	0.08405	0.7869	129.0
Fe2599_R		266.0	ug/L	2.735	1.028	539.8
K_7664_R		954.0	ug/L	9.274	0.9721	659.8
Li6707_R		-0.05693	ug/L	0.4275	750.9	17.52
Mg2025_A		1,106	ug/L	3.739	0.3380	356.8
Mn2576_R		11.41	ug/L	0.08503	0.7455	110.0
Mo2020_A		0.1652	ug/L	0.1798	108.8	0.8643
Na5895_R		15,910	ug/L	50.25	0.3158	39,350
Ni2316_A		1.926	ug/L	0.08278	4.298	2.598
Pb2203_A		2.845	ug/L	0.5220	18.35	1.350
Sb2068_A		1.534	ug/L	0.7732	50.42	-0.04306
Se1960_A		8.340	ug/L	0.6832	8.191	3.182
Si2516_R		611.4	ug/L	8.035	1.314	369.0
Sn1899_A		52.81	ug/L	0.3541	0.6705	22.36
Sr4215_R		7.380	ug/L	0.05968	0.8086	719.6
Ti3349_A		9.324	ug/L	0.09409	1.009	207.9
Tl1908_A		-5.758	ug/L	1.337	23.22	-4.296
V_2924_A		0.5431	ug/L	0.03482	6.411	-0.2667
Zn2062_A		318.4	ug/L	1.046	0.3284	707.8
Y_3600_R		19,034	Cts/S	55.830	0.29331	19,034
Y_2243_A		7,144.0	Cts/S	26.960	0.37738	7,144.0
Y_3600_A		133,120	Cts/S	194.62	0.14619	133,120

SO4240-022

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:24:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3509	ug/L	0.05529	15.76	-23.86
Al3961_R		1,168	ug/L	15.88	1.360	1,290
As1891_A		-3.485	ug/L	1.036	29.73	-3.392
B_2089_A	W	2,013	ug/L	1.260	0.06262	2,763
Ba4554_R		52.22	ug/L	0.2448	0.4689	3,944
Be3130_R		0.02361	ug/L	0.002296	9.724	-5.587
Ca3158_R		6,437	ug/L	62.53	0.9715	7,804
Cd2265_A		0.8870	ug/L	0.01604	1.808	12.70
Co2286_A		0.6748	ug/L	0.3545	52.54	2.828
Cr2677_A		8.414	ug/L	0.3133	3.723	92.84
Cu3273_A		44.34	ug/L	0.06888	0.1553	618.5
Fe2599_R		2,159	ug/L	10.41	0.4820	4,335
K_7664_R		1,038	ug/L	8.117	0.7821	712.9
Li6707_R		1.033	ug/L	0.02662	2.576	33.92
Mg2025_A		1,596	ug/L	1.688	0.1058	512.4
Mn2576_R		51.73	ug/L	0.04940	0.09549	486.0
Mo2020_A		1.385	ug/L	0.08350	6.030	4.238
Na5895_R		16,030	ug/L	68.03	0.4245	39,270
Ni2316_A		9.455	ug/L	0.2105	2.226	13.82

SO4240-022

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:24:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		9.472	ug/L	0.2988	3.154	6.970
Sb2068_A		4.591	ug/L	0.5593	12.18	1.469
Se1960_A		7.252	ug/L	1.527	21.06	2.903
Si2516_R		1,759	ug/L	4.367	0.2483	923.5
Sn1899_A		59.92	ug/L	0.3472	0.5795	24.96
Sr4215_R		18.09	ug/L	0.03154	0.1743	1,800
Ti3349_A		61.27	ug/L	0.4735	0.7729	1,429
Tl1908_A		-3.682	ug/L	0.5730	15.56	-3.383
V_2924_A		2.855	ug/L	0.2397	8.396	25.43
Zn2062_A		646.8	ug/L	0.3388	0.05237	1,423
Y_3600_R		18,860	Cts/S	113.46	0.60158	18,860
Y_2243_A		7,067.3	Cts/S	18.566	0.26270	7,067.3
Y_3600_A		131,650	Cts/S	55.714	0.042321	131,650

SO4240-023

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:28:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2375	ug/L	0.07012	29.53	-19.36
Al3961_R		235.7	ug/L	4.766	2.022	267.8
As1891_A		-4.372	ug/L	0.9290	21.25	-3.598
B_2089_A	W	2,070	ug/L	5.784	0.2794	2,852
Ba4554_R		20.32	ug/L	0.001475	0.007255	1,567
Be3130_R		-0.01089	ug/L	0.03373	309.8	-5.874
Ca3158_R		3,755	ug/L	33.80	0.9001	4,609
Cd2265_A		0.1319	ug/L	0.07310	55.41	0.7567
Co2286_A		0.2690	ug/L	0.04444	16.52	1.304
Cr2677_A		2.593	ug/L	0.09051	3.490	28.51
Cu3273_A		12.29	ug/L	0.1407	1.144	152.1
Fe2599_R		318.6	ug/L	2.037	0.6394	650.4
K_7664_R		850.3	ug/L	13.57	1.596	589.5
Li6707_R		-1.140	ug/L	0.7104	62.34	0.9018
Mg2025_A		1,140	ug/L	3.917	0.3435	365.6
Mn2576_R		11.01	ug/L	0.1094	0.9945	106.9
Mo2020_A		0.05992	ug/L	0.1621	270.6	0.5638
Na5895_R		16,450	ug/L	15.74	0.09566	40,950
Ni2316_A		1.742	ug/L	0.1965	11.28	2.298
Pb2203_A		2.790	ug/L	0.1553	5.566	1.296
Sb2068_A		3.074	ug/L	0.1231	4.005	0.7232
Se1960_A		8.132	ug/L	0.06525	0.8023	3.110
Si2516_R		684.9	ug/L	7.098	1.036	407.6
Sn1899_A		52.24	ug/L	0.2130	0.4078	21.98
Sr4215_R		7.660	ug/L	0.08744	1.141	753.1
Ti3349_A		11.22	ug/L	0.04835	0.4308	252.0
Tl1908_A		-4.837	ug/L	0.1204	2.490	-3.865
V_2924_A		0.5981	ug/L	0.2114	35.34	0.3846
Zn2062_A		527.4	ug/L	2.256	0.4278	1,164
Y_3600_R		19,156	Cts/S	10.599	0.055332	19,156
Y_2243_A		7,094.3	Cts/S	6.6851	0.094231	7,094.3
Y_3600_A		132,540	Cts/S	872.85	0.65854	132,540

SO4240-024

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:33:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000071

SO4240-024

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:33:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2961	ug/L	0.1173	39.61	-18.09
Al3961_R		185.5	ug/L	7.166	3.864	208.1
As1891_A		-4.593	ug/L	1.186	25.83	-3.664
B_2089_A	W	2,001	ug/L	12.63	0.6312	2,755
Ba4554_R		13.23	ug/L	0.06173	0.4666	1,008
Be3130_R		-0.0004890	ug/L	0.0008940	182.7	-4.521
Ca3158_R		3,397	ug/L	1.988	0.05853	4,100
Cd2265_A		0.01252	ug/L	0.01539	122.9	-0.6503
Co2286_A		0.1100	ug/L	0.1669	151.7	0.8097
Cr2677_A		2.137	ug/L	0.03297	1.543	23.28
Cu3273_A		8.280	ug/L	0.05788	0.6991	92.54
Fe2599_R		276.0	ug/L	0.2420	0.08768	554.6
K_7664_R		406.1	ug/L	1.331	0.3278	266.2
Li6707_R		-0.4583	ug/L	0.8478	185.0	11.21
Mg2025_A		1,013	ug/L	5.916	0.5841	323.6
Mn2576_R		10.32	ug/L	0.1107	1.072	98.78
Mo2020_A		-0.04479	ug/L	0.07517	167.8	0.2726
Na5895_R		15,370	ug/L	31.88	0.2074	37,650
Ni2316_A		1.270	ug/L	0.3178	25.02	1.586
Pb2203_A		1.418	ug/L	0.5012	35.33	0.1276
Sb2068_A		0.7386	ug/L	0.8159	110.5	-0.4304
Se1960_A		13.44	ug/L	0.03714	0.2764	4.376
Si2516_R		571.0	ug/L	14.45	2.532	345.8
Sn1899_A		51.96	ug/L	1.255	2.415	21.85
Sr4215_R		6.819	ug/L	0.02632	0.3860	655.6
Ti3349_A		9.391	ug/L	0.7358	7.835	207.2
Tl1908_A		-6.587	ug/L	0.5715	8.676	-4.628
V_2924_A		0.5149	ug/L	0.07870	15.28	-0.5384
Zn2062_A		345.2	ug/L	2.063	0.5978	761.4
Y_3600_R		18,849	Cts/S	77.334	0.41029	18,849
Y_2243_A		7,089.4	Cts/S	36.953	0.52124	7,089.4
Y_3600_A		131,670	Cts/S	96.309	0.073142	131,670

SO4240-025

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:37:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1660	ug/L	0.4659	280.6	-21.25
Al3961_R		400.1	ug/L	2.745	0.6862	447.2
As1891_A		-1.843	ug/L	0.4280	23.23	-2.839
B_2089_A	W	1,969	ug/L	14.64	0.7439	2,732
Ba4554_R		21.46	ug/L	0.2800	1.305	1,639
Be3130_R		-0.005852	ug/L	0.003248	55.51	-5.723
Ca3158_R		3,935	ug/L	69.53	1.767	4,786
Cd2265_A		0.2010	ug/L	0.03084	15.34	1.906
Co2286_A		0.2893	ug/L	0.01098	3.794	1.412
Cr2677_A		5.471	ug/L	0.1630	2.980	60.64
Cu3273_A		10.84	ug/L	0.3001	2.769	130.9
Fe2599_R		506.2	ug/L	4.918	0.9715	1,023
K_7664_R		930.4	ug/L	1.270	0.1365	641.1
Li6707_R		0.3542	ug/L	0.02760	7.793	23.74
Mg2025_A		1,131	ug/L	12.93	1.144	364.8
Mn2576_R		15.15	ug/L	0.1183	0.7806	144.9
Mo2020_A		0.1592	ug/L	0.1085	68.13	0.8474
Na5895_R		15,800	ug/L	144.6	0.9152	38,960
Ni2316_A		2.014	ug/L	0.2279	11.31	2.720

SO4240-025

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:37:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.659	ug/L	1.440	30.91	2.908
Sb2068_A		1.280	ug/L	0.1813	14.17	-0.1551
Se1960_A		6.869	ug/L	1.200	17.48	2.829
Si2516_R		794.8	ug/L	11.62	1.462	457.6
Sn1899_A		51.85	ug/L	0.2918	0.5629	21.98
Sr4215_R		8.390	ug/L	0.08306	0.9899	820.7
Ti3349_A		17.48	ug/L	0.2665	1.525	401.2
Tl1908_A		-4.744	ug/L	0.2158	4.550	-3.856
V_2924_A		0.8202	ug/L	0.01692	2.063	2.809
Zn2062_A		251.7	ug/L	2.482	0.9861	559.7
Y_3600_R		18,979	Cts/S	114.36	0.60257	18,979
Y_2243_A		7,145.0	Cts/S	34.798	0.48703	7,145.0
Y_3600_A		132,790	Cts/S	600.07	0.45188	132,790

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:42:03PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		510.5	ug/L	2.093	0.4101	8,516
Al3961_R		12,720	ug/L	156.4	1.230	14,480
As1891_A		519.2	ug/L	1.313	0.2529	161.3
B_2089_A	W	534.4	ug/L	1.601	0.2996	769.2
Ba4554_R		513.2	ug/L	9.139	1.781	39,950
Be3130_R		513.0	ug/L	10.32	2.012	57,660
Ca3158_R		12,570	ug/L	238.3	1.896	15,780
Cd2265_A		522.8	ug/L	1.688	0.3228	5,904
Co2286_A		526.5	ug/L	1.368	0.2598	1,631
Cr2677_A		504.7	ug/L	2.229	0.4417	5,656
Cu3273_A		517.8	ug/L	1.526	0.2947	7,640
Fe2599_R		12,740	ug/L	231.5	1.817	26,420
K_7664_R		12,720	ug/L	217.2	1.708	9,271
Li6707_R		518.4	ug/L	8.449	1.630	8,161
Mg2025_A	W	13,390	ug/L	32.05	0.2393	4,452
Mn2576_R		511.7	ug/L	8.308	1.624	4,951
Mo2020_A		524.6	ug/L	0.8620	0.1643	1,483
Na5895_R		12,850	ug/L	180.0	1.401	32,560
Ni2316_A	W	527.9	ug/L	1.514	0.2869	813.6
Pb2203_A	W	531.1	ug/L	0.3133	0.05899	457.3
Sb2068_A	W	528.7	ug/L	1.328	0.2512	262.1
Se1960_A		524.7	ug/L	0.4871	0.09284	128.7
Si2516_R		13,070	ug/L	178.1	1.363	6,637
Sn1899_A	W	528.4	ug/L	0.08631	0.01633	215.6
Sr4215_R		516.5	ug/L	8.322	1.611	54,150
Ti3349_A		507.2	ug/L	2.367	0.4667	12,110
Tl1908_A	W	540.8	ug/L	1.648	0.3048	239.0
V_2924_A		507.3	ug/L	1.721	0.3393	5,612
Zn2062_A		519.3	ug/L	1.946	0.3748	1,161
Y_3600_R		19,493	Cts/S	331.67	1.7015	19,493
Y_2243_A		7,193.3	Cts/S	5.6567	0.078639	7,193.3
Y_3600_A		133,570	Cts/S	439.61	0.32912	133,570

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:46:12PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:46:12PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.170	ug/L	0.008663	0.7406	-2.784
Al3961_R		22.44	ug/L	1.963	8.746	26.36
As1891_A		-0.4745	ug/L	0.6579	138.7	-2.421
B_2089_A		5.379	ug/L	0.2359	4.385	17.21
Ba4554_R		0.9864	ug/L	0.05684	5.762	87.93
Be3130_R		0.9476	ug/L	0.03902	4.118	100.5
Ca3158_R		29.57	ug/L	4.285	14.49	1.710
Cd2265_A		0.9749	ug/L	0.04072	4.177	9.735
Co2286_A		1.076	ug/L	0.06192	5.755	3.784
Cr2677_A		1.039	ug/L	0.1606	15.45	11.43
Cu3273_A		1.050	ug/L	0.1465	13.95	-13.33
Fe2599_R		26.35	ug/L	0.1930	0.7323	54.50
K_7664_R		17.12	ug/L	10.24	59.80	-8.851
Li6707_R		0.4407	ug/L	0.2018	45.79	25.22
Mg2025_A		27.87	ug/L	0.3124	1.121	2.433
Mn2576_R		1.337	ug/L	0.4345	32.51	14.73
Mo2020_A		1.231	ug/L	0.01554	1.262	3.910
Na5895_R		28.79	ug/L	2.837	9.855	137.8
Ni2316_A		0.8639	ug/L	0.1879	21.75	1.020
Pb2203_A		1.298	ug/L	0.3096	23.84	0.02746
Sb2068_A		1.986	ug/L	0.2407	12.12	0.4432
Se1960_A		1.535	ug/L	0.4022	26.21	1.560
Si2516_R		31.37	ug/L	2.797	8.917	84.70
Sn1899_A		0.9165	ug/L	0.06188	6.752	1.467
Sr4215_R		1.116	ug/L	0.1115	9.991	78.02
Ti3349_A		0.9857	ug/L	0.09833	9.975	9.525
Tl1908_A		1.451	ug/L	0.6436	44.36	-1.124
V_2924_A		1.023	ug/L	0.08837	8.636	5.091
Zn2062_A		1.266	ug/L	0.1297	10.25	2.763
Y_3600_R		19,089	Cts/S	66.620	0.34901	19,089
Y_2243_A		7,245.2	Cts/S	2.6022	0.035916	7,245.2
Y_3600_A		135,530	Cts/S	547.24	0.40378	135,530

SO4240-026

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:50:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2411	ug/L	0.1925	79.85	-18.82
Al3961_R		276.9	ug/L	0.1811	0.06542	311.5
As1891_A		-5.752	ug/L	0.3412	5.933	-3.990
B_2089_A	W	2,045	ug/L	3.087	0.1509	2,792
Ba4554_R		16.12	ug/L	0.02745	0.1703	1,236
Be3130_R		0.02223	ug/L	0.03759	169.1	-2.099
Ca3158_R		3,945	ug/L	23.26	0.5897	4,806
Cd2265_A		0.0003510	ug/L	0.05083	14,480	-0.8202
Co2286_A		-0.01238	ug/L	0.2031	1,641	0.4349
Cr2677_A		2.861	ug/L	0.02415	0.8441	31.06
Cu3273_A		9.424	ug/L	0.03070	0.3257	108.5
Fe2599_R		254.4	ug/L	3.021	1.188	515.5
K_7664_R		893.4	ug/L	11.76	1.316	615.6
Li6707_R		-0.2162	ug/L	0.2192	101.4	15.04
Mg2025_A		1,093	ug/L	4.477	0.4094	347.0
Mn2576_R		10.45	ug/L	0.4416	4.226	100.8
Mo2020_A		0.1669	ug/L	0.01774	10.62	0.8549
Na5895_R		17,900	ug/L	36.45	0.2037	44,190
Ni2316_A		1.626	ug/L	0.4511	27.74	2.111

SO4240-026

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:50:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.293	ug/L	0.5188	40.12	0.01556
Sb2068_A		1.411	ug/L	0.4040	28.63	-0.1019
Se1960_A		12.20	ug/L	0.3670	3.007	4.048
Si2516_R		833.6	ug/L	9.622	1.154	477.3
Sn1899_A		52.39	ug/L	0.3740	0.7138	21.85
Sr4215_R		8.348	ug/L	0.05575	0.6679	817.5
Ti3349_A		9.852	ug/L	0.09607	0.9752	216.6
Tl1908_A		-7.471	ug/L	0.4940	6.612	-4.974
V_2924_A		0.5045	ug/L	0.1827	36.22	-0.6800
Zn2062_A		223.5	ug/L	0.1442	0.06454	489.0
Y_3600_R		19,005	Cts/S	37.370	0.19663	19,005
Y_2243_A		7,032.2	Cts/S	21.739	0.30914	7,032.2
Y_3600_A		130,800	Cts/S	353.60	0.27034	130,800

SO4240-027

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:54:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2452	ug/L	0.2239	91.34	-20.32
Al3961_R		419.6	ug/L	10.57	2.519	468.8
As1891_A		-3.148	ug/L	0.4841	15.38	-3.220
B_2089_A	W	2,060	ug/L	2.969	0.1441	2,830
Ba4554_R		31.48	ug/L	0.8178	2.598	2,395
Be3130_R		0.007184	ug/L	0.02820	392.5	-4.760
Ca3158_R		4,660	ug/L	138.9	2.980	5,667
Cd2265_A		-0.01724	ug/L	0.03278	190.1	-0.3478
Co2286_A		0.3444	ug/L	0.1942	56.38	1.599
Cr2677_A		3.100	ug/L	0.08889	2.867	34.17
Cu3273_A		11.29	ug/L	0.05822	0.5159	137.2
Fe2599_R		596.0	ug/L	21.29	3.572	1,203
K_7664_R		1,358	ug/L	24.08	1.772	944.4
Li6707_R		0.4696	ug/L	0.9685	206.2	25.36
Mg2025_A		1,160	ug/L	6.741	0.5812	370.8
Mn2576_R		14.98	ug/L	1.163	7.767	143.0
Mo2020_A		0.2348	ug/L	0.01495	6.367	1.048
Na5895_R		18,800	ug/L	380.7	2.026	46,280
Ni2316_A		2.664	ug/L	0.002748	0.1032	3.669
Pb2203_A		2.548	ug/L	0.4175	16.39	1.083
Sb2068_A		1.606	ug/L	0.3226	20.09	-0.001236
Se1960_A		8.323	ug/L	0.4165	5.005	3.149
Si2516_R		1,010	ug/L	26.54	2.629	562.1
Sn1899_A		52.36	ug/L	0.1110	0.2120	21.97
Sr4215_R		9.834	ug/L	0.1865	1.896	966.9
Ti3349_A		23.33	ug/L	0.3810	1.634	538.9
Tl1908_A		-4.980	ug/L	0.6694	13.44	-3.923
V_2924_A		0.7183	ug/L	0.1060	14.75	1.810
Zn2062_A		220.9	ug/L	0.3422	0.1549	486.3
Y_3600_R		18,957	Cts/S	316.98	1.6721	18,957
Y_2243_A		7,074.4	Cts/S	4.9654	0.070188	7,074.4
Y_3600_A		132,560	Cts/S	2,603.7	1.9642	132,560

SO4240-028

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:59:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO4240-028

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 4:59:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3068	ug/L	0.08076	26.32	-17.75
Al3961_R		200.8	ug/L	0.6005	0.2990	224.0
As1891_A		-6.072	ug/L	0.4709	7.756	-4.072
B_2089_A	W	1,986	ug/L	16.85	0.8483	2,701
Ba4554_R		11.35	ug/L	0.04320	0.3806	863.8
Be3130_R		-0.006929	ug/L	0.002279	32.89	-5.276
Ca3158_R		3,254	ug/L	3.669	0.1128	3,912
Cd2265_A		0.2425	ug/L	0.02222	9.161	1.892
Co2286_A		-0.004837	ug/L	0.03686	762.1	0.4598
Cr2677_A		1.940	ug/L	0.04944	2.549	20.84
Cu3273_A		5.527	ug/L	0.06365	1.152	51.68
Fe2599_R		284.6	ug/L	0.9554	0.3357	570.0
K_7664_R		581.1	ug/L	9.930	1.709	388.6
Li6707_R		-0.5231	ug/L	0.2850	54.48	10.24
Mg2025_A		999.2	ug/L	5.736	0.5741	315.2
Mn2576_R		9.990	ug/L	0.3200	3.203	95.39
Mo2020_A		-0.02487	ug/L	0.04524	181.9	0.3239
Na5895_R		19,190	ug/L	123.6	0.6439	46,850
Ni2316_A		1.394	ug/L	0.1375	9.864	1.751
Pb2203_A		3.934	ug/L	0.2826	7.183	2.242
Sb2068_A		0.6087	ug/L	0.5965	98.01	-0.4969
Se1960_A		9.820	ug/L	1.636	16.66	3.466
Si2516_R		619.4	ug/L	10.35	1.671	368.1
Sn1899_A		52.76	ug/L	0.2609	0.4945	21.90
Sr4215_R		5.902	ug/L	0.06059	1.027	560.8
Ti3349_A		10.61	ug/L	0.1616	1.524	233.0
Tl1908_A		-6.158	ug/L	2.171	35.25	-4.382
V_2924_A		0.7424	ug/L	0.2816	37.93	1.963
Zn2062_A		232.9	ug/L	1.603	0.6882	507.5
Y_3600_R		18,788	Cts/S	174.40	0.92823	18,788
Y_2243_A		7,001.8	Cts/S	46.826	0.66876	7,001.8
Y_3600_A		130,100	Cts/S	524.61	0.40324	130,100

SO4240-029

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:03:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4424	ug/L	0.1336	30.19	-15.42
Al3961_R		78.44	ug/L	3.259	4.154	91.89
As1891_A		-3.943	ug/L	0.1895	4.806	-3.495
B_2089_A	W	2,021	ug/L	2.693	0.1333	2,814
Ba4554_R		7.992	ug/L	0.1095	1.370	624.5
Be3130_R		-0.01762	ug/L	0.004386	24.89	-6.062
Ca3158_R		3,134	ug/L	16.74	0.5340	3,844
Cd2265_A		0.01228	ug/L	0.009812	79.88	-0.9027
Co2286_A		-0.02845	ug/L	0.2360	829.6	0.3574
Cr2677_A		1.877	ug/L	0.05827	3.104	20.67
Cu3273_A		6.006	ug/L	0.09766	1.626	60.21
Fe2599_R		155.6	ug/L	2.831	1.820	318.4
K_7664_R		345.8	ug/L	5.560	1.608	227.4
Li6707_R		-0.8389	ug/L	0.2162	25.77	5.552
Mg2025_A		990.0	ug/L	6.607	0.6674	319.8
Mn2576_R		6.913	ug/L	0.06418	0.9284	68.08
Mo2020_A		0.06016	ug/L	0.05907	98.20	0.5711
Na5895_R		15,560	ug/L	57.59	0.3703	38,750
Ni2316_A		1.129	ug/L	0.1600	14.18	1.395

SO4240-029

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:03:44PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4133	ug/L	0.6502	157.3	-0.7332
Sb2068_A		0.1796	ug/L	0.7194	400.5	-0.7123
Se1960_A		9.875	ug/L	0.4467	4.523	3.564
Si2516_R		390.3	ug/L	8.436	2.161	262.4
Sn1899_A		50.55	ug/L	0.02193	0.04339	21.54
Sr4215_R		5.589	ug/L	0.02900	0.5189	539.9
Ti3349_A		3.632	ug/L	0.1175	3.234	72.56
Tl1908_A		-5.479	ug/L	0.3916	7.148	-4.187
V_2924_A		0.4600	ug/L	0.01109	2.411	-1.206
Zn2062_A		237.5	ug/L	0.2455	0.1034	530.0
Y_3600_R		19,172	Cts/S	17.744	0.092553	19,172
Y_2243_A		7,171.8	Cts/S	2.8650	0.039948	7,171.8
Y_3600_A		133,480	Cts/S	170.13	0.12746	133,480

SO4240-030

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:08:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2419	ug/L	0.3679	152.1	-18.53
Al3961_R		121.3	ug/L	2.173	1.791	137.9
As1891_A		-4.138	ug/L	0.5995	14.49	-3.495
B_2089_A	W	2,049	ug/L	8.260	0.4032	2,805
Ba4554_R		13.84	ug/L	0.04582	0.3312	1,057
Be3130_R		-0.01435	ug/L	0.006715	46.80	-5.765
Ca3158_R		3,171	ug/L	33.93	1.070	3,838
Cd2265_A		0.002342	ug/L	0.03764	1,607	-1.006
Co2286_A		0.05279	ug/L	0.06439	122.0	0.6098
Cr2677_A		1.608	ug/L	0.1719	10.69	17.40
Cu3273_A		6.171	ug/L	0.1337	2.166	61.74
Fe2599_R		150.8	ug/L	0.4975	0.3298	304.5
K_7664_R		508.7	ug/L	8.746	1.719	339.8
Li6707_R		-0.7656	ug/L	0.05144	6.719	6.591
Mg2025_A		1,006	ug/L	5.258	0.5227	319.5
Mn2576_R		7.896	ug/L	0.02530	0.3204	76.39
Mo2020_A		-0.008211	ug/L	0.09399	1,145	0.3716
Na5895_R		15,460	ug/L	34.92	0.2259	37,990
Ni2316_A		2.012	ug/L	0.09999	4.970	2.697
Pb2203_A		1.063	ug/L	0.8435	79.37	-0.1727
Sb2068_A		1.037	ug/L	1.097	105.9	-0.2871
Se1960_A		8.653	ug/L	1.659	19.17	3.213
Si2516_R		506.2	ug/L	1.238	0.2445	315.4
Sn1899_A		51.79	ug/L	0.4852	0.9369	21.66
Sr4215_R		6.179	ug/L	0.008438	0.1366	592.6
Ti3349_A		5.840	ug/L	0.1042	1.785	123.5
Tl1908_A		-6.581	ug/L	0.001570	0.02386	-4.596
V_2924_A		0.7348	ug/L	0.2028	27.59	1.856
Zn2062_A		244.1	ug/L	0.7296	0.2989	535.5
Y_3600_R		18,912	Cts/S	85.475	0.45196	18,912
Y_2243_A		7,049.6	Cts/S	14.495	0.20562	7,049.6
Y_3600_A		131,570	Cts/S	151.07	0.11482	131,570

SO4247-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:12:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO4247-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:12:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1414	ug/L	0.1142	80.80	-20.96
Al3961_R		417.8	ug/L	1.537	0.3678	464.8
As1891_A		-5.226	ug/L	0.2216	4.240	-3.844
B_2089_A	W	2,395	ug/L	5.746	0.2399	3,279
Ba4554_R		18.94	ug/L	0.1800	0.9501	1,443
Be3130_R		0.007814	ug/L	0.003563	45.60	-3.832
Ca3158_R		3,465	ug/L	16.39	0.4729	4,196
Cd2265_A		-0.04580	ug/L	0.05589	122.0	-1.111
Co2286_A		0.1076	ug/L	0.1037	96.38	0.8135
Cr2677_A		2.050	ug/L	0.03838	1.872	22.29
Cu3273_A		3.658	ug/L	0.1516	4.143	24.94
Fe2599_R		367.5	ug/L	1.725	0.4693	740.7
K_7664_R		1,050	ug/L	11.45	1.091	723.6
Li6707_R		-0.1267	ug/L	0.6887	543.6	16.33
Mg2025_A		1,035	ug/L	5.378	0.5196	329.1
Mn2576_R		14.38	ug/L	0.7832	5.447	137.2
Mo2020_A		-0.001558	ug/L	0.05584	3,584	0.3904
Na5895_R		16,560	ug/L	157.2	0.9491	40,690
Ni2316_A		1.528	ug/L	0.3196	20.92	1.959
Pb2203_A		1.006	ug/L	0.2084	20.71	-0.2352
Sb2068_A		1.508	ug/L	0.3270	21.68	-0.05090
Se1960_A		10.17	ug/L	1.563	15.38	3.577
Si2516_R		935.4	ug/L	8.990	0.9611	524.6
Sn1899_A		51.64	ug/L	0.8348	1.617	21.62
Sr4215_R		6.313	ug/L	0.09080	1.438	606.4
Ti3349_A		12.28	ug/L	0.02204	0.1795	274.8
Tl1908_A		-5.897	ug/L	0.3042	5.159	-4.307
V_2924_A		0.7134	ug/L	0.09143	12.82	1.659
Zn2062_A		245.9	ug/L	0.04282	0.01742	539.6
Y_3600_R		18,915	Cts/S	4.1850	0.022126	18,915
Y_2243_A		7,053.4	Cts/S	15.579	0.22087	7,053.4
Y_3600_A		131,450	Cts/S	435.30	0.33115	131,450

SO4247-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:16:52PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3974	ug/L	0.1018	25.60	-17.96
Al3961_R		595.6	ug/L	20.09	3.373	671.9
As1891_A		-4.315	ug/L	0.5476	12.69	-3.586
B_2089_A	W	2,307	ug/L	12.59	0.5457	3,169
Ba4554_R		30.85	ug/L	0.3808	1.234	2,381
Be3130_R		0.01493	ug/L	0.004933	33.05	-3.818
Ca3158_R		4,144	ug/L	72.31	1.745	5,108
Cd2265_A		-0.04118	ug/L	0.006283	15.26	-0.5273
Co2286_A		0.3059	ug/L	0.1098	35.91	1.477
Cr2677_A		2.590	ug/L	0.01397	0.5393	28.67
Cu3273_A		4.847	ug/L	0.4420	9.119	42.71
Fe2599_R		639.9	ug/L	8.974	1.402	1,310
K_7664_R		1,114	ug/L	3.490	0.3133	781.8
Li6707_R		0.4186	ug/L	0.09857	23.55	25.07
Mg2025_A		1,202	ug/L	4.602	0.3829	384.6
Mn2576_R		21.05	ug/L	0.1858	0.8829	203.1
Mo2020_A		0.1202	ug/L	0.08409	69.94	0.7297
Na5895_R		16,690	ug/L	302.3	1.811	41,680
Ni2316_A		1.729	ug/L	0.1265	7.318	2.257

SO4247-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:16:52PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.674	ug/L	0.03095	1.849	0.3284
Sb2068_A		1.348	ug/L	0.2706	20.08	-0.1224
Se1960_A		7.814	ug/L	0.6835	8.747	3.030
Si2516_R		1,093	ug/L	37.49	3.431	611.0
Sn1899_A		51.38	ug/L	0.02335	0.04544	21.58
Sr4215_R		8.695	ug/L	0.007794	0.08964	862.9
Ti3349_A		22.08	ug/L	0.2252	1.020	512.4
Tl1908_A		-5.410	ug/L	0.3695	6.829	-4.114
V_2924_A		1.218	ug/L	0.1779	14.60	7.365
Zn2062_A		265.7	ug/L	1.216	0.4578	585.1
Y_3600_R		19,227	Cts/S	446.93	2.3245	19,227
Y_2243_A		7,075.9	Cts/S	18.960	0.26795	7,075.9
Y_3600_A		133,280	Cts/S	694.05	0.52074	133,280

SO4247-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:21:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2279	ug/L	0.01277	5.604	-20.10
Al3961_R		372.5	ug/L	0.7771	0.2086	420.0
As1891_A		-2.771	ug/L	0.8021	28.95	-3.104
B_2089_A	W	2,399	ug/L	34.14	1.423	3,303
Ba4554_R		33.94	ug/L	0.3282	0.9671	2,606
Be3130_R		0.003443	ug/L	0.02730	792.9	-4.501
Ca3158_R		3,729	ug/L	2.409	0.06461	4,573
Cd2265_A		0.02001	ug/L	0.006468	32.33	-0.2089
Co2286_A		0.3335	ug/L	0.009648	2.893	1.519
Cr2677_A		3.044	ug/L	0.02319	0.7620	33.70
Cu3273_A		8.593	ug/L	0.3780	4.399	98.14
Fe2599_R		460.0	ug/L	2.548	0.5540	937.7
K_7664_R		1,133	ug/L	17.69	1.561	792.1
Li6707_R		-0.8333	ug/L	0.1738	20.85	5.632
Mg2025_A		1,156	ug/L	13.16	1.139	370.4
Mn2576_R		16.16	ug/L	0.2097	1.297	155.7
Mo2020_A		0.06295	ug/L	0.05455	86.66	0.5728
Na5895_R		16,420	ug/L	112.8	0.6871	40,830
Ni2316_A		3.154	ug/L	0.01682	0.5333	4.425
Pb2203_A		1.546	ug/L	0.1693	10.95	0.2302
Sb2068_A		1.988	ug/L	0.3789	19.06	0.1889
Se1960_A		7.101	ug/L	0.2514	3.541	2.864
Si2516_R		741.3	ug/L	2.357	0.3179	435.1
Sn1899_A		52.02	ug/L	1.345	2.585	21.89
Sr4215_R		7.350	ug/L	0.1544	2.101	720.4
Ti3349_A		14.20	ug/L	0.2693	1.896	324.1
Tl1908_A		-4.472	ug/L	0.07299	1.632	-3.708
V_2924_A		0.8368	ug/L	0.1948	23.28	3.039
Zn2062_A		297.2	ug/L	4.017	1.352	655.9
Y_3600_R		19,139	Cts/S	68.611	0.35849	19,139
Y_2243_A		7,093.7	Cts/S	68.917	0.97152	7,093.7
Y_3600_A		133,170	Cts/S	578.99	0.43476	133,170

SO4247-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:25:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO4247-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:25:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2174	ug/L	0.1368	62.92	-20.03
Al3961_R		359.4	ug/L	4.359	1.213	405.4
As1891_A		-4.075	ug/L	0.6373	15.64	-3.504
B_2089_A	W	2,260	ug/L	2.980	0.1319	3,111
Ba4554_R		25.67	ug/L	0.3048	1.187	1,972
Be3130_R		0.03614	ug/L	0.008337	23.07	-1.305
Ca3158_R		4,266	ug/L	42.75	1.002	5,230
Cd2265_A		0.01083	ug/L	0.01680	155.2	-0.5150
Co2286_A		0.1276	ug/L	0.09432	73.92	0.9183
Cr2677_A		2.713	ug/L	0.2021	7.450	30.01
Cu3273_A		31.30	ug/L	0.3299	1.054	434.1
Fe2599_R		351.5	ug/L	8.241	2.345	715.8
K_7664_R		818.5	ug/L	1.981	0.2421	565.5
Li6707_R		-0.06958	ug/L	0.03489	50.15	17.38
Mg2025_A		1,160	ug/L	1.454	0.1254	371.6
Mn2576_R		13.29	ug/L	0.4593	3.456	128.3
Mo2020_A		0.2398	ug/L	0.01997	8.327	1.065
Na5895_R		15,740	ug/L	72.97	0.4637	39,090
Ni2316_A		1.938	ug/L	0.2329	12.02	2.593
Pb2203_A		0.9217	ug/L	0.1398	15.17	-0.2995
Sb2068_A		1.253	ug/L	0.1373	10.95	-0.1762
Se1960_A		8.550	ug/L	1.443	16.88	3.208
Si2516_R		844.9	ug/L	15.14	1.792	485.6
Sn1899_A		51.74	ug/L	0.7257	1.403	21.76
Sr4215_R		9.251	ug/L	0.1530	1.654	915.0
Ti3349_A		19.53	ug/L	0.03087	0.1580	451.6
Tl1908_A		-4.898	ug/L	0.2203	4.497	-3.893
V_2924_A		0.6208	ug/L	0.3637	58.59	0.6743
Zn2062_A		224.7	ug/L	0.2795	0.1244	495.6
Y_3600_R		19,115	Cts/S	101.32	0.53004	19,115
Y_2243_A		7,089.7	Cts/S	5.5887	0.078828	7,089.7
Y_3600_A		133,310	Cts/S	214.58	0.16096	133,310

SO4247-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:29:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1558	ug/L	0.03559	22.84	-20.23
Al3961_R		167.6	ug/L	1.590	0.9489	192.1
As1891_A		-5.634	ug/L	0.8189	14.53	-3.961
B_2089_A	W	2,246	ug/L	3.622	0.1613	3,074
Ba4554_R		25.28	ug/L	0.04962	0.1963	1,953
Be3130_R		-0.01894	ug/L	0.05900	311.5	-6.551
Ca3158_R		3,362	ug/L	27.45	0.8164	4,137
Cd2265_A		-0.01564	ug/L	0.03048	194.9	-1.167
Co2286_A		-0.05786	ug/L	0.01658	28.66	0.2849
Cr2677_A		1.681	ug/L	0.09460	5.629	18.38
Cu3273_A		81.81	ug/L	0.04623	0.05651	1,177
Fe2599_R		168.0	ug/L	1.034	0.6152	344.7
K_7664_R		387.1	ug/L	10.35	2.674	257.7
Li6707_R		-0.6272	ug/L	0.3817	60.85	8.840
Mg2025_A		1,005	ug/L	0.6797	0.06761	319.4
Mn2576_R		7.963	ug/L	0.04760	0.5978	78.26
Mo2020_A		0.09800	ug/L	0.04584	46.77	0.6666
Na5895_R		15,290	ug/L	73.08	0.4779	38,190
Ni2316_A		1.147	ug/L	0.1678	14.63	1.398

SO4247-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:29:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4488	ug/L	1.155	257.4	-0.6824
Sb2068_A		0.7534	ug/L	0.5661	75.15	-0.4215
Se1960_A		9.104	ug/L	1.091	11.98	3.321
Si2516_R		451.2	ug/L	0.3461	0.07670	293.3
Sn1899_A		50.77	ug/L	0.03778	0.07441	21.26
Sr4215_R		7.036	ug/L	0.04103	0.5831	691.0
Ti3349_A		7.753	ug/L	0.03122	0.4027	170.1
Tl1908_A		-6.818	ug/L	0.1499	2.199	-4.698
V_2924_A		0.3031	ug/L	0.03889	12.83	-2.908
Zn2062_A		208.0	ug/L	0.2068	0.09942	456.3
Y_3600_R		19,220	Cts/S	21.707	0.11294	19,220
Y_2243_A		7,051.3	Cts/S	25.416	0.36044	7,051.3
Y_3600_A		132,830	Cts/S	54.896	0.041327	132,830

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:34:19PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		514.2	ug/L	2.510	0.4881	8,655
Al3961_R		13,010	ug/L	96.34	0.7405	14,870
As1891_A		523.1	ug/L	0.4010	0.07665	162.9
B_2089_A	W	534.5	ug/L	0.4669	0.08736	771.0
Ba4554_R		514.1	ug/L	2.466	0.4797	40,200
Be3130_R		509.5	ug/L	2.669	0.5238	57,530
Ca3158_R		12,730	ug/L	50.62	0.3976	16,060
Cd2265_A		516.8	ug/L	1.852	0.3584	5,849
Co2286_A	W	528.1	ug/L	2.014	0.3813	1,640
Cr2677_A		502.1	ug/L	0.1554	0.03094	5,678
Cu3273_A		512.4	ug/L	0.01377	0.002687	7,628
Fe2599_R		12,740	ug/L	21.40	0.1681	26,530
K_7664_R		12,830	ug/L	65.42	0.5100	9,394
Li6707_R		518.2	ug/L	4.394	0.8479	8,195
Mg2025_A	W	13,510	ug/L	28.72	0.2126	4,499
Mn2576_R		509.8	ug/L	4.491	0.8809	4,955
Mo2020_A		525.8	ug/L	2.651	0.5042	1,489
Na5895_R		12,950	ug/L	99.04	0.7647	32,960
Ni2316_A		522.6	ug/L	1.163	0.2225	807.1
Pb2203_A		526.1	ug/L	1.703	0.3238	453.8
Sb2068_A		523.7	ug/L	2.499	0.4772	260.2
Se1960_A		526.2	ug/L	1.172	0.2228	129.4
Si2516_R		13,110	ug/L	120.6	0.9196	6,690
Sn1899_A		521.0	ug/L	0.9305	0.1786	213.0
Sr4215_R		519.1	ug/L	3.727	0.7179	54,670
Ti3349_A		510.7	ug/L	0.7279	0.1425	12,310
Tl1908_A	W	532.2	ug/L	3.108	0.5841	235.7
V_2924_A		500.3	ug/L	0.7457	0.1491	5,582
Zn2062_A		512.8	ug/L	1.611	0.3141	1,149
Y_3600_R		19,580	Cts/S	23.976	0.12245	19,580
Y_2243_A		7,208.5	Cts/S	27.659	0.38370	7,208.5
Y_3600_A		134,750	Cts/S	188.59	0.13995	134,750

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:38:29PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:38:29PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.132	ug/L	0.2704	23.88	-3.500
Al3961_R		17.54	ug/L	3.037	17.31	21.11
As1891_A		1.177	ug/L	0.002380	0.2022	-1.912
B_2089_A		7.201	ug/L	0.06369	0.8845	19.94
Ba4554_R		1.038	ug/L	0.1822	17.55	92.75
Be3130_R		0.9754	ug/L	0.08321	8.531	104.6
Ca3158_R		30.24	ug/L	1.483	4.904	2.530
Cd2265_A		0.8610	ug/L	0.001978	0.2298	8.518
Co2286_A		0.9905	ug/L	0.03365	3.397	3.550
Cr2677_A		1.045	ug/L	0.1673	16.01	11.70
Cu3273_A		1.385	ug/L	0.06590	4.759	-8.457
Fe2599_R		25.72	ug/L	3.587	13.94	53.74
K_7664_R		9.693	ug/L	3.198	32.99	-14.33
Li6707_R		-0.3657	ug/L	0.1034	28.27	12.96
Mg2025_A		25.14	ug/L	0.09251	0.3680	1.533
Mn2576_R		1.139	ug/L	0.008392	0.7370	12.99
Mo2020_A		1.205	ug/L	0.1645	13.65	3.870
Na5895_R		23.12	ug/L	0.4260	1.843	125.2
Ni2316_A		1.129	ug/L	0.007247	0.6417	1.442
Pb2203_A		0.7387	ug/L	0.5843	79.10	-0.4625
Sb2068_A		1.134	ug/L	1.121	98.89	0.01152
Se1960_A		1.778	ug/L	0.6026	33.90	1.633
Si2516_R		32.60	ug/L	1.255	3.850	86.26
Sn1899_A		1.550	ug/L	0.8169	52.72	1.742
Sr4215_R		1.200	ug/L	0.1783	14.86	87.35
Ti3349_A		1.073	ug/L	0.1356	12.64	11.81
Tl1908_A		1.712	ug/L	0.4631	27.05	-1.015
V_2924_A		1.093	ug/L	0.1159	10.61	5.972
Zn2062_A		1.327	ug/L	0.008356	0.6296	2.928
Y_3600_R		19,300	Cts/S	382.89	1.9839	19,300
Y_2243_A		7,309.5	Cts/S	25.947	0.35498	7,309.5
Y_3600_A		137,880	Cts/S	1,264.5	0.91709	137,880

SO4247-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:42:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3621	ug/L	0.2541	70.17	-18.90
Al3961_R		586.7	ug/L	7.311	1.246	660.9
As1891_A		-3.194	ug/L	0.4556	14.27	-3.257
B_2089_A	W	2,348	ug/L	6.380	0.2717	3,245
Ba4554_R		52.63	ug/L	0.6718	1.277	4,039
Be3130_R		0.04724	ug/L	0.01558	32.97	-1.156
Ca3158_R		5,160	ug/L	24.72	0.4791	6,349
Cd2265_A		0.1010	ug/L	0.02943	29.13	1.102
Co2286_A		0.4754	ug/L	0.1205	25.34	2.069
Cr2677_A		4.552	ug/L	0.2287	5.025	50.92
Cu3273_A		43.88	ug/L	0.6145	1.400	623.5
Fe2599_R		659.8	ug/L	8.763	1.328	1,346
K_7664_R		992.7	ug/L	17.12	1.725	692.0
Li6707_R		-0.1984	ug/L	0.2294	115.6	15.42
Mg2025_A		1,330	ug/L	4.353	0.3272	429.0
Mn2576_R		24.26	ug/L	0.03245	0.1337	232.9
Mo2020_A		0.3380	ug/L	0.1317	38.97	1.343
Na5895_R		16,650	ug/L	134.8	0.8092	41,460
Ni2316_A		2.328	ug/L	0.3826	16.44	3.180

SO4247-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:42:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.175	ug/L	0.05897	2.711	0.7684
Sb2068_A		3.825	ug/L	0.08866	2.318	1.102
Se1960_A		6.952	ug/L	1.731	24.89	2.841
Si2516_R		942.6	ug/L	6.353	0.6740	535.1
Sn1899_A		52.57	ug/L	0.05853	0.1113	22.19
Sr4215_R		12.35	ug/L	0.02226	0.1802	1,237
Ti3349_A		34.08	ug/L	0.06256	0.1836	803.2
Tl1908_A		-3.460	ug/L	0.08287	2.395	-3.287
V_2924_A		1.064	ug/L	0.1254	11.78	5.699
Zn2062_A		310.5	ug/L	0.9730	0.3133	687.9
Y_3600_R		19,162	Cts/S	229.66	1.1985	19,162
Y_2243_A		7,119.1	Cts/S	4.7411	0.066597	7,119.1
Y_3600_A		134,070	Cts/S	23.463	0.017501	134,070

SO4247-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:47:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3383	ug/L	0.002900	0.8574	-18.33
Al3961_R		529.6	ug/L	0.9942	0.1877	604.5
As1891_A		-6.194	ug/L	0.4579	7.392	-4.142
B_2089_A	W	2,275	ug/L	6.893	0.3031	3,109
Ba4554_R		25.73	ug/L	0.4290	1.667	2,009
Be3130_R		0.003424	ug/L	0.008034	234.7	-4.496
Ca3158_R		4,008	ug/L	48.93	1.221	4,993
Cd2265_A		-0.01327	ug/L	0.002216	16.70	-0.5851
Co2286_A		0.2686	ug/L	0.1550	57.69	1.325
Cr2677_A		4.698	ug/L	0.006990	0.1488	52.28
Cu3273_A		10.18	ug/L	0.01499	0.1473	121.9
Fe2599_R		475.9	ug/L	3.956	0.8312	985.1
K_7664_R		1,697	ug/L	10.43	0.6142	1,215
Li6707_R		0.8662	ug/L	0.4724	54.54	32.32
Mg2025_A		1,394	ug/L	5.282	0.3790	444.9
Mn2576_R		17.46	ug/L	0.04046	0.2318	170.7
Mo2020_A		0.07885	ug/L	0.1183	150.1	0.6125
Na5895_R		16,310	ug/L	151.1	0.9264	41,170
Ni2316_A		36.56	ug/L	47.75	130.6	54.65
Pb2203_A		0.9934	ug/L	0.1058	10.65	-0.2465
Sb2068_A		1.710	ug/L	0.5859	34.27	0.05262
Se1960_A		10.47	ug/L	0.07549	0.7213	3.644
Si2516_R		914.3	ug/L	17.81	1.948	528.4
Sn1899_A		50.39	ug/L	0.5403	1.072	21.08
Sr4215_R		9.795	ug/L	0.1756	1.793	987.1
Ti3349_A		13.51	ug/L	0.3310	2.450	308.4
Tl1908_A		-5.575	ug/L	0.3410	6.118	-4.160
V_2924_A		1.059	ug/L	0.07914	7.475	5.464
Zn2062_A		309.4	ug/L	6.578	2.126	678.1
Y_3600_R		19,433	Cts/S	71.877	0.36988	19,433
Y_2243_A		7,041.8	Cts/S	28.114	0.39925	7,041.8
Y_3600_A		133,420	Cts/S	399.62	0.29953	133,420

SO4247-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:51:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000083

SO4247-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:51:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5147	ug/L	0.2494	48.44	-15.22
Al3961_R		598.9	ug/L	11.91	1.989	675.0
As1891_A		-5.324	ug/L	0.7142	13.41	-3.844
B_2089_A	W	2,375	ug/L	5.122	0.2157	3,223
Ba4554_R		32.39	ug/L	0.4430	1.367	2,496
Be3130_R		0.02206	ug/L	0.0009080	4.118	-2.578
Ca3158_R		4,126	ug/L	62.65	1.519	5,080
Cd2265_A		0.1102	ug/L	0.01623	14.73	0.8237
Co2286_A		0.1063	ug/L	0.1136	106.9	0.8221
Cr2677_A		4.797	ug/L	0.2249	4.689	52.73
Cu3273_A		8.737	ug/L	0.2362	2.704	99.25
Fe2599_R		481.8	ug/L	7.618	1.581	985.5
K_7664_R		1,895	ug/L	35.42	1.869	1,343
Li6707_R		2.010	ug/L	0.6027	29.99	49.63
Mg2025_A		1,362	ug/L	3.560	0.2615	431.6
Mn2576_R		16.06	ug/L	0.04083	0.2542	155.4
Mo2020_A		0.01932	ug/L	0.01459	75.50	0.4442
Na5895_R		18,130	ug/L	224.8	1.240	45,230
Ni2316_A		2.684	ug/L	0.3289	12.25	3.660
Pb2203_A		0.9965	ug/L	0.3348	33.59	-0.2491
Sb2068_A		1.464	ug/L	0.04839	3.306	-0.04634
Se1960_A		10.08	ug/L	0.09922	0.9845	3.526
Si2516_R		1,065	ug/L	5.898	0.5537	596.9
Sn1899_A		51.85	ug/L	0.4277	0.8250	21.50
Sr4215_R		9.894	ug/L	0.1802	1.821	985.9
Ti3349_A		15.66	ug/L	0.01532	0.09781	355.3
Tl1908_A		-5.773	ug/L	0.1162	2.013	-4.216
V_2924_A		0.5915	ug/L	0.1207	20.40	0.2740
Zn2062_A	W	1,299	ug/L	3.933	0.3026	2,827
Y_3600_R		19,205	Cts/S	95.701	0.49830	19,205
Y_2243_A		6,990.6	Cts/S	8.8481	0.12657	6,990.6
Y_3600_A		131,810	Cts/S	559.41	0.42441	131,810

SO4247-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:55:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4914	ug/L	0.06225	12.67	-15.87
Al3961_R		459.8	ug/L	4.020	0.8743	526.6
As1891_A		-4.810	ug/L	0.6638	13.80	-3.767
B_2089_A	W	2,038	ug/L	5.764	0.2828	2,828
Ba4554_R		29.96	ug/L	0.2447	0.8167	2,344
Be3130_R		0.01827	ug/L	0.01177	64.43	-2.966
Ca3158_R		3,457	ug/L	1.867	0.05401	4,314
Cd2265_A		0.06861	ug/L	0.01082	15.77	0.3486
Co2286_A		0.1452	ug/L	0.09951	68.55	0.9547
Cr2677_A		3.832	ug/L	0.08472	2.211	42.92
Cu3273_A		9.805	ug/L	0.3799	3.875	117.2
Fe2599_R		467.1	ug/L	5.653	1.210	969.7
K_7664_R		1,365	ug/L	27.53	2.016	976.0
Li6707_R		0.02138	ug/L	0.2133	997.7	19.14
Mg2025_A		1,176	ug/L	8.613	0.7324	379.9
Mn2576_R		15.99	ug/L	0.04111	0.2571	156.9
Mo2020_A		0.1074	ug/L	0.001265	1.179	0.7009
Na5895_R		14,390	ug/L	63.34	0.4401	36,450
Ni2316_A		2.081	ug/L	0.1493	7.174	2.823

SO4247-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 5:55:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.152	ug/L	0.07892	6.851	-0.1115
Sb2068_A		1.191	ug/L	0.9537	80.06	-0.1785
Se1960_A		8.590	ug/L	0.3711	4.321	3.244
Si2516_R		663.6	ug/L	14.42	2.173	404.1
Sn1899_A		48.69	ug/L	0.3279	0.6735	20.70
Sr4215_R		7.995	ug/L	0.04957	0.6200	801.4
Ti3349_A		14.87	ug/L	0.05233	0.3519	343.4
Tl1908_A		-5.162	ug/L	0.9358	18.13	-4.040
V_2924_A		0.8745	ug/L	0.08569	9.798	3.477
Zn2062_A		775.1	ug/L	3.435	0.4432	1,723
Y_3600_R		19,492	Cts/S	164.30	0.84293	19,492
Y_2243_A		7,144.5	Cts/S	10.875	0.15222	7,144.5
Y_3600_A		134,460	Cts/S	174.66	0.12990	134,460

SO4247-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:00:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3859	ug/L	0.09471	24.54	-16.90
Al3961_R		288.3	ug/L	1.356	0.4702	327.4
As1891_A		-4.173	ug/L	0.6576	15.76	-3.524
B_2089_A	W	2,346	ug/L	2.779	0.1185	3,220
Ba4554_R		19.30	ug/L	0.4711	2.441	1,494
Be3130_R		-0.01825	ug/L	0.009955	54.55	-6.577
Ca3158_R		3,322	ug/L	74.41	2.240	4,089
Cd2265_A		0.02569	ug/L	0.02584	100.6	-0.4683
Co2286_A		0.08925	ug/L	0.1146	128.4	0.7434
Cr2677_A		3.375	ug/L	0.007505	0.2224	37.49
Cu3273_A		4.501	ug/L	0.3873	8.604	37.91
Fe2599_R		294.5	ug/L	9.159	3.110	603.5
K_7664_R		1,326	ug/L	48.64	3.669	934.2
Li6707_R		-0.2917	ug/L	0.2286	78.36	14.02
Mg2025_A		1,049	ug/L	3.298	0.3144	334.5
Mn2576_R		12.27	ug/L	0.1934	1.576	119.4
Mo2020_A		0.09649	ug/L	0.008638	8.953	0.6638
Na5895_R		16,310	ug/L	406.2	2.491	40,740
Ni2316_A		1.600	ug/L	0.1065	6.657	2.078
Pb2203_A		0.9538	ug/L	0.3282	34.41	-0.2741
Sb2068_A		2.382	ug/L	0.1256	5.271	0.3760
Se1960_A		8.669	ug/L	1.147	13.23	3.228
Si2516_R		713.8	ug/L	18.60	2.606	423.5
Sn1899_A		52.59	ug/L	0.9431	1.793	22.05
Sr4215_R		6.338	ug/L	0.1853	2.923	618.9
Ti3349_A		9.400	ug/L	0.3341	3.554	210.4
Tl1908_A		-5.791	ug/L	0.3081	5.320	-4.269
V_2924_A		0.4873	ug/L	0.05279	10.83	-0.9075
Zn2062_A		248.1	ug/L	0.5064	0.2041	546.0
Y_3600_R		19,229	Cts/S	277.68	1.4441	19,229
Y_2243_A		7,071.3	Cts/S	13.450	0.19021	7,071.3
Y_3600_A		133,600	Cts/S	1,320.0	0.98803	133,600

SO5689-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:04:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5689-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:04:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.671	ug/L	0.1057	6.327	-183.9
Al3961_R		21.99	ug/L	9.293	42.27	69.41
As1891_A		162.5	ug/L	0.6643	0.4087	44.68
B_2089_A		253.1	ug/L	0.05810	0.02295	349.6
Ba4554_R		131.6	ug/L	0.8549	0.6494	10,090
Be3130_R		0.007788	ug/L	0.03994	512.9	-3.019
Ca3158_R	W	45,930	ug/L	241.4	0.5255	56,810
Cd2265_A		-0.5913	ug/L	0.09719	16.44	107.2
Co2286_A		27.63	ug/L	0.1151	0.4167	83.69
Cr2677_A		-0.7309	ug/L	0.1167	15.97	0.09259
Cu3273_A		3.810	ug/L	0.1735	4.553	15.91
Fe2599_R	W	60,390	ug/L	466.6	0.7726	123,200
K_7664_R		10,950	ug/L	0.7808	0.007128	7,851
Li6707_R		-0.2054	ug/L	0.008004	3.897	15.34
Mg2025_A		7,767	ug/L	32.09	0.4131	2,476
Mn2576_R	W	2,351	ug/L	10.01	0.4258	22,360
Mo2020_A		1.538	ug/L	0.03293	2.141	4.454
Na5895_R		23,020	ug/L	127.8	0.5552	57,300
Ni2316_A		1.282	ug/L	0.07585	5.917	-1.439
Pb2203_A		0.5526	ug/L	0.2731	49.43	1.426
Sb2068_A		-1.948	ug/L	0.02399	1.231	-0.5641
Se1960_A		1.299	ug/L	1.203	92.66	1.997
Si2516_R		7,714	ug/L	55.11	0.7144	3,875
Sn1899_A		1.575	ug/L	0.08522	5.409	1.665
Sr4215_R		503.0	ug/L	3.870	0.7694	51,860
Ti3349_A		0.2352	ug/L	0.1981	84.26	-8.368
Tl1908_A		-3.035	ug/L	0.6498	21.41	-4.049
V_2924_A		0.1515	ug/L	0.2863	189.0	-5.353
Zn2062_A		9.832	ug/L	0.1655	1.683	21.17
Y_3600_R		19,169	Cts/S	5.6305	0.029373	19,169
Y_2243_A		6,945.2	Cts/S	21.475	0.30921	6,945.2
Y_3600_A		130,690	Cts/S	45.928	0.035143	130,690

SO5689-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:09:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.994	ug/L	0.02011	1.008	-184.8
Al3961_R		-10.29	ug/L	6.243	60.68	34.37
As1891_A		175.8	ug/L	0.04993	0.02840	48.87
B_2089_A		251.6	ug/L	1.986	0.7894	349.2
Ba4554_R		133.8	ug/L	1.629	1.218	10,120
Be3130_R		-0.0003920	ug/L	0.03108	7,924	-3.810
Ca3158_R	W	47,490	ug/L	992.6	2.090	57,990
Cd2265_A		-0.8544	ug/L	0.2308	27.01	109.2
Co2286_A		27.21	ug/L	0.003928	0.01444	82.88
Cr2677_A		-0.9633	ug/L	0.003242	0.3365	-2.172
Cu3273_A		0.2982	ug/L	0.2670	89.51	-35.28
Fe2599_R	W	62,630	ug/L	1,172	1.872	126,100
K_7664_R		11,310	ug/L	147.5	1.304	8,006
Li6707_R		-0.009366	ug/L	0.6695	7,148	18.19
Mg2025_A		7,860	ug/L	42.15	0.5362	2,519
Mn2576_R	W	2,396	ug/L	59.97	2.503	22,490
Mo2020_A		1.450	ug/L	0.1328	9.157	4.232
Na5895_R		23,620	ug/L	279.2	1.182	58,060
Ni2316_A		1.023	ug/L	0.07051	6.894	-1.946

SO5689-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:09:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.008124	ug/L	0.1169	1,439	1.053
Sb2068_A		-1.957	ug/L	0.1145	5.853	-0.5366
Se1960_A		0.6794	ug/L	0.3989	58.71	1.877
Si2516_R		7,969	ug/L	168.0	2.108	3,950
Sn1899_A		1.510	ug/L	0.7077	46.86	1.648
Sr4215_R		514.8	ug/L	6.925	1.345	52,400
Ti3349_A		-0.5274	ug/L	0.1120	21.23	-26.09
Tl1908_A		-1.830	ug/L	0.6783	37.06	-3.572
V_2924_A		-0.04279	ug/L	0.2383	557.0	-7.308
Zn2062_A		9.845	ug/L	0.002216	0.02251	21.30
Y_3600_R		18,927	Cts/S	218.65	1.1553	18,927
Y_2243_A		6,980.0	Cts/S	38.234	0.54776	6,980.0
Y_3600_A		130,140	Cts/S	152.58	0.11724	130,140

SO5689-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:13:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.076	ug/L	0.1664	8.016	-170.7
Al3961_R		43.47	ug/L	8.432	19.40	78.71
As1891_A	W	1,569	ug/L	1.493	0.09519	477.0
B_2089_A		78.60	ug/L	0.1199	0.1526	115.7
Ba4554_R		35.56	ug/L	0.3806	1.070	2,690
Be3130_R		-0.01641	ug/L	0.001581	9.635	-5.675
Ca3158_R	W	31,720	ug/L	223.4	0.7044	38,590
Cd2265_A		-0.8458	ug/L	0.02263	2.676	100.9
Co2286_A		8.007	ug/L	0.06967	0.8701	25.26
Cr2677_A		-0.5561	ug/L	0.2515	45.22	0.6954
Cu3273_A		1.123	ug/L	0.6257	55.74	-22.67
Fe2599_R	W	58,200	ug/L	226.3	0.3888	116,800
K_7664_R		7,751	ug/L	34.31	0.4426	5,460
Li6707_R		0.5813	ug/L	0.3829	65.88	27.04
Mg2025_A		4,876	ug/L	8.145	0.1670	1,562
Mn2576_R	W	1,144	ug/L	14.58	1.274	10,700
Mo2020_A		2.504	ug/L	0.05208	2.080	7.203
Na5895_R		20,770	ug/L	181.2	0.8725	50,880
Ni2316_A		0.5587	ug/L	0.1312	23.48	-2.405
Pb2203_A		-0.02246	ug/L	0.04967	221.2	0.8760
Sb2068_A		-1.268	ug/L	0.2917	23.00	-0.2221
Se1960_A		0.1747	ug/L	0.3763	215.4	1.617
Si2516_R		12,110	ug/L	111.2	0.9181	5,952
Sn1899_A		1.909	ug/L	0.2925	15.33	1.807
Sr4215_R		321.4	ug/L	2.418	0.7524	32,590
Ti3349_A		1.115	ug/L	0.05558	4.985	12.24
Tl1908_A		-1.661	ug/L	0.1690	10.18	-2.970
V_2924_A		0.02714	ug/L	0.07206	265.5	-2.511
Zn2062_A		4.048	ug/L	0.1562	3.857	8.722
Y_3600_R		18,860	Cts/S	67.089	0.35572	18,860
Y_2243_A		6,989.9	Cts/S	3.5193	0.050348	6,989.9
Y_3600_A		131,000	Cts/S	1,150.9	0.87853	131,000

SO5689-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:17:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000087

SO5689-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:17:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.929	ug/L	0.2326	12.06	-168.0
Al3961_R		-4.354	ug/L	0.2496	5.732	26.23
As1891_A	W	1,489	ug/L	6.051	0.4063	458.7
B_2089_A		76.37	ug/L	0.4078	0.5340	114.2
Ba4554_R		34.44	ug/L	0.9068	2.633	2,659
Be3130_R		-0.01751	ug/L	0.003077	17.57	-5.830
Ca3158_R	W	31,230	ug/L	520.9	1.668	38,760
Cd2265_A		-0.7042	ug/L	0.2305	32.73	99.73
Co2286_A		7.986	ug/L	0.2157	2.700	25.50
Cr2677_A		-0.7967	ug/L	0.0006880	0.08638	-2.212
Cu3273_A		0.7972	ug/L	0.2047	25.68	-27.28
Fe2599_R	W	56,060	ug/L	1,164	2.076	114,800
K_7664_R		7,585	ug/L	186.3	2.456	5,451
Li6707_R		0.8387	ug/L	0.5497	65.55	31.55
Mg2025_A		4,878	ug/L	8.883	0.1821	1,584
Mn2576_R	W	1,137	ug/L	19.39	1.706	10,850
Mo2020_A		2.322	ug/L	0.005981	0.2576	6.794
Na5895_R		20,250	ug/L	507.2	2.504	50,630
Ni2316_A		0.5258	ug/L	0.1317	25.05	-2.380
Pb2203_A		0.5831	ug/L	0.1290	22.13	1.334
Sb2068_A		-2.207	ug/L	1.009	45.70	-0.7224
Se1960_A		0.4475	ug/L	0.5663	126.5	1.692
Si2516_R		11,750	ug/L	230.3	1.959	5,894
Sn1899_A		1.581	ug/L	0.8126	51.41	1.701
Sr4215_R		318.9	ug/L	8.323	2.610	33,000
Ti3349_A		-0.4951	ug/L	0.1855	37.47	-25.72
Tl1908_A		-1.395	ug/L	0.2164	15.52	-2.889
V_2924_A		-0.4896	ug/L	0.04342	8.869	-8.501
Zn2062_A		3.889	ug/L	0.06936	1.783	8.490
Y_3600_R		19,247	Cts/S	170.23	0.88445	19,247
Y_2243_A		7,084.2	Cts/S	22.096	0.31190	7,084.2
Y_3600_A		132,190	Cts/S	244.12	0.18467	132,190

SO5689-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:22:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.151	ug/L	0.07526	3.500	-170.9
Al3961_R		57.68	ug/L	2.337	4.052	95.16
As1891_A	W	1,548	ug/L	2.681	0.1732	479.6
B_2089_A		74.50	ug/L	0.4047	0.5432	112.3
Ba4554_R		35.35	ug/L	0.03214	0.09093	2,707
Be3130_R		-0.002255	ug/L	0.02035	902.4	-4.201
Ca3158_R	W	31,380	ug/L	94.57	0.3014	38,650
Cd2265_A		-0.8914	ug/L	0.01529	1.716	101.7
Co2286_A		7.880	ug/L	0.06462	0.8200	25.36
Cr2677_A		-0.5789	ug/L	0.1027	17.75	0.3872
Cu3273_A		0.9277	ug/L	0.2029	21.88	-25.85
Fe2599_R	W	57,830	ug/L	37.49	0.06483	117,500
K_7664_R		7,626	ug/L	19.67	0.2579	5,439
Li6707_R		0.3288	ug/L	0.1852	56.34	23.49
Mg2025_A		4,802	ug/L	7.637	0.1590	1,568
Mn2576_R	W	1,132	ug/L	6.737	0.5950	10,720
Mo2020_A		2.489	ug/L	0.02827	1.136	7.304
Na5895_R		20,340	ug/L	34.51	0.1697	50,440
Ni2316_A		0.6525	ug/L	0.01736	2.661	-2.290

SO5689-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:22:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9943	ug/L	0.3019	30.36	1.750
Sb2068_A		-2.186	ug/L	0.7099	32.48	-0.6895
Se1960_A		1.280	ug/L	0.1870	14.61	1.911
Si2516_R		11,960	ug/L	50.70	0.4238	5,952
Sn1899_A		2.177	ug/L	0.5721	26.29	1.949
Sr4215_R		318.9	ug/L	0.4215	0.1322	32,740
Ti3349_A		1.185	ug/L	0.01677	1.415	14.10
Tl1908_A		-1.302	ug/L	0.5987	46.00	-2.865
V_2924_A		-0.1546	ug/L	0.3984	257.7	-4.583
Zn2062_A		4.029	ug/L	0.07540	1.871	8.849
Y_3600_R		19,096	Cts/S	94.968	0.49733	19,096
Y_2243_A		7,126.1	Cts/S	25.833	0.36252	7,126.1
Y_3600_A		132,960	Cts/S	474.51	0.35689	132,960

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:26:27PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		500.6	ug/L	2.371	0.4737	8,478
Al3961_R		12,800	ug/L	29.98	0.2343	14,390
As1891_A		512.3	ug/L	3.230	0.6305	160.8
B_2089_A		517.1	ug/L	4.012	0.7759	752.9
Ba4554_R		513.8	ug/L	1.492	0.2904	39,530
Be3130_R		509.2	ug/L	2.105	0.4134	56,560
Ca3158_R		12,620	ug/L	78.91	0.6253	15,660
Cd2265_A		509.5	ug/L	2.992	0.5872	5,816
Co2286_A		521.6	ug/L	1.526	0.2926	1,633
Cr2677_A		503.2	ug/L	1.541	0.3062	5,726
Cu3273_A		506.8	ug/L	1.295	0.2556	7,592
Fe2599_R		12,850	ug/L	63.93	0.4974	26,340
K_7664_R		12,750	ug/L	29.12	0.2284	9,184
Li6707_R		516.6	ug/L	0.7832	0.1516	8,038
Mg2025_A	W	13,420	ug/L	74.83	0.5578	4,505
Mn2576_R		500.9	ug/L	5.000	0.9983	4,790
Mo2020_A		518.7	ug/L	2.574	0.4961	1,482
Na5895_R		12,740	ug/L	25.29	0.1985	31,900
Ni2316_A		518.2	ug/L	2.581	0.4981	807.0
Pb2203_A		518.7	ug/L	2.065	0.3982	451.2
Sb2068_A		510.8	ug/L	5.397	1.057	255.9
Se1960_A		511.2	ug/L	0.3236	0.06331	126.8
Si2516_R		12,960	ug/L	127.0	0.9799	6,507
Sn1899_A		512.6	ug/L	1.965	0.3833	211.3
Sr4215_R		511.7	ug/L	1.312	0.2564	53,020
Ti3349_A		501.6	ug/L	0.3965	0.07904	12,160
Tl1908_A		522.7	ug/L	7.026	1.344	233.4
V_2924_A		496.4	ug/L	0.8542	0.1721	5,575
Zn2062_A		504.9	ug/L	1.651	0.3271	1,141
Y_3600_R		19,263	Cts/S	50.638	0.26287	19,263
Y_2243_A		7,269.2	Cts/S	38.120	0.52441	7,269.2
Y_3600_A		135,620	Cts/S	52.945	0.039040	135,620

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:30:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:30:36PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.215	ug/L	0.1293	10.64	-2.047
Al3961_R		17.79	ug/L	7.372	41.45	21.17
As1891_A		1.373	ug/L	1.304	95.00	-1.833
B_2089_A		2.910	ug/L	0.4561	15.67	13.76
Ba4554_R		1.085	ug/L	0.01445	1.332	95.23
Be3130_R	W	1.101	ug/L	0.04012	3.642	117.2
Ca3158_R		33.59	ug/L	0.9582	2.853	6.646
Cd2265_A		0.9739	ug/L	0.02791	2.866	9.736
Co2286_A		1.080	ug/L	0.08891	8.235	3.795
Cr2677_A		1.163	ug/L	0.008836	0.7599	12.93
Cu3273_A		1.386	ug/L	0.1054	7.606	-8.344
Fe2599_R		32.96	ug/L	0.7589	2.302	67.79
K_7664_R		21.56	ug/L	1.035	4.800	-5.651
Li6707_R		0.1122	ug/L	0.6373	567.9	20.14
Mg2025_A		27.82	ug/L	0.5634	2.025	2.418
Mn2576_R		1.114	ug/L	0.01671	1.500	12.58
Mo2020_A		1.437	ug/L	0.05546	3.860	4.494
Na5895_R		28.26	ug/L	5.596	19.81	136.2
Ni2316_A		1.123	ug/L	0.1722	15.33	1.421
Pb2203_A		1.173	ug/L	0.5699	48.57	-0.08032
Sb2068_A		1.243	ug/L	0.08370	6.736	0.06566
Se1960_A		1.218	ug/L	0.1751	14.37	1.482
Si2516_R		37.82	ug/L	0.2720	0.7193	87.69
Sn1899_A		1.537	ug/L	0.01265	0.8230	1.721
Sr4215_R		1.190	ug/L	0.04163	3.500	85.40
Ti3349_A		0.9638	ug/L	0.05119	5.311	9.054
Tl1908_A		1.228	ug/L	1.706	139.0	-1.222
V_2924_A		0.9478	ug/L	0.02389	2.520	4.247
Zn2062_A		1.226	ug/L	0.2066	16.85	2.675
Y_3600_R		19,050	Cts/S	75.968	0.39879	19,050
Y_2243_A		7,243.7	Cts/S	14.021	0.19356	7,243.7
Y_3600_A		136,430	Cts/S	60.242	0.044156	136,430

SO5689-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:35:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.900	ug/L	0.001364	0.07182	-170.0
Al3961_R		-1.071	ug/L	0.1666	15.56	29.45
As1891_A	W	1,474	ug/L	0.6579	0.04463	453.4
B_2089_A		73.55	ug/L	0.06299	0.08563	110.2
Ba4554_R		34.39	ug/L	0.1708	0.4967	2,626
Be3130_R		-0.03702	ug/L	0.04892	132.1	-7.877
Ca3158_R	W	31,090	ug/L	53.65	0.1726	38,160
Cd2265_A		-0.8697	ug/L	0.0004940	0.05680	98.11
Co2286_A		7.932	ug/L	0.07904	0.9965	25.31
Cr2677_A		-0.8699	ug/L	0.2424	27.86	-3.034
Cu3273_A		0.5395	ug/L	0.1331	24.67	-31.28
Fe2599_R	W	56,240	ug/L	247.5	0.4401	113,900
K_7664_R		7,587	ug/L	20.07	0.2645	5,392
Li6707_R		1.577	ug/L	0.3641	23.09	42.57
Mg2025_A		4,786	ug/L	21.65	0.4523	1,552
Mn2576_R	W	1,130	ug/L	1.230	0.1088	10,670
Mo2020_A		2.460	ug/L	0.1439	5.849	7.169
Na5895_R		20,290	ug/L	49.95	0.2461	50,160
Ni2316_A		0.2647	ug/L	0.2342	88.45	-2.777

SO5689-006

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:35:02PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.3875	ug/L	0.09472	24.44	0.5125
Sb2068_A		-1.890	ug/L	0.1868	9.883	-0.5624
Se1960_A		1.313	ug/L	0.06135	4.673	1.896
Si2516_R		11,750	ug/L	25.05	0.2132	5,827
Sn1899_A		1.478	ug/L	0.3092	20.92	1.657
Sr4215_R		317.6	ug/L	0.2705	0.08520	32,490
Ti3349_A		-0.4332	ug/L	0.06021	13.90	-24.40
Tl1908_A		-1.201	ug/L	0.3124	26.00	-2.798
V_2924_A		-0.1403	ug/L	0.4009	285.8	-4.637
Zn2062_A		4.098	ug/L	0.03937	0.9608	8.938
Y_3600_R		19,029	Cts/S	55.865	0.29358	19,029
Y_2243_A		7,074.7	Cts/S	2.3035	0.032559	7,074.7
Y_3600_A		133,000	Cts/S	475.86	0.35778	133,000

SO5689-007

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:39:22PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.761	ug/L	0.1458	5.281	-191.2
Al3961_R		29.24	ug/L	2.310	7.899	82.36
As1891_A		41.46	ug/L	0.2255	0.5440	7.584
B_2089_A		264.1	ug/L	1.355	0.5129	371.3
Ba4554_R		144.0	ug/L	2.395	1.663	10,790
Be3130_R		-0.004716	ug/L	0.007378	156.4	-4.337
Ca3158_R	W	53,070	ug/L	508.9	0.9589	64,180
Cd2265_A		-1.356	ug/L	0.04326	3.190	113.6
Co2286_A		31.71	ug/L	0.02814	0.08876	97.82
Cr2677_A		-0.7516	ug/L	0.1108	14.74	0.1779
Cu3273_A		1.158	ug/L	0.005479	0.4731	-24.36
Fe2599_R	W	66,970	ug/L	813.6	1.215	133,600
K_7664_R		11,610	ug/L	147.4	1.269	8,140
Li6707_R		0.3010	ug/L	0.4054	134.7	22.64
Mg2025_A		7,925	ug/L	34.17	0.4311	2,576
Mn2576_R	W	1,941	ug/L	19.48	1.004	18,050
Mo2020_A		0.6866	ug/L	0.04889	7.121	2.196
Na5895_R		21,350	ug/L	243.4	1.140	51,980
Ni2316_A		1.064	ug/L	0.05975	5.618	-2.143
Pb2203_A		-0.3776	ug/L	0.2783	73.71	0.8871
Sb2068_A		-2.099	ug/L	0.05195	2.475	-0.5547
Se1960_A		0.6910	ug/L	0.9534	138.0	1.865
Si2516_R		7,089	ug/L	75.08	1.059	3,487
Sn1899_A		2.206	ug/L	0.8558	38.80	1.948
Sr4215_R		510.4	ug/L	7.235	1.418	51,460
Ti3349_A		0.7127	ug/L	0.05510	7.732	2.861
Tl1908_A		-2.338	ug/L	0.006329	0.2707	-3.635
V_2924_A		0.1708	ug/L	0.06814	39.89	-2.716
Zn2062_A		13.52	ug/L	0.08946	0.6617	29.70
Y_3600_R		18,744	Cts/S	24.506	0.13074	18,744
Y_2243_A		7,079.8	Cts/S	15.678	0.22145	7,079.8
Y_3600_A		133,920	Cts/S	1,959.5	1.4632	133,920

SO5689-008

Method Name: FAST-2016_NO_AU Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:43:43PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5689-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:43:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.969	ug/L	0.2211	11.23	-193.8
Al3961_R		-8.678	ug/L	3.975	45.80	40.47
As1891_A		40.10	ug/L	0.2249	0.5610	7.298
B_2089_A		263.5	ug/L	1.815	0.6886	371.3
Ba4554_R		140.2	ug/L	0.3971	0.2833	10,770
Be3130_R		0.03148	ug/L	0.02436	77.40	-0.3690
Ca3158_R	W	51,460	ug/L	517.1	1.005	63,810
Cd2265_A		-1.004	ug/L	0.2610	26.01	112.7
Co2286_A		31.58	ug/L	0.1757	0.5562	97.62
Cr2677_A		-0.7739	ug/L	0.05962	7.705	-0.3556
Cu3273_A		1.662	ug/L	0.2847	17.13	-16.18
Fe2599_R	W	64,350	ug/L	619.6	0.9628	131,600
K_7664_R		11,230	ug/L	102.8	0.9157	8,071
Li6707_R		0.3483	ug/L	1.474	423.2	23.98
Mg2025_A		7,907	ug/L	59.73	0.7554	2,576
Mn2576_R	W	1,925	ug/L	17.10	0.8883	18,350
Mo2020_A		0.5883	ug/L	0.06009	10.21	1.928
Na5895_R		20,720	ug/L	141.2	0.6815	51,710
Ni2316_A		0.4995	ug/L	0.5448	109.1	-2.864
Pb2203_A		-0.1142	ug/L	0.8341	730.2	1.025
Sb2068_A		-1.589	ug/L	0.8523	53.64	-0.3373
Se1960_A		2.245	ug/L	0.7354	32.75	2.228
Si2516_R		6,887	ug/L	76.80	1.115	3,476
Sn1899_A		0.8965	ug/L	0.6675	74.45	1.428
Sr4215_R		497.6	ug/L	3.015	0.6060	51,440
Ti3349_A		-0.2475	ug/L	0.01513	6.113	-19.91
Tl1908_A		-1.244	ug/L	0.9077	72.98	-3.155
V_2924_A		0.03345	ug/L	0.03790	113.3	-4.504
Zn2062_A		10.62	ug/L	0.07058	0.6649	23.36
Y_3600_R		19,219	Cts/S	44.826	0.23324	19,219
Y_2243_A		7,095.7	Cts/S	35.648	0.50239	7,095.7
Y_3600_A		132,330	Cts/S	83.353	0.062988	132,330

SO5689-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:48:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		3.067	ug/L	0.08281	2.700	-239.0
Al3961_R		-3.956	ug/L	7.641	193.1	32.96
As1891_A	W	1,111	ug/L	1.663	0.1497	338.0
B_2089_A		159.5	ug/L	0.2209	0.1385	227.1
Ba4554_R		69.53	ug/L	1.696	2.440	5,229
Be3130_R		0.01507	ug/L	0.01711	113.6	-2.145
Ca3158_R	W	38,680	ug/L	592.0	1.531	46,890
Cd2265_A		-1.403	ug/L	0.1998	14.24	146.2
Co2286_A		26.97	ug/L	0.2374	0.8801	83.33
Cr2677_A		-1.214	ug/L	0.1697	13.98	-1.918
Cu3273_A		0.5322	ug/L	0.1430	26.87	-36.53
Fe2599_R	W	84,330	ug/L	1,542	1.828	168,600
K_7664_R		11,680	ug/L	192.9	1.651	8,209
Li6707_R		1.284	ug/L	0.3418	26.61	37.62
Mg2025_A		6,523	ug/L	21.84	0.3348	2,112
Mn2576_R	W	3,236	ug/L	59.32	1.833	30,160
Mo2020_A		3.224	ug/L	0.07348	2.279	9.145
Na5895_R		19,230	ug/L	410.5	2.135	46,920
Ni2316_A		3.909	ug/L	0.6627	16.96	1.278

SO5689-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:48:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.5615	ug/L	0.5993	106.7	1.319
Sb2068_A		-2.168	ug/L	0.7718	35.60	-0.2844
Se1960_A		-0.2290	ug/L	0.7191	314.0	1.904
Si2516_R		10,560	ug/L	216.7	2.052	5,175
Sn1899_A		2.128	ug/L	0.3099	14.56	1.910
Sr4215_R		474.3	ug/L	10.85	2.288	47,930
Ti3349_A		-0.3748	ug/L	0.1009	26.91	-22.88
Tl1908_A		-3.975	ug/L	0.8083	20.34	-4.938
V_2924_A		-0.03396	ug/L	0.003561	10.49	-7.691
Zn2062_A		4.798	ug/L	0.06846	1.427	10.45
Y_3600_R		18,792	Cts/S	141.60	0.75353	18,792
Y_2243_A		7,052.4	Cts/S	6.8514	0.097150	7,052.4
Y_3600_A		132,300	Cts/S	21.337	0.016127	132,300

SO5689-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:52:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.840	ug/L	0.3916	13.79	-234.3
Al3961_R		-8.287	ug/L	4.128	49.81	27.13
As1891_A	W	1,067	ug/L	6.911	0.6475	326.7
B_2089_A		154.9	ug/L	1.118	0.7215	222.2
Ba4554_R		66.70	ug/L	0.3177	0.4763	5,068
Be3130_R		0.0007130	ug/L	0.01229	1,723	-3.740
Ca3158_R	W	37,180	ug/L	259.5	0.6981	45,530
Cd2265_A		-1.328	ug/L	0.1028	7.738	141.5
Co2286_A		26.11	ug/L	0.09340	0.3577	81.14
Cr2677_A		-1.472	ug/L	0.1573	10.68	-5.253
Cu3273_A		1.476	ug/L	0.02212	1.499	-22.25
Fe2599_R	W	81,040	ug/L	516.9	0.6379	163,700
K_7664_R		11,240	ug/L	113.4	1.009	7,980
Li6707_R		1.016	ug/L	0.5586	54.96	33.87
Mg2025_A		6,332	ug/L	32.69	0.5162	2,061
Mn2576_R	W	3,150	ug/L	26.73	0.8485	29,660
Mo2020_A		3.084	ug/L	0.08486	2.751	8.812
Na5895_R		18,450	ug/L	196.6	1.066	45,490
Ni2316_A		4.291	ug/L	0.1523	3.548	2.032
Pb2203_A		0.4095	ug/L	0.8973	219.1	2.043
Sb2068_A		-1.974	ug/L	0.2769	14.03	-0.2406
Se1960_A		-0.4197	ug/L	0.2223	52.97	1.843
Si2516_R		10,140	ug/L	134.1	1.323	5,023
Sn1899_A		1.621	ug/L	0.5162	31.84	1.718
Sr4215_R		455.4	ug/L	3.694	0.8112	46,500
Ti3349_A		-0.6272	ug/L	0.07027	11.20	-29.12
Tl1908_A		-2.845	ug/L	0.3341	11.74	-4.432
V_2924_A		-0.4336	ug/L	0.1598	36.85	-12.32
Zn2062_A		4.839	ug/L	0.06306	1.303	10.60
Y_3600_R		18,983	Cts/S	46.100	0.24285	18,983
Y_2243_A		7,093.5	Cts/S	28.686	0.40439	7,093.5
Y_3600_A		133,480	Cts/S	270.65	0.20277	133,480

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:56:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 6:56:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4520	ug/L	0.1108	24.51	-15.37
Al3961_R		3.550	ug/L	1.578	44.45	5.348
As1891_A		1.843	ug/L	1.363	73.92	-1.737
B_2089_A		-0.1464	ug/L	0.03026	20.67	9.735
Ba4554_R		0.06587	ug/L	0.03544	53.80	17.95
Be3130_R		-0.001688	ug/L	0.02826	1,674	-4.077
Ca3158_R		14.31	ug/L	1.830	12.79	-17.26
Cd2265_A		-0.03274	ug/L	0.009616	29.37	-1.777
Co2286_A		-0.1280	ug/L	0.05508	43.02	0.02999
Cr2677_A		0.06265	ug/L	0.1427	227.7	0.3431
Cu3273_A		0.2379	ug/L	0.001056	0.4438	-26.27
Fe2599_R		5.946	ug/L	1.569	26.40	13.18
K_7664_R		17.17	ug/L	10.23	59.54	-8.897
Li6707_R		-1.307	ug/L	0.06566	5.024	-1.690
Mg2025_A		5.352	ug/L	2.370	44.28	-5.300
Mn2576_R		0.6463	ug/L	0.08236	12.74	8.260
Mo2020_A		-0.01317	ug/L	0.03976	302.0	0.3806
Na5895_R		1,008	ug/L	6.750	0.6693	2,588
Ni2316_A		0.04818	ug/L	0.1781	369.7	-0.2592
Pb2203_A		0.3783	ug/L	0.4101	108.4	-0.7970
Sb2068_A		0.2966	ug/L	0.1415	47.70	-0.4195
Se1960_A		1.086	ug/L	0.04507	4.149	1.497
Si2516_R		-8.242	ug/L	3.277	39.75	65.84
Sn1899_A		0.2789	ug/L	0.09790	35.10	1.246
Sr4215_R		0.2005	ug/L	0.04908	24.48	-16.23
Ti3349_A		0.01329	ug/L	0.03671	276.1	-14.47
Tl1908_A		-0.2647	ug/L	0.04379	16.54	-1.954
V_2924_A		-0.002473	ug/L	0.1487	6,014	-6.608
Zn2062_A		1.668	ug/L	0.1732	10.39	3.791
Y_3600_R		19,273	Cts/S	59.546	0.30896	19,273
Y_2243_A		7,480.0	Cts/S	3.9438	0.052724	7,480.0
Y_3600_A		139,350	Cts/S	54.954	0.039437	139,350

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 7:01:09PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		497.0	ug/L	0.2130	0.04287	8,412
Al3961_R		12,720	ug/L	147.3	1.157	14,400
As1891_A		512.5	ug/L	4.215	0.8223	162.0
B_2089_A		514.9	ug/L	2.525	0.4904	755.1
Ba4554_R		511.5	ug/L	4.914	0.9608	39,600
Be3130_R		509.1	ug/L	5.411	1.063	56,910
Ca3158_R		12,600	ug/L	165.9	1.317	15,730
Cd2265_A		511.7	ug/L	2.943	0.5752	5,882
Co2286_A		522.3	ug/L	3.493	0.6689	1,647
Cr2677_A		504.9	ug/L	1.009	0.1999	5,744
Cu3273_A		505.9	ug/L	0.4419	0.08734	7,576
Fe2599_R		12,830	ug/L	113.4	0.8838	26,460
K_7664_R		12,710	ug/L	102.1	0.8034	9,214
Li6707_R		514.1	ug/L	5.141	1.000	8,050
Mg2025_A	W	13,310	ug/L	83.60	0.6280	4,503
Mn2576_R		501.0	ug/L	9.303	1.857	4,821
Mo2020_A		518.9	ug/L	2.679	0.5162	1,493
Na5895_R		12,680	ug/L	167.6	1.322	31,940
Ni2316_A		519.3	ug/L	3.168	0.6101	814.5

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 7:01:09PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		519.8	ug/L	3.210	0.6175	455.4
Sb2068_A		511.3	ug/L	2.781	0.5439	258.0
Se1960_A		511.6	ug/L	3.205	0.6264	127.8
Si2516_R		12,920	ug/L	209.5	1.621	6,529
Sn1899_A		516.3	ug/L	2.611	0.5057	214.4
Sr4215_R		509.6	ug/L	5.748	1.128	53,140
Ti3349_A		502.3	ug/L	0.2205	0.04390	12,180
Tl1908_A		521.7	ug/L	2.979	0.5710	234.6
V_2924_A		498.6	ug/L	2.338	0.4690	5,597
Zn2062_A		508.2	ug/L	2.859	0.5626	1,157
Y_3600_R		19,385	Cts/S	46.609	0.24043	19,385
Y_2243_A		7,320.8	Cts/S	30.660	0.41880	7,320.8
Y_3600_A		135,560	Cts/S	341.04	0.25157	135,560

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 7:05:18PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.073	ug/L	0.2045	19.06	-4.537
Al3961_R		21.31	ug/L	2.685	12.60	24.68
As1891_A		1.015	ug/L	0.4853	47.81	-1.974
B_2089_A		1.326	ug/L	0.03705	2.794	11.69
Ba4554_R		0.9586	ug/L	0.1885	19.67	84.14
Be3130_R	W	1.033	ug/L	0.09430	9.132	107.8
Ca3158_R		31.01	ug/L	1.915	6.176	3.438
Cd2265_A		0.8983	ug/L	0.03001	3.340	9.000
Co2286_A		0.9809	ug/L	0.07732	7.882	3.537
Cr2677_A		1.184	ug/L	0.05269	4.449	13.33
Cu3273_A		1.483	ug/L	0.06355	4.287	-6.962
Fe2599_R		30.14	ug/L	4.532	15.03	61.00
K_7664_R		35.69	ug/L	5.699	15.97	4.411
Li6707_R		0.5746	ug/L	0.3823	66.54	26.83
Mg2025_A		25.29	ug/L	2.013	7.962	1.591
Mn2576_R		0.8712	ug/L	0.07812	8.966	10.12
Mo2020_A		1.272	ug/L	0.05081	3.996	4.081
Na5895_R		24.76	ug/L	3.377	13.64	125.5
Ni2316_A		0.6238	ug/L	0.06917	11.09	0.6588
Pb2203_A		0.9756	ug/L	0.8899	91.22	-0.2556
Sb2068_A		1.117	ug/L	0.9300	83.24	0.007946
Se1960_A		0.5393	ug/L	0.5584	103.5	1.334
Si2516_R		43.67	ug/L	2.372	5.432	89.13
Sn1899_A		0.7137	ug/L	0.7481	104.8	1.403
Sr4215_R		1.099	ug/L	0.02540	2.311	74.83
Ti3349_A		0.9844	ug/L	0.1968	19.99	9.649
Tl1908_A		1.889	ug/L	0.1139	6.028	-0.9402
V_2924_A		1.295	ug/L	0.06135	4.739	8.302
Zn2062_A		1.310	ug/L	0.07741	5.909	2.903
Y_3600_R		18,745	Cts/S	342.41	1.8267	18,745
Y_2243_A		7,346.1	Cts/S	22.813	0.31055	7,346.1
Y_3600_A		137,980	Cts/S	700.61	0.50777	137,980

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,011
Analyst Name: EP
Acquire Date: 9/1/2021 7:09:43PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc.

Metals Preparation Benchsheet

Reagents and Consumables Information:

Method: 3010

HNO3: MSR247 HCL: MSR245 ~~MSR239~~

Digestion Vessels: MLD0260000110

1:1 HNO3: MR3116 1:1 HCL: MR3103

Pipet	LCS/Spiking Information:
M11	CLPP-SPK-1 (ID/Vol): MS7378 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW70443 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW70444 / 0.5 mL
-	- Spike (ID/Vol): - / - mL

Heat Source ID : A

Start Time: 941 /Temp. 90 °C

End Time: 1610 /Temp. 92 °C

Thermometer ID/Pos: ALC30 / 4,5

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LCSWOH31ICW1	OH31ICW1	0.05	L	0.05 ~~0.1~~	L	AQ	IC	JT	08/31/2021		✓
PBWOH31ICW1	OH31ICW1		L		L	AQ	IC	JT	08/31/2021		
SO5463-002	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	I	
SO5463-002P	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	I	
SO5463-002S	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	I	
SO5463-004	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	
SO5463-004P	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	
SO5463-004S	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	
~~SO5688-001~~	~~OH31ICW1~~	~~0.01~~	~~L~~		~~L~~	~~AQ~~	~~IC~~	~~JT~~	~~08/31/2021~~		
~~SO5688-002~~	~~OH31ICW1~~	~~0.01~~	~~L~~		~~L~~	~~AQ~~	~~IC~~	~~JT~~	~~08/31/2021~~		
SO5689-001	OH31ICW1	0.05	L		L	AQ	IC	JT	08/31/2021	C	
SO5689-002	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	
SO5689-003	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	C	
SO5689-004	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	
SO5689-005	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	C	
SO5689-006	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	
SO5689-007	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	C	
SO5689-008	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	
SO5689-009	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	C	
SO5689-010	OH31ICW1		L		L	AQ	IC	JT	08/31/2021	A	

JT 8-31-21

Client IDs verified
IM 08-31-21

REVIEWED
CD 9-1-21
KATAHDIN ANALYTICAL
METALS SECTION

QA-064-Revision 5 -12/07/2018 Digestion performed by: TM On: 8-31-21 Page: OH100 Revision: 00

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Alkalinity

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG305854	SM2320B	07-SEP-21	N/A	U 5.0 mg/L	5.0 mg/L

COD-Color

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG305460	SM 5220	01-SEP-21	N/A	U 15. mg/L	15. mg/L

Chloride

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG306075	SW846 9056A	13-SEP-21	N/A	U 2.0 mg/L	2.0 mg/L

Nitrate As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG305199	EPA 353.2	26-AUG-21	N/A	U 0.050 mg/L	0.050 mg/L

Nitrite As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG305199	EPA 353.2	26-AUG-21	N/A	U 0.050 mg/L	0.050 mg/L

Solids-Filterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG305213	SM 2540C	30-AUG-21	27-AUG-21	U 10. mg/L	10. mg/L

Sulfate

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG306075	SW846 9056A	13-SEP-21	N/A	U 1.0 mg/L	1.0 mg/L

Total Biochemical Oxygen Demand

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG305121	SM 5210B	31-AUG-21	26-AUG-21	U 2.0 mg/L	2.0 mg/L
MBLANK	WG305301	SM 5210B	01-SEP-21	27-AUG-21	U 2.0 mg/L	2.0 mg/L

Total Organic Carbon (1)

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG305351	SW846 9060A	30-AUG-21	N/A	U 1.0 mg/L	1.0 mg/L

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305854-2	LCS	WG305854	07-SEP-21	N/A	mg/L	120	140	114	80-120	
WG305854-3	LCSD	WG305854	07-SEP-21	N/A	mg/L	120	130	112	80-120	1

COD-Color

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305460-2	LCS	WG305460	01-SEP-21	N/A	mg/L	75	68.	90	80-120	

Chloride

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG306075-2	LCS	WG306075	13-SEP-21	N/A	mg/L	3.75	3.80	101.	90-110	

Nitrate As N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305199-2	LCS	WG305199	26-AUG-21	N/A	mg/L	1	0.92	92	90-110	

Nitrite As N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305199-3	LCS	WG305199	26-AUG-21	N/A	mg/L	1	1.0	102	90-110	

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305213-2	LCS	WG305213	30-AUG-21	27-AUG-21	mg/L	750	710	94	80-120	
WG305213-3	LCSD	WG305213	30-AUG-21	27-AUG-21	mg/L	750	710	95	80-120	1

Sulfate

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG306075-2	LCS	WG306075	13-SEP-21	N/A	mg/L	3.75	3.44	91.7	90-110	
WG306075-3	LCSD	WG306075	13-SEP-21	N/A	mg/L	3.75	3.62	96.5	90-110	5

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305121-2	LCS	WG305121	31-AUG-21	26-AUG-21	mg/L	198	220	110	85-115	
WG305301-2	LCS	WG305301	01-SEP-21	27-AUG-21	mg/L	198	200	103	85-115	

Total Organic Carbon (1)

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305351-2	LCS	WG305351	30-AUG-21	N/A	mg/L	50	52.	103	80-120	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

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Cert No E87604

Quality Control Report

Duplicate Sample Summary Report

COD-Color

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG305460-3	SO5689-7	WG305460	01-SEP-21	mg/L	J 11.	U 15.	NC	20

Chloride

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG306075-4	SO5689-1	WG306075	13-SEP-21	mg/L	29	28	1	15

Solids-Filterable Residue

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG305213-4	SO5689-9	WG305213	30-AUG-21	mg/L	280	280	1	10

Sulfate

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG306075-4	SO5689-1	WG306075	13-SEP-21	mg/L	5.0	4.9	2	15

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Matrix Spike Sample Summary Report

COD-Color

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG305460-4	MS	SO5689-7	WG305460	01-SEP-21	mg/L	100	J 11	120	109	80 - 120

Chloride

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG306075-5	MS	SO5689-1	WG306075	13-SEP-21	mg/L	7.5	28.8	* 35.1	83.8*	90 - 110

Sulfate

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG306075-5	MS	SO5689-1	WG306075	13-SEP-21	mg/L	7.5	4.99	12.1	95.4	90 - 110

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-1
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
MW-21-3S-BASELINE	AQ	25-AUG-21 10:05:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	240 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:21:59	N/A	N/A	
COD-Color	U15. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	29 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 19:45:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:05:58	N/A	N/A	
Solids-Filterable Residue	290 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	5.0 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 19:45:00	N/A	N/A	
Total Biochemical Oxygen Demand	J4.3 mg/L	6.0	0.70	1	SM 5210B	WG305121	31-AUG-21 11:25:00	SM 5210B	26-AUG-21 1550	
Total Organic Carbon (1)	3.7 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 20:51:52	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-3
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4D-BASELINE	AQ	25-AUG-21 11:35:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	120 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:25:33	N/A	N/A	
COD-Color	J14. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 20:28:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:08:20	N/A	N/A	
Solids-Filterable Residue	230 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	34 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 20:28:00	N/A	N/A	
Total Biochemical Oxygen Demand	5.0 mg/L	4.0	0.47	1	SM 5210B	WG305121	31-AUG-21 11:39:00	SM 5210B	26-AUG-21 1611	
Total Organic Carbon (1)	1.9 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:03:59	N/A	N/A	

600 Technology Way
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http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-5
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
AS-DUP-BASELINE	AQ	25-AUG-21 11:40:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	110 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:28:11	N/A	N/A	
COD-Color	U15. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	28 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 21:11:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:09:30	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	34 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 21:11:00	N/A	N/A	
Total Biochemical Oxygen Demand	4.9 mg/L	3.0	0.35	1	SM 5210B	WG305121	31-AUG-21 11:45:00	SM 5210B	26-AUG-21 1620	
Total Organic Carbon (1)	2.0 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:15:57	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
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http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-7
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
MW-21-4S-BASELINE	AQ	25-AUG-21 14:15:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	240 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:30:47	N/A	N/A	
COD-Color	J11. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	20 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 21:25:00	N/A	N/A	
Nitrate As N	U0.050 mg/L	0.050	0.015	0.025	EPA 353.2	WG305199	26-AUG-21 15:10:41	N/A	N/A	
Solids-Filterable Residue	290 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	12 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 21:25:00	N/A	N/A	
Total Biochemical Oxygen Demand	J4.3 mg/L	6.0	0.70	1	SM 5210B	WG305301	01-SEP-21 13:17:00	SM 5210B	27-AUG-21 0815	
Total Organic Carbon (1)	4.3 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:28:01	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5689-9
Report Date: 15-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5689

Sample Description	Matrix	Date Sampled	Date Received
SHM-10-06-BASELINE	AQ	26-AUG-21 10:40:00	26-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	180 mg/L	5.0	0.23	4	STDM 2320B	WG305854	07-SEP-21 18:34:46	N/A	N/A	
COD-Color	J11. mg/L	15.	5.7	10	SM 5220	WG305460	01-SEP-21 14:56:00	N/A	N/A	
Chloride	30 mg/L	4.0	0.20	2.0	SW846 9056A	WG306075	13-SEP-21 21:39:00	N/A	N/A	
Nitrate As N	U0.25 mg/L	0.25	0.076	0.12	EPA 353.2	WG305199	26-AUG-21 15:14:55	N/A	N/A	
Solids-Filterable Residue	280 mg/L	10.	5.0	8	STDM 2540C	WG305213	30-AUG-21 13:50:00	SM 2540C	27-AUG-21	
Sulfate	10 mg/L	2.0	0.13	1.0	SW846 9056A	WG306075	13-SEP-21 21:39:00	N/A	N/A	
Total Biochemical Oxygen Demand	6.4 mg/L	6.0	0.70	1	SM 5210B	WG305121	31-AUG-21 11:32:00	SM 5210B	26-AUG-21 1600	
Total Organic Carbon (1)	2.5 mg/L	1.0	0.10	0.50	SW846 9060A	WG305351	30-AUG-21 21:40:27	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Raw Data Section

WET CHEMISTRY BATCH REPORT
Sep 15 2021, 01:37 pm
Batch: WG305854 Run ID 1: R576166 Run ID 2: NONE

Parameter: Alkalinity

Date Analyzed: 07-SEP-21

Analyst Initials: ZF

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5627-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	116.208	120 mg/L	NA	5	0.23	5.0		
SO5689-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	235.628	240 mg/L	NA	5	0.23	5.0		
SO5689-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	117.348	120 mg/L	NA	5	0.23	5.0		
SO5689-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	114.893	110 mg/L	NA	5	0.23	5.0		
SO5689-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	235.369	240 mg/L	NA	5	0.23	5.0		
SO5689-9	SAMP	STDM 2320B	50.0mL	50.0mL	1	184.713	180 mg/L	NA	5	0.23	5.0		
SO5785-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	104.347	100 mg/L	NA	5	0.23	5.0		
SO5785-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	104.005	100 mg/L	NA	5	0.23	5.0		
SO5785-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	66.34	66. mg/L	NA	5	0.23	5.0		
SO5785-4	SAMP	STDM 2320B	50.0mL	50.0mL	1	28.684	29. mg/L	NA	5	0.23	5.0		
SO5785-5	SAMP	STDM 2320B	50.0mL	50.0mL	1	67.883	68. mg/L	NA	5	0.23	5.0		
SO5785-6	SAMP	STDM 2320B	50.0mL	50.0mL	1	2.238	U5.0 mg/L	NA	5	0.23	5.0		
SO5785-7	SAMP	STDM 2320B	50.0mL	50.0mL	1	1059.964	1000 mg/L	NA	5	0.23	5.0		
SO5785-8	SAMP	STDM 2320B	50.0mL	50.0mL	1	195.165	200 mg/L	NA	5	0.23	5.0		
SO5834-1	SAMP	STDM 2320B	50.0mL	50.0mL	1	49.496	49. mg/L	NA	5	0.23	5.0		
SO5834-2	SAMP	STDM 2320B	50.0mL	50.0mL	1	43.757	44. mg/L	NA	5	0.23	5.0		
SO5834-3	SAMP	STDM 2320B	50.0mL	50.0mL	1	5.242	5.2 mg/L	NA	5	0.23	5.0		
WG305854-1	MBLANK	STDM 2320B	50.0mL	50.0mL	1	2.682	J2.7 mg/L	NA	5	0.23	5.0		
WG305854-2	LCS	STDM 2320B	50.0mL	50.0mL	1	136.326	140 mg/L	NA	5	0.23	5.0		114
WG305854-3	LCSD	STDM 2320B	50.0mL	50.0mL	1	134.772	130 mg/L	NA	5	0.23	5.0	1	112

Comments:

SO5689-1	Anions please report Cl & SO4.
SO5689-3	Anions please report Cl & SO4.
SO5689-5	Anions please report Cl & SO4.
SO5689-7	Anions please report Cl & SO4.
SO5689-9	Anions please report Cl & SO4.
WG305854-1	SO5627-1
WG305854-2	SO5627-1
WG305854-3	SO5627-1

Entered by: ZF Date: 9/15/21 Accepted by: [signature] Date: 09/15/21

Katahdin Analytical Services 5000015

WET CHEMISTRY BATCH REPORT
Sep 15 2021, 01:35 pm
Batch: WG305855

Parameter: Bicarbonate (As CaCO3)

Date Analyzed: 07-SEP-21

Analyst Initials: ZF

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Alkalinity	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5834-1	SAMP	SM 4500CO2 D	49.5mg/L	6.49pH	1	49.47993	49. mg/L	NA	5	.497	5		
SO5834-2	SAMP	SM 4500CO2 D	43.8mg/L	6.30pH	1	43.74788	44. mg/L	NA	5	.497	5		
SO5834-3	SAMP	SM 4500CO2 D	5.24mg/L	8.04pH	1	5.13499	5.1 mg/L	NA	5	.497	5		
WG305855-1	MBLANK	SM 4500CO2 D	2.68mg/L	5.72pH	1	2.68161	U5.0 mg/L	NA	5	.497	5		

Comments:

WG305855-1 SO5834-1

Entered by: ZF Date: 9/15/21 Accepted by: [signature] Date: 09/15/21

Katahdin Analytical Services 5000016

WET CHEMISTRY BATCH REPORT
Sep 15 2021, 01:36 pm
Batch: WG305856

Parameter: Carbonate (As CaCO3)

Date Analyzed: 07-SEP-21

Analyst Initials: ZF

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Bicarb	pH	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5834-1	SAMP	SM 4500CO2 D		6.49pH	1	.01451	U5.0 mg/L	NA	5	.497	5		
SO5834-2	SAMP	SM 4500CO2 D		6.30pH	1	.00813	U5.0 mg/L	NA	5	.497	5		
SO5834-3	SAMP	SM 4500CO2 D		8.04pH	1	.05256	U5.0 mg/L	NA	5	.497	5		
WG305856-1	MBLANK	SM 4500CO2 D		5.72pH	1	.00013	U5.0 mg/L	NA	5	.497	5		

Comments:

WG305856-1 SO5834-1

Entered by: ZF Date: 9/15/21 Accepted by: [signature] Date: 09/15/21

Katahdin Analytical Services 5000017

bicarb: WG305855 R 576167
carb: WG305856 R576168 WG305854 R 576166

KATAHDIN ANALYTICAL SERVICES

ALKALINITY, BICARBONATE, CARBONATE, FREE CO2 - DL 25 AUTOTITRATOR

Analysis: EPA 310.1 SM2320B **Calculations:** SM 4500-CO2 D

pH Probe ID:	DG 111-SC		
Alkalinity Acid Reagent:	W20286	**Buffer pH 4 ID:**	SUV 4740
Acid Concentration:	0.02N	**Buffer pH 7 ID:**	4739
Alkalinity Check Standard:	W20260 TV: 125mg/L	**Buffer pH 10 ID:**	4748
Alkalinity MS:	W20307 TV 120mg/L	**Pipette IDs:**	W11

Sample ID	Run #	Volume (mL)	Sample ID	Run #	Volume (mL)	Comments - Must indicate which sample
CCV	1	50				
CCB	2	50				
LCS	3	44				
LCS	4	44				
505627-1	1	50				
505689-1	2					
-3	3					
-5	4					
-7	5					
-9	6					
505785-1	7					
-2	8					
CCV	9					
CCB	10					
505785-3	11					
-4	12					
-5	13					
-6	14					
-7	15					
-8	16					
505834-1	17					
-2	18					
-3	1	50				
CCV	2					
CCB	3					

9/10/21

Analyst:	AF	**Date:**	9/7/21
Checked By:		**Date:**	09/15/21

Start time: 9/7/2021 17:54

Results

No.	Comment / ID	Start time	Rx	Result	Unit	Name	% RECOVERY
1/4	CCV	9/7/2021 5:55:40 PM	R1 =	60.311	mg/L	P Alkalinity- pH8.2	
			R2 =	134.658	mg/L	Total Alkalinity	107.73%
			R3 =	10.211	pH	pH	
			R4 =	20.6	oC	TEMPERATURE	
2/4	CCB	9/7/2021 5:58:57 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.682	mg/L	Total Alkalinity	
			R3 =	5.719	pH	pH	
			R4 =	22.6	oC	TEMPERATURE	
3/4	LCS	9/7/2021 6:00:56 PM	R1 =	85.214	mg/L	P Alkalinity- pH8.2	
			R2 =	136.326	mg/L	Total Alkalinity	
			R3 =	10.625	pH	pH	
			R4 =	22.1	oC	TEMPERATURE	
4/4	LCS	9/7/2021 6:04:13 PM	R1 =	87.089	mg/L	P Alkalinity- pH8.2	
			R2 =	134.772	mg/L	Total Alkalinity	
			R3 =	10.639	pH	pH	
			R4 =	21.6	oC	TEMPERATURE	
1/18	SO5627-1	9/7/2021 6:19:15 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	116.208	mg/L	Total Alkalinity	
			R3 =	6.466	pH	pH	
			R4 =	11.8	oC	TEMPERATURE	
2/18	SO5689-1	9/7/2021 6:21:59 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	235.628	mg/L	Total Alkalinity	
			R3 =	6.053	pH	pH	
			R4 =	12.6	oC	TEMPERATURE	
3/18	SO5689-3	9/7/2021 6:25:33 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	117.348	mg/L	Total Alkalinity	
			R3 =	5.946	pH	pH	
			R4 =	12.8	oC	TEMPERATURE	
4/18	SO5689-5	9/7/2021 6:28:11 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	114.893	mg/L	Total Alkalinity	
			R3 =	5.963	pH	pH	
			R4 =	13.4	oC	TEMPERATURE	
5/18	SO5689-7	9/7/2021 6:30:47 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	235.369	mg/L	Total Alkalinity	
			R3 =	6.117	pH	pH	
			R4 =	14	oC	TEMPERATURE	
6/18	SO5689-9	9/7/2021 6:34:46 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	184.713	mg/L	Total Alkalinity	
			R3 =	6.066	pH	pH	
			R4 =	14.4	oC	TEMPERATURE	
7/18	SO5785-1	9/7/2021 6:37:50 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	104.347	mg/L	Total Alkalinity	
			R3 =	7.116	pH	pH	
			R4 =	13.8	oC	TEMPERATURE	
8/18	SO5785-2	9/7/2021 6:40:46 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	104.005	mg/L	Total Alkalinity	
			R3 =	7.047	pH	pH	
			R4 =	14.6	oC	TEMPERATURE	
9/18	CCV	9/7/2021 6:43:42 PM	R1 =	64.765	mg/L	P Alkalinity- pH8.2	
			R2 =	138.449	mg/L	Total Alkalinity	110.76%
			R3 =	10.201	pH	pH	
			R4 =	19.6	oC	TEMPERATURE	
10/18	CCB	9/7/2021 6:46:59 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	

			R2 =	2.455	mg/L	Total Alkalinity	
			R3 =	5.703	pH	pH	
			R4 =	21.3	oC	TEMPERATURE	
11/18	SO5785-3	9/7/2021 6:48:56 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	66.34	mg/L	Total Alkalinity	
			R3 =	6.699	pH	pH	
			R4 =	15.2	oC	TEMPERATURE	
12/18	SO5785-4	9/7/2021 6:51:38 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	28.684	mg/L	Total Alkalinity	
			R3 =	5.923	pH	pH	
			R4 =	15.3	oC	TEMPERATURE	
13/18	SO5785-5	9/7/2021 6:53:44 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	67.883	mg/L	Total Alkalinity	
			R3 =	6.584	pH	pH	
			R4 =	15	oC	TEMPERATURE	
14/18	SO5785-6	9/7/2021 6:56:25 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	2.238	mg/L	Total Alkalinity	
			R3 =	4.748	pH	pH	
			R4 =	15.4	oC	TEMPERATURE	
15/18	SO5785-7	9/7/2021 6:58:18 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	1059.964	mg/L	Total Alkalinity	
			R3 =	7.087	pH	pH	
			R4 =	15.5	oC	TEMPERATURE	
16/18	SO5785-8	9/7/2021 7:08:28 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	195.165	mg/L	Total Alkalinity	
			R3 =	6.146	pH	pH	
			R4 =	16.4	oC	TEMPERATURE	
17/18	SO5834-1	9/7/2021 7:12:05 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	49.496	mg/L	Total Alkalinity	
			R3 =	6.494	pH	pH	
			R4 =	16.5	oC	TEMPERATURE	
18/18	SO5834-2	9/7/2021 7:14:31 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	43.757	mg/L	Total Alkalinity	
			R3 =	6.296	pH	pH	
			R4 =	16.9	oC	TEMPERATURE	
1/3	SO5834-3	9/7/2021 7:25:48 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	5.242	mg/L	Total Alkalinity	
			R3 =	8.037	pH	pH	
			R4 =	12.4	oC	TEMPERATURE	
2/3	CCV	9/7/2021 7:27:55 PM	R1 =	61.937	mg/L	P Alkalinity- pH8.2	
			R2 =	136.999	mg/L	Total Alkalinity	109.60%
			R3 =	10.206	pH	pH	
			R4 =	19.9	oC	TEMPERATURE	
3/3	CCB	9/7/2021 7:31:12 PM	R1 =	0	mg/L	P Alkalinity- pH8.2	
			R2 =	3.447	mg/L	Total Alkalinity	
			R3 =	5.77	pH	pH	
			R4 =	23.4	oC	TEMPERATURE	

Start time: 9/7/2021 10:40

Results

No.	Comment / ID	Start time	Rx	Result	Unit	Name

Calibration data

	Number of segments	1
	Slope	-57.17 mV/pH
	Zero point	6.996 pH
	Calibration temperature	20.2 oC

WET CHEMISTRY BATCH REPORT
Sep 02 2021, 12:01 pm
Batch: WG305458 Run ID 1: R575709 Run ID 2: NONE

Parameter: Chemical Oxygen Demand

Date Analyzed: 01-SEP-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5564-1	SAMP	EPA 410.4	2.00mL	2.00mL	1	75.3	75. mg/L	NA	15	3.1	15.		
SO5734-1	SAMP	EPA 410.4	2.00mL	2.00mL	1	118.4	120 mg/L	NA	15	3.1	15.		
SO5734-9	SAMP	EPA 410.4	2.00mL	2.00mL	1	148.8	150 mg/L	NA	15	3.1	15.		
SO5785-6	SAMP	EPA 410.4	2.00mL	2.00mL	1	66.2	66. mg/L	NA	15	3.1	15.		
SO5785-8	SAMP	EPA 410.4	2.00mL	2.00mL	1	55.1	55. mg/L	NA	15	3.1	15.		
WG305458-1	MBLANK	EPA 410.4	2.00mL	2.00mL	1	-9.3	U10. mg/L	NA	15	3.1	15.		
WG305458-2	LCS	EPA 410.4	2.00mL	2.00mL	1	67.6	68. mg/L	NA	15	3.1	15.		90

Comments:

WG305458-1 SO5564-1
WG305458-2 SO5564-1

Entered by: ZF for JL Date: 9/2/21 Accepted by: ZF Date: 9/2/21

WET CHEMISTRY BATCH REPORT
Sep 02 2021, 09:40 am
Batch: WG305460 Run ID 1: R575708 Run ID 2: NONE

Parameter: COD-Color

Date Analyzed: 01-SEP-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5689-1	SAMP	SM 5220	2.00mL	2.00mL	1	-11.3	U15. mg/L	NA	15	5.7	15.		
SO5689-3	SAMP	SM 5220	2.00mL	2.00mL	1	13.7	J14. mg/L	NA	15	5.7	15.		
SO5689-5	SAMP	SM 5220	2.00mL	2.00mL	1	-7.9	U15. mg/L	NA	15	5.7	15.		
SO5689-7	SAMP	SM 5220	2.00mL	2.00mL	1	11	J11. mg/L	NA	15	5.7	15.		
SO5689-9	SAMP	SM 5220	2.00mL	2.00mL	1	10.6	J11. mg/L	NA	15	5.7	15.		
WG305460-1	MBLANK	SM 5220	2.00mL	2.00mL	1	-9.3	U10. mg/L	NA	15	5.7	15.		
WG305460-2	LCS	SM 5220	2.00mL	2.00mL	1	67.6	68. mg/L	NA	15	5.7	15.		90
WG305460-3	DUP	SM 5220	2.00mL	2.00mL	1	11	U15. mg/L	NA	15	5.7	15.	NC	
WG305460-4	MS	SM 5220	1.50mL	2.00mL	1.3	89.8	120 mg/L	NA	15	7.5	20.		109

Comments:

SO5689-1	Anions please report Cl & SO4.
SO5689-3	Anions please report Cl & SO4.
SO5689-5	Anions please report Cl & SO4.
SO5689-7	Anions please report Cl & SO4.
SO5689-9	Anions please report Cl & SO4.
WG305460-1	SO5689-7
WG305460-2	SO5689-7
WG305460-3	SO5689-7
WG305460-4	SO5689-7

Entered by: JL Date: 9/2/21 Accepted by: ZF Date: 9/2/21

CHEMICAL_OXYGEN_DEMAND - LOW LEVEL (Closed Reflux, Twist Tubes)

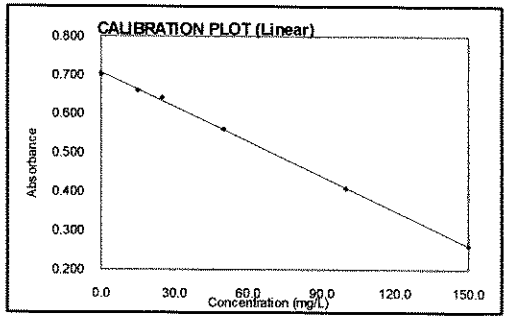
Method (Check one): SM5220D-11 E410.4

CALIBRATION INFORMATION

Cal. Anal. Date: 6-30-21
Calib. Analyst: KD
Stock Std. ID: W19395
Stock Std. Conc. (mg/L): 1000

Standard Name		Vol. Stock Added (ml)	Final Vol. (mL)	Std. Conc. (mg/L)	Meas. Abs.
Calib. Blank		0.000	2	0.0	0.703
Std. 1		0.030	2	15.0	0.660
Std. 2		0.050	2	25.0	0.642
Std. 3		0.100	2	50.0	0.560
Std. 4		0.200	2	100.0	0.409
Std. 5		0.300	2	150.0	0.262

No. of points:	6
Corr. Coeff. (R):	0.9996285368702
Slope (m):	-0.002968241206
Intercept (b):	0.7075336683417



SAMPLE ANALYSIS

Analyst: JL
Analysis Date: 01-SEPT-21
CCV Stock Std. ID / Conc. (mg/L): W19873 / 50
LCS Stock Std. ID / Conc. (mg/L): W19875 / 75

Sample ID	Analyst	Date (14-Mar-13)	Time (13:30	Sample Type	Initial Vol. (mL)	Final Vol. (mL)	Spike Added (mg/L)	Abs. @ 420 nm		Conc in FV (mg/L)	Conc in IV (mg/L)	Reported Conc. (mg/L)	Rcvy (%)	DUP RPD (%)
CCV	JL	01-SEPT-21		CCV	2.000	2.000	50	0.557		50.7	50.7	50.7	101.4%	
CCB	JL	01-SEPT-21		BLANK	2.000	2.000		0.735		-9.3	-9.3	< 15.0		
LCS	JL	01-SEPT-21		LCS	2.000	2.000	75	0.507		67.6	67.6	67.6	90.1%	
5564-2	JL	01-SEPT-21		Sample	2.000	2.000	>75	0.773		-22.1	-22.1	< 15.0	20.0%	
5564-1	JL	01-SEPT-21		Sample	2.000	2.000		0.484		75.3	75.3	75.3		
5689-1	JL	01-SEPT-21		Sample	2.000	2.000		0.741		-11.3	-11.3	< 15.0		
-3	JL	01-SEPT-21		Sample	2.000	2.000		0.667		13.7	13.7	< 15.0		
-5	JL	01-SEPT-21		Sample	2.000	2.000		0.731		-7.9	-7.9	< 15.0		
-7	JL	01-SEPT-21		Sample	2.000	2.000		0.675		11.0	11.0	< 15.0		
-7 DUP	JL	01-SEPT-21		Sample	2.000	2.000		0.675		11.0	11.0	< 15.0		
-7 MS	JL	01-SEPT-21		Sample	2.000	2.000	100	0.441		89.8	89.8	89.8		
-9	JL	01-SEPT-21		Sample	2.000	2.000		0.676		10.6	10.6	< 15.0		
CCV	JL	01-SEPT-21		CCV	2.000	2.000	50	0.556		51.1	51.1	51.1	102.1%	
CCB	JL	01-SEPT-21		BLANK	2.000	2.000		0.743		-11.9	-11.9	< 15.0		
5734-1	JL	01-SEPT-21		Sample	2.000	2.000		0.356		118.4	118.4	118.4		
-9	JL	01-SEPT-21		Sample	1.500	2.000	>100	0.266		148.8	198.3	198.3	79.9%	
5785-6	JL	01-SEPT-21		Sample	2.000	2.000		0.511		66.2	66.2	66.2		
-8	JL	01-SEPT-21		Sample	2.000	2.000		0.544		55.1	55.1	55.1		
CCV	JL	01-SEPT-21		CCV	2.000	2.000	50	0.557		50.7	50.7	50.7	101.4%	
CCB	JL	01-SEPT-21		BLANK		2.000		0.735		-9.4	#DIV/0!	< #DIV/0!		

KATAHDIN ANALYTICAL SERVICES

CHEMICAL OXYGEN DEMAND		**EPA Method 410.4**	**PQL = 15 mg/L**
COD Vials			
Low Level: ✓	**High Level:**	**Mfr.:** Env. Express	**Lot ID:** SW14793
Digestion Start Time: 1115		**End Time:** 1315	**Pipette IDs:** W7
COD Digestion Block Start Temp.: 148.0		**End Temp.:** 148.8	
Calibration Date:		**Spectrophotometer Used:**	**FOOD #1**

Standard	True Value (mg/L)	Source Std. ID	Source Std. Added (mL)
CCV	50	W21033	2
LCS	75	W21035	2
MS	100	W21034	.5

Notes: WG305458 RS75709
Sm: WG305460 RS75708

KAS Sample ID	Analysis Time	Initial Vol (mL)	Final Vol (mL)	Abs @	Comments
CCV	1456	2	2	.557	
CCB				.735	
LCS				.507	
5564-2				.773	
5564-1				.484	
5689-1				.741	
-3				.607	
-5				.731	
-7				.675	
-7Dup				.675	
-7ms		1.5		.441	
-9		2		.676	
CCV				.556	
CCB				.743	
5734-1				.356	
-9				.266	
5785-6				.511	
-8				.544	
CCV				.557	
CCB				.735	

JL 9/2/21

ANALYST: JL	**DATE:** 9/1/21
REVIEWED BY: ZF	**DATE:** 9/2/21

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS
Date Analyzed: 13-SEP-21

Batch: WG306075
Prep Method: N/A
Prep Chemist: SS

Sample	Samp Type	Method	Parameter	DF	Result		Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO5463-2DLG	SAMP	SW846 9056A	Chloride	2	26.1827		26	mg/L	2	4.0	.0993	0.20		
SO5506-6	SAMP	SW846 9056A	Sulfate	1	29.942		30	mg/L	1	1.0	.25	0.25		
SO5506-6DLG	SAMP	SW846 9056A	Chloride	20	390.2783		390	mg/L	2	40.	.5	10.		
SO5556-2	SAMP	SW846 9056A	Sulfate	1	30.8031		31	mg/L	1	1.0	.25	0.25		
SO5556-2DLG	SAMP	SW846 9056A	Chloride	20	296.923		300	mg/L	2	40.	.5	10.		
SO5689-1DLG	SAMP	SW846 9056A	Chloride	2	28.7714		29	mg/L	2	4.0	.0993	0.20		
SO5689-1DLG	SAMP	SW846 9056A	Sulfate	2	4.9867		5.0	mg/L	1	2.0	.0637	0.13		
SO5689-3DLG	SAMP	SW846 9056A	Chloride	2	27.8847		28	mg/L	2	4.0	.0993	0.20		
SO5689-3DLG	SAMP	SW846 9056A	Sulfate	2	33.8515		34	mg/L	1	2.0	.0637	0.13		
SO5689-5DLG	SAMP	SW846 9056A	Chloride	2	27.7366		28	mg/L	2	4.0	.0993	0.20		
SO5689-5DLG	SAMP	SW846 9056A	Sulfate	2	33.8703		34	mg/L	1	2.0	.0637	0.13		
SO5689-7DLG	SAMP	SW846 9056A	Chloride	2	20.2549		20	mg/L	2	4.0	.0993	0.20		
SO5689-7DLG	SAMP	SW846 9056A	Sulfate	2	11.6632		12	mg/L	1	2.0	.0637	0.13		
SO5689-9DLG	SAMP	SW846 9056A	Chloride	2	30.5249		30	mg/L	2	4.0	.0993	0.20		
SO5689-9DLG	SAMP	SW846 9056A	Sulfate	2	10.2263		10	mg/L	1	2.0	.0637	0.13		
WG306075-1	MBLANK	SW846 9056A	Chloride	1	.1134	J	0.11	mg/L	2	2.0	.0993	0.099		
WG306075-1	MBLANK	SW846 9056A	Chloride	1	.1134	U	1.0	mg/L	2	2.0	.5	0.50		
WG306075-1	MBLANK	SW846 9056A	Sulfate	1	.0208	U	0.50	mg/L	1	1.0	.25	0.25		
WG306075-1	MBLANK	SW846 9056A	Sulfate	1	.0208	U	1.0	mg/L	1	1.0	.0637	0.064		
WG306075-2	LCS	SW846 9056A	Chloride	1	3.7995		3.80	mg/L	2	2.0	.0993	0.099		101.
WG306075-2	LCS	SW846 9056A	Chloride	1	3.7995		3.80	mg/L	2	2.0	.5	0.50		101.
WG306075-2	LCS	SW846 9056A	Sulfate	1	3.4392		3.44	mg/L	1	1.0	.0637	0.064		91.7
WG306075-2	LCS	SW846 9056A	Sulfate	1	3.4392		3.44	mg/L	1	1.0	.25	0.25		91.7
WG306075-3	LCSD	SW846 9056A	Sulfate	1	3.6196		3.62	mg/L	1	1.0	.0637	0.064	5	96.5
WG306075-3	LCSD	SW846 9056A	Sulfate	1	3.6196		3.62	mg/L	1	1.0	.25	0.25	5	96.5
WG306075-4	DUP	SW846 9056A	Chloride	2	28.444		28	mg/L	2	4.0	.0993	0.20	1	
WG306075-4	DUP	SW846 9056A	Sulfate	2	4.898		4.9	mg/L	1	2.0	.0637	0.13	2	
WG306075-5	MS	SW846 9056A	Chloride	2	35.0578	*	35.	mg/L	2	4.0	.0993	0.20		83.8
WG306075-5	MS	SW846 9056A	Sulfate	2	12.1418		12.	mg/L	1	2.0	.0637	0.13		95.4

Comments:

SO5463-2	MS/MSD, Anions rep
SO5556-2	Anions= NO2, NO3, S
SO5689-1	Anions please report (
SO5689-3	Anions please report (
SO5689-5	Anions please report (
SO5689-7	Anions please report (
SO5689-9	Anions please report (
WG306075-1	SO5689-1
WG306075-2	SO5689-1
WG306075-3	SO5689-1
WG306075-4	SO5689-1
WG306075-5	SO5689-1

Entered by: SS Date: 9/15/21 Accepted by: [signature] Date: 09/15/21

Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date: 09/13/21	**Analytical Column S/N:** 19122078	**Calibration Date:** 08/31/21
Analysis Sequence: 091321A	**Guard Column S/N:** 19120342	**Calibration Sequence:** 083121A Cal
Analyst: SS	**Suppressor S/N:** 186825029	☐ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes:
✓ Report without manipulation
S Report, peak automatically reintegrated with SmartPeak
M Report, peak manually integrated
A Report, peak manually assigned
R Do not report, reanalyze sample

Method Codes:
E EPA 300.0
SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
LCS			✓	✓	✓	✓	✓	✓		
LCS						✓				
50 5506-6	20	S		✓						
5506-6	1					✓				
5556-2	20			✓						
5556-2	1					✓				
5689-1	2			✓		✓				
Dup	2			✓		✓				
MS	2			✓		✓				
5689-3	2			✓		✓				
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
5689-5	2	S		✓		✓				
-7	2			✓		✓				
-9	2			✓		✓				
5463-2	2			✓						
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
										SS 9/15/21

S: WG306075 → RS76408

WL-069-Revision 1 – 04/12/20016

Reviewed by: [signature] **Review Date:** 09/15/21

QAWL1026 - 000343

0000018

Katahdin Analytical Services 5000026

IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

L MIX ID: W20334	Expiration Date:09/14/21	ICAL Date: 08/31/21

ALYTE	INITIAL AMOUNT (mL)	OF	STOCK CONC. (mg/L)	TO	FINAL VOLUME(mL)	=	FINAL CONC.(mg/L)
Cl	2.0	OF	1000	TO	100	=	20
2 (as N)	0.8	OF	1000			=	8
3 (as N)	0.8	OF	1000			=	8
Br	4.0	OF	1000			=	40
SO4	4.0	OF	1000			=	40
F	1.0	OF	1000			=	10
4 (as P)	1	OF	1000			=	10

WORKING STANDARDS Standards prepared on each day of use

.	INITIAL AMOUNT (mL)	OF	Final Volume (mL)	FINAL CONC. (mg/L)							STD ID*
				Cl	NO2	NO3	Br	SO4	PO4	F	
7	1	ICAL	1	20	8	8	40	40	10	10	IC7-083121
6	0.5	IC7	1	10	4	4	20	20	5	5	IC6-083121
5	0.25	IC7	1	5	2	2	10	10	2.5	2.5	IC5-083121
4	0.25	IC6	1	2.5	1	1	5	5	1.25	1.25	IC4-083121
3	0.1	IC6	1	1	0.4	0.4	2	2	0.5	.5	IC3-083121
2	0.1	IC3	1	0.1	0.04	0.04	0.2	0.2	0.05	.05	IC2-083121
V	0.5	IC7	1	10	4	4	20	20	5	5	CCV-091321

*** STD ID is prefix followed by the date of preparation (ie. IC6-020216)**

S/MATRIX SPIKE MIX ID: W20335	Expiration Date:091521

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

Cl	NO2 (as N)	NO3 (as N)	Br	SO4	PO4 (as P)	F	STD ID*
75	1.14	0.845	3.75	3.75	1.22	3.75	IC-LCS-091321

*** STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)**

Comments:
2x dil = 0.5mL 1x→1.0mL
20x dil = 0.05mL 1x→1.0mL

Pipettes: W3, W5
5x dil = 0.2mL 1x→1.0mL
50x dil = 0.02mL 1x→1.0mL

10x dil = 0.1mL 1x→1.0mL
100x dil = 0.1mL 10x→1.0mL

Sequence Overview

Sequence Details

Name:	**091321A REPROC**	*Created On:*	**10/Feb/16 13:48:22**
Directory:	**Instrument Data\ICS-2100\2021\09-SEP**	*Created By:*	**Katahdin Analytical**
Data Vault:	**ChromeleonLocal**	*Updated On:*	**15/Sep/21 10:35:38**
No. of Injections:	**20**	*Updated By:*	**Katahdin Analytical**

Injection Details

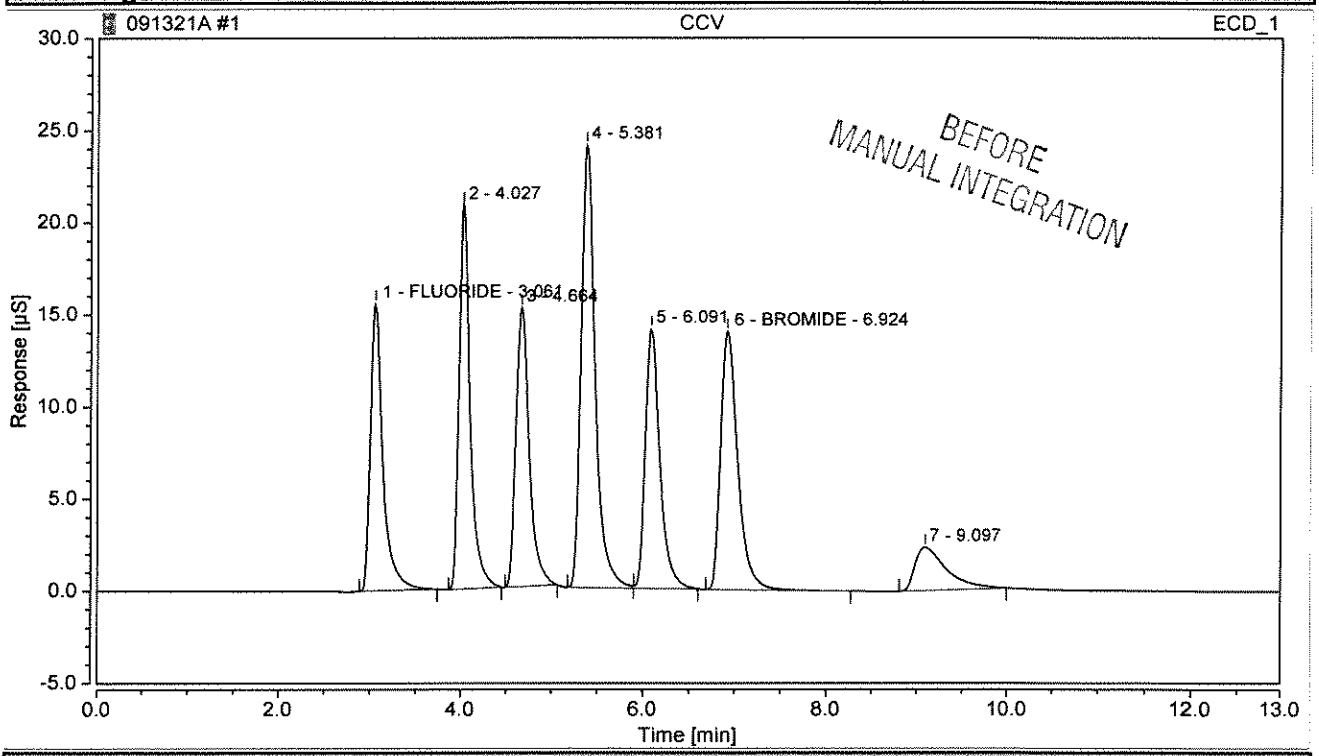
No.	Injection Name	Position	Type	Level	Inject Time	Status
1	CCV	1	Check Standard	06	13/Sep/21 17:51:30	Finished
2	CCB	2	Unknown		13/Sep/21 18:05:27	Finished
3	LCS	3	Check Standard	07	13/Sep/21 18:19:44	Finished
4	LCS	4	Check Standard	07	13/Sep/21 18:33:59	Finished
5	SO5506-6	5	Unknown		13/Sep/21 18:48:15	Finished
6	SO5506-6	6	Unknown		13/Sep/21 19:02:31	Finished
7	SO5556-2	7	Unknown		13/Sep/21 19:16:47	Finished
8	SO5556-2	8	Unknown		13/Sep/21 19:31:03	Finished
9	SO5689-1	9	Unknown		13/Sep/21 19:45:18	Finished
10	SO5689-1 DUP	10	Unknown		13/Sep/21 19:59:49	Finished
11	SO5689-1 MS	11	Unknown		13/Sep/21 20:14:05	Finished
12	SO5689-3	12	Unknown		13/Sep/21 20:28:21	Finished
13	CCV	13	Check Standard	06	13/Sep/21 20:42:46	Finished
14	CCB	14	Unknown		13/Sep/21 20:57:02	Finished
15	SO5689-5	15	Unknown		13/Sep/21 21:11:18	Finished
16	SO5689-7	16	Unknown		13/Sep/21 21:25:34	Finished
17	SO5689-9	17	Unknown		13/Sep/21 21:39:50	Finished
18	SO5463-2	18	Unknown		13/Sep/21 21:54:06	Finished
19	CCV	19	Check Standard	06	13/Sep/21 22:08:22	Finished
20	CCB	20	Unknown		13/Sep/21 22:22:38	Finished

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 17:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

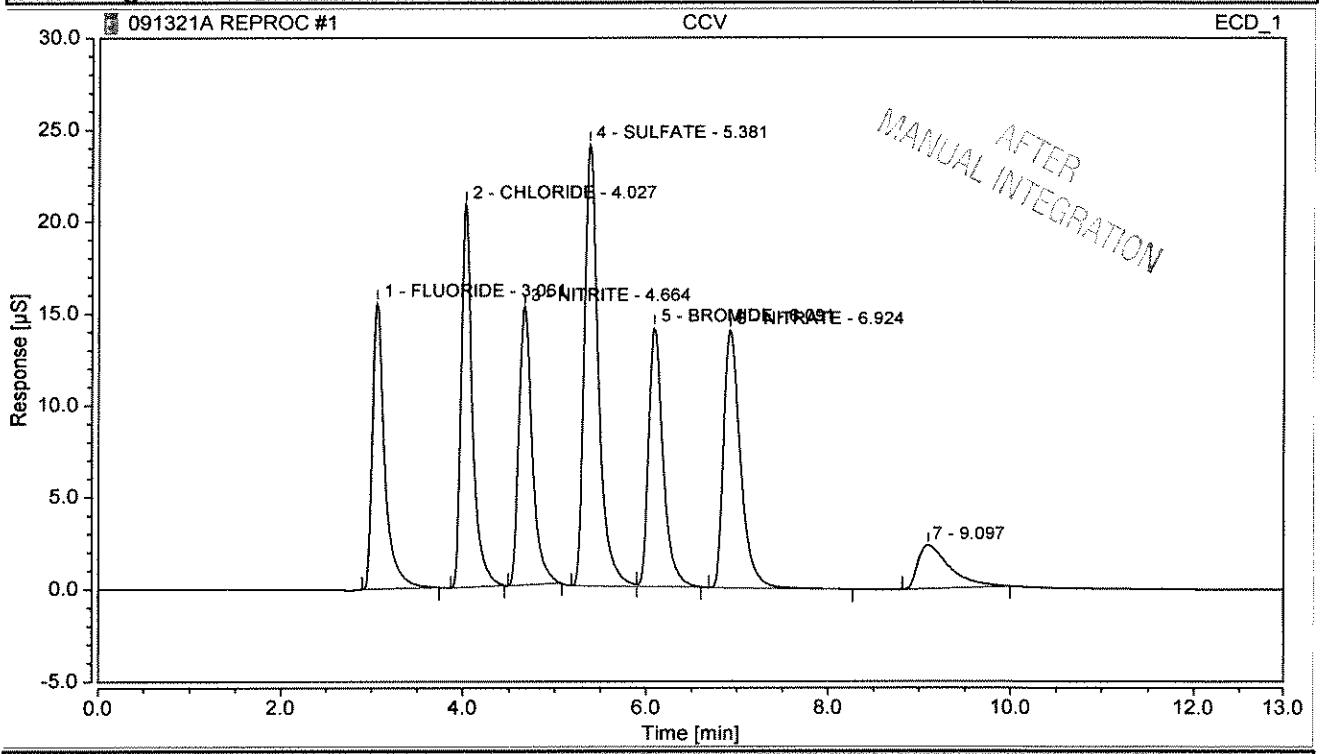
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.460	15.608	12.98	14.71	5.2119	4.2388
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.924	3.041	14.035	16.05	13.22	20.1762	0.8808
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.501**	**29.643**	**29.03**	**27.93**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**1**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 17:51**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

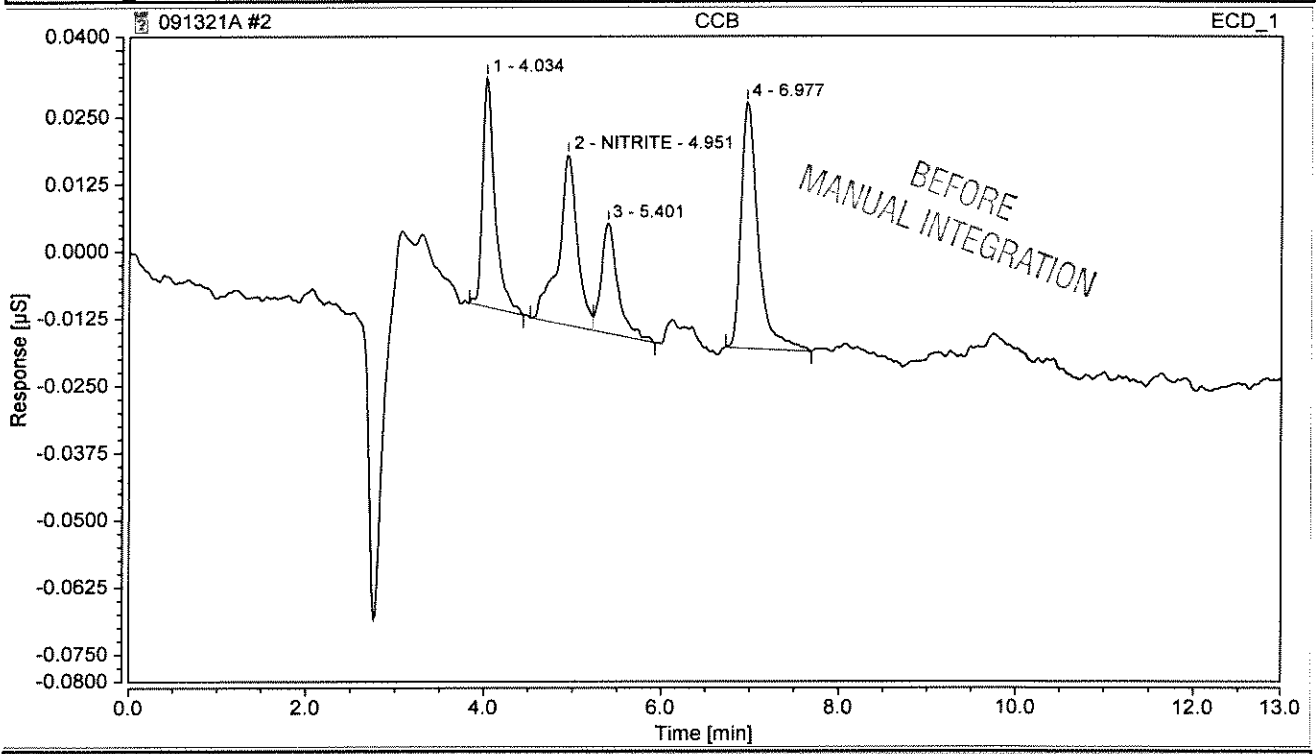
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	2.460	15.608	12.98	14.71	5.2119	4.2388
2	CHLORIDE	4.027	2.953	20.844	15.58	19.64	10.2015	2.0155
3	NITRITE	4.664	2.578	15.142	13.60	14.27	4.1992	4.9806
4	SULFATE	5.381	4.364	24.037	23.03	22.65	20.4471	2.2354
5	BROMIDE	6.091	2.610	14.108	13.78	13.29	20.2811	1.4057
6	NITRATE	6.924	3.041	14.035	16.05	13.22	4.0714	1.7845
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.006**	**103.773**	**95.02**	**97.78**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.97**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 18:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

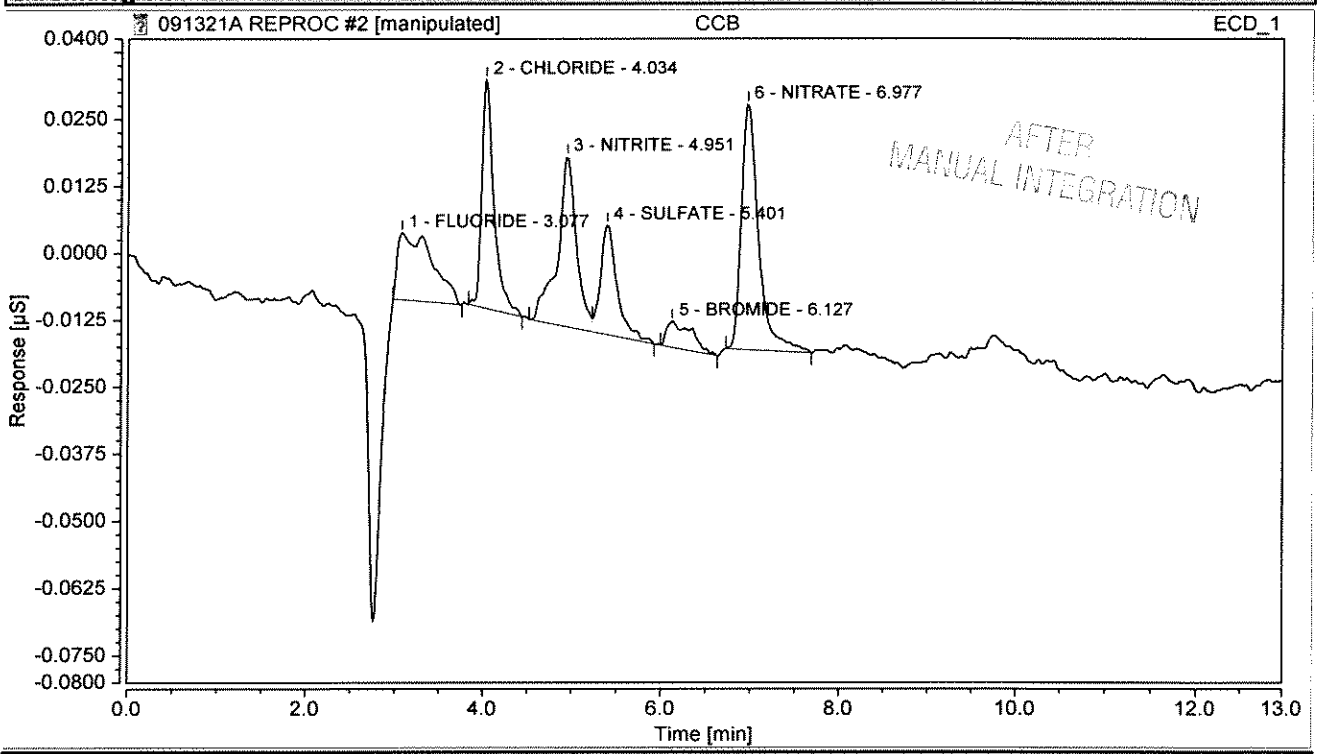
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	NITRITE	4.951	0.008	0.032	26.70	22.57	0.0128	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.008**	**0.032**	**26.70**	**22.57**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.97**
Vial Number:	**2**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 18:05**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

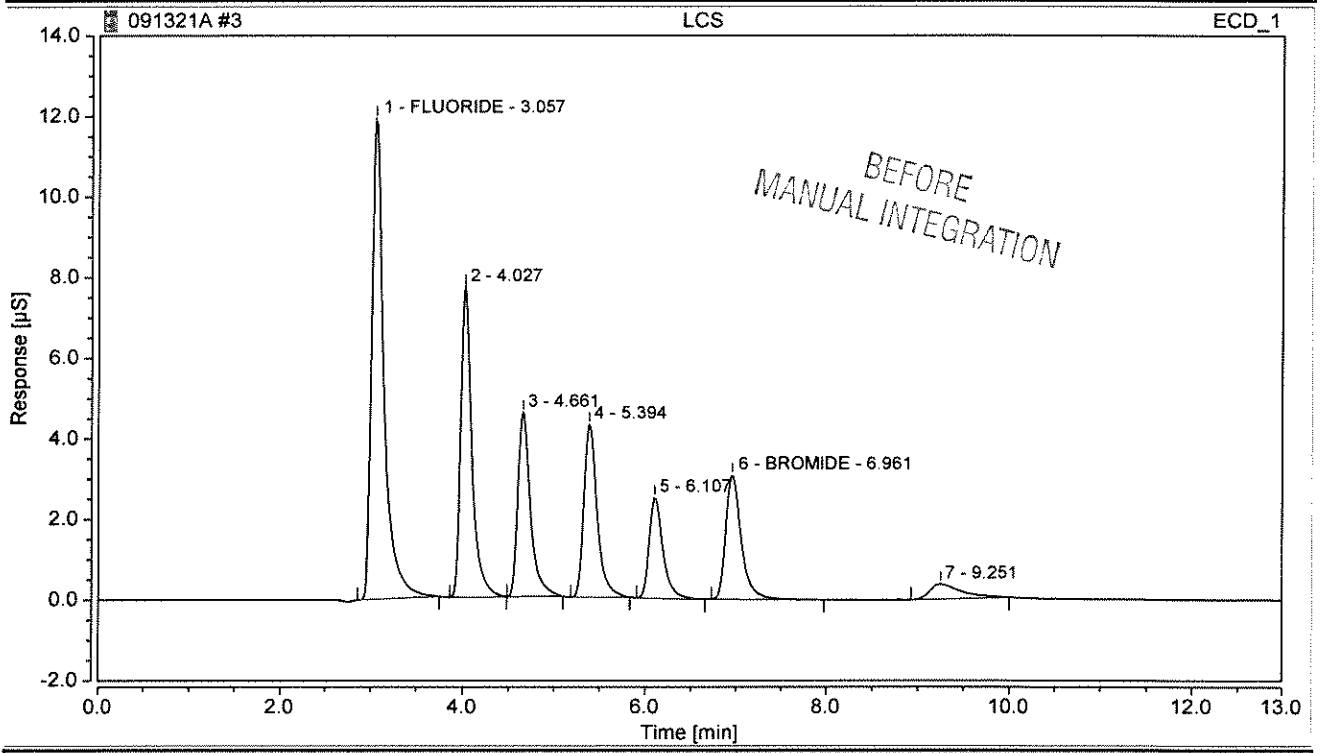
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.077	0.006	0.012	15.44	7.86	0.0120	n.a.
2	CHLORIDE	4.034	0.007	0.043	18.57	27.01	0.1134	n.a.
3	NITRITE	4.951	0.008	0.032	21.39	20.10	0.0128	n.a.
4	SULFATE	5.401	0.004	0.020	12.03	12.95	0.0208	n.a.
5	BROMIDE	6.127	0.002	0.005	4.43	3.10	0.0070	n.a.
6	NITRATE	6.977	0.010	0.046	28.14	28.98	0.0425	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.037**	**0.158**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 18:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

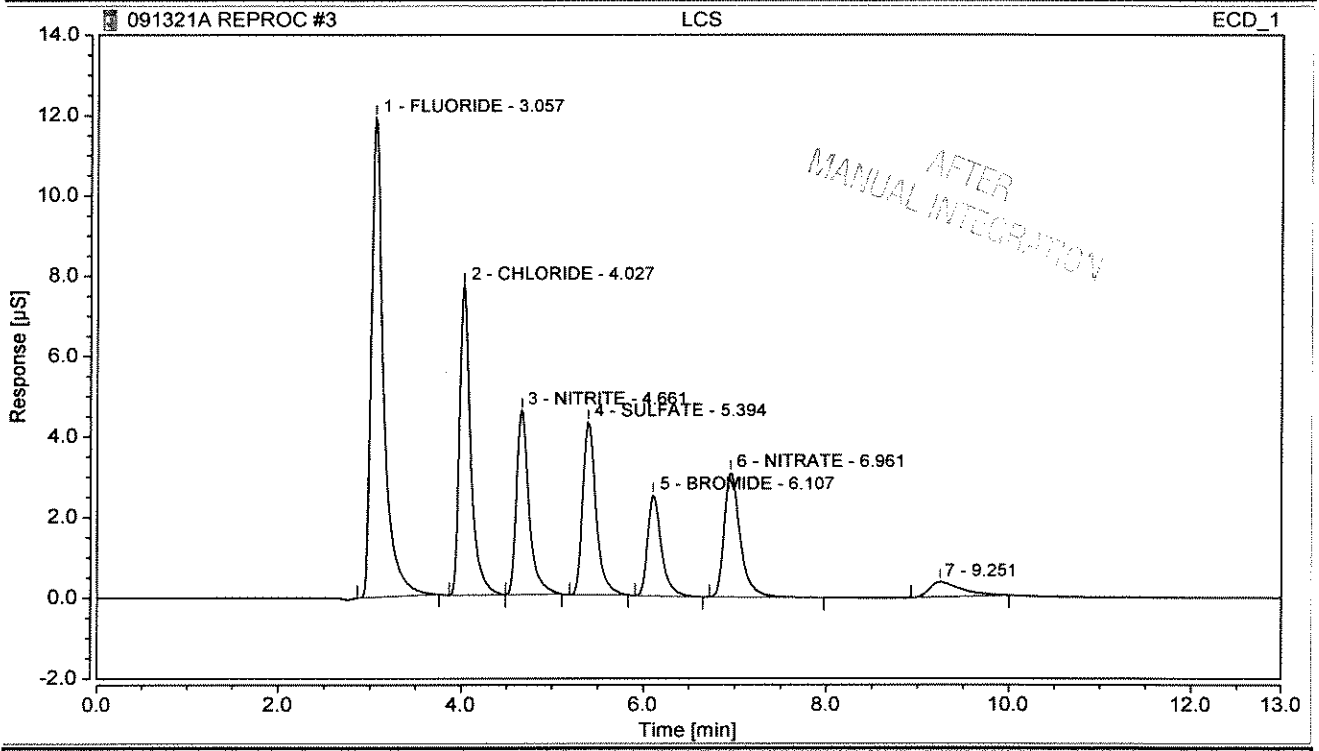
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.866	11.930	33.14	34.65	3.9542	5.4443
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.961	0.628	3.086	11.15	8.96	4.4358	18.2872
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.494**	**15.016**	**44.29**	**43.61**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**3**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 18:19**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

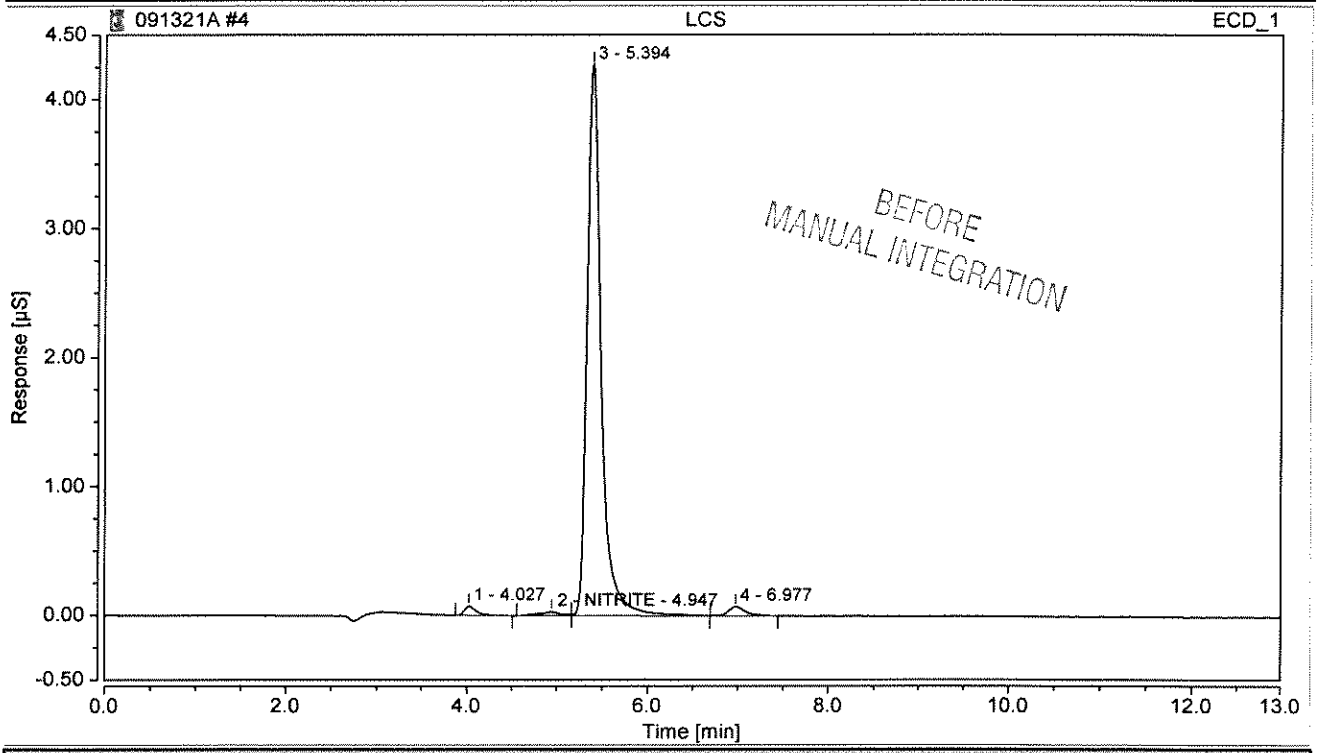
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	1.866	11.930	33.14	34.65	3.9542	5.4443
2	CHLORIDE	4.027	1.083	7.696	19.24	22.35	3.7995	1.3198
3	NITRITE	4.661	0.728	4.565	12.92	13.26	1.1852	3.9673
4	SULFATE	5.394	0.734	4.287	13.04	12.45	3.4392	-8.2884
5	BROMIDE	6.107	0.442	2.496	7.86	7.25	3.5878	-4.3265
6	NITRATE	6.961	0.628	3.086	11.15	8.96	0.8631	2.1478
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.481**	**34.059**	**97.34**	**98.92**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 18:33**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

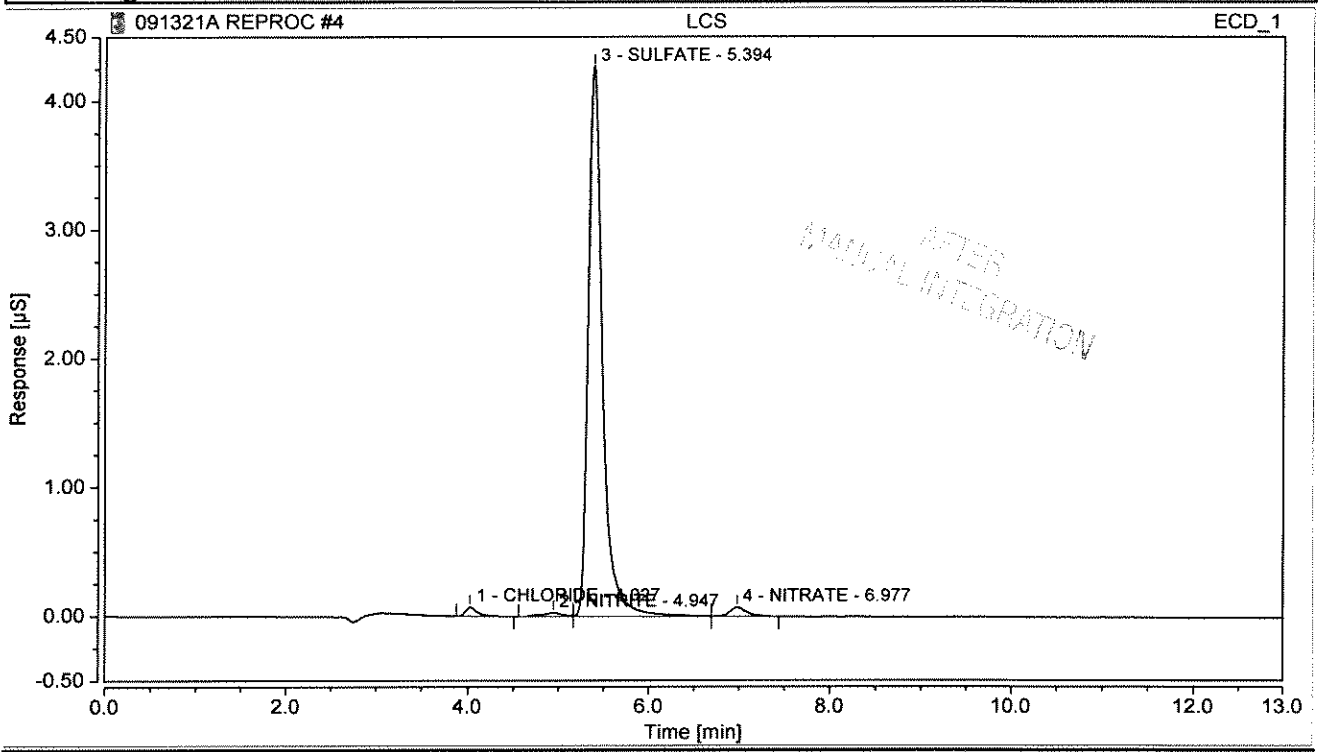
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	NITRITE	4.947	0.008	0.030	1.00	0.68	0.0131	-98.8474
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.008**	**0.030**	**1.00**	**0.68**		

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**12.98**
Vial Number:	**4**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**07**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 18:33**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

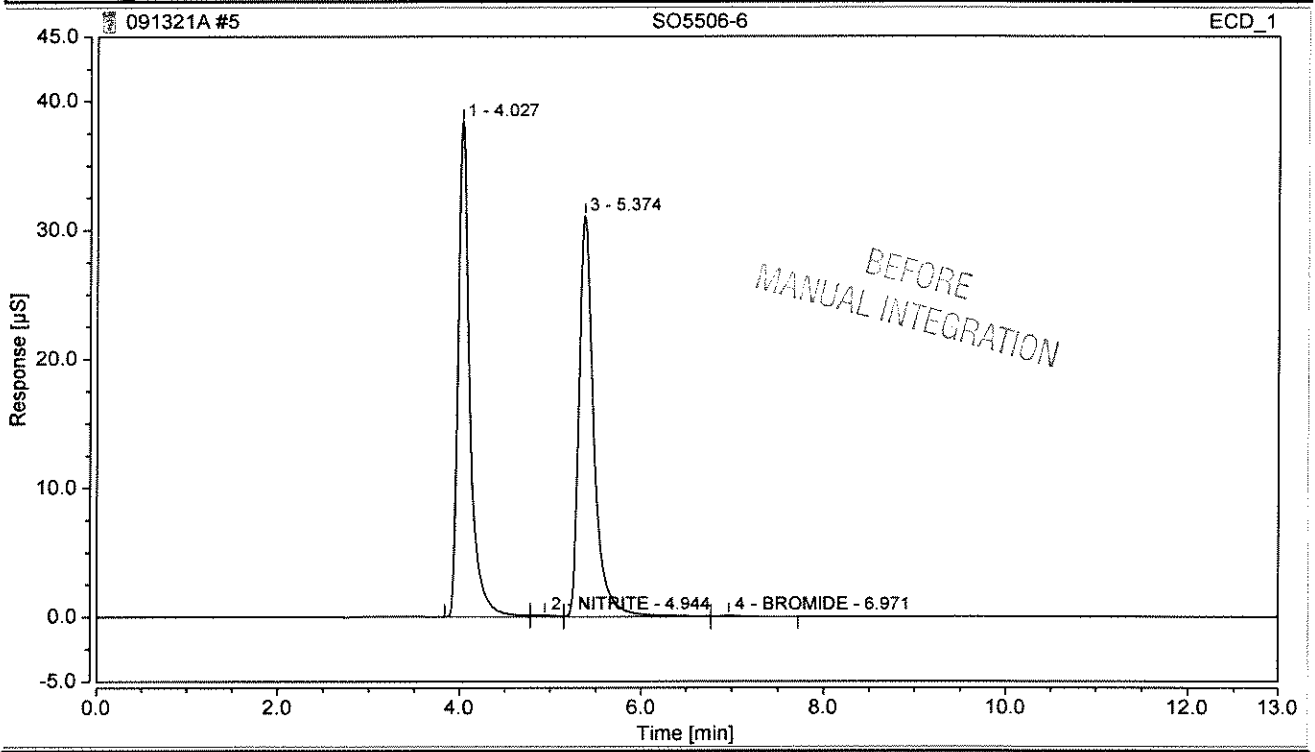
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.027	0.011	0.071	1.37	1.60	0.1278	-96.5920
2	NITRITE	4.947	0.008	0.030	1.00	0.68	0.0131	-98.8474
3	SULFATE	5.394	0.773	4.273	95.63	96.09	3.6196	-3.4765
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	NITRATE	6.977	0.016	0.072	2.00	1.63	0.0502	-94.0563
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.808**	**4.447**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.99**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**20.0**
Injection Date/Time:	**13/Sep/21 18:48**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

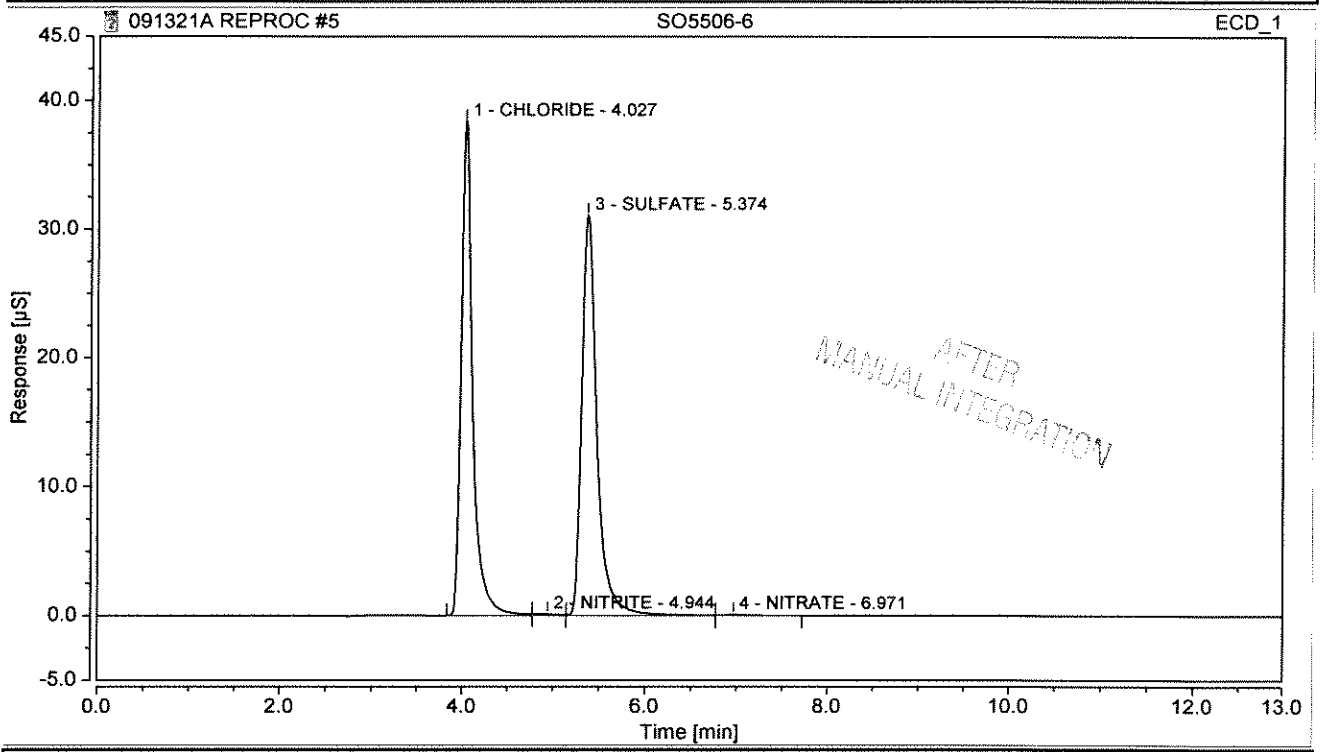
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	NITRITE	4.944	0.032	0.099	0.27	0.14	1.0329	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	BROMIDE	6.971	0.020	0.075	0.17	0.11	2.1450	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.051**	**0.174**	**0.44**	**0.25**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.99**
Vial Number:	**5**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**20.0**
Injection Date/Time:	**13/Sep/21 18:48**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

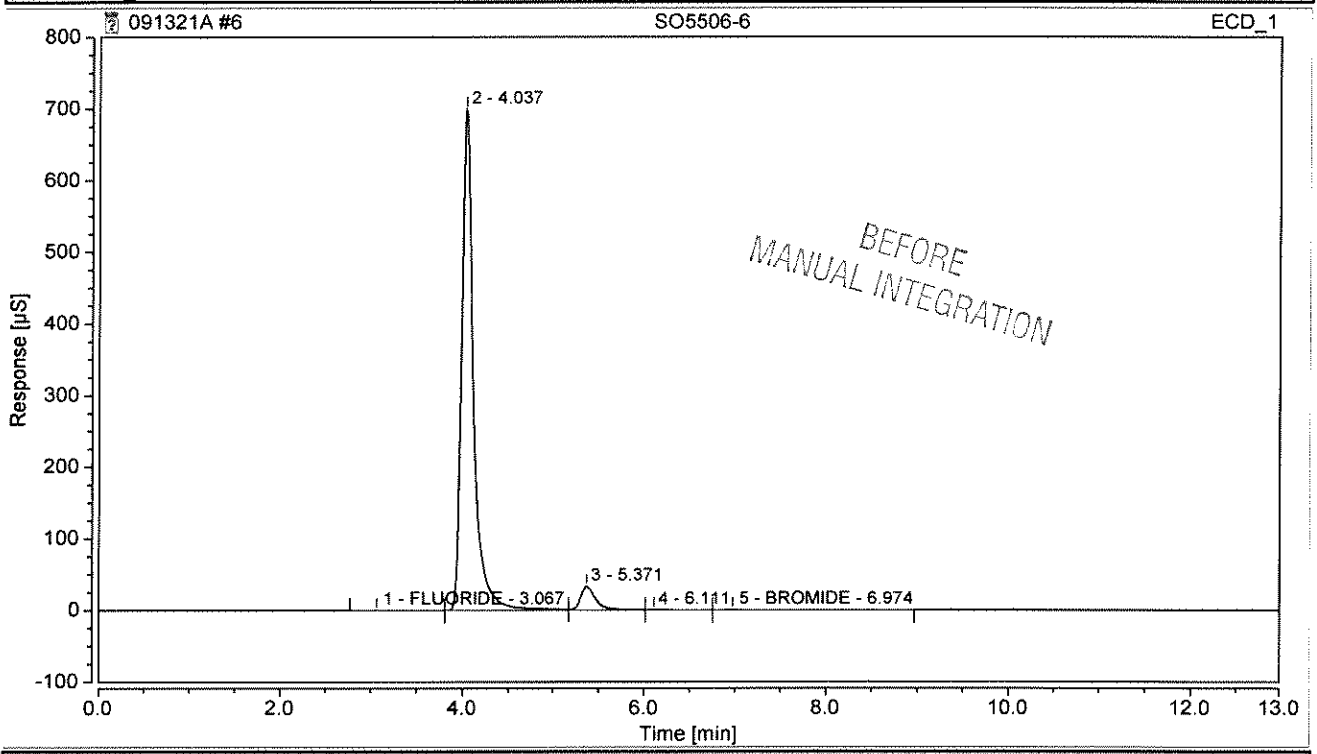
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
n.a.	FLUORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	CHLORIDE	4.027	5.672	38.368	48.58	55.13	390.2783	n.a.
2	NITRITE	4.944	0.032	0.099	0.27	0.14	1.0329	n.a.
3	SULFATE	5.374	5.953	31.055	50.98	44.62	557.8393	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	NITRATE	6.971	0.020	0.075	0.17	0.11	1.0993	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**11.677**	**69.596**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 19:02**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

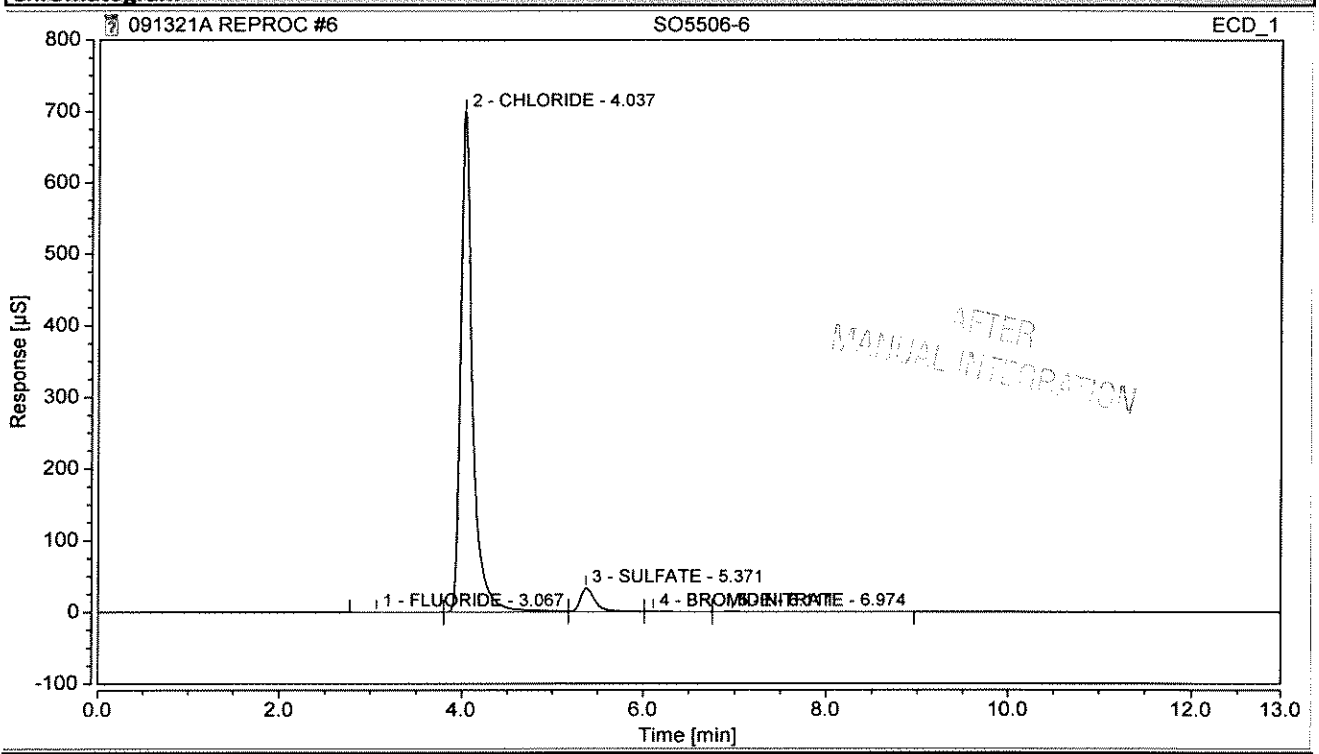
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	0.054	0.150	0.05	0.02	0.1146	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	BROMIDE	6.974	0.069	0.205	0.06	0.03	0.2951	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.123**	**0.355**	**0.11**	**0.05**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5506-6**	*Run Time (min):*	**12.98**
Vial Number:	**6**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 19:02**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

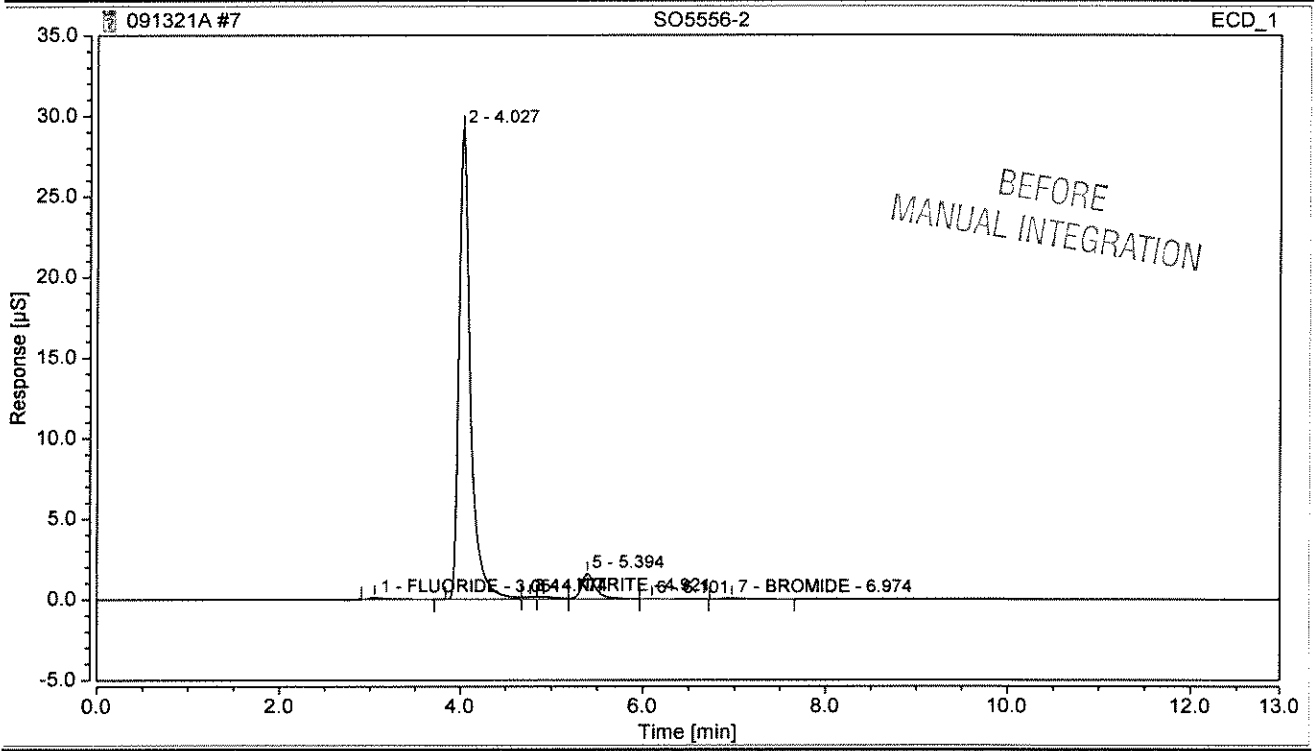
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	0.054	0.150	0.05	0.02	0.1146	n.a.
2	CHLORIDE	4.037	106.577	698.951	94.16	95.40	365.0438	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	5.371	6.391	33.051	5.65	4.51	29.9420	n.a.
4	BROMIDE	6.111	0.101	0.262	0.09	0.04	0.3764	n.a.
5	NITRATE	6.974	0.069	0.205	0.06	0.03	0.1199	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**113.192**	**732.618**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**20.0**
Injection Date/Time:	**13/Sep/21 19:16**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

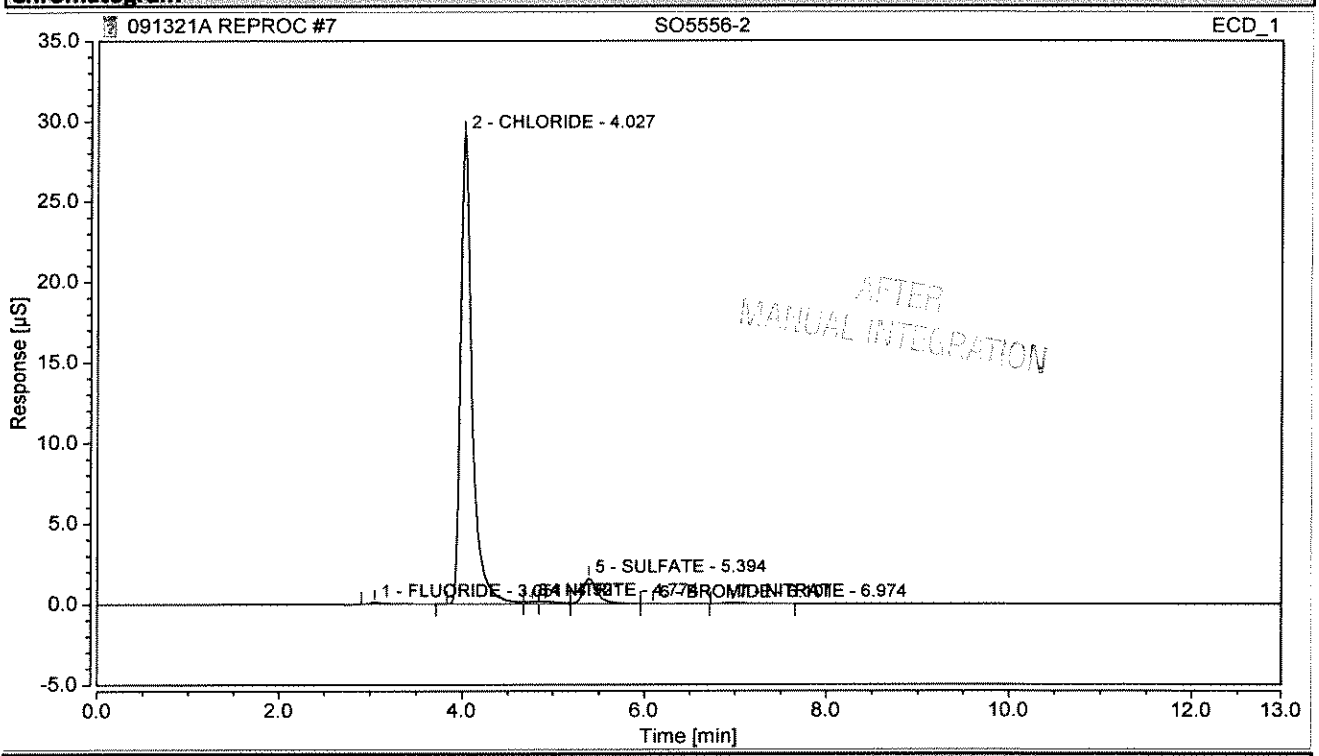
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.022	0.099	0.47	0.32	0.9450	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	NITRITE	4.921	0.035	0.151	0.75	0.48	1.1514	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	BROMIDE	6.974	0.014	0.061	0.30	0.20	1.7653	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.072**	**0.312**	**1.53**	**1.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.98**
Vial Number:	**7**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**20.0**
Injection Date/Time:	**13/Sep/21 19:16**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

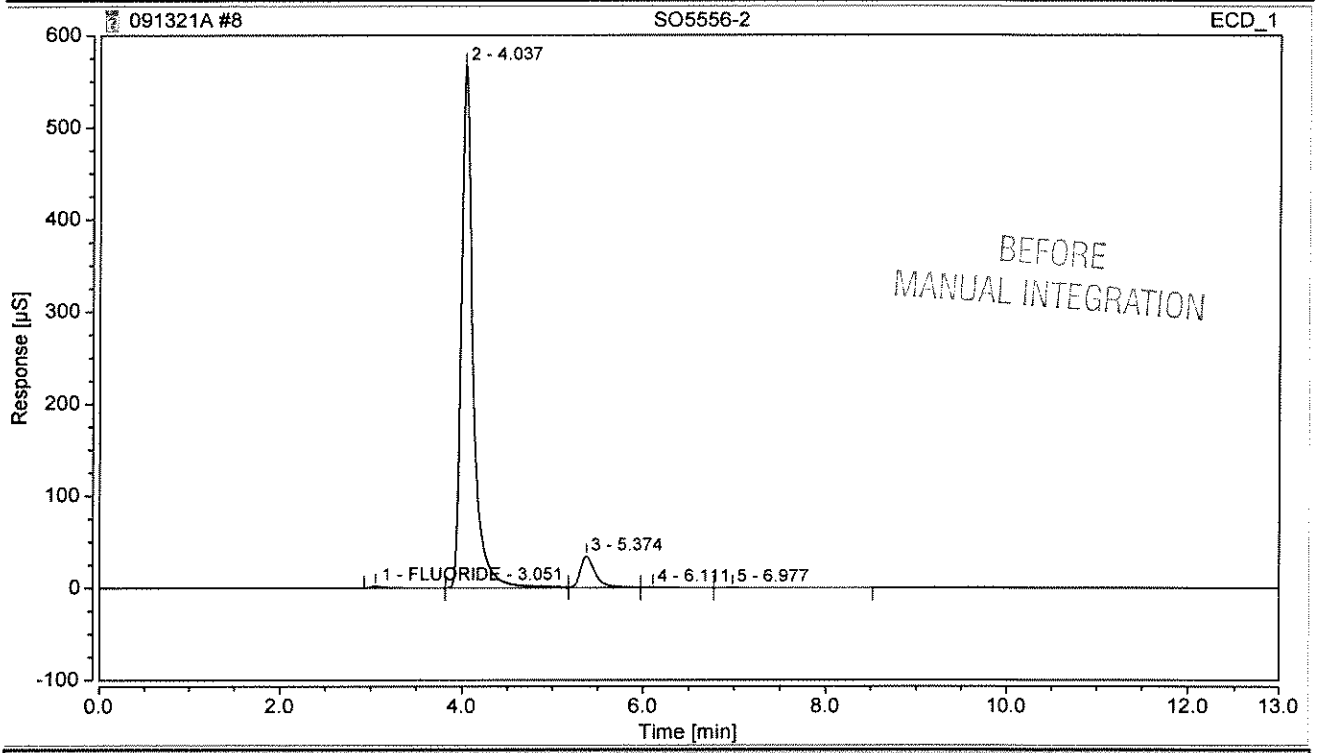
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.022	0.099	0.47	0.32	0.9450	n.a.
2	CHLORIDE	4.027	4.309	29.221	91.68	93.43	296.9230	n.a.
3	NITRITE	4.774	0.023	0.137	0.48	0.44	0.7341	n.a.
5	SULFATE	5.394	0.288	1.581	6.14	5.05	27.0230	n.a.
6	BROMIDE	6.101	0.008	0.024	0.17	0.08	0.6941	n.a.
7	NITRATE	6.974	0.014	0.061	0.30	0.20	0.9522	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.665**	**31.123**	**99.25**	**99.52**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.99**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 19:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

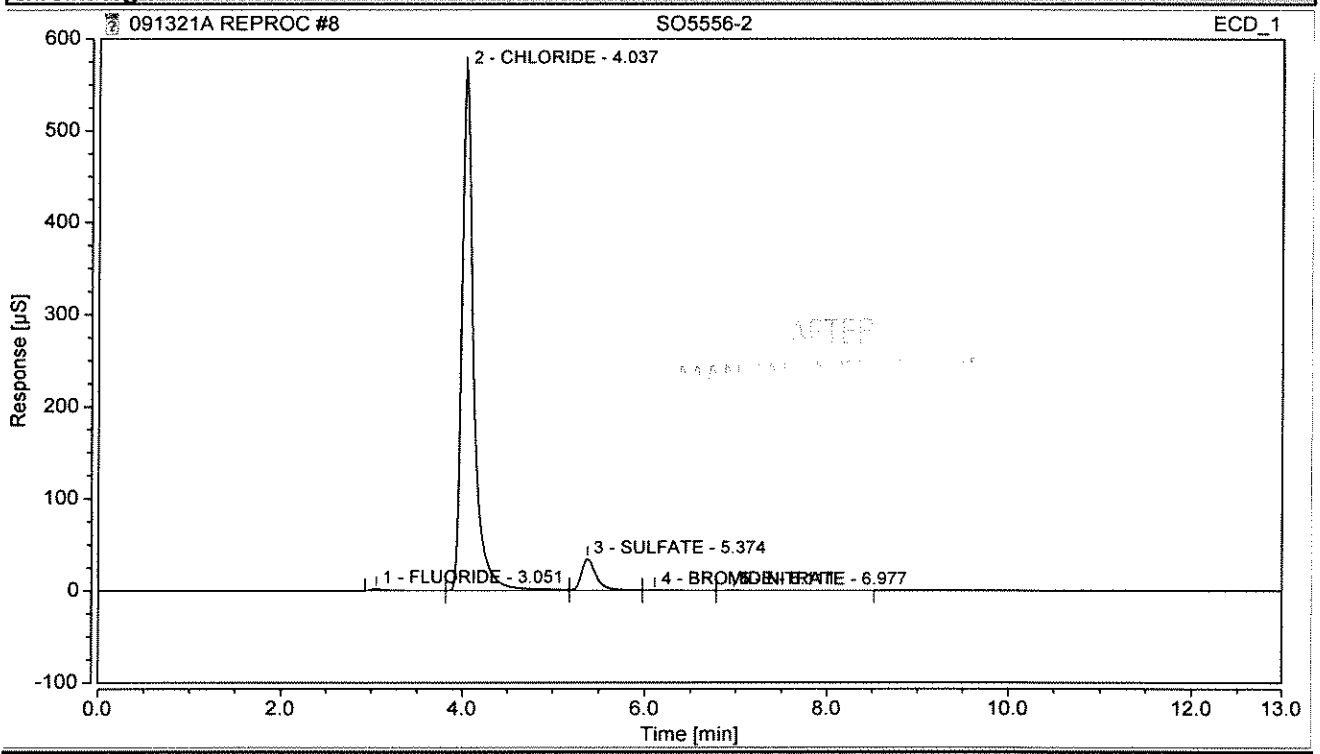
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.333	2.129	0.36	0.35	0.7066	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.333**	**2.129**	**0.36**	**0.35**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5556-2**	*Run Time (min):*	**12.99**
Vial Number:	**8**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 19:31**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

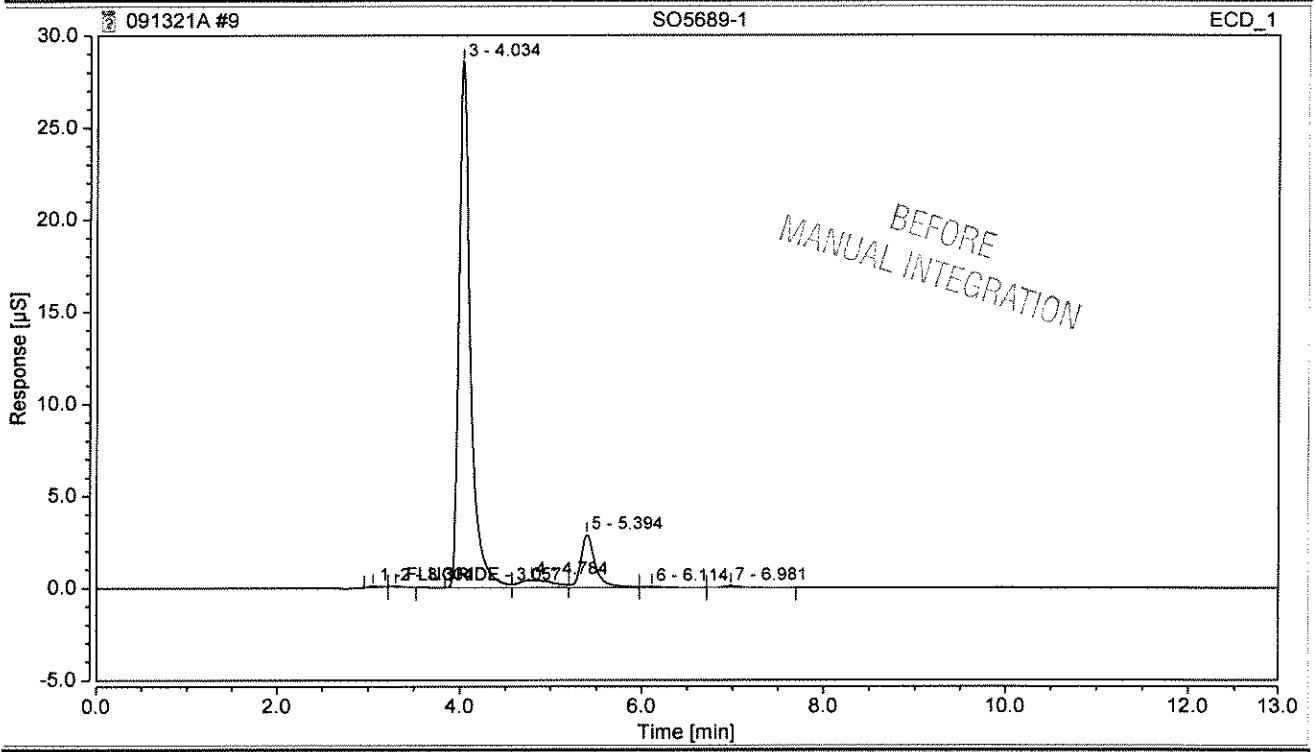
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.051	0.333	2.129	0.36	0.35	0.7066	n.a.
2	CHLORIDE	4.037	86.178	567.177	92.37	93.86	295.1907	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SULFATE	5.374	6.575	34.266	7.05	5.67	30.8031	n.a.
4	BROMIDE	6.111	0.162	0.535	0.17	0.09	0.7695	n.a.
5	NITRATE	6.977	0.049	0.145	0.05	0.02	0.0943	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**93.297**	**604.252**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1**	*Run Time (min):*	**12.98**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 19:45**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

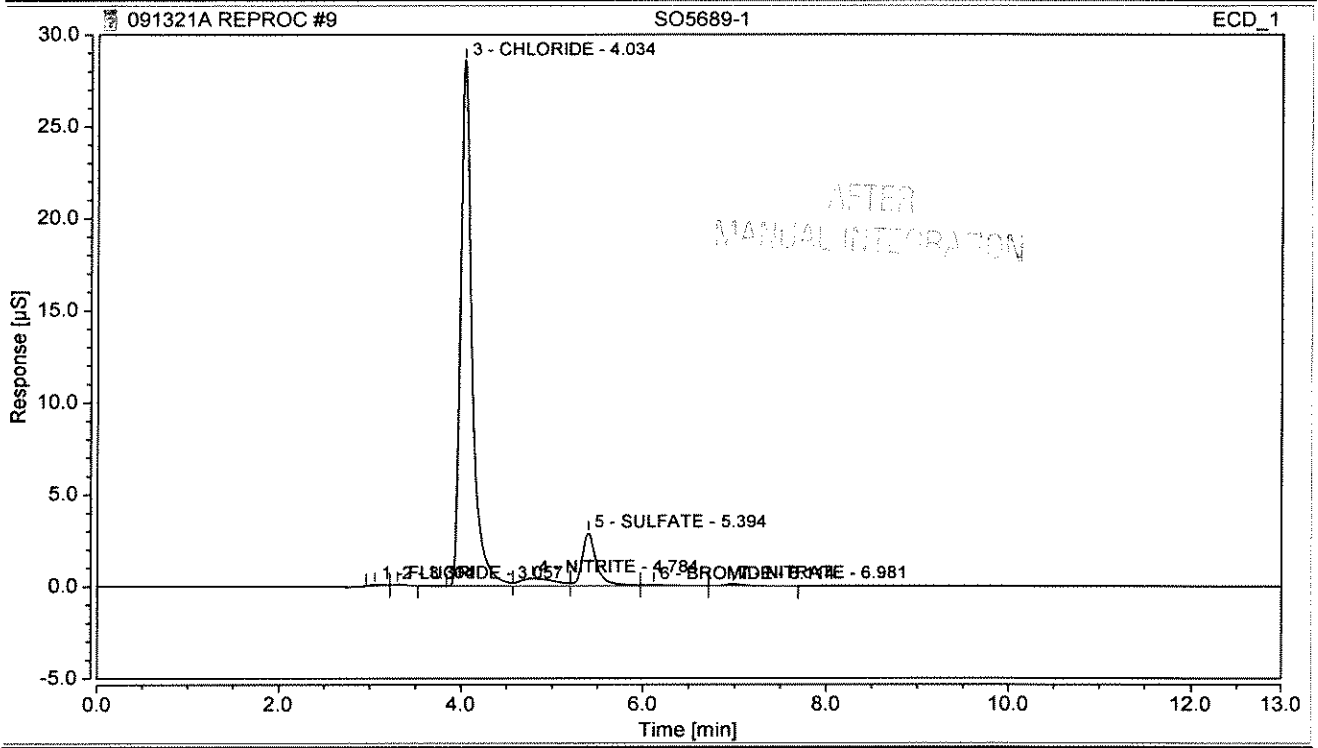
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	0.008	0.063	0.17	0.20	0.0346	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.008**	**0.063**	**0.17**	**0.20**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1**	*Run Time (min):*	**12.98**
Vial Number:	**9**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 19:45**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

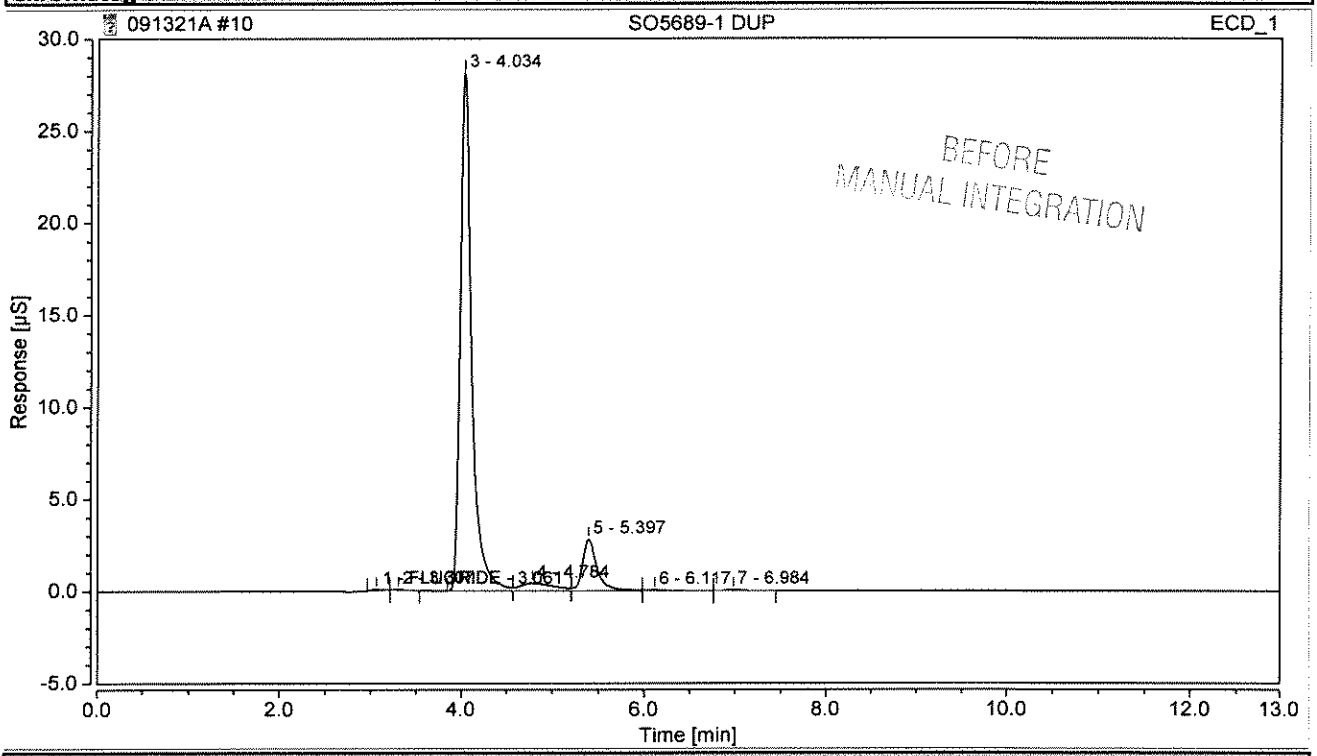
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	0.008	0.063	0.17	0.20	0.0346	n.a.
3	CHLORIDE	4.034	4.175	28.549	84.50	89.02	28.7714	n.a.
4	NITRITE	4.784	0.182	0.410	3.68	1.28	0.5931	n.a.
5	SULFATE	5.394	0.532	2.861	10.77	8.92	4.9867	n.a.
6	BROMIDE	6.114	0.018	0.052	0.36	0.16	0.1497	n.a.
7	NITRATE	6.981	0.020	0.089	0.41	0.28	0.1107	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.935**	**32.024**	**99.89**	**99.86**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1 DUP**	*Run Time (min):*	**12.97**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 19:59**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

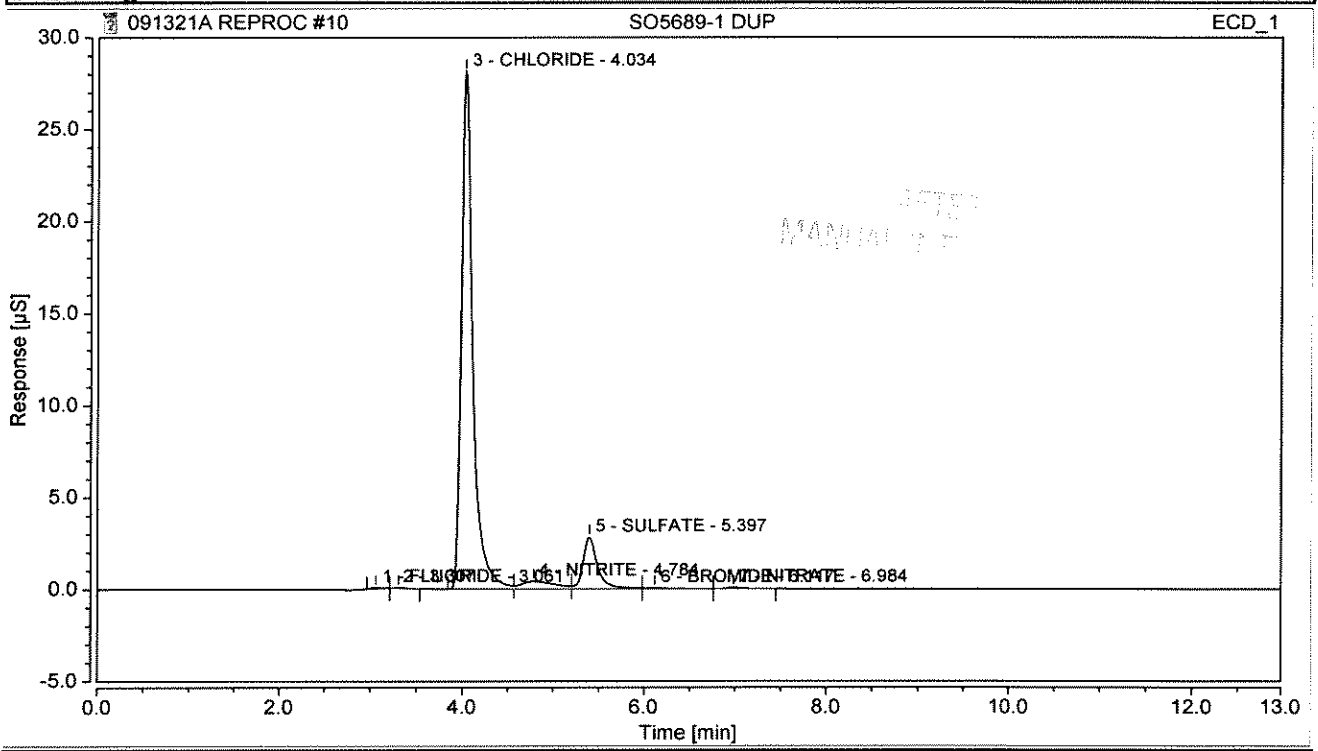
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	0.008	0.058	0.15	0.18	0.0320	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.008**	**0.058**	**0.15**	**0.18**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1 DUP**	*Run Time (min):*	**12.97**
Vial Number:	**10**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 19:59**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

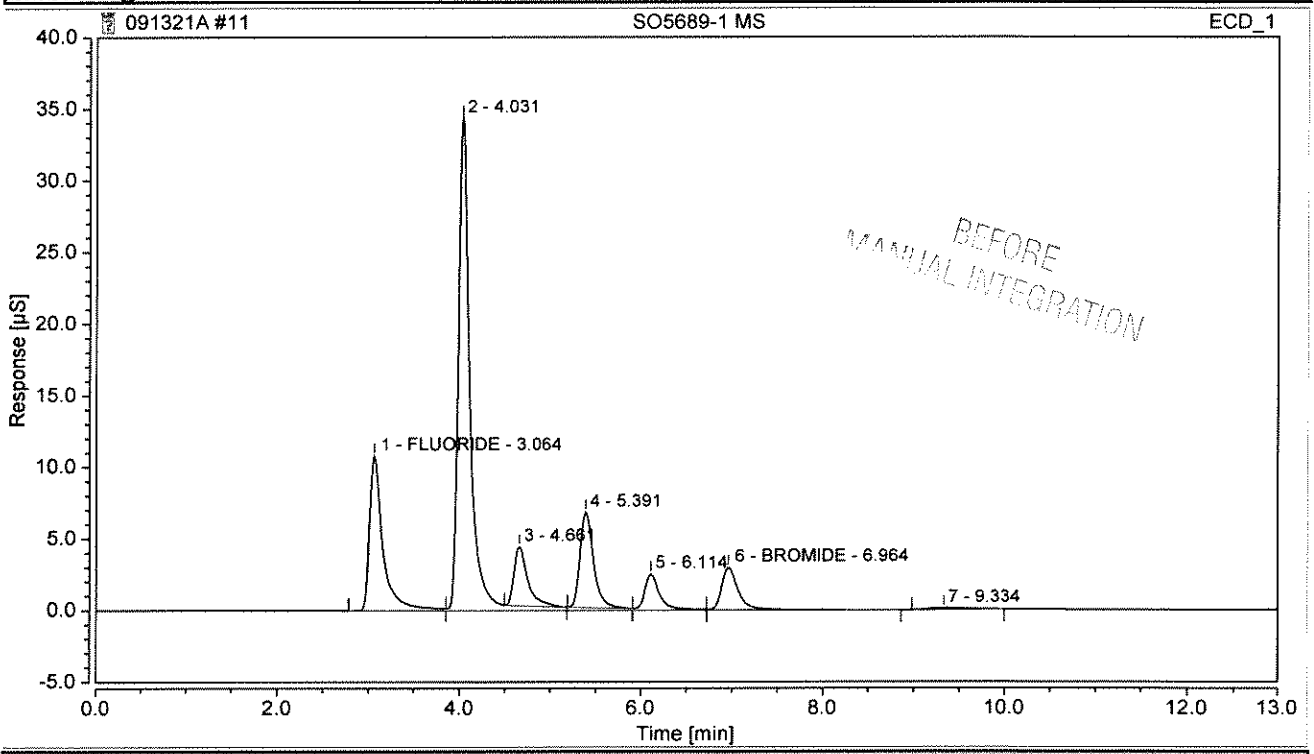
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	0.008	0.058	0.15	0.18	0.0320	n.a.
3	CHLORIDE	4.034	4.127	28.133	84.65	89.13	28.4440	n.a.
4	NITRITE	4.784	0.181	0.411	3.71	1.30	0.5893	n.a.
5	SULFATE	5.397	0.523	2.803	10.72	8.88	4.8980	n.a.
6	BROMIDE	6.117	0.018	0.051	0.37	0.16	0.1479	n.a.
7	NITRATE	6.984	0.014	0.060	0.28	0.19	0.0934	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.870**	**31.517**	**99.88**	**99.85**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1 MS**	*Run Time (min):*	**12.99**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 20:14**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

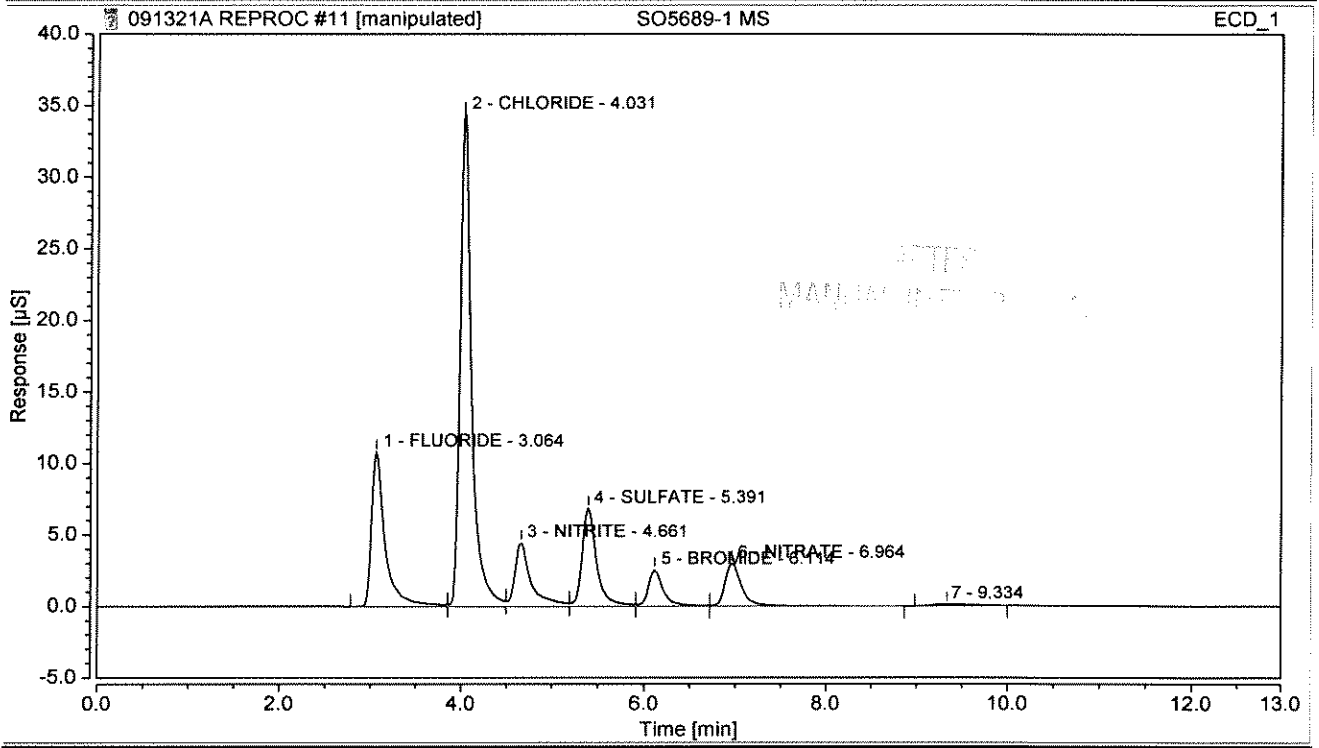
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.064	1.909	10.818	18.33	17.56	8.0905	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.964	0.644	2.985	6.18	4.85	8.5839	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**2.553**	**13.803**	**24.51**	**22.40**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-1 MS**	*Run Time (min):*	**12.99**
Vial Number:	**11**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 20:14**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

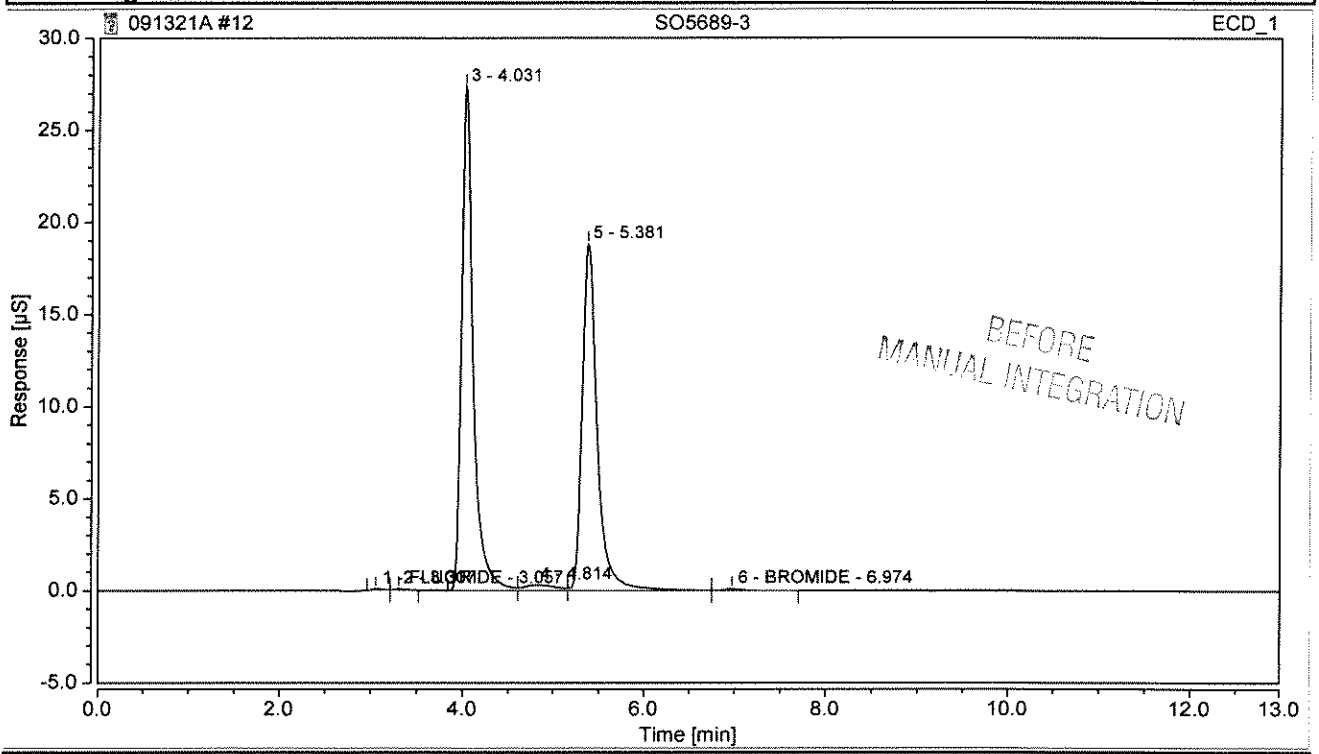
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.064	1.909	10.818	18.33	17.41	8.0905	n.a.
2	CHLORIDE	4.031	5.093	34.385	48.89	55.33	35.0578	n.a.
3	NITRITE	4.661	0.928	4.465	8.91	7.18	3.0250	n.a.
4	SULFATE	5.391	1.296	6.847	12.44	11.02	12.1418	n.a.
5	BROMIDE	6.114	0.497	2.536	4.77	4.08	7.2922	n.a.
6	NITRATE	6.964	0.644	2.985	6.18	4.80	1.7695	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**10.367**	**62.036**	**99.52**	**99.83**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-3**	*Run Time (min):*	**12.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 20:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

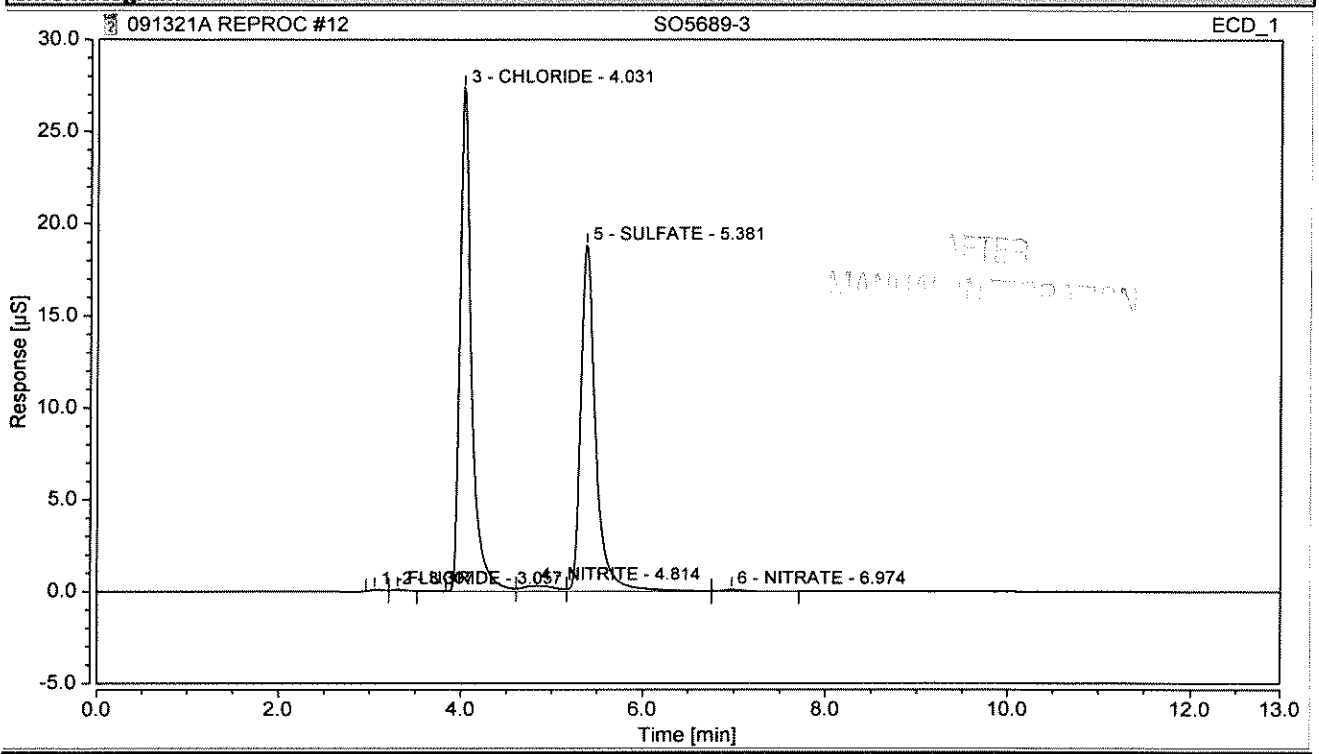
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	0.008	0.067	0.11	0.14	0.0353	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.974	0.024	0.090	0.30	0.19	0.2598	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.032**	**0.157**	**0.41**	**0.34**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-3**	*Run Time (min):*	**12.98**
Vial Number:	**12**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 20:28**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

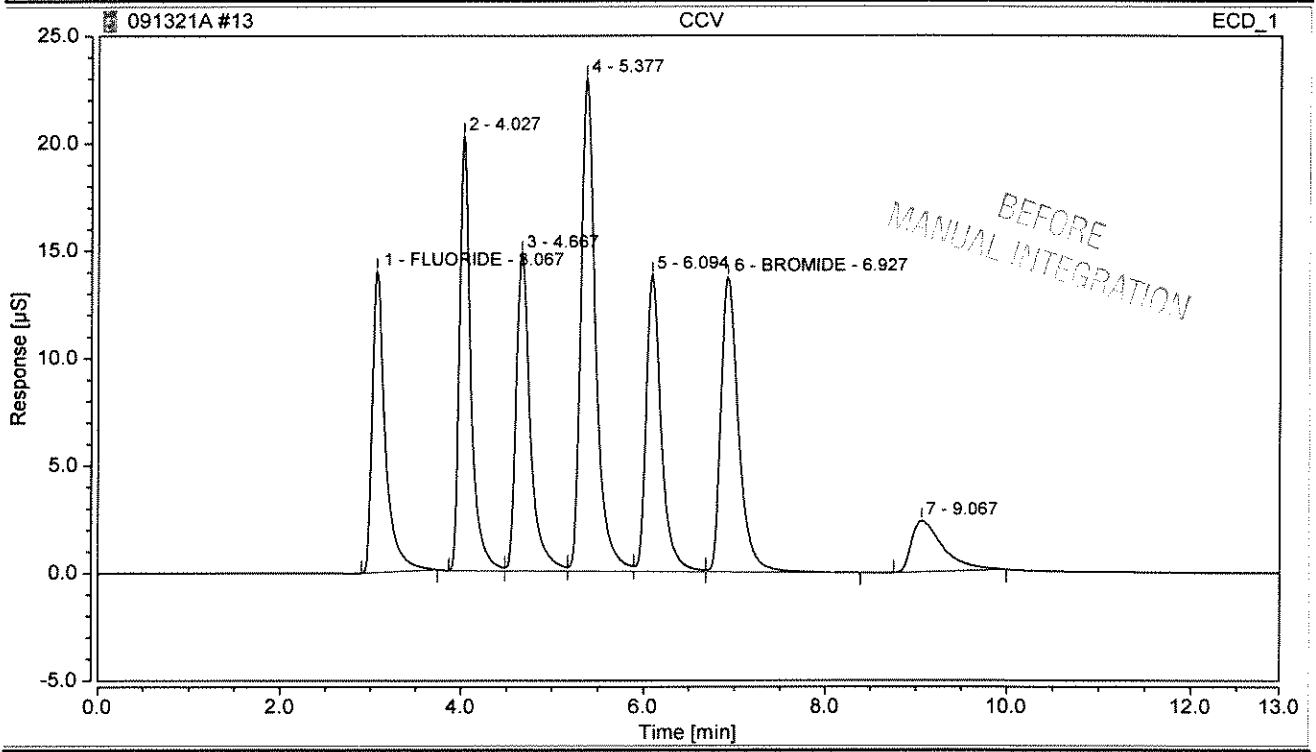
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.057	0.008	0.067	0.11	0.14	0.0353	n.a.
3	CHLORIDE	4.031	4.045	27.347	51.74	58.60	27.8847	n.a.
4	NITRITE	4.814	0.122	0.298	1.56	0.64	0.3977	n.a.
5	SULFATE	5.381	3.613	18.811	46.21	40.31	33.8515	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	NITRATE	6.974	0.024	0.090	0.30	0.19	0.1199	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.812**	**46.613**	**99.92**	**99.88**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 20:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

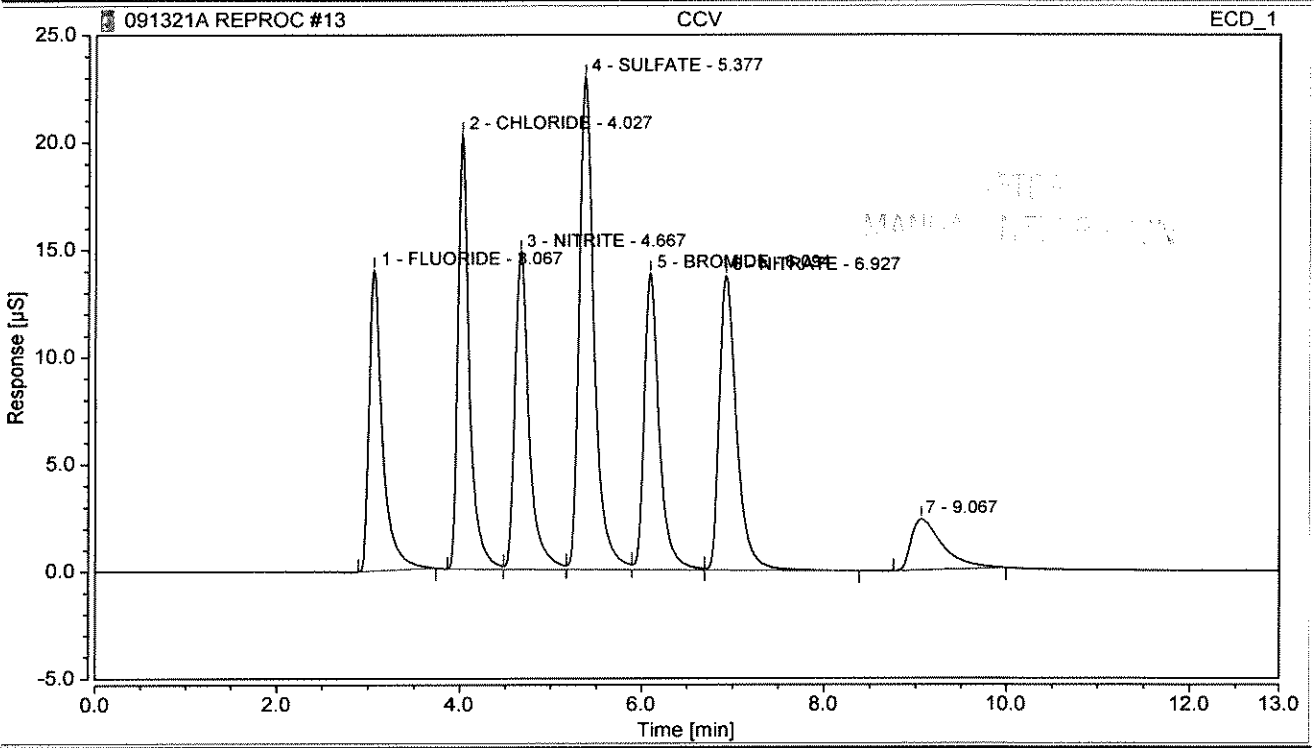
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	2.376	14.030	12.47	13.76	5.0339	0.6772
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.927	3.054	13.727	16.03	13.47	19.7340	-1.3298
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.430**	**27.757**	**28.49**	**27.23**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.98**
Vial Number:	**13**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 20:42**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

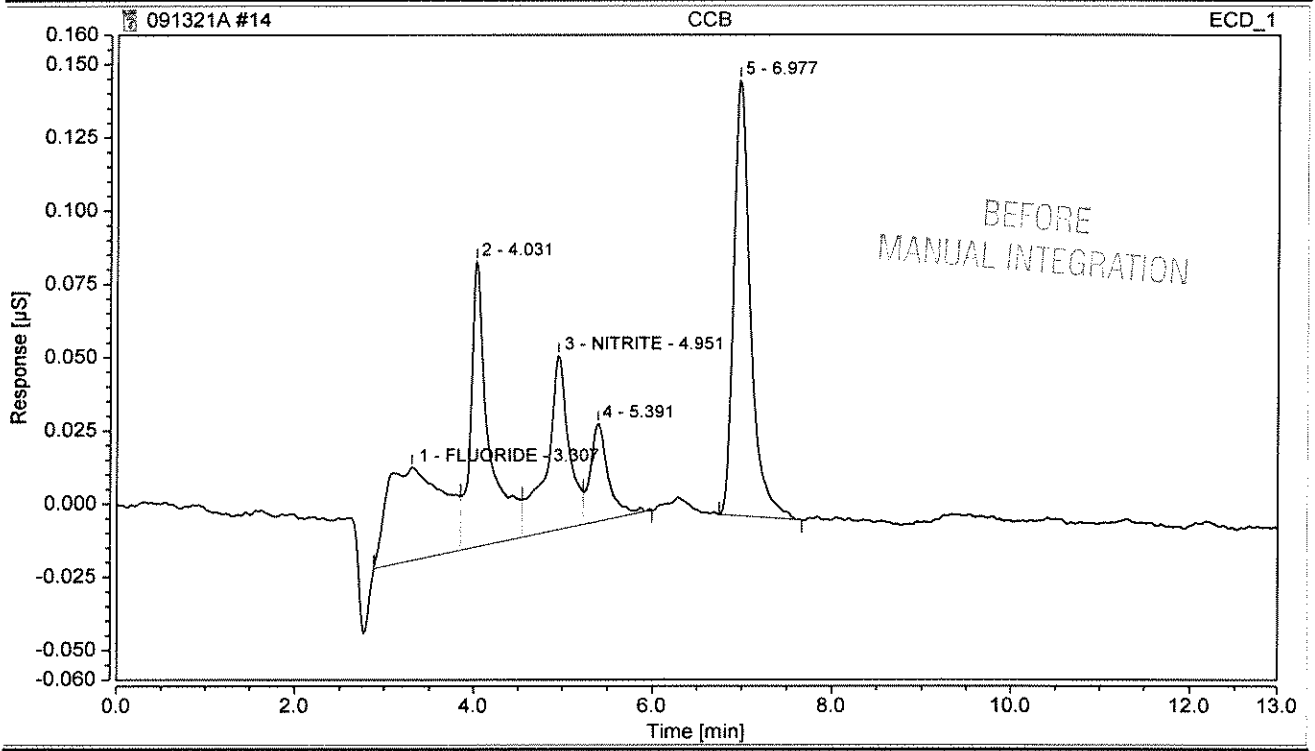
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	2.376	14.030	12.47	13.76	5.0339	0.6772
2	CHLORIDE	4.027	2.956	20.244	15.51	19.86	10.2116	2.1162
3	NITRITE	4.667	2.694	14.779	14.14	14.50	4.3895	9.7368
4	SULFATE	5.377	4.356	22.952	22.86	22.52	20.4081	2.0406
5	BROMIDE	6.094	2.667	13.821	14.00	13.56	19.8692	-0.6542
6	NITRATE	6.927	3.054	13.727	16.03	13.47	4.0887	2.2167
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.103**	**99.553**	**95.00**	**97.67**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 20:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

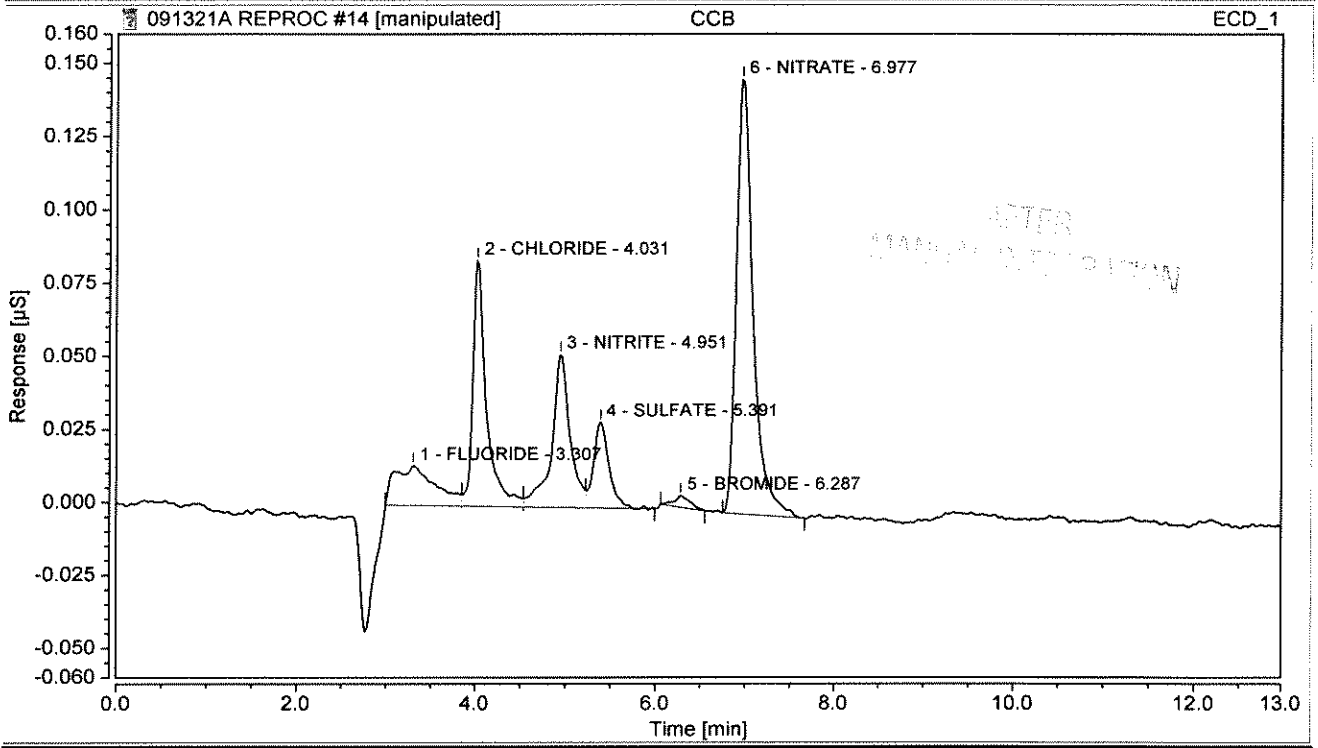
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.307	0.023	0.032	22.19	8.60	0.0490	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	NITRITE	4.951	0.018	0.059	16.80	16.03	0.0285	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.041**	**0.091**	**38.99**	**24.63**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**14**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 20:57**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

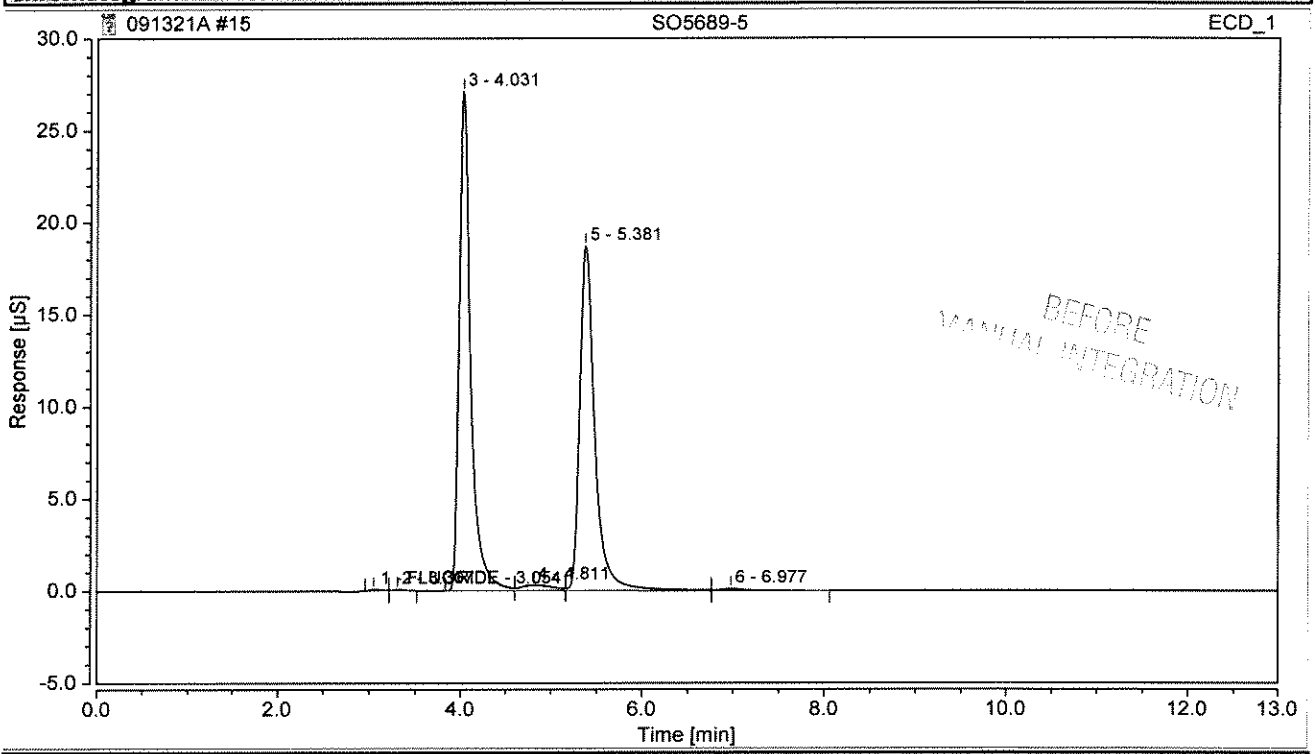
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.307	0.007	0.014	9.77	4.11	0.0152	n.a.
2	CHLORIDE	4.031	0.015	0.084	20.29	25.35	0.1411	n.a.
3	NITRITE	4.951	0.012	0.052	16.73	15.77	0.0201	n.a.
4	SULFATE	5.391	0.006	0.029	8.02	8.83	0.0277	n.a.
5	BROMIDE	6.287	0.001	0.004	1.14	1.19	0.0057	n.a.
6	NITRATE	6.977	0.032	0.149	44.04	44.75	0.0718	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.074**	**0.332**	**100.00**	**100.00**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-5**	*Run Time (min):*	**12.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:11**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

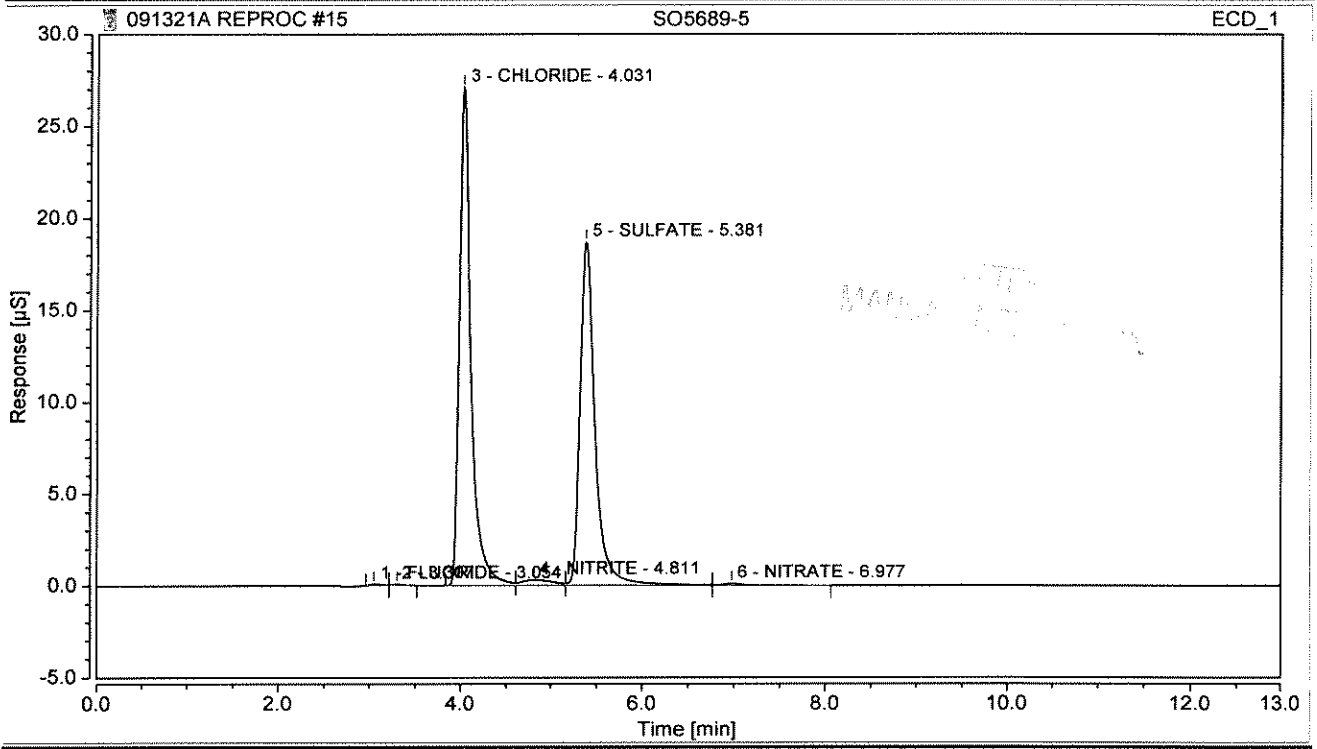
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.009	0.068	0.11	0.15	0.0361	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.009**	**0.068**	**0.11**	**0.15**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-5**	*Run Time (min):*	**12.98**
Vial Number:	**15**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:11**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

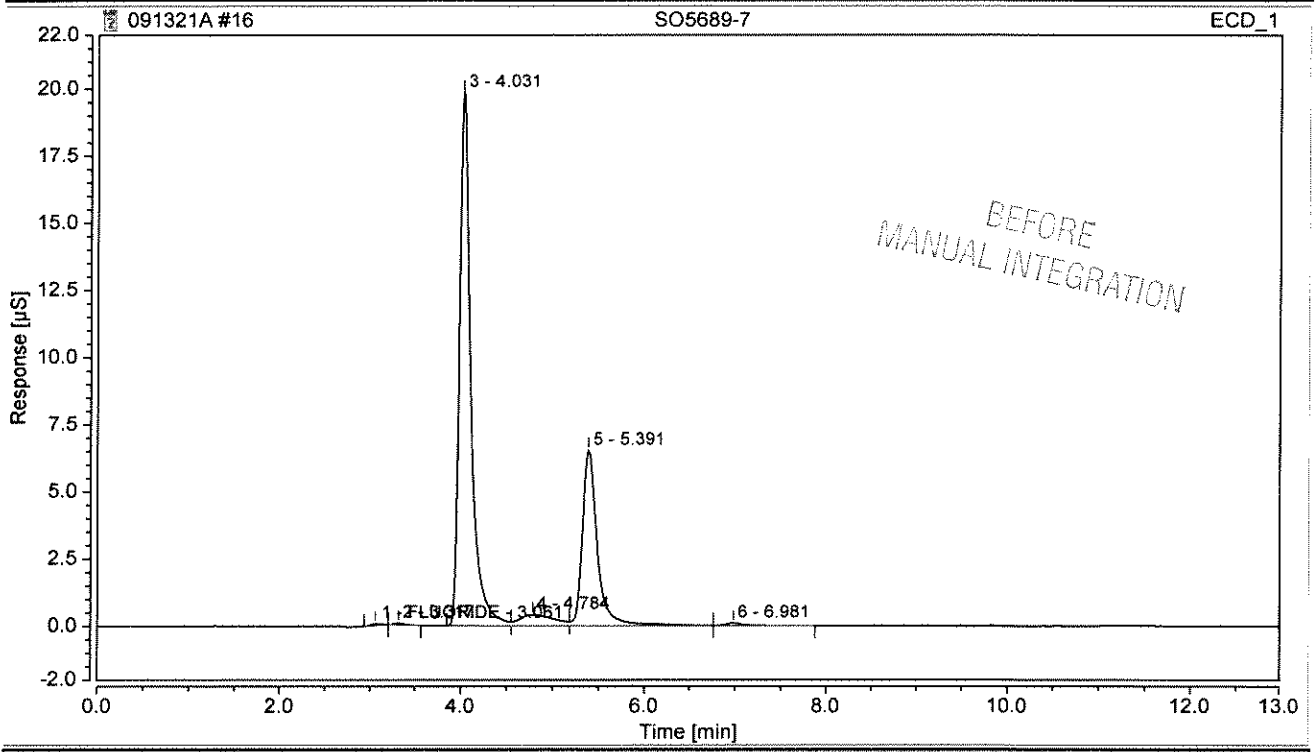
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.009	0.068	0.11	0.15	0.0361	n.a.
3	CHLORIDE	4.031	4.024	27.106	51.55	58.48	27.7366	n.a.
4	NITRITE	4.811	0.125	0.306	1.60	0.66	0.4059	n.a.
5	SULFATE	5.381	3.615	18.719	46.31	40.39	33.8703	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	NITRATE	6.977	0.028	0.104	0.36	0.22	0.1320	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**7.800**	**46.302**	**99.93**	**99.90**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-7**	*Run Time (min):*	**12.98**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

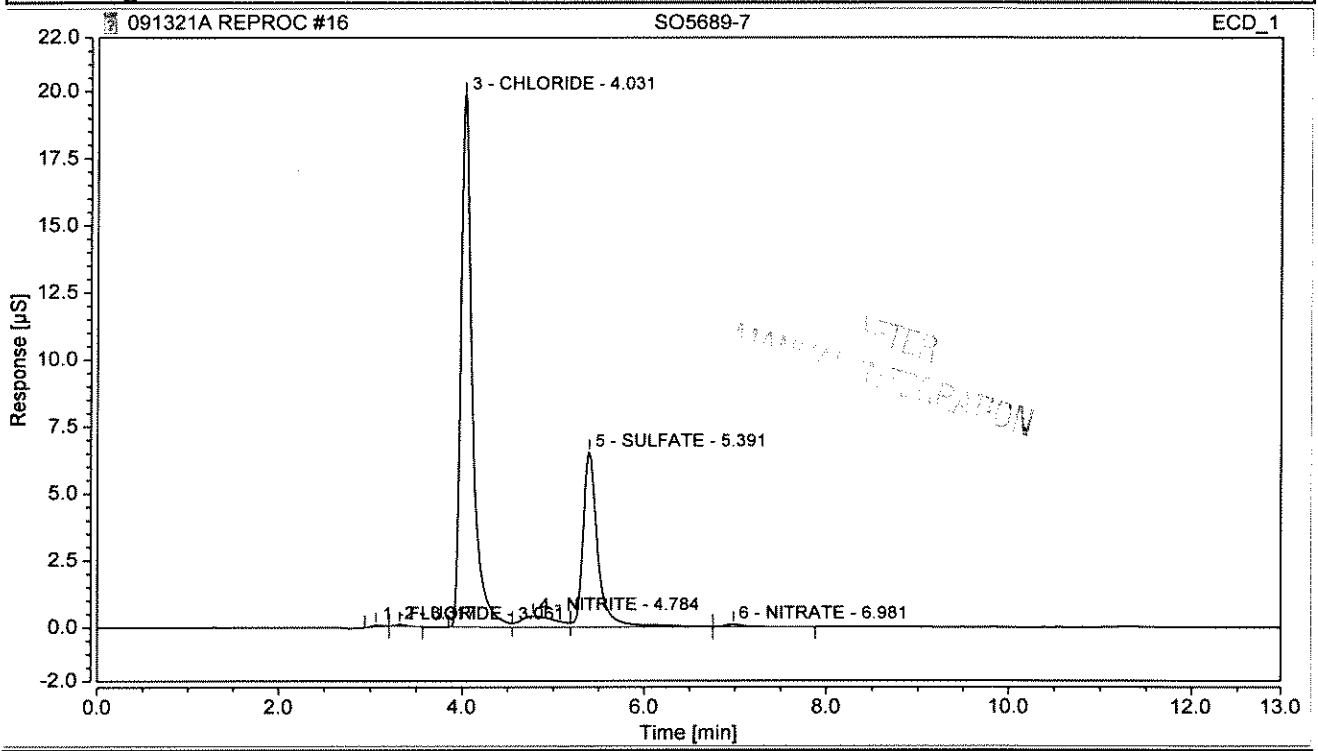
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	0.007	0.057	0.17	0.21	0.0316	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.007**	**0.057**	**0.17**	**0.21**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-7**	*Run Time (min):*	**12.98**
Vial Number:	**16**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:25**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

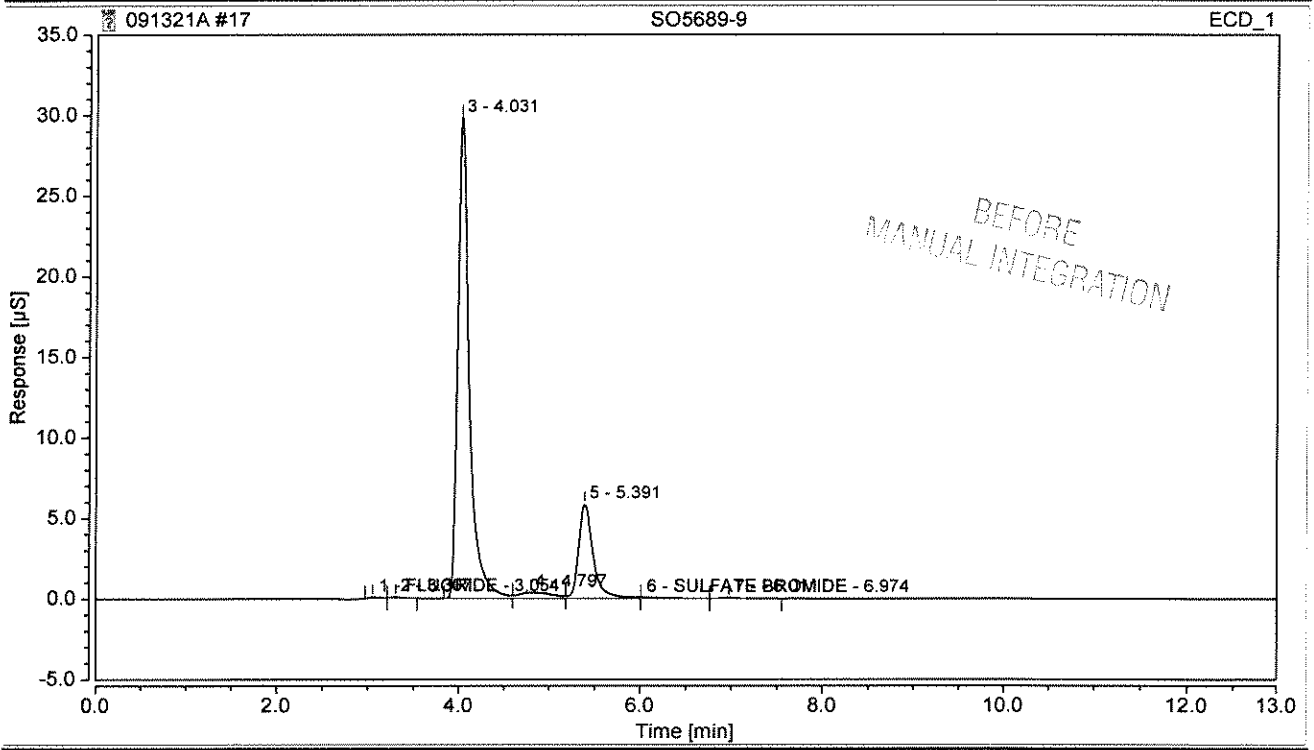
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	0.007	0.057	0.17	0.21	0.0316	n.a.
3	CHLORIDE	4.031	2.931	19.844	66.75	73.53	20.2549	n.a.
4	NITRITE	4.784	0.176	0.404	4.02	1.50	0.5747	n.a.
5	SULFATE	5.391	1.245	6.525	28.35	24.18	11.6632	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	NITRATE	6.981	0.023	0.091	0.51	0.34	0.1175	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.382**	**26.921**	**99.80**	**99.76**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-9**	*Run Time (min):*	**12.98**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

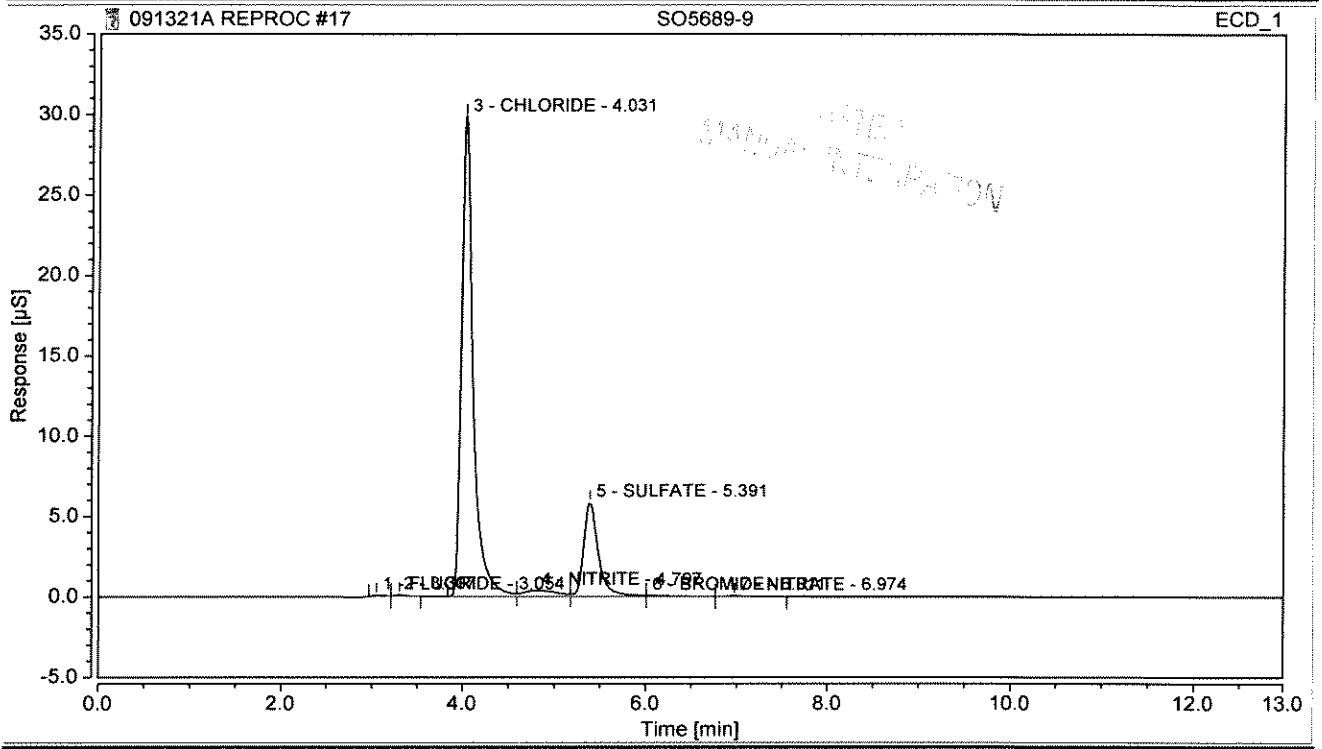
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.009	0.071	0.15	0.20	0.0372	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	SULFATE	6.011	0.023	0.060	0.39	0.17	0.2111	n.a.
7	BROMIDE	6.974	0.011	0.045	0.20	0.12	0.1297	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.043**	**0.177**	**0.75**	**0.49**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5689-9**	*Run Time (min):*	**12.98**
Vial Number:	**17**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:39**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

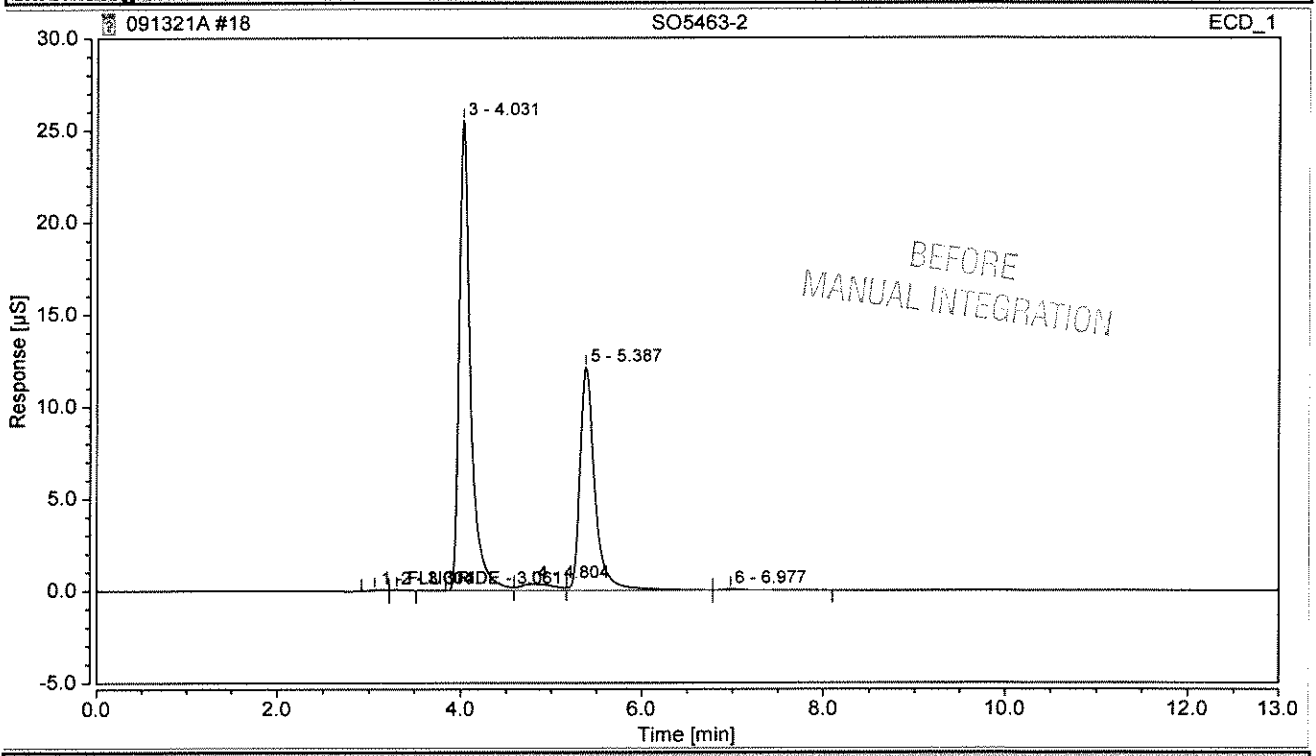
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.054	0.009	0.071	0.15	0.20	0.0372	n.a.
3	CHLORIDE	4.031	4.431	29.836	77.30	82.19	30.5249	n.a.
4	NITRITE	4.797	0.160	0.369	2.79	1.02	0.5212	n.a.
5	SULFATE	5.391	1.091	5.854	19.04	16.13	10.2263	n.a.
6	BROMIDE	6.011	0.023	0.060	0.39	0.17	0.1727	n.a.
7	NITRATE	6.974	0.011	0.045	0.20	0.12	0.0879	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.725**	**36.236**	**99.87**	**99.82**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2**	*Run Time (min):*	**12.99**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

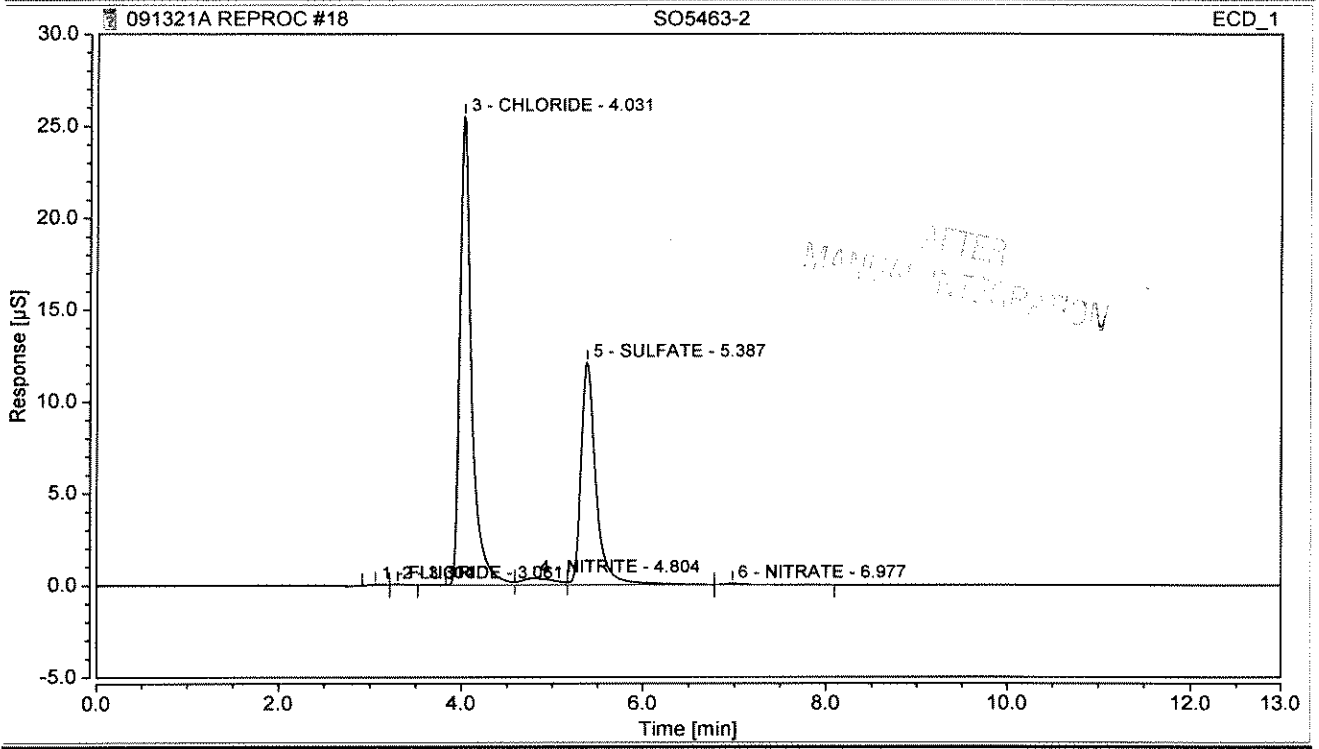
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	0.007	0.046	0.10	0.12	0.0279	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.007**	**0.046**	**0.10**	**0.12**		

Chromatogram and Results

Injection Details

Injection Name:	**SO5463-2**	*Run Time (min):*	**12.99**
Vial Number:	**18**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**2.0**
Injection Date/Time:	**13/Sep/21 21:54**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

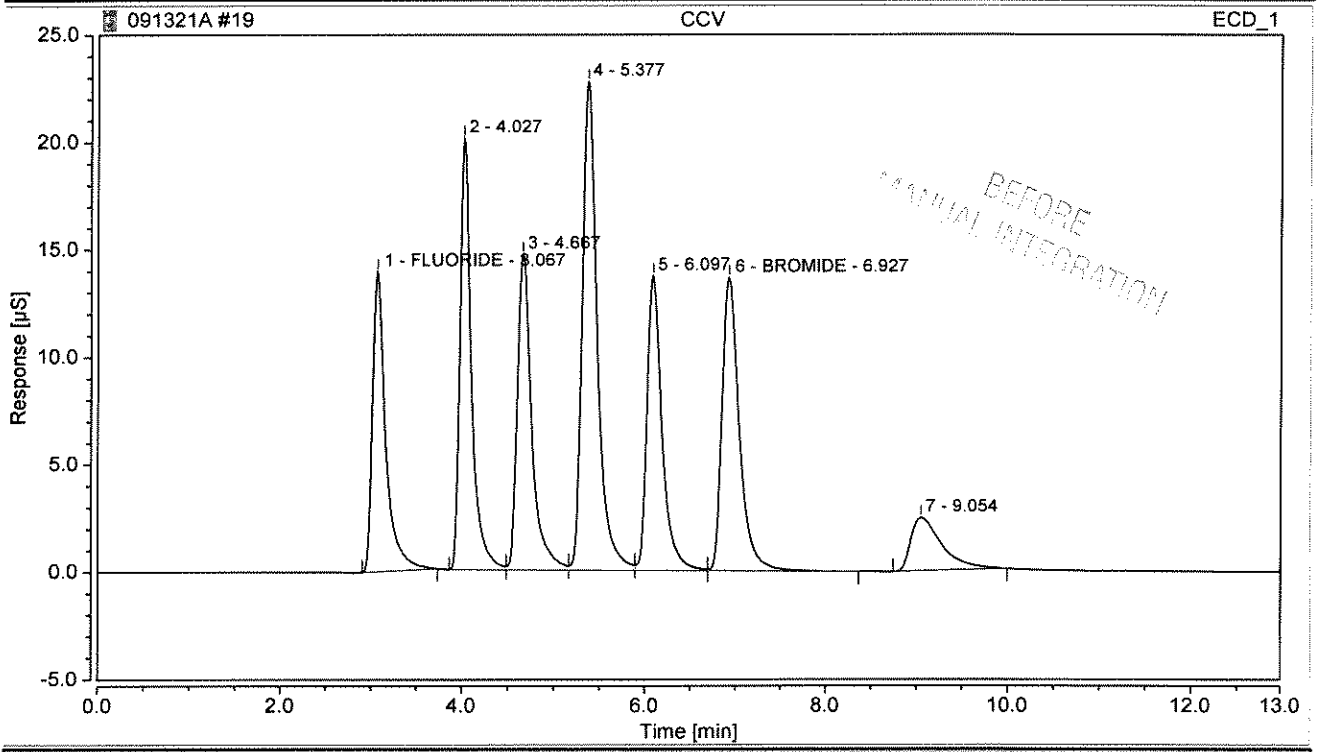
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.061	0.007	0.046	0.10	0.12	0.0279	n.a.
3	CHLORIDE	4.031	3.797	25.496	60.26	66.92	26.1827	n.a.
4	NITRITE	4.804	0.151	0.356	2.40	0.93	0.4928	n.a.
5	SULFATE	5.387	2.325	12.106	36.90	31.78	21.7870	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	NITRATE	6.977	0.017	0.062	0.27	0.16	0.1033	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**6.297**	**38.066**	**99.94**	**99.92**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.99**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 22:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

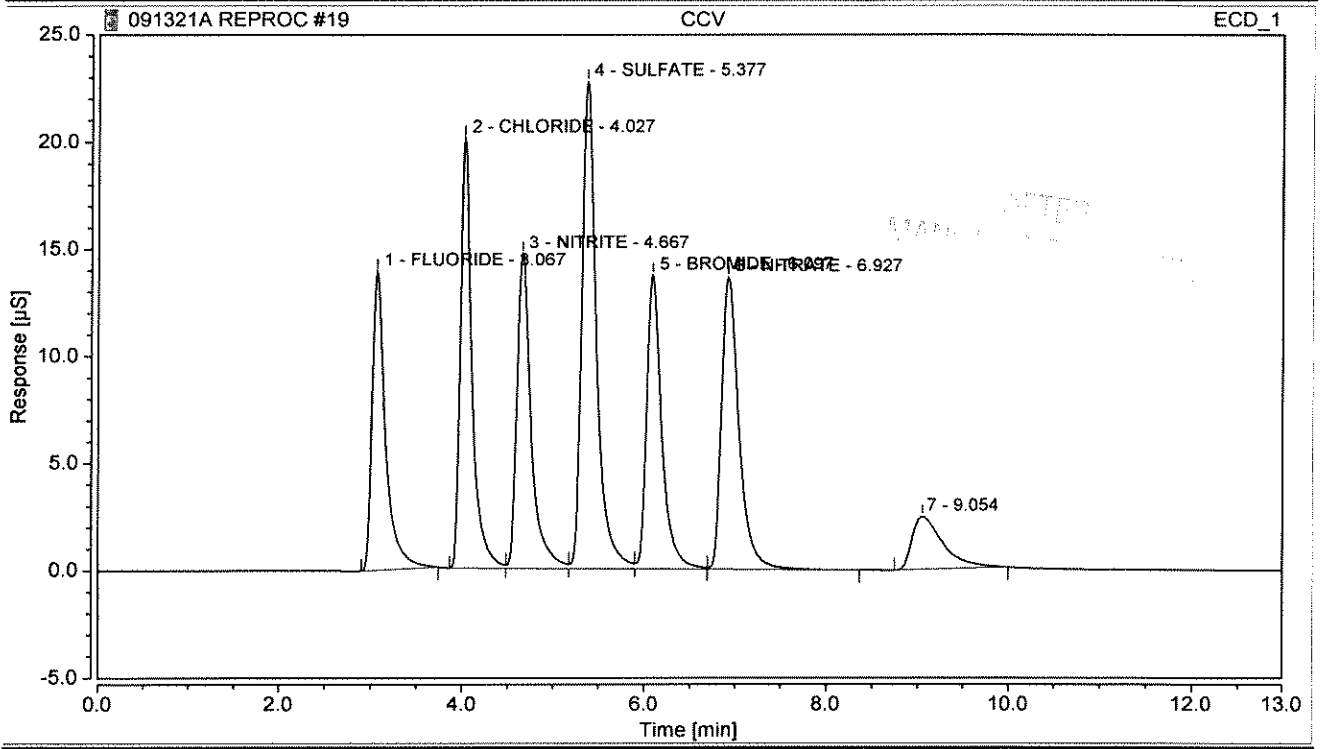
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	2.374	13.955	12.48	13.78	5.0293	0.5856
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRITE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	BROMIDE	6.927	3.048	13.629	16.02	13.46	19.5935	-2.0324
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**5.422**	**27.584**	**28.50**	**27.25**		

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**12.99**
Vial Number:	**19**	*Injection Volume:*	**200.00**
Injection Type:	**Check Standard**	*Channel:*	**ECD_1**
Calibration Level:	**06**	*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMisocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 22:08**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

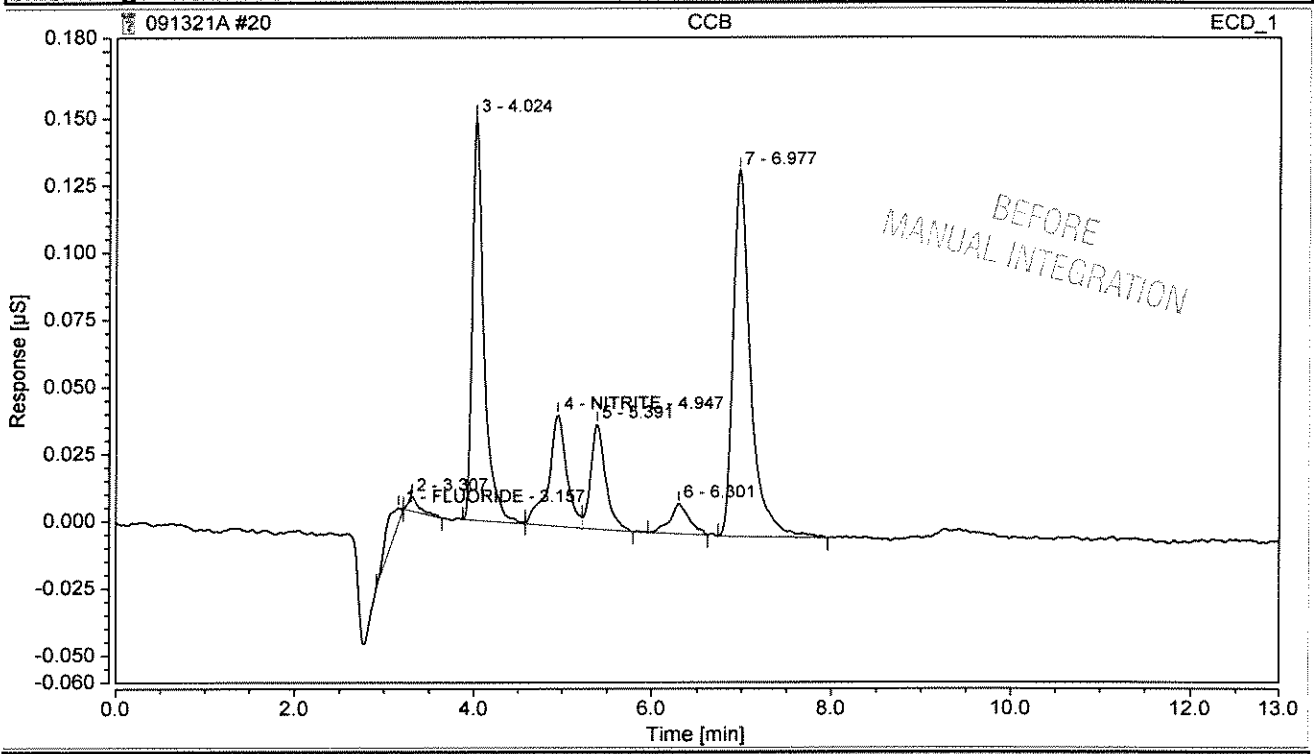
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.067	2.374	13.955	12.48	13.78	5.0293	0.5856
2	CHLORIDE	4.027	2.938	20.079	15.45	19.83	10.1523	1.5226
3	NITRITE	4.667	2.692	14.675	14.15	14.50	4.3856	9.6396
4	SULFATE	5.377	4.329	22.722	22.76	22.44	20.2809	1.4045
5	BROMIDE	6.097	2.664	13.711	14.00	13.54	19.7105	-1.4477
6	NITRATE	6.927	3.048	13.629	16.02	13.46	4.0804	2.0104
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**18.045**	**98.771**	**94.87**	**97.56**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 22:22**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

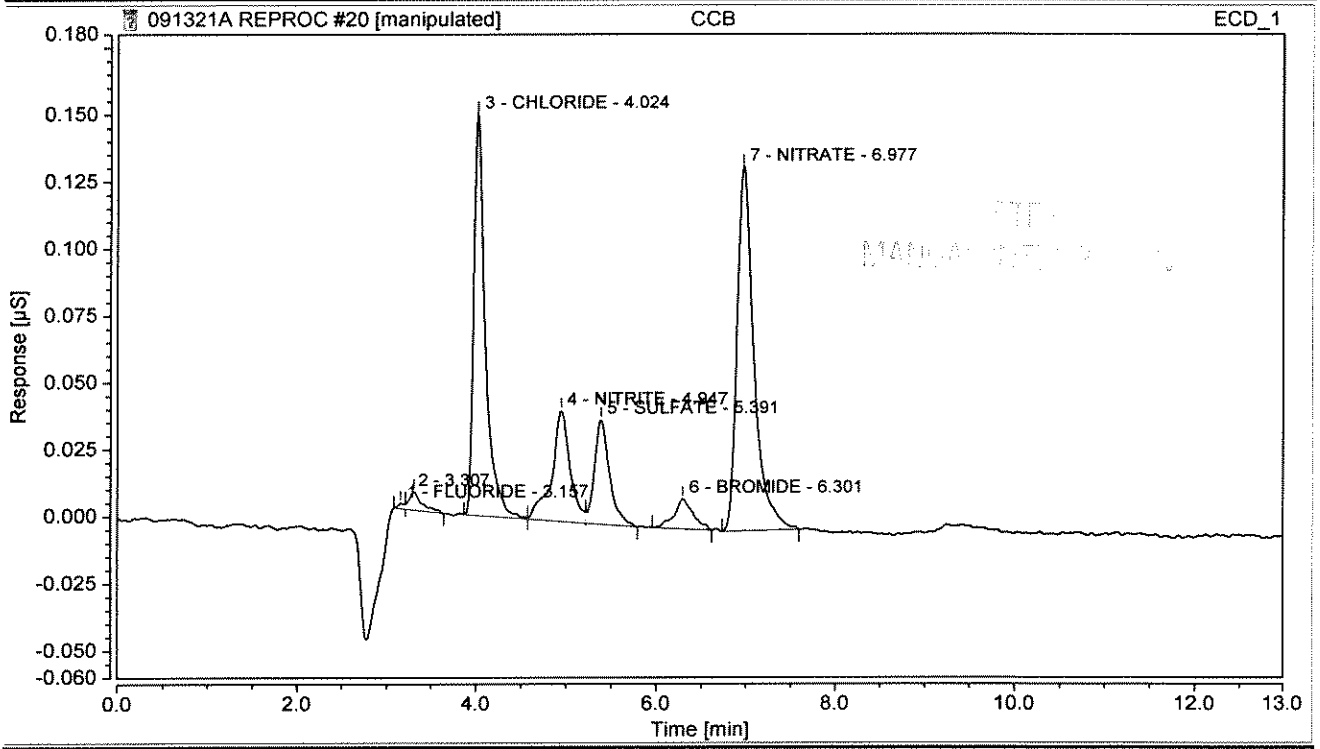
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.157	0.002	0.006	2.52	1.45	0.0041	n.a.
n.a.	CHLORIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	NITRITE	4.947	0.010	0.041	12.81	10.63	0.0159	n.a.
n.a.	SULFATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	BROMIDE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	NITRATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.012**	**0.047**	**15.32**	**12.08**		

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**12.98**
Vial Number:	**20**	*Injection Volume:*	**200.00**
Injection Type:	**Unknown**	*Channel:*	**ECD_1**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**ASDV30mMIsocratic TEST**	*Bandwidth:*	**n.a.**
Processing Method:	**KAT01 2100**	*Dilution Factor:*	**1.0**
Injection Date/Time:	**13/Sep/21 22:22**	*Sample Weight:*	**1.0**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount mg/L	Amnt.Dev. %
1	FLUORIDE	3.157	0.000	0.002	0.22	0.52	0.0003	n.a.
3	CHLORIDE	4.024	0.023	0.150	30.66	38.80	0.1677	n.a.
4	NITRITE	4.947	0.010	0.041	13.19	10.70	0.0159	n.a.
5	SULFATE	5.391	0.008	0.039	10.28	10.11	0.0357	n.a.
6	BROMIDE	6.301	0.003	0.011	3.70	2.90	0.0161	n.a.
7	NITRATE	6.977	0.030	0.136	40.35	35.20	0.0684	n.a.
n.a.	PHOSPHATE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.073**	**0.380**	**98.40**	**98.23**		

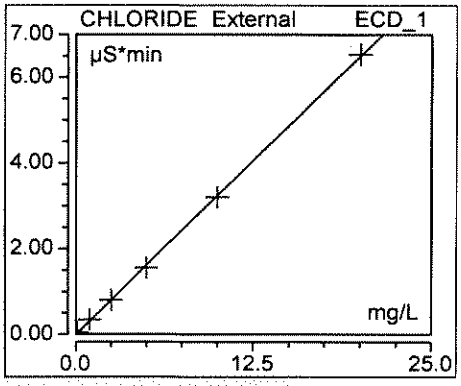
Calibration Batch Report

Sequence:	**083121A CAL**	*Injection Volume:*	**200.00**
Instrument Method:	**ASDV5MLCUPS**	*Operator:*	**Katahdin Analytical**
Inj. Date / Time:	**31-Aug-2021 / 17:56**	*Run Time:*	**12.993833**

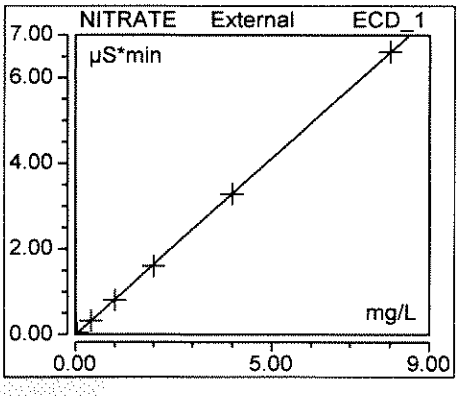
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
FLUORIDE	Area	Lin	6.000	0.000	0.526	0.000	99.7217
CHLORIDE	Area	in, WithOffse	7.000	-0.008	0.325	0.000	99.9739
NITRITE	Area	Lin	6.000	0.000	0.695	0.000	99.8794
SULFATE	Area	Lin	7.000	0.000	0.242	0.000	99.9905
BROMIDE	Height	Lin	6.000	0.000	0.734	0.000	99.9675
NITRATE	Area	in, WithOffse	7.000	-0.012	0.826	0.000	99.9923
		AVERAGE:		-0.0034	0.5579	0.0000	99.9209

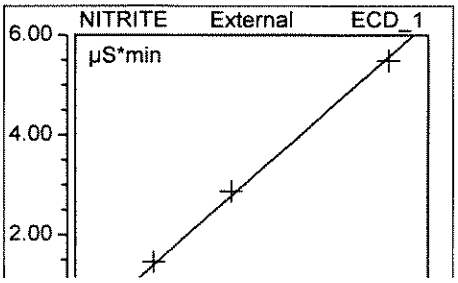
Injection Name **CHLORIDE**	Ret.Time min CHLORIDE	Area µS*min CHLORIDE	Height µS CHLORIDE	Amount mg/L CHLORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	4.034	0.0045	0.031	0.039
CAL 2	4.034	0.0261	0.175	0.106
CAL 3	4.034	0.2526	1.884	0.802
CAL 4	4.034	0.6935	5.136	2.157
CAL 5	4.034	1.4164	10.395	4.379
CAL 6	4.031	2.8556	20.827	8.802
CAL 7	4.034	5.8397	41.807	17.974
Average	4.033			
Rel. Std. Dev.	0.031 %			



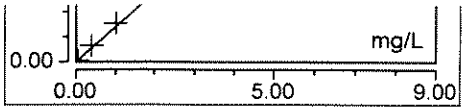
Injection Name **NITRATE**	Ret.Time min NITRATE	Area µS*min NITRATE	Height µS NITRATE	Amount mg/L NITRATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	7.011	0.0082	0.035	0.024
CAL 2	7.011	0.0265	0.127	0.047
CAL 3	7.004	0.2564	1.301	0.325
CAL 4	6.994	0.7128	3.556	0.877
CAL 5	6.981	1.4721	7.151	1.796
CAL 6	6.957	2.9835	13.912	3.626
CAL 7	6.921	6.0048	26.224	7.283
Average	6.982			
Rel. Std. Dev.	0.476 %			



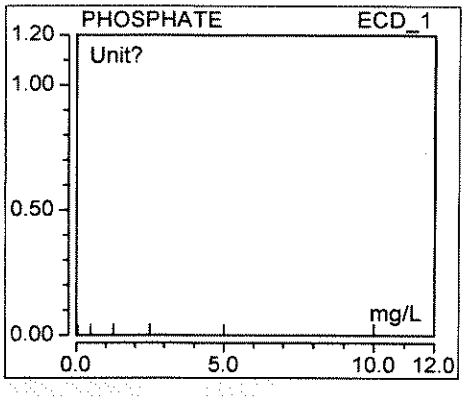
Injection Name **NITRITE**	Ret.Time min NITRITE	Area µS*min NITRITE	Height µS NITRITE	Amount mg/L NITRITE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	4.674	0.0221	0.114	0.032
CAL 3	4.671	0.2418	1.565	0.348
CAL 4	4.671	0.6591	4.201	0.948



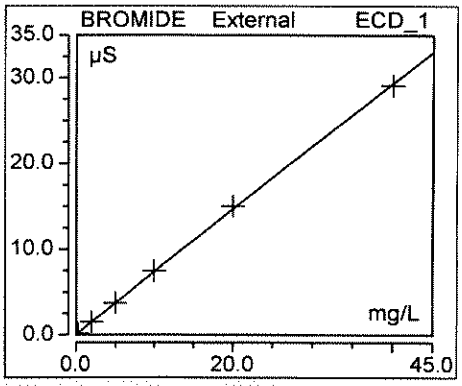
CAL 5	4.674	1.3297	8.181	1.914
CAL 6	4.677	2.5727	15.131	3.702
CAL 7	4.684	4.8209	26.707	6.938
Average	4.675			
Rel. Std. Dev.	0.107 %			



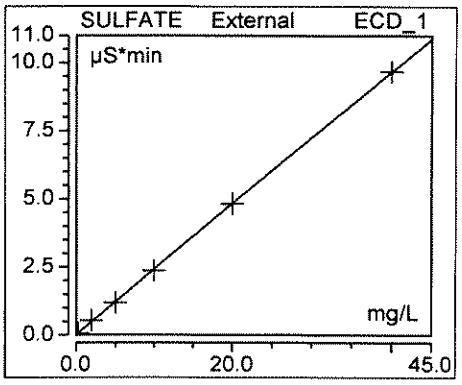
Injection Name **PHOSPHATE**	Ret.Time min PHOSPHATE	Area µS*min PHOSPHATE	Height µS PHOSPHATE	Amount mg/L PHOSPHATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	n.a.	n.a.	n.a.	n.a.
CAL 3	n.a.	n.a.	n.a.	n.a.
CAL 4	n.a.	n.a.	n.a.	n.a.
CAL 5	n.a.	n.a.	n.a.	n.a.
CAL 6	n.a.	n.a.	n.a.	n.a.
CAL 7	n.a.	n.a.	n.a.	n.a.
Average	#DIV/0!			
Rel. Std. Dev.	#DIV/0!			



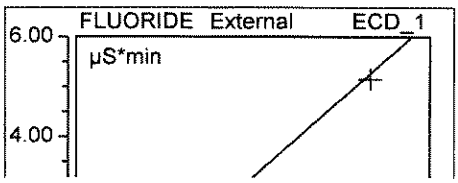
Injection Name **BROMIDE**	Ret.Time min BROMIDE	Area µS*min BROMIDE	Height µS BROMIDE	Amount mg/L BROMIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.
CAL 2	6.144	0.0185	0.095	0.130
CAL 3	6.137	0.2220	1.261	1.719
CAL 4	6.134	0.6055	3.477	4.740
CAL 5	6.127	1.2577	7.099	9.677
CAL 6	6.117	2.5482	14.093	19.211
CAL 7	6.097	5.2194	27.705	37.766
Average	6.126			
Rel. Std. Dev.	0.275 %			



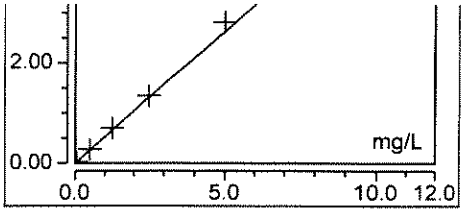
Injection Name **SULFATE**	Ret.Time min SULFATE	Area µS*min SULFATE	Height µS SULFATE	Amount mg/L SULFATE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	5.454	0.0090	0.048	0.037
CAL 2	5.454	0.0339	0.184	0.140
CAL 3	5.451	0.3766	2.165	1.559
CAL 4	5.447	1.0175	5.855	4.211
CAL 5	5.441	2.0721	11.737	8.576
CAL 6	5.431	4.1763	23.325	17.285
CAL 7	5.411	8.6085	45.581	35.629
Average	5.441			
Rel. Std. Dev.	0.290 %			



Injection Name **FLUORIDE**	Ret.Time min FLUORIDE	Area µS*min FLUORIDE	Height µS FLUORIDE	Amount mg/L FLUORIDE
	ECD_1	ECD_1	ECD_1	ECD_1
CAL 1	n.a.	n.a.	n.a.	n.a.



CAL 2	3.047	0.0274	0.122	0.052
CAL 3	3.047	0.2221	1.478	0.422
CAL 4	3.051	0.5987	3.998	1.139
CAL 5	3.054	1.2190	7.880	2.319
CAL 6	3.061	2.4107	15.024	4.585
CAL 7	3.071	4.6837	28.055	8.908
Average	3.055			
Rel. Std. Dev.	0.298 %			



Anion Summary Report

No. CHLORIDE	Name CHLORIDE	Time min CHLORIDE ECD_1	Area µS*min CHLORIDE ECD_1	Rel.Area % CHLORIDE ECD_1	Height µS CHLORIDE ECD_1	Rel.Height % CHLORIDE ECD_1	Amount mg/L CHLORIDE ECD_1
1	BLANK	4.034	0.0093	33.63	0.06	40.78	0.0542
2	CAL 1	4.034	0.0045	20.78	0.03	27.12	0.0395
3	CAL 2	4.034	0.0261	16.86	0.18	21.48	0.1057
4	CAL 3	4.034	0.2526	15.79	1.88	19.38	0.8019
5	CAL 4	4.034	0.6935	15.72	5.14	19.34	2.1572
6	CAL 5	4.034	1.4164	15.53	10.40	19.46	4.3791
7	CAL 6	4.031	2.8556	15.46	20.83	19.89	8.8024
8	CAL 7	4.034	5.8397	15.63	41.81	20.79	17.9740
	Sum:	32.267	11.098	149.401	80.317	188.233	34.314
	Average:	4.033	1.387	18.675	10.040	23.529	4.289
	Rel.Std.Dev:	0.029 %	147.768 %	33.736 %	146.452 %	31.596 %	146.886 %

No. NITRATE	Name NITRATE	Time min NITRATE ECD_1	Area µS*min NITRATE ECD_1	Rel.Area % NITRATE ECD_1	Height µS NITRATE ECD_1	Rel.Height % NITRATE ECD_1	Amount mg/L NITRATE ECD_1
1	BLANK	7.014	0.0120	43.23	0.06	38.01	0.0290
2	CAL 1	7.011	0.0082	37.58	0.04	30.91	0.0244
3	CAL 2	7.011	0.0265	17.16	0.13	15.55	0.0466
4	CAL 3	7.004	0.2564	16.03	1.30	13.38	0.3249
5	CAL 4	6.994	0.7128	16.16	3.56	13.39	0.8773
6	CAL 5	6.981	1.4721	16.14	7.15	13.39	1.7963
7	CAL 6	6.957	2.9835	16.15	13.91	13.29	3.6258
8	CAL 7	6.921	6.0048	16.07	26.22	13.04	7.2829
	Sum:	55.891	11.476	178.516	52.363	150.945	14.007
	Average:	6.986	1.435	22.314	6.545	18.868	1.751
	Rel.Std.Dev:	0.469 %	147.259 %	50.513 %	141.917 %	52.146 %	146.040 %

No. NITRITE	Name NITRITE	Time min NITRITE ECD_1	Area µS*min NITRITE ECD_1	Rel.Area % NITRITE ECD_1	Height µS NITRITE ECD_1	Rel.Height % NITRITE ECD_1	Amount mg/L NITRITE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	4.674	0.0221	14.33	0.11	13.90	0.0319
4	CAL 3	4.671	0.2418	15.12	1.56	16.09	0.3479
5	CAL 4	4.671	0.6591	14.94	4.20	15.82	0.9485
6	CAL 5	4.674	1.3297	14.58	8.18	15.32	1.9136
7	CAL 6	4.677	2.5727	13.93	15.13	14.45	3.7023
8	CAL 7	4.684	4.8209	12.90	26.71	13.28	6.9377
	Sum:	28.050	9.646	85.793	55.897	88.851	13.882
	Average:	4.675	1.608	14.299	9.316	14.809	2.314
	Rel.Std.Dev:	0.107 %	113.378 %	5.629 %	108.245 %	7.514 %	113.378 %

No. PHOSPHATE	Name PHOSPHATE	Time min PHOSPHATE ECD_1	Area µS*min PHOSPHATE ECD_1	Rel.Area % PHOSPHATE ECD_1	Height µS PHOSPHATE ECD_1	Rel.Height % PHOSPHATE ECD_1	Amount mg/L PHOSPHATE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

3	CAL 2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	CAL 3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	CAL 4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	CAL 5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	CAL 6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8	CAL 7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum:	0.000	0.000	0.000	0.000	0.000	0.000
	Average:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Rel.Std.Dev:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

No. BROMIDE	Name BROMIDE	Time min BROMIDE ECD_1	Area µS*min BROMIDE ECD_1	Rel.Area % BROMIDE ECD_1	Height µS BROMIDE ECD_1	Rel.Height % BROMIDE ECD_1	Amount mg/L BROMIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	6.144	0.0185	11.99	0.10	11.67	0.1298
4	CAL 3	6.137	0.2220	13.88	1.26	12.97	1.7191
5	CAL 4	6.134	0.6055	13.72	3.48	13.09	4.7398
6	CAL 5	6.127	1.2577	13.79	7.10	13.29	9.6766
7	CAL 6	6.117	2.5482	13.80	14.09	13.46	19.2109
8	CAL 7	6.097	5.2194	13.97	27.70	13.78	37.7657
	Sum:	36.756	9.871	81.149	53.730	78.247	73.242
	Average:	6.126	1.645	13.525	8.955	13.041	12.207
	Rel.Std.Dev:	0.275 %	120.014 %	5.597 %	117.024 %	5.609 %	117.024 %

No. SULFATE	Name SULFATE	Time min SULFATE ECD_1	Area µS*min SULFATE ECD_1	Rel.Area % SULFATE ECD_1	Height µS SULFATE ECD_1	Rel.Height % SULFATE ECD_1	Amount mg/L SULFATE ECD_1
1	BLANK	5.454	0.0064	23.14	0.03	21.21	0.0265
2	CAL 1	5.454	0.0090	41.65	0.05	41.97	0.0374
3	CAL 2	5.454	0.0339	21.96	0.18	22.48	0.1405
4	CAL 3	5.451	0.3766	23.55	2.17	22.26	1.5586
5	CAL 4	5.447	1.0175	23.06	5.85	22.05	4.2114
6	CAL 5	5.441	2.0721	22.72	11.74	21.97	8.5760
7	CAL 6	5.431	4.1763	22.61	23.32	22.27	17.2851
8	CAL 7	5.411	8.6085	23.04	45.58	22.66	35.6294
	Sum:	43.541	16.300	201.724	88.926	196.883	67.465
	Average:	5.443	2.038	25.216	11.116	24.610	8.433
	Rel.Std.Dev:	0.281 %	148.176 %	26.393 %	144.660 %	28.557 %	148.176 %

No. FLUORIDE	Name FLUORIDE	Time min FLUORIDE ECD_1	Area µS*min FLUORIDE ECD_1	Rel.Area % FLUORIDE ECD_1	Height µS FLUORIDE ECD_1	Rel.Height % FLUORIDE ECD_1	Amount mg/L FLUORIDE ECD_1
1	BLANK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	CAL 1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	CAL 2	3.047	0.0274	17.71	0.12	14.92	0.0521
4	CAL 3	3.047	0.2221	13.89	1.48	15.19	0.4224
5	CAL 4	3.051	0.5987	13.57	4.00	15.05	1.1388
6	CAL 5	3.054	1.2190	13.36	7.88	14.75	2.3186
7	CAL 6	3.061	2.4107	13.05	15.02	14.35	4.5853
8	CAL 7	3.071	4.6837	12.54	28.06	13.95	8.9084
	Sum:	18.330	9.162	84.119	56.557	88.215	17.426
	Average:	3.055	1.527	14.020	9.426	14.702	2.904
	Rel.Std.Dev:	0.298 %	115.879 %	13.301 %	112.271 %	3.199 %	115.879 %

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 10:35 am
Batch: WG305199 Run ID 1: R575354 Run ID 2: R575356

Parameter: Nitrate As N

Date Analyzed: 26-AUG-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5615-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	.144	0.14 mg/L	NA	.05	0.015	0.050		
SO5617-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.015	0.050		
SO5689-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0329	U0.050 mg/L	NA	.05	0.015	0.050		
SO5689-3	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0278	U0.050 mg/L	NA	.05	0.015	0.050		
SO5689-5	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0221	U0.050 mg/L	NA	.05	0.015	0.050		
SO5689-7	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0391	U0.050 mg/L	NA	.05	0.015	0.050		
SO5689-9	SAMP	EPA 353.2	5.0000mL	5.0000mL	5	0 I-7	U0.25 mg/L	NA	.05	0.076	0.25		
WG305199-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.025 mg/L	NA	.05	0.015	0.050		
WG305199-2	LCS	EPA 353.2	5.0000mL	5.0000mL	1	.916	0.92 mg/L	NA	.05	0.015	0.050		92
WG305199-4	DUP	EPA 353.2	5.0000mL	5.0000mL	1	.144	0.14 mg/L	NA	.05	0.015	0.050	0	
WG305199-5	MS	EPA 353.2	5.0000mL	5.0000mL	1	.703	0.70 mg/L	NA	.05	0.015	0.050		112

Comments:

WG305199-1	SO5615-1
WG305199-2	SO5615-1
WG305199-3	SO5615-1
WG305199-4	SO5615-1
WG305199-5	SO5615-1

Entered by: SS Date: 8/27/21 Accepted by: ZF Date: 8/27/21

Katahdin Analytical Services 5000074

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 10:35 am
Batch: WG305199 Run ID 1: R575354 Run ID 2: R575356

Parameter: Nitrite As N

Date Analyzed: 26-AUG-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5615-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0217	U0.050 mg/L	NA	.05	0.0032	0.050		
SO5617-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0193	U0.050 mg/L	NA	.05	0.0032	0.050		
WG305199-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	-.0213	U0.025 mg/L	NA	.05	0.0032	0.050		
WG305199-3	LCS	EPA 353.2	5.0000mL	5.0000mL	1	1.02	1.0 mg/L	NA	.05	0.0032	0.050		102
WG305199-4	DUP	EPA 353.2	5.0000mL	5.0000mL	1	-.0215	U0.050 mg/L	NA	.05	0.0032	0.050	NC	
WG305199-5	MS	EPA 353.2	5.0000mL	5.0000mL	1	.507	0.51 mg/L	NA	.05	0.0032	0.050		101

Comments:

WG305199-1	SO5615-1
WG305199-2	SO5615-1
WG305199-3	SO5615-1
WG305199-4	SO5615-1
WG305199-5	SO5615-1

Entered by: SS Date: 8/27/21 Accepted by: ZS Date: 8/27/21

Katahdin Analytical Services 5000075

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 10:35 am
Batch: WG305202 Run ID 1: R575355 Run ID 2: R575357

Parameter: Nitrate As N

Date Analyzed: 26-AUG-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5642-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.0040	0.050		
SO5687-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.050 mg/L	NA	.05	0.0040	0.050		
WG305202-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	0	U0.025 mg/L	NA	.05	0.0040	0.050		
WG305202-2	LCS	EPA 353.2	5.0000mL	5.0000mL	1	.916	0.92 mg/L	NA	.05	0.0040	0.050		92

Comments:

WG305202-1	SO5642-1
WG305202-2	SO5642-1
WG305202-3	SO5642-1

Entered by: SS Date: 8/27/21 Accepted by: [illegible] Date: 8/27/21

WET CHEMISTRY BATCH REPORT
Aug 27 2021, 10:35 am
Batch: WG305202 Run ID 1: R575355 Run ID 2: R575357

Parameter: Nitrite As N

Date Analyzed: 26-AUG-21

Analyst Initials: SS

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5642-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0264	U0.050 mg/L	NA	.05	0.0030	0.050		
SO5687-1	SAMP	EPA 353.2	5.0000mL	5.0000mL	1	-.0224	U0.050 mg/L	NA	.05	0.0030	0.050		
WG305202-1	MBLANK	EPA 353.2	5.0000mL	5.0000mL	1	-.0213	U0.025 mg/L	NA	.05	0.0030	0.050		
WG305202-3	LCS	EPA 353.2	5.0000mL	5.0000mL	1	1.02	1.0 mg/L	NA	.05	0.0030	0.050		102

Comments:

WG305202-1	SO5642-1
WG305202-2	SO5642-1
WG305202-3	SO5642-1

Entered by: SS Date: 8/27/21 Accepted by: ZF Date: 8/27/21

Katahdin Analytical Services 5000077

KATAHDIN ANALYTICAL SERVICES, LLC.
Wet Chemistry Analysis Run Information Sheet

Analyte: NO3, NO2, and NO3+NO2	**Analyst:** SS
Instrument: LACHAT	**Analysis Date:** 8/26/21

Were pHs of all samples adjusted to 5-9 prior to analysis?

Circle one: Yes **No** **pH Paper Lot ID:** 6102002

Were all samples checked for the presence of chlorine prior to analysis?

Circle one: Yes **No**

Analytical Method (Check all that apply):

☑ EPA 353.2 ☐ SM 4500 F ☐ Other

W6305199 → R575354 W6305202 → R575355

Reagent Information:

Reagent Name	Reagent ID	Expiration Date
Ammonium Chloride Buffer	**W20224**	**8/27/2021**
Sulfanilamide Color Reagent	**W20288**	**9/11/2021**
Carrier	**DI Water**	
Cadmium Reduction Column	**S/N: SWL4699**	

Standards Information:

Standard Name	Concentration (mg/L)	ID	Expiration Date
Nitrate CCV	0.5	W20300	9/17/21
Nitrite CCV	0.5	W20252	9/5/21
Nitrate ICV/LCS	1.0	W20312	9/24/21
Nitrite ICV/LCS	1.0	W20241	8/30/21
Standard #1	2.0	W20264	9/6/21
Standard #2	1.0	W20265	9/6/21
Standard #3	0.5	W20252	9/5/21
Standard #4	0.25	W20266	9/6/21
Standard# 5	0.05	W20267	9/6/21
Standard #6	0.0	DI water	N/A
Nitrate Standard	100.0	W20037	5/27/2022
Nitrite Standard	100.0	W19308	9/3/2021

Notes:

1. Matrix Spiking: To 5mL Sample Alliquot add 0.025 mL of Nitrate Standard and 0.025mL Nitrite Standard

* Sample labels were verified SS 8/26/21

Comments: Pipettes: W5, W3, W9, W8

MS: 200uL, 5mL 5x, 10x, & 20x Dilutions: 1mL, 5mL

2x, 4x Dilutions: 5mL 25x, 50x, 100x, 200x Dilutions: 200uL, 5mL

250x, 500x, 1000x, 2000x, 2500x Dilutions: 200uL, 1ml, 5mL

WL-062 - Revision 2 - 11/11/2015

Author: wetchem

Date : 8/26/2021

Original Run Filename: OM_8-26-2021_10-53-54AM.OMN Created: 8/26/2021 10:53:54 AM
Original Run Author's Signature: [wetchem]
Current Run Filename: OM_8-26-2021_10-53-54AM.OMN Last Modified: 8/26/2021 11:23:10 AM
Current Run Author's Signature: [wetchem]
Description: Default New Run

Sample	Channel 1			Channel 2			Detection Time	MDF
	NITRATE/NITRITE			NITRITE				
	Conc. (mg/L)	Area (V.s)	Height (V)	Conc. (mg/L)	Area (V.s)	Height (V)		
STD 2.0	2.00	18.6	1.66	2.00	21.8	2.00	8/26/2021@10:54:55 AM	
STD 1.0	1.00	9.58	0.850	1.00	11.3	1.07	8/26/2021@10:56:03 AM	
STD .5	0.500	4.96	0.440	0.500	5.99	0.558	8/26/2021@10:57:13 AM	
STD .25	0.250	2.74	0.245	0.250	3.18	0.301	8/26/2021@10:58:23 AM	
STD.05	0.0500	0.639	0.0566	0.0500	0.598	0.0557	8/26/2021@10:59:35 AM	
STD 0.0	0.00	0.0959	7.51e-3	0.00	0.0629	3.03e-3	8/26/2021@11:00:46 AM	
97.8% CCV NO3	0.489	4.77	0.424	-0.0219	0.0439	2.60e-3	8/26/2021@11:03:51 AM	
Known Conc:	0.500			0.500				
Calibration:	Table/Fig. : 1			Table/Fig. : 2				
105% CCV NO2	0.510	4.97	0.446	0.525	5.99	0.561	8/26/2021@11:05:02 AM	
Known Conc:	0.500			0.500				
CCB	-0.0322	-0.0284	-1.59e-3	-0.0267	-8.85e-3	1.55e-3	8/26/2021@11:06:15 AM	
Known Conc:	0.00			0.00				
BLANK	-0.0155	0.125	9.27e-3	-0.0213	0.0497	3.30e-3	8/26/2021@11:07:25 AM	
Known Conc:	0.00			0.00				
NO3 LCS	0.916	8.71	0.782	-0.0212	0.0511	3.12e-3	8/26/2021@11:08:35 AM	
Known Conc:	1.00			1.00				
NO2 LCS	1.00	9.49	0.855	1.02	11.3	1.05	8/26/2021@11:09:44 AM	
Known Conc:	1.00			1.00				
SO5617-1	-8.80e-3	0.187	0.0145	-0.0193	0.0717	5.83e-3	8/26/2021@11:10:54 AM	
SO5642-1	-0.0272	0.0178	1.72e-3	-0.0264	-5.29e-3	2.48e-3	8/26/2021@11:12:05 AM	
SO5615-1	0.144	1.59	0.142	-0.0217	0.0457	3.56e-3	8/26/2021@11:13:15 AM	
SO5615-1 DUP	0.144	1.59	0.142	-0.0215	0.0477	5.62e-3	8/26/2021@11:14:26 AM	
SO5615-1 MS	1.21	11.4	1.01	0.507	5.78	0.539	8/26/2021@11:15:36 AM	
105.6% CCV NO3	0.528	5.14	0.436	-0.0283	-0.0255	-1.90e-3	8/26/2021@11:18:42 AM	
Known Conc:	0.500			0.500				
105% CCV NO2	0.550	5.33	0.455	0.525	5.98	0.553	8/26/2021@11:19:52 AM	
Known Conc:	0.500			0.500				
CCB	-0.0262	0.0264	2.91e-3	-0.0226	0.0364	2.20e-3	8/26/2021@11:21:05 AM	
Known Conc:	0.00			0.00				

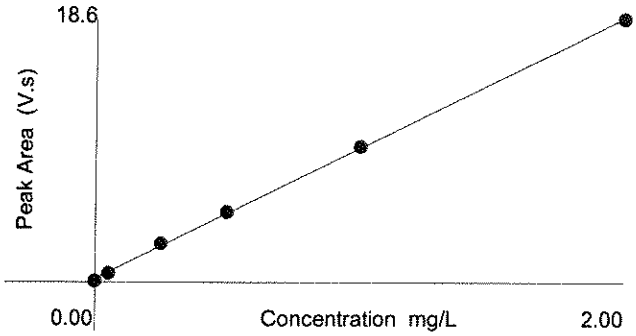
Table : 1 (NITRATE/NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	18.6	1.66	0.0	0.5	1.99	8/26/2021	10:54:54 AM
2	1.00	1	9.58	0.850	0.0	-1.1	1.01	8/26/2021	10:56:03 AM
3	0.500	1	4.96	0.440	0.0	-1.8	0.510	8/26/2021	10:57:13 AM
4	0.250	1	2.74	0.245	0.0	-6.4	0.268	8/26/2021	10:58:23 AM
5	0.0500	1	0.639	0.0566	0.0	12.5	0.0403	8/26/2021	10:59:35 AM
6	0.00	1	0.0959	7.51e-3			-0.0187	8/26/2021	11:00:46 AM

Author: wetchem

Date : 8/26/2021

Figure : 1 (NITRATE/NITRITE)



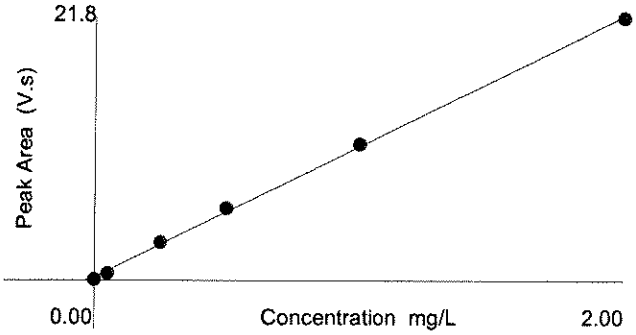
Area = 9.21 * Conc + 0.270
Conc = 0.109 * Area - 0.0291
Correlation Coefficient (r) = 0.99981

Weighting : None

Table : 2 (NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	21.8	2.00	0.0	0.8	1.98	8/26/2021	10:54:55 AM
2	1.00	1	11.3	1.07	0.0	-1.7	1.02	8/26/2021	10:56:05 AM
3	0.500	1	5.99	0.558	0.0	-4.8	0.525	8/26/2021	10:57:14 AM
4	0.250	1	3.18	0.301	0.0	-5.8	0.266	8/26/2021	10:58:25 AM
5	0.0500	1	0.598	0.0557	0.0	27.9	0.0292	8/26/2021	10:59:36 AM
6	0.00	1	0.0629	3.03e-3			-0.0201	8/26/2021	11:00:47 AM

Figure : 2 (NITRITE)



Area = 10.9 * Conc + 0.287
Conc = 0.0920 * Area - 0.0259
Correlation Coefficient (r) = 0.99960

Weighting : None

Author: wetchem

Date : 8/26/2021

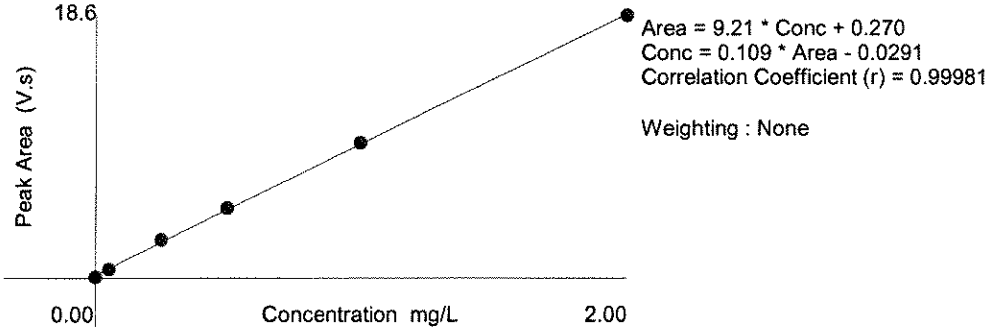
Original Run Filename: OM_8-26-2021_02-57-51PM.OMN Created: 8/26/2021 2:57:51 PM
Original Run Author's Signature: [wetchem]
Current Run Filename: OM_8-26-2021_02-57-51PM.OMN Last Modified: 8/26/2021 3:22:25 PM
Current Run Author's Signature: [wetchem]
Description: Default New Run

	Sample	Channel 1 NITRATE/NITRITE Conc. (mg/L)	Channel 1 Area (V.s)	Channel 1 Height (V)	Channel 2 NITRITE Conc. (mg/L)	Channel 2 Area (V.s)	Channel 2 Height (V)	Detection Time	MDF
99.6%	CCV NO3	0.498	4.85	0.447	-0.0238	0.0234	1.81e-3	8/26/2021@2:58:53 PM	
	Known Conc:	0.500			0.500				
	Calibration:	Table/Fig. : 1			Table/Fig. : 2				
105%	CCV NO2	0.512	4.99	0.458	0.525	5.98	0.572	8/26/2021@3:00:03 PM	
	Known Conc:	0.500			0.500				
	CCB	-0.0235	0.0521	3.02e-3	-0.0258	1.44e-3	1.73e-3	8/26/2021@3:01:16 PM	
	Known Conc:	0.00			0.00				
	BLANK	-0.0162	0.118	0.0103	-0.0233	0.0287	2.31e-3	8/26/2021@3:02:26 PM	
	Known Conc:	0.00			0.00				
	NO3 LCS	0.935	8.88	0.808	-0.0252	8.18e-3	1.69e-3	8/26/2021@3:03:35 PM	
	Known Conc:	1.00			1.00				
	NO2 LCS	1.02	9.66	0.878	1.03	11.4	1.07	8/26/2021@3:04:45 PM	
	Known Conc:	1.00			1.00				
-1	SO5689 1005	-0.0356	-0.0597	-7.07e-3	0.0329	0.639	0.0508	8/26/2021@3:05:57 PM	
-9	SO5689 1040	-0.0278	0.0120	-4.14e-3	0.0713	1.06	0.0812	8/26/2021@3:07:08 PM	
-3	SO5689 1135	-0.0246	0.0417	5.03e-3	0.0278	0.584	0.0466	8/26/2021@3:08:19 PM	
SS 8/27/21 -5	SO5689 1140	-0.0352	-0.0564	-7.58e-3	0.0221	0.522	0.0412	8/26/2021@3:09:29 PM	
-7	SO5689 1415	-0.0243	0.0445	4.59e-3	0.0391	0.707	0.0555	8/26/2021@3:10:39 PM	
	SO5687-1	-0.0250	0.0374	3.29e-3	-0.0224	0.0377	2.56e-3	8/26/2021@3:11:49 PM	
-9	SO5689 1040	-0.0341	0.205	0.0129	-0.0210	0.236	0.0195	8/26/2021@3:14:53 PM	5.00
102%	CCV NO3	0.510	4.97	0.444	-0.0223	0.0394	2.40e-3	8/26/2021@3:17:58 PM	
	Known Conc:	0.500			0.500				
104.8%	CCV NO2	0.531	5.16	0.457	0.524	5.98	0.558	8/26/2021@3:19:09 PM	
	Known Conc:	0.500			0.500				
	CCB	-0.0253	0.0355	3.33e-3	-0.0275	-0.0177	-1.55e-3	8/26/2021@3:20:21 PM	
	Known Conc:	0.00			0.00				

Table : 1 (NITRATE/NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	18.6	1.66	0.0	0.5	1.99	8/26/2021	10:54:54 AM
2	1.00	1	9.58	0.850	0.0	-1.1	1.01	8/26/2021	10:56:03 AM
3	0.500	1	4.96	0.440	0.0	-1.8	0.510	8/26/2021	10:57:13 AM
4	0.250	1	2.74	0.245	0.0	-6.4	0.268	8/26/2021	10:58:23 AM
5	0.0500	1	0.639	0.0566	0.0	12.5	0.0403	8/26/2021	10:59:35 AM
6	0.00	1	0.0959	7.51e-3			-0.0187	8/26/2021	11:00:46 AM

Figure : 1 (NITRATE/NITRITE)



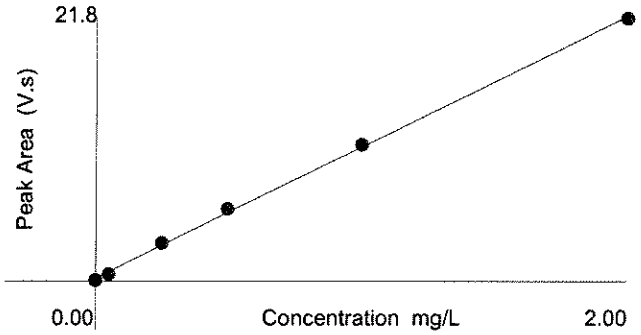
Author: wetchem

Date : 8/26/2021

Table : 2 (NITRITE)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	2.00	1	21.8	2.00	0.0	0.8	1.98	8/26/2021	10:54:55 AM
2	1.00	1	11.3	1.07	0.0	-1.7	1.02	8/26/2021	10:56:05 AM
3	0.500	1	5.99	0.558	0.0	-4.8	0.525	8/26/2021	10:57:14 AM
4	0.250	1	3.18	0.301	0.0	-5.8	0.266	8/26/2021	10:58:25 AM
5	0.0500	1	0.598	0.0557	0.0	27.9	0.0292	8/26/2021	10:59:36 AM
6	0.00	1	0.0629	3.03e-3			-0.0201	8/26/2021	11:00:47 AM

Figure : 2 (NITRITE)



Area = 10.9 * Conc + 0.287
Conc = 0.0920 * Area - 0.0259
Correlation Coefficient (r) = 0.99960

Weighting : None

WET CHEMISTRY BATCH REPORT
Aug 30 2021, 02:33 pm
Batch: WG305213

Parameter: Solids-Filterable Residue

Date Analyzed: 30-AUG-21

Analyst Initials: JJ

Prep Date: 27-AUG-21

Prep Method: STDM 2540C

Prep Chemist: JJ

Sample	Samp Type	Method	Tare Amt.	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5689-1	SAMP	STDM 2540C	102.1886g		102.2175g	1	289	290 mg/L	NA	10	5.02	10.		
SO5689-3	SAMP	STDM 2540C	89.97820g		90.00140g	1	232	230 mg/L	NA	10	5.02	10.		
SO5689-5	SAMP	STDM 2540C	99.75670g		99.78090g	1	242	240 mg/L	NA	10	5.02	10.		
SO5689-7	SAMP	STDM 2540C	105.6927g		105.7216g	1	289	290 mg/L	NA	10	5.02	10.		
SO5689-9	SAMP	STDM 2540C	95.95940g		95.98760g	1	282	280 mg/L	NA	10	5.02	10.		
WG305213-1	MBLANK	STDM 2540C	88.18120g		88.18090g	1	-3	U8.0 mg/L	NA	10	5.02	10.		
WG305213-2	LCS	STDM 2540C	87.89040g		87.96110g	1	707	710 mg/L	NA	10	5.02	10.		94
WG305213-3	LCSD	STDM 2540C	94.08140g		94.15260g	1	712	710 mg/L	NA	10	5.02	10.	1	95
WG305213-4	DUP	STDM 2540C	87.11870g		87.14650g	1	278	280 mg/L	NA	10	5.02	10.	1	

Comments:

SO5689-1	Anions please report Cl & SO4.
SO5689-3	Anions please report Cl & SO4.
SO5689-5	Anions please report Cl & SO4.
SO5689-7	Anions please report Cl & SO4.
SO5689-9	Anions please report Cl & SO4.
WG305213-1	SO5689-9
WG305213-2	SO5689-9
WG305213-3	SO5689-9
WG305213-4	SO5689-9

Entered by: ZF for JJ Date: 8/30/21 Accepted by: ZF Date: 8/30/21

Katahdin Analytical Services 5000083

W6305213
K575582

KATAHDIN ANALYTICAL SERVICES, LLC

TOTAL DISSOLVED SOLIDS/TOTAL SUSPENDED SOLIDS

Total Disolved Solids: EPA 160.1____ Total Dissolved Solids: SM 2540C ✓ PQL: 10mg/L

Total Suspended Solids: EPA 160.2 Total Suspended Solids: SM 2540D PQL: 4mg/L

Aqueous Solids LCS Sand ID/Lot# W 20284

Filter Lot # SWL4792

ASTM Class Weights

Balance ID:

True WT (g)	Initial WT (g)	Final WT (g)
0.1000	0.1000	0.0999
1.0000	1.0000	0.9998
10.0000	10.0000	9.9999
100.0000	100.0000	100.0004

Notes:

Oven Temperatures (C)

TDS: 180 +/- 2°C, TSS: 103 - 105 °C

Oven ID: 01

In Temp. 180	Date: 8/27/21	Time: 10:20
Out Temp. 180	Date: 8/30/21	Time: 7:00
In Temp. 180	Date: 8/30/21	Time: 8:45
Out Temp. 180	Date: 8/30/21	Time: 10:02
In Temp.	Date:	Time:
Out Temp.	Date:	Time:

KAS Sample ID	Sample Volume (ml)	Time of Initial Aliquot	Filter or Dish ID	Filter or Dish Wt. (g)	Dry 1 Dish/Filter + Sample Residue Wt. (g)	Dry 2 Dish/Filter + Sample Residue Wt. (g)	Time of Final Weighing (Analysis)
Blank	100	8:55	FEL	88.1812	88.1805	88.1809	13:50
LCS	↓	↓	LLL	87.8904	87.9601	87.9611	↓
LCSD			J745	94.0814	94.1523	94.1526	
805689-1			42P	102.1886	102.2165	102.2175	
-3			W35	89.9782	~~89.~~90.0004	90.0004	
-5			W40	99.7567	99.7798	99.7809	
-7			W45	105.6927	105.7206	105.7216	
-9		↓	GGG	95.9594	95.9866	95.9876	↓
-9 DUP	↓	9:07	AL22	87.1187	87.1455	87.1465	13:52

JJ 8/

Analyst: JJ

Checked By:

Date: 8/27/21

Date: 8/30/21

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 02:38 pm
Batch: WG305121 Run ID 1: R575622 Run ID 2: NONE

Parameter: Total Biochemical Oxygen Demand

Prep Date: 26-AUG-21

Date Analyzed: 31-AUG-21

Prep Method: SM 5210B

Analyst Initials: JL

Prep Chemist: JL

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5624-1	SAMP	SM 5210B	0.37500mL	300.00mL	800	3.61	2900 mg/L	NA	2	190	1600		
SO5653-1	SAMP	SM 5210B	3.5000mL	300.00mL	86	3.57	310 mg/L	NA	2	20.	170		
SO5653-3	SAMP	SM 5210B	10.000mL	300.00mL	30	1.82	54 ~~U60.~~ mg/L	NA	2	7.0	60.		
SO5656-1	SAMP	SM 5210B	0.10000mL	300.00mL	3000	2.31	6900 mg/L	NA	2	700	6000		
SO5667-1	SAMP	SM 5210B	1.5000mL	300.00mL	200	2.39	480 mg/L	NA	2	47.	400		
SO5683-1	SAMP	SM 5210B	0.37500mL	300.00mL	800	3.08	2500 mg/L	NA	2	190	1600		
SO5689-1	SAMP	SM 5210B	100.00mL	300.00mL	3	1.42	J4.3 mg/L	NA	2	0.70	6.0		
SO5689-3	SAMP	SM 5210B	150.00mL	300.00mL	2	2.497	5.0 mg/L	NA	2	0.47	4.0		
SO5689-5	SAMP	SM 5210B	200.00mL	300.00mL	1.5	3.26	4.9 mg/L	NA	2	0.35	3.0		
SO5689-9	SAMP	SM 5210B	100.00mL	300.00mL	3	2.14	6.4 mg/L	NA	2	0.70	6.0		
WG305121-1	MBLANK	SM 5210B	300.00mL	300.00mL	1	-.2	U1.0 mg/L	NA	2	0.23	2.0		
WG305121-2	LCS	SM 5210B	6.0000mL	300.00mL	50	4.356	220 mg/L	NA	2	12.	100		110

Comments:

SO5689-1	Anions please report Cl & SO4.
SO5689-3	Anions please report Cl & SO4.
SO5689-5	Anions please report Cl & SO4.
SO5689-9	Anions please report Cl & SO4.
WG305121-1	SO5624-1
WG305121-2	SO5624-1

Entered by: JL Date: 8/31/21 Accepted by: [illegible] Date: 09/02/21

Katahdin Analytical Services 5000085

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: JL

R575622
WG305121

BOD5,mg/L=(DO consumed- Seed Correction Factor)* Total Volume in mL /Sample Volume in mL
DO consumed = Initial DO - Final DO
Total Volume = 300 mL
Volume of seed added to each sample including (LCSs and MS) in mL = 2

Blank: 08281100
LCS: 0837 1107

Sample ID	Seed Volume mL	Initial DO D1	Final DO D2	Cons. DO D1-D2	Seed Correction Factor	In Criteria?
Blank 1	0	7.79 ~~8.28~~	7.90	~~0.38~~ 6.11	N/A	~~No~~ Yes
Blank 2	0	7.70	7.90	-0.2	N/A	Yes
Blank 3	0	7.64	7.88	-0.24	N/A	No
Seed Control 1	2	7.67	6.80	0.87	0.87	No
Seed Control 2	4	7.85	5.81	2.04	1.02	1.02
Seed Control 3	8	7.56	4.46	3.1	0.78	0.78
Seed Control 4	12	7.43	1.26	6.17	1.03	1.03
			Mean Seed Correction Factor (SCF):			**0.94**

LCS Recovery Calculations

GGA Added (mL): 6 **LCS True Value (mg/L):** 198

LCS ID	Calc mg/L	% Recovery	Recovery Acceptance Limits (%): 84.6 TO 115.4	
LCS 1	213.94	108.1	LCS Within Criteria ?	Yes
LCS 2	220.44	111.3	LCS Within Criteria ?	Yes
LCS 3	218.94	110.6	LCS Within Criteria ?	Yes
Mean	217.78	110.0	LCS Within Criteria ?	Yes

Matrix Spike Recovery Calculations (75-125%)
Spike Recovery=(Seed Corrected DO MS-Seed Corrected DO Sample)/(Total mg Spike)

Katahdin Sample Number	Sample Volume (mL)	Sample BOD (mg/L)	Spk. Sample BOD (mg/L)	mL GGA Spike Added	MS True Value (mg/L)	Spike Recovery (%)
5624	0.25			6	4752	0.0
					#DIV/0!	#DIV/0!
					#DIV/0!	#DIV/0!

All Data From This Batch Must Be Qualified As Follows:

LCS 1
LCS 2
LCS 3
Blank 1 D11
Blank 2

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	**Sample Volume mL**	**Initial DO mg/L** *(D1)*	**Final DO mg/L** *(D2)*	**DO Cons. mg/L** *(D1-D2)*	**Corrected DO cons.** *(D1-D2-SCF)*	**Calc. BOD mg/L**	**DO consumed in Criteria?**	**Adjusted PQL**
LCS 1	6.000	7.71	2.49	5.22	4.28	213.94	Yes	100.0
LCS 2	6.000	7.80	2.45	5.35	4.41	220.44	Yes	100.0
LCS 3	6.000	7.92	2.60	5.32	4.38	218.94	Yes	100.0
Mean LCS Result	6.000	7.810	2.513	5.297	4.356	217.778	Yes	100.0
0851 **5624** 1110	0.250 +.375	7.81	4.69	3.12	2.18 + 3.60	2614.67	Yes	2400.0
	0.500	7.88	1.90	5.98	5.04	3023.33	Yes	1200.0
	1.000	7.77	<1	6.77	5.83	1748.67	No	600.0
	2.000	7.59	<1	6.59	5.65	847.33	No	300.0
	5.000	7.87	<1	6.87	5.93	355.73	No	120.0
MS	0.250	7.72	<1	6.72	5.78	6934.67	No	2400.0
DUP	2.000	7.76	<1	6.76	5.82	872.83	No	300.0
0905 **5653-1** 1113	0.500	7.65	6.31	1.34	0.40	239.33	No	1200.0
	1.000	7.53	5.64	1.89	0.95	284.67	No	600.0
	2.000 +3.5	7.63	4.80	2.83	1.89 + 3.57	283.33	Yes	300.0
	5.000	7.61	1.42	6.19	5.25	314.93	Yes	120.0
	10.000	7.61	<1	6.61	5.67	170.07	No	60.0
	25.000	7.12	<1	6.12	5.18	62.15	No	24.0
0918 **5653-3** 1117	0.500	7.68	6.87	0.81	-0.13	-78.67	No	1200.0
	1.000	7.77	5.56	2.21	1.27	380.67	Yes	600.0
	2.000	7.89	6.67	1.22	0.28	41.83	No	300.0
	5.000	8.01	5.70	2.31	1.37	82.13	Yes	120.0
	10.000	7.74	4.98	2.76	1.82	54.57	Yes	60.0
0938 **5656** 1121	0.025	7.62	6.56	1.06	0.12	1426.67	No	24000.0
	0.050	7.74	5.67	2.07	1.13	6773.33	Yes	12000.0
	0.100	7.62	4.37	3.25	2.31	6926.67	Yes	6000.0
	0.250	8.02	<1	7.02	6.08	7294.67	No	2400.0
	0.500	7.86	<1	6.86	5.92	3551.33	No	1200.0
	1.000	7.88	<1	6.88	5.94	1781.67	No	600.0
1550 **5689-1** 1125	1.000	7.44	7.33	0.11	-0.83	-249.33	No	600.0
	2.000	7.85	7.34	0.51	-0.43	-64.67	No	300.0
	5.000	7.77	7.23	0.54	-0.40	-24.07	No	120.0
	10.000	7.89	7.07	0.82	-0.12	-3.63	No	60.0
	25.000	7.79	7.05	0.74	-0.20	-2.41	No	24.0
	50.000	7.58	6.33	1.25	0.31	1.85	No	12.0
	100.000	7.30	4.94	2.36	1.42	4.26	Yes	6.0
	300.000	7.45	<1	6.45	5.51	5.51	No	2.0
1600 **5689-9** 1132	1.000	7.61	7.36	0.25	-0.69	-207.33	No	600.0
	2.000	7.74	6.79	0.95	0.01	1.33	No	300.0
	5.000	7.75	6.91	0.84	-0.10	-6.07	No	120.0
	10.000	7.70	6.38	1.32	0.38	11.37	No	60.0
	25.000	7.64	6.48	1.16	0.22	2.63	No	24.0

KATAHDIN ANALYTICAL SERVICES, INC.

Biochemical Oxygen Demand - Methods EPA 405.1 & SM 5210B

TBOD5 [X] **CBOD5** [ ]

Data Entry By: JL

Sample Analysis								
Sample ID	Sample Volume mL	Initial DO mg/L *(D1)*	Final DO mg/L *(D2)*	DO Cons. mg/L *(D1-D2)*	Corrected DO cons. *(D1-D2-SCF)*	Calc. BOD mg/L	DO consumed in Criteria?	Adjusted PQL
	50.000	7.44	5.74	1.70	0.76	4.55	No	12.0
	100.000	7.08	4.00	3.08	2.14	6.42	Yes	6.0
	300.000	5.20 6	<1	4.20	3.26	3.26	No	2.0
1601 5689-3 1139	1.000	7.74	7.48	0.26	-0.68	-204.33	No	600.0
	2.000	7.90	7.42	0.48	-0.46	-69.17	No	300.0
	5.000	7.68	6.98	0.70	-0.24	-14.47	No	120.0
	10.000	7.78	6.65	1.13	0.19	5.67	No	60.0
	25.000	7.48	6.20	1.28	0.34	4.07	No	24.0
	50.000 150	7.35	5.28	2.07	1.13 2.497	6.77	Yes	12.0
	100.000	7.09	4.83	2.26	1.32	3.96	Yes	6.0
	300.000	7.34	1.36	5.98	5.04	5.04	Yes	2.0
1602 5689-5 1145	1.000	7.69	7.09	0.60	-0.34	-102.33	No	600.0
	2.000	7.90	7.25	0.65	-0.29	-43.67	No	300.0
	5.000	7.74	6.74	1.00	0.06	3.53	No	120.0
	10.000	7.44	6.14	1.30	0.36	10.77	No	60.0
	25.000	7.54	6.24	1.30	0.36	4.31	No	24.0
	50.000	7.50	5.99	1.51	0.57	3.41	No	12.0
200	100.000	7.08	4.71	2.37	1.43 3.26	4.29	Yes	6.0
	300.000	7.94	1.91	6.03	5.09	5.09	Yes	2.0
1603 ~~5657~~ 1153	0.500	7.65	6.38	1.27	0.33	197.33	No	1200.0
51067	1.000 1.5	7.72	5.14	2.58	1.64 2.39	491.67	Yes	600.0
	2.000	7.77	3.69	4.08	3.14	470.83	Yes	300.0
	5.000	7.63	<1	6.63	5.69	341.33	No	120.0
	10.000	7.50	<1	6.50	5.56	166.77	No	60.0
1605 5683-1156	0.250 .375	7.86	4.73	3.13	2.19 3.08	2626.67	Yes	2400.0
	0.500	7.71	2.80	4.91	3.97	2381.33	Yes	1200.0
	1.000	7.79	<1	6.79	5.85	1754.67	No	600.0
	2.000	7.59	<1	6.59	5.65	847.33	No	300.0
	5.000	7.34	<1	6.34	5.40	323.93	No	120.0
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!
				0.00	-0.94	#DIV/0!	No	#DIV/0!

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

WG305121

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.		
Total BOD: SM5210B EPA 405.1		**PQL: 2.0 mg/L**	
Carbonaceous BOD: SM5210B		**PQL: 2.0 mg/L**	
Glutamic Acid Std (GGA) ID: GGA 082621	GGA Preparation:	Seed Used Source ID and Amount:	
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA: ✓	3 mL ✓
Phosphate Bffr Soln. ID: W20097	SWL4207	SSD:	1 mL
$H_{14}MgO_{11}S$ ID: SWL4797	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:	
Ferric Chloride Soln. ID: SWL4770	SWL4623	Starch Indicator ID:	
Calcium Chloride Soln. ID: SWL4757		Potassium Iodide Soln. ID:	

pH Meter Calibration		Probe ID:		
True Value	Lot ID	Actual Value	Accept? ± 0.05	
4.01				
7.00				
10.01				
DO Meter ID: B27869		DO Probe ID: 08L030MD		
KI Paper ID: 14-860		pH Paper ID: 16102002		
Carboy ID: J		1:50 H_2SO_4 ID:		
Pipet IDs: W3, 7, 10, 13				

Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):	Base 2 ID (B2):

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
Blank		8:28					K1		7.79	7.90	1100	
↓		29					100R		7.70	7.90	01	
		30					191		7.64	7.88	02	
2		31					188		7.67	6.80	1103	
4		32					380		7.85	5.81	04	
8		34					188		7.56	4.46	05	
12		35					30		7.43	1.26	06	
LCS		08 37					B1		7.71	2.49	1107	
↓		38					059		7.80	2.45	08	
		39					F88		7.92	2.60	09	
S05624	Sup	08 51	✓			N	212	.25	7.81	4.69	1110	
	Carrier	52	↓			↓	X2	.5	7.88	1.90	10	
		53					213	1	7.77	<1	11	
		54					22C	2	7.59	<1	11	
		55					299	5	7.87	<1	11	
	MS	08 57					201	.25	7.72	<1	1012	
	Dup	58	↓			↓	11A	2	7.76	<1	12	

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SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S05653-1	York Hosp	9:07	✓			N	202A	.5	7.65	6.31	11 13	
	Kitchen 1	8					104	1	7.53	5.64	14	
		9					OP	2	7.63	4.80	15	
		10					869	5	7.61	1.42	15	
		12					276L	10	7.61	<1	16	
		15					835	25	7.12	<1	16	
S05653-3	York	09 18	✓			N	BDP	.5	7.68	6.87	11 17	
	Hos.	19					429	1	7.77	5.56	17	
	Surgery	20					M1	2	7.89	6.67	18	
		22					124E	5	8.01	5.70	19	
		24					60C	10	7.74	4.98	20	
												JJ 8/2
S05656	Lone Pine	09 29	✓			N	6262	0.025	7.62	6.56	11 21	
		30					84	0.05	7.74	5.67	22	
		31					P	0.1	7.62	4.37	23	
		32					068	0.25	8.02	<1	23	
		33					135	0.5	7.86	<1	23	
		34					1234	1	7.88	<1	23	
~~S05689~~	Seres							1				JJ 8/2
								2				
								5				
								10				
								25				

NOTES:

ANALYST 1	JL/DJ	DATE	8/26/21
ANALYST 2	JL	DATE	8/31/21
CHECKED BY:	[illegible]	DATE	09/02/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.				pH Meter Calibration		Probe ID:	
Total BOD: SM5210B	EPA 405.1		PQL: 2.0 mg/L		True Value	Lot ID	Actual Value	Accept? ± 0.05
Carbonaceous BOD:	SM5210B		PQL: 2.0 mg/L		4.01			
Glutamic Acid Std (GGA) ID: GGA		GGA Preparation:	Seed Used Source ID and Amount:		7.00			
Nitirification Inhibitor ID:		0.15g Glucose ID:	LAWPCA:	1 mL	10.01			
Phosphate Bffr Soln. ID:			SSD:	1 mL	DO Meter ID: B27869		DO Probe ID:	
$H_{14}MgO_{11}S$ ID:		0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID:		pH Paper ID:	
Ferric Chloride Soln. ID:			Starch Indicator ID:		Carboy ID:		1:50 H_2SO_4 ID:	
Calcium Chloride Soln. ID:			Potassium Iodide Soln. ID:		Pipet IDs:			
Acid 1 ID (A1):	Acid 2 ID (A2):		Base1 ID (B1):		Base 2 ID (B2):			

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S05689-1	Seres	15:50	✓			N	811R	8/26 ~~50~~ 1	7.44	7.33	11 25	
	3-S baseline	51					2A	8/26 ~~100~~ 2	7.85	7.34	26	
		52					288M	8/26 ~~300~~ 5	7.77	7.23	27	
		52					466	10	7.89	7.07	28	
		53					816A	25	7.79	7.05	29	
		55					447	50	7.58	6.33	30	
		56					050	100	7.30	4.94	31	
		57					262	300	7.45	<1	31	
S05689-9	Seres SMH-	16:00	✓			N	BP05	1	7.61	7.36	11 32	
	10	01					158	2	7.74	6.79	33	
		02					H2	5	7.75	6.91	34	
		03					1A	10	7.70	6.38	35	
		04					DMS	25	7.64	6.48	36	
		04					25M	50	7.44	5.74	37	
		05					130	100	7.08	4.00	37	
		08					IV	300	~~5.20~~ 8/26	<1	38	
									5.26			

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SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S63689-3	Seres 4D-	10 11	✓			✓	17P	1	7.74	7.48	1139	
	Baseline	12					418P	2	7.90	7.42	39	
		13					386	5	7.68	6.98	40	
		14					671	10	7.78	6.65	41	
		15					115	25	7.48	6.20	42	
		16					K9	50	7.35	5.28	43	
		17					37A	100	7.09	4.83	44	
		18					109	300	7.34	1.36	45	
S05689-5	Seres AS-	10 20	✓			N	2009	1	7.69	7.09	1145	
	DUP - Baseline	21					067	2	7.90	7.25	46	
		23					331	5	7.74	6.74	47	
		25					195P	10	7.44	6.14	48	
		26					159	25	7.54	6.24	49	
		27					BP06	50	7.50	5.99	50	
		28					BP30	100	7.09	4.71	51	
		29					430	300	7.94	1.91	52	
S05067	Inland Tech	10 31	✓			N	~~7IN~~ 1000	0.5	7.65	6.38	1153	
	Monthly	32					200	1	7.72	5.14	54	
		33					~~7080~~ 29N	2	7.77	3.69	55	
		34					210	5	7.63	<1	55	
		35					345	10	7.50	<1	55	

JL 8/31/21

NOTES:

ANALYST 1	JL/JS	DATE	8/26/21
ANALYST 2	JL	DATE	8/31/21
CHECKED BY:	[illegible]	DATE	09/02/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

KATAHDIN ANALYTICAL SERVICES - BIOCHEMICAL OXYGEN DEMAND

Check the appropriate Test and Method:	If CBOD is checked below, this indicates that 0.16g of nitrification inhibitor has been added to each bottle below.			pH Meter Calibration		Probe ID:		
Total BOD: SM5210B	EPA 405.1		**PQL: 2.0 mg/L**	True Value	Lot ID	Actual Value	Accept? ± 0.05	
Carbonaceous BOD:	SM5210B		**PQL: 2.0 mg/L**	4.01				
Glutamic Acid Std (GGA) ID: GGA	GGA Preparation:	Seed Used Source ID and Amount:		7.00				
Nitirification Inhibitor ID:	0.15g Glucose ID:	LAWPCA:	1 mL	10.01				
Phosphate Bffr Soln. ID:		SSD:	1 mL	DO Meter ID: B27869		DO Probe ID:		
$H_{14}MgO_{11}S$ ID:	0.15 g Glutamic Acid ID:	$Na_2S_2O_3$ ID:		KI Paper ID:		pH Paper ID:		
Ferric Chloride Soln. ID:		Starch Indicator ID:		Carboy ID:		1:50 H_2SO_4 ID:		
Calcium Chloride Soln. ID:		Potassium Iodide Soln. ID:		Pipet IDs:				
Acid 1 ID (A1):	Acid 2 ID (A2):	Base1 ID (B1):		Base 2 ID (B2):				

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *
S05683-2	highliner-	16:38	✓			N	975	0.25	~~7.50~~ 7.86	4.73	1156	
	eff	41					2	0.5	7.71	2.80	57	
		42					108	1	7.79	<1	58	
		43					384	2	7.59	<1	58	
		44					1447	5	7.34	<1	58	

JL
8/31/21

WL-013 - Revision 9 - 12/11/2018

QAWL1025 - 000345

0000132

Katahdin Analytical Services 5000093

SAMPLE ID	SITE ID	START TIME	pH 6.5 - 7.5?	pH 7.0-7.2?	Acid/Base Used	CL- Y/N	BOTTLE ID#	VOL (ml)	D.O. DAY 1	D.O. DAY 5	END TIME	SMP TEMP DAY 1 17-23 °C Y / N *

JL 8/31/21

NOTES:

ANALYST 1 JL/JW	DATE 8/26/21
ANALYST 2 JL	DATE 8/31/21
CHECKED BY: [illegible]	DATE 09/02/21

* If N, please comment why

LAWPCA = Lewiston-Auburn Water Pollution Control Authority, SSD=Scarborough Sanitary District

H14MgO11S = Magnesium Sulfate Heptahydrate

WL-013 - Revision 9 - 12/11/2018

Katahdin Analytical Services 5000094

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 08:18 am
Batch: WG305350 Run ID 1: R575593 Run ID 2: R575595

Parameter: Total Organic Carbon

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5609-1	SAMP	SM5310B	20.000mL	20.000mL	1	23.55	24. mg/L	NA	1	0.10	1.0		
SO5627-1	SAMP	SM5310B	20.000mL	20.000mL	1	6.65	6.6 mg/L	NA	1	0.10	1.0		
WG305350-1	MBLANK	SM5310B	20.000mL	20.000mL	1	.1311	J0.13 mg/L	NA	1	0.10	1.0		
WG305350-2	LCS	SM5310B	20.000mL	20.000mL	1	51.58	52. mg/L	NA	1	0.10	1.0		103

Comments:

WG305350-1 SO5609-1
WG305350-2 SO5609-1

Entered by: JL Date: 8/31/21 Accepted by: [illegible] Date: 09/02/21

Katahdin Analytical Services 5000095

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 08:22 am
Batch: WG305351 Run ID 1: R575594 Run ID 2: R575596

Parameter: Total Organic Carbon (1)

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5689-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	3.709	3.7 mg/L	NA	1	0.10	1.0		
SO5689-3	SAMP	SW846 9060A	20.000mL	20.000mL	1	1.913	1.9 mg/L	NA	1	0.10	1.0		
SO5689-5	SAMP	SW846 9060A	20.000mL	20.000mL	1	1.979	2.0 mg/L	NA	1	0.10	1.0		
SO5689-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	4.314	4.3 mg/L	NA	1	0.10	1.0		
SO5689-9	SAMP	SW846 9060A	20.000mL	20.000mL	1	2.476	2.5 mg/L	NA	1	0.10	1.0		
WG305351-1	MBLANK	SW846 9060A	20.000mL	20.000mL	1	.1311	J0.13 mg/L	NA	1	0.10	1.0		
WG305351-2	LCS	SW846 9060A	20.000mL	20.000mL	1	51.58	52. mg/L	NA	1	0.10	1.0		103

Comments:

SO5689-1	Anions please report Cl & SO4.
SO5689-3	Anions please report Cl & SO4.
SO5689-5	Anions please report Cl & SO4.
SO5689-7	Anions please report Cl & SO4.
SO5689-9	Anions please report Cl & SO4.
WG305351-1	SO5689-1
WG305351-2	SO5689-1

Entered by: JL Date: 8/31/21 Accepted by: [signature] Date: 09/02/21

Katahdin Analytical Services 5000096

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 09:48 am
Batch: WG305357 Run ID 1: R575602 Run ID 2: R575603

Parameter: Dissolved Organic Carbon (1)

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5666-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	5.914	5.9 mg/L	NA	1	0.32	1.0		
SO5666-3	SAMP	SW846 9060A	20.000mL	20.000mL	1	5.919	5.9 mg/L	NA	1	0.32	1.0		
SO5666-5	SAMP	SW846 9060A	20.000mL	20.000mL	1	.1476	U1.0 mg/L	NA	1	0.32	1.0		
SO5697-1	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.608	6.6 mg/L	NA	1	0.32	1.0		
SO5697-3	SAMP	SW846 9060A	20.000mL	20.000mL	1	5.349	5.3 mg/L	NA	1	0.32	1.0		
SO5697-5	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.066	6.1 mg/L	NA	1	0.32	1.0		
SO5697-9	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.283	6.3 mg/L	NA	1	0.32	1.0		
SO5697-11	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.431	6.4 mg/L	NA	1	0.32	1.0		
SO5697-13	SAMP	SW846 9060A	20.000mL	20.000mL	1	.1819	U1.0 mg/L	NA	1	0.32	1.0		
WG305357-1	MBLANK	SW846 9060A	20.000mL	20.000mL	1	.1069	U0.50 mg/L	NA	1	0.32	1.0		
WG305357-2	LCS	SW846 9060A	20.000mL	20.000mL	1	51.33	51. mg/L	NA	1	0.32	1.0		103
WG305357-3	MS	SW846 9060A	20.000mL	20.000mL	1	103.6	100 mg/L	NA	1	0.32	1.0		98
WG305357-4	MSD	SW846 9060A	20.000mL	20.000mL	1	59.99	60. mg/L	NA	1	0.32	1.0	53	54
WG305357-5	MS	SW846 9060A	20.000mL	20.000mL	1	102.6	100 mg/L	NA	1	0.32	1.0		97
WG305357-6	MSD	SW846 9060A	20.000mL	20.000mL	1	101.5	100 mg/L	NA	1	0.32	1.0	1	96

Comments:

SO5666-3	MS/MSD
SO5697-3	MS/MSD
WG305357-1	SO5666-3
WG305357-2	SO5666-3
WG305357-3	SO5666-3
WG305357-4	SO5666-3
WG305357-5	SO5697-3
WG305357-6	SO5697-3

Entered by: JL Date: 8/31/21 Accepted by: [illegible] Date: 09/02/21

Katahdin Analytical Services 5000097

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 12:50 pm
Batch: WG305373 Run ID 1: R575619 Run ID 2: R575620

Parameter: Dissolved Organic Carbon (Average)

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5697-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.50125	6.5 mg/L	NA	1	0.32	1.0		

Comments:

WG305373-1 SO5697-7
WG305373-2 SO5697-7

Entered by: JL Date: 8/31/21 Accepted by: [illegible] Date: 09/02/21

Katahdin Analytical Services 5000098

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 12:47 pm
Batch: WG305373 Run ID 1: R575619 Run ID 2: R575620

Parameter: Dissolved Organic Carbon (1)

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5697-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.493	6.5 mg/L	NA	1	0.32	1.0		
WG305373-1	MBLANK	SW846 9060A	20.000mL	20.000mL	1	0	U0.50 mg/L	NA	1	0.32	1.0		
WG305373-2	LCS	SW846 9060A	20.000mL	20.000mL	1	51.33	51. mg/L	NA	1	0.32	1.0		103

Comments:

WG305373-1 SO5697-7
WG305373-2 SO5697-7

Entered by: JL Date: 8/31/21 Accepted by: [illegible] Date: 09/02/21

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 12:47 pm
Batch: WG305373 Run ID 1: R575619 Run ID 2: R575620

Parameter: Dissolved Organic Carbon (2)

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5697-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.551	6.6 mg/L	NA	1	0.32	1.0		

Comments:

WG305373-1 SO5697-7
WG305373-2 SO5697-7

Entered by: for JL Date: 09/02/21 Accepted by: Date: 09/02/21

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 12:47 pm
Batch: WG305373 Run ID 1: R575619 Run ID 2: R575620

Parameter: Dissolved Organic Carbon (3)

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5697-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.487	6.5 mg/L	NA	1	0.32	1.0		

Comments:

WG305373-1 SO5697-7
WG305373-2 SO5697-7

Entered by: JL Date: 8/31/21 Accepted by: [signature] Date: 09/02/21

WET CHEMISTRY BATCH REPORT
Aug 31 2021, 12:47 pm
Batch: WG305373 Run ID 1: R575619 Run ID 2: R575620

Parameter: Dissolved Organic Carbon (4)

Date Analyzed: 30-AUG-21

Analyst Initials: JL

Prep Date: N/A

Prep Method: N/A

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO5697-7	SAMP	SW846 9060A	20.000mL	20.000mL	1	6.474	6.5 mg/L	NA	1	0.32	1.0		

Comments:

WG305373-1 SO5697-7
WG305373-2 SO5697-7

Entered by: JL Date: 8/31/21 Accepted by: [illegible] Date: 09/02/21

KATAHDIN ANALYTICAL SERVICES, LLC
CARBON ANALYSIS RUN INFORMATION SHEET

INSTR. ID: WC2 (Shimadzu TOC-V_{CPH}) **ANALYST:** JL **DATE:** 08/31/21

FILE NAME: SMTOC083021
TOC1 083021
DOC1 083021
DOC1234083021

METHOD(S):

TOC	DOC	TIC
• EPA 415.1	• EPA 415.1	• EPA 415.1
• SM5310B	• SM5310B	• SM5310B
• _____	• _____	• _____

CALIBRATION DATE: 07-23-21 **CALIBRATION ANALYST:** KD/JL

Calibration standards were prepared by performing dilutions of the following standard on the day of calibration:

Calibration Source Standard ID	Prep Date	Expiration Date	Standard Conc. (mg/L)
W20214	07/23/21	10/23/21	2000

Note: Calibration must be performed quarterly or whenever a change in analysis conditions warrant. A copy of the associated calibration data is attached to this run.

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
CCV	W20215	07/23/21	10/23/21	100 mg C/L
LCS	W20212	07/23/21	10/23/21	50 mg C/L
MS Stock Std. *	W20214	07/23/21	10/23/21	2000 mg C/L
Alkalinity Check	W20213	07/23/21	10/23/21	15 mg/L (Inorg. C)

* Matrix spikes are prepared by adding 2.0 mL of MS Stock Std. to 38 mL of sample.

Additional Comments and Notes:

JL
8/31/21

	Sample Name	Dilution	Result	Comment	Date / Time	Vial
1	ALK CHECK	1.000	NPOC:0.1245 mg/L		8/30/2021 3:00:35 PM	1
2	CCV	1.000	NPOC:94.71 mg/L	94.7%	8/30/2021 3:14:50 PM	2
3	BLANK	1.000	NPOC:0.1311 mg/L		8/30/2021 3:25:48 PM	6
4	LCS	1.000	NPOC:51.58 mg/L		8/30/2021 3:39:43 PM	10
5	LCS	1.000	NPOC:51.33 mg/L		8/30/2021 3:51:16 PM	10
6	SO5666-1	1.000	NPOC:5.914 mg/L	DOC1	8/30/2021 4:03:26 PM	11
7	S05666-3	1.000	NPOC:5.919 mg/L	DOC1	8/30/2021 4:15:36 PM	12
8	SO5666-3 MS	1.000	NPOC:103.6 mg/L	DOC1	8/30/2021 4:29:16 PM	13
9	SO5666-3 MSD	1.000	NPOC:59.99 mg/L	DOC1	8/30/2021 4:42:32 PM	14
10	SO5666-5	1.000	NPOC:0.1476 mg/L	DOC1	8/30/2021 4:53:38 PM	15
11	SO5697-1	1.000	NPOC:6.608 mg/L	DOC1	8/30/2021 5:09:44 PM	16
12	SO5697-3	1.000	NPOC:5.349 mg/L	DOC1	8/30/2021 5:22:31 PM	17
13	SO5697-3 MS	1.000	NPOC:102.6 mg/L	DOC1	8/30/2021 5:36:40 PM	18
14	CCV	1.000	NPOC:93.20 mg/L	93.2%	8/30/2021 5:51:07 PM	2
15	BLANK	1.000	NPOC:0.1069 mg/L		8/30/2021 6:02:06 PM	6
16	SO5697-3 MSD	1.000	NPOC:101.5 mg/L	DOC1	8/30/2021 6:16:22 PM	19
17	SO5697-5	1.000	NPOC:6.066 mg/L	DOC1	8/30/2021 6:28:44 PM	20
18	SO5697-7	1.000	NPOC:6.493 mg/L	DOC1	8/30/2021 6:41:10 PM	21
19	SO5697-7	1.000	NPOC:6.551 mg/L	DOC2	8/30/2021 6:51:45 PM	21
20	SO5697-7	1.000	NPOC:6.487 mg/L	DOC3	8/30/2021 7:04:13 PM	22
21	SO5697-7	1.000	NPOC:6.474 mg/L	DOC4	8/30/2021 7:14:40 PM	22
22	SO5697-9	1.000	NPOC:6.283 mg/L	DOC1	8/30/2021 7:27:17 PM	23
23	SO5697-11	1.000	NPOC:6.431 mg/L	DOC1	8/30/2021 7:39:46 PM	24
24	SO5697-13	1.000	NPOC:0.1819 mg/L	DOC1	8/30/2021 7:50:49 PM	25
25	SO5609-1	1.000	NPOC:23.55 mg/L	SMTOC	8/30/2021 8:04:20 PM	26
26	CCV	1.000	NPOC:94.97 mg/L	95.0%	8/30/2021 8:18:42 PM	3
27	BLANK	1.000	NPOC:0.000 mg/L		8/30/2021 8:29:35 PM	7
28	SO5627-7	1.000	NPOC:6.650 mg/L	SMTOC	8/30/2021 8:42:24 PM	27
29	SO5689-1	1.000	NPOC:3.709 mg/L	TOC1	8/30/2021 8:54:39 PM	28
30	SO5689-3	1.000	NPOC:1.913 mg/L	TOC1	8/30/2021 9:06:33 PM	29
31	SO5689-5	1.000	NPOC:1.979 mg/L	TOC1	8/30/2021 9:18:32 PM	30
32	SO5689-7	1.000	NPOC:4.314 mg/L	TOC1	8/30/2021 9:30:50 PM	31
33	SO5689-9	1.000	NPOC:2.476 mg/L	TOC1	8/30/2021 9:43:16 PM	32
34	CCV	1.000	NPOC:95.91 mg/L	95.9%	8/30/2021 9:57:54 PM	3
35	BLANK	1.000	NPOC:0.000 mg/L		8/30/2021 10:08:47 PM	7

Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Sample

Sample Name:	ALK CHECK
Sample ID:	<Untitled>
Origin:	DOUBLE INJECTION B.met
Chk. Result	

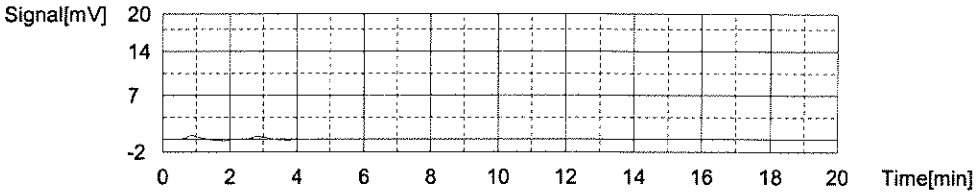
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1245 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.571	0.1494mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 2:58:31 PM
2	1.048	0.09967mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:00:35 PM

Mean Area 1.310
Mean Conc. 0.1245mg/L



Control Sample

Sample Name:	CCV
Sample ID:	<Untitled>
Method:	CCV DOUBLE INJECTION.tpl
Chk. Result	Control value: 94.71 / Control within range!

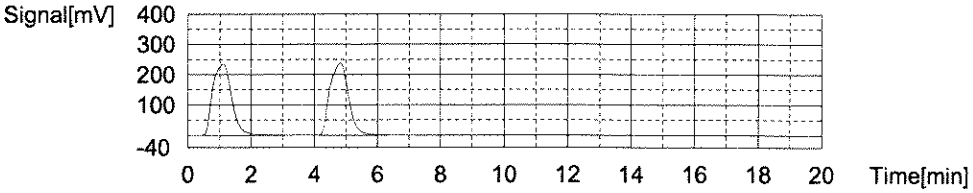
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:94.71 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	997.5	94.86mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:11:08 PM
2	994.3	94.56mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:14:50 PM

Mean Area 995.9
Mean Conc. 94.71mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.1311 / Control within range!

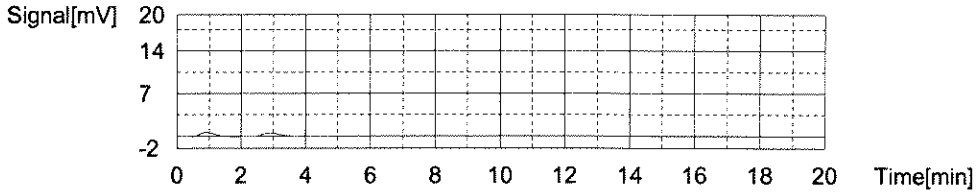
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1311 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.664	0.1583mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:23:40 PM
2	1.093	0.1039mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:25:48 PM

Mean Area 1.379
Mean Conc. 0.1311mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCS DOUBLE INJECTION.tpl
Chk. Result Control value: 51.58 / Control within range!

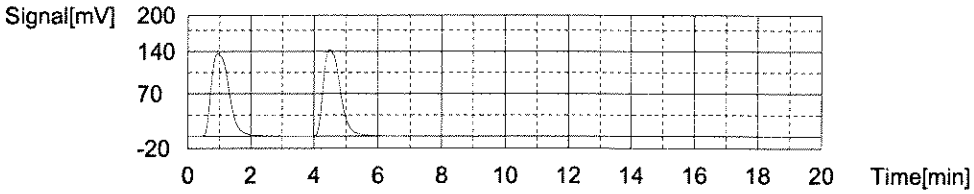
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:51.58 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	547.0	52.02mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:36:15 PM
2	537.7	51.14mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:39:43 PM

Mean Area 542.4
Mean Conc. 51.58mg/L



Control Sample

Sample Name: LCS
Sample ID: <Untitled>
Method: LCS DOUBLE INJECTION.tpl
Chk. Result Control value: 51.33 / Control within range!

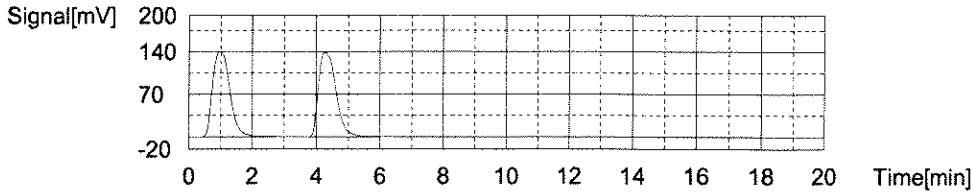
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:51.33 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	542.2	51.56mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:47:55 PM
2	537.3	51.10mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 3:51:16 PM

Mean Area 539.8
Mean Conc. 51.33mg/L



Sample

Sample Name: SO5666-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

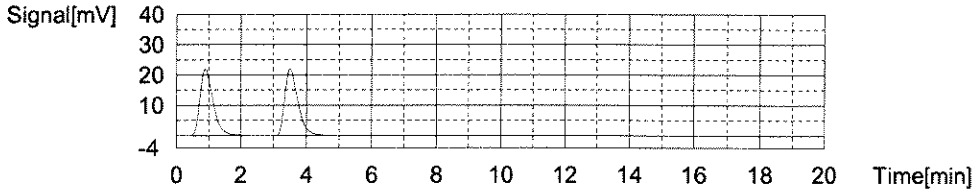
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.914 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.23	5.918mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:00:45 PM
2	62.14	5.910mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:03:26 PM

Mean Area 62.19
Mean Conc. 5.914mg/L



Sample

Sample Name: S05666-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

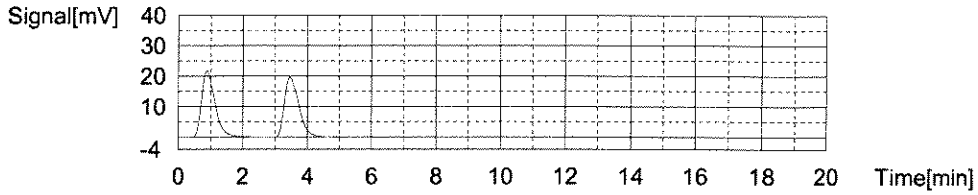
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.919 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.55	5.949mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:12:52 PM
2	61.92	5.889mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:15:36 PM

Mean Area 62.23
Mean Conc. 5.919mg/L



Sample

Sample Name: SO5666-3 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

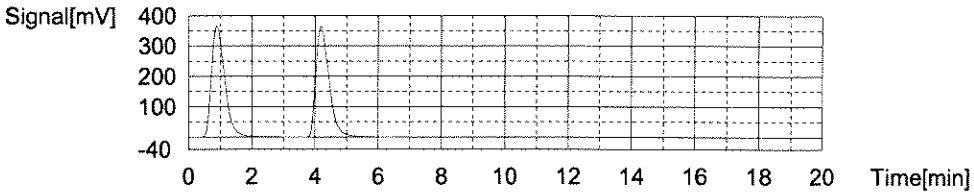
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:103.6 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1094	104.0mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:25:47 PM
2	1085	103.2mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:29:16 PM

Mean Area 1090
Mean Conc. 103.6mg/L



Sample

Sample Name: SO5666-3 MSD
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

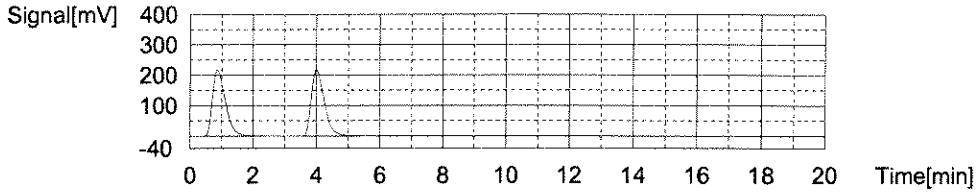
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:59.99 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	633.8	60.28mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:39:16 PM
2	627.7	59.70mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:42:32 PM

Mean Area 630.8
Mean Conc. 59.99mg/L



Sample

Sample Name: SO5666-5
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

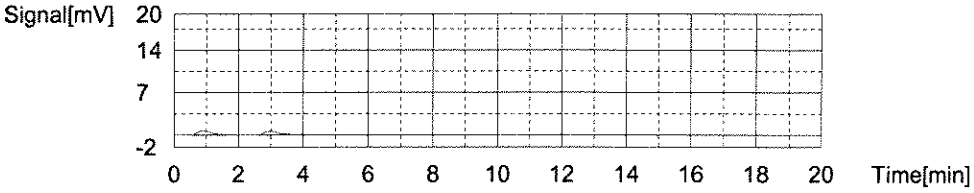
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1476 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.676	0.1594mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:51:28 PM
2	1.428	0.1358mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 4:53:38 PM

Mean Area 1.552
Mean Conc. 0.1476mg/L



Sample

Sample Name: SO5697-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

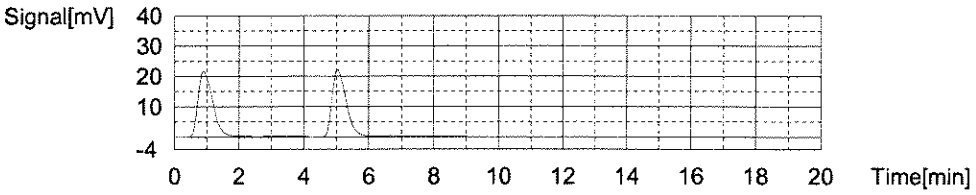
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.608 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.46	6.606mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:04:38 PM
2	69.50	6.610mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:09:44 PM

Mean Area 69.48
Mean Conc. 6.608mg/L



Sample

Sample Name: SO5697-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

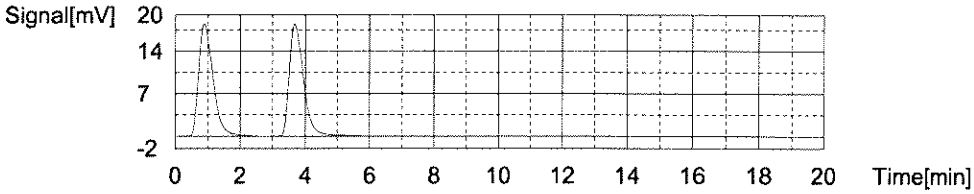
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.349 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.21	5.346mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:19:23 PM
2	56.27	5.351mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:22:31 PM

Mean Area 56.24
Mean Conc. 5.349mg/L



Sample

Sample Name: SO5697-3 MS
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

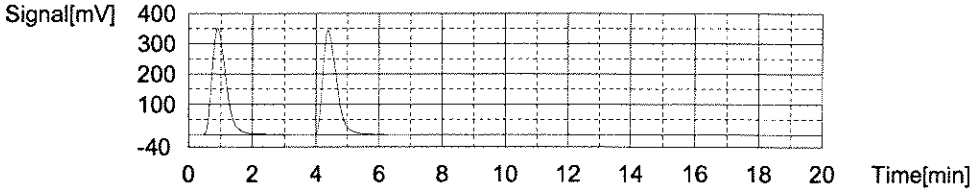
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:102.6 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1083	103.0mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:32:53 PM
2	1074	102.1mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:36:40 PM

Mean Area 1079
Mean Conc. 102.6mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCV DOUBLE INJECTION.tpl
Chk. Result Control value: 93.20 / Control within range!

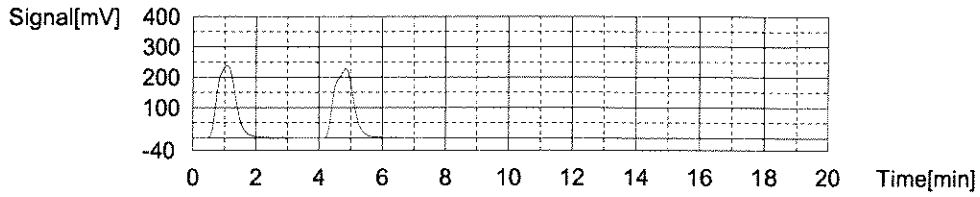
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:93.20 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	982.0	93.39mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:47:20 PM
2	978.1	93.02mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 5:51:07 PM

Mean Area 980.0
Mean Conc. 93.20mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.1069 / Control within range!

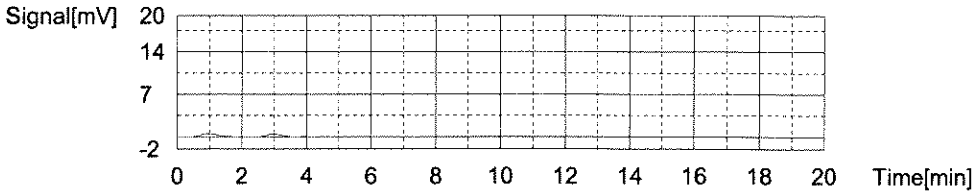
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.1069 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.340	0.1274mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:00:00 PM
2	0.9087	0.08642mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:02:06 PM

Mean Area 1.124
Mean Conc. 0.1069mg/L



Sample

Sample Name: SO5697-3 MSD
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

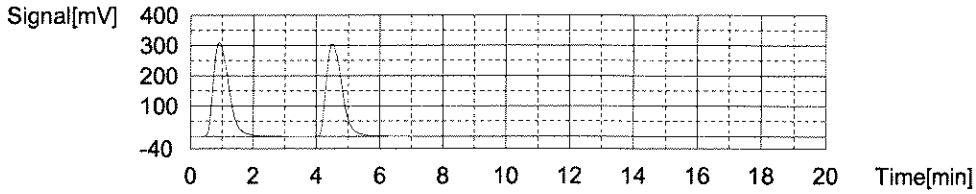
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:101.5 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1074	102.1mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:12:40 PM
2	1061	100.9mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:16:22 PM

Mean Area 1068
Mean Conc. 101.5mg/L



Sample

Sample Name: SO5697-5
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

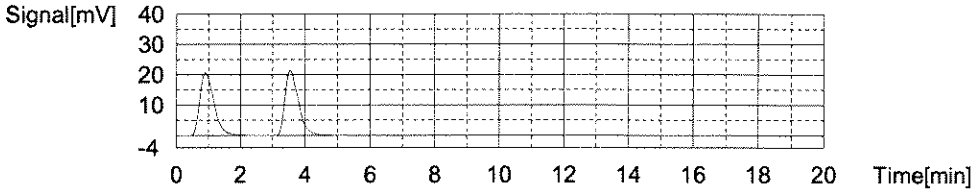
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.066 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	64.10	6.096mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:25:53 PM
2	63.46	6.035mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:28:44 PM

Mean Area 63.78
Mean Conc. 6.066mg/L



Sample

Sample Name: SO5697-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

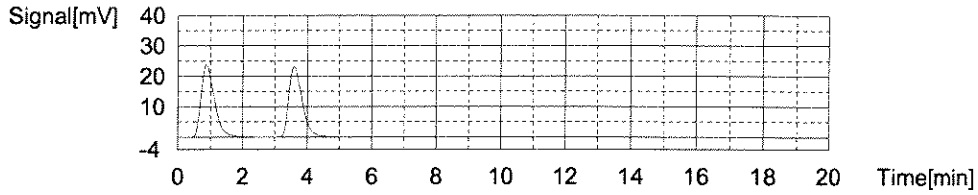
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.493 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.37	6.502mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:38:18 PM
2	68.17	6.483mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:41:10 PM

Mean Area 68.27
Mean Conc. 6.493mg/L



Sample

Sample Name: SO5697-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

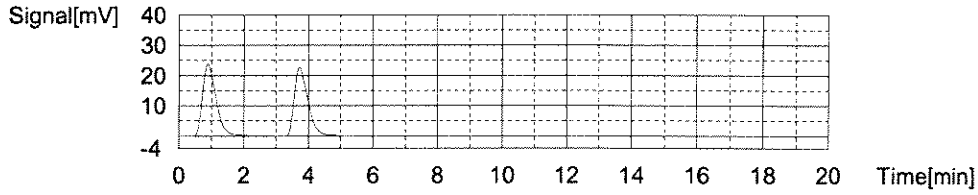
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.551 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.46	6.606mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:48:52 PM
2	68.30	6.495mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 6:51:45 PM

Mean Area 68.88
Mean Conc. 6.551mg/L



Sample

Sample Name: SO5697-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

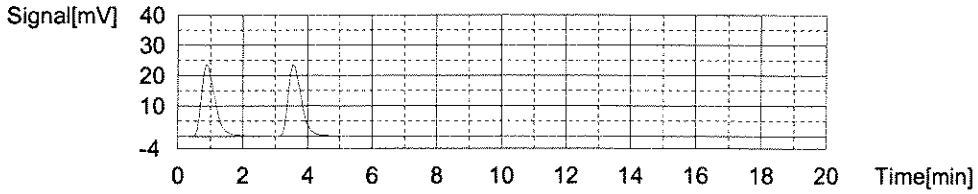
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.487 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.38	6.503mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:01:17 PM
2	68.05	6.472mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:04:13 PM

Mean Area 68.22
Mean Conc. 6.487mg/L



Sample

Sample Name: SO5697-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

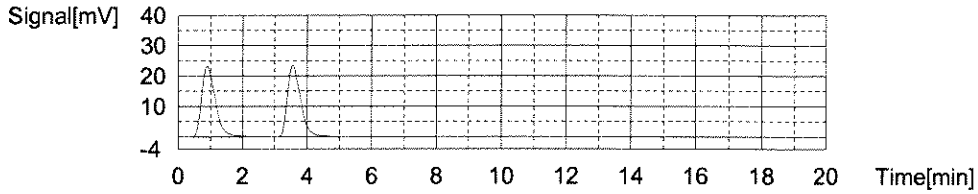
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.474 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.54	6.518mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:11:45 PM
2	67.61	6.430mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:14:40 PM

Mean Area 68.08
Mean Conc. 6.474mg/L



Sample

Sample Name: SO5697-9
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

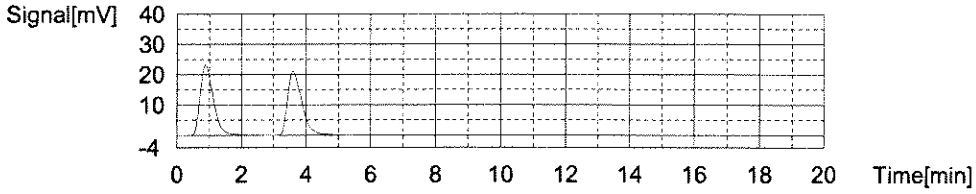
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.283 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.21	6.297mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:24:16 PM
2	65.92	6.269mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:27:17 PM

Mean Area 66.06
Mean Conc. 6.283mg/L



Sample

Sample Name: SO5697-11
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

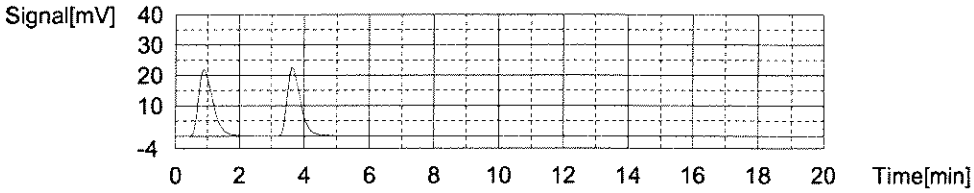
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.431 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.39	6.599mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:36:54 PM
2	65.85	6.262mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:39:46 PM

Mean Area 67.62
Mean Conc. 6.431mg/L



Sample

Sample Name: SO5697-13
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

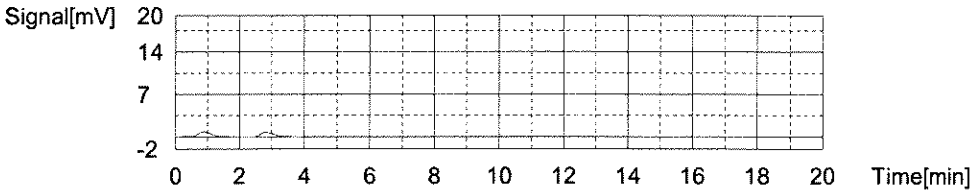
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1819 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.946	0.1851mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:48:34 PM
2	1.879	0.1787mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 7:50:49 PM

Mean Area 1.913
Mean Conc. 0.1819mg/L



Sample

Sample Name: SO5609-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

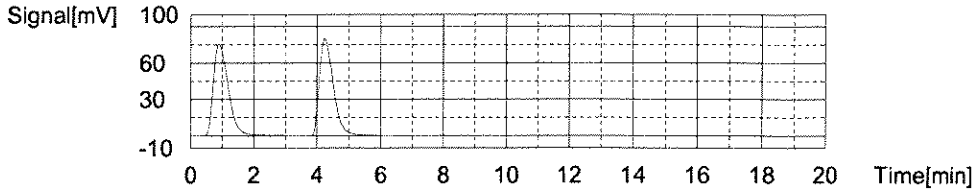
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:23.55 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	248.4	23.62mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:01:02 PM
2	246.8	23.47mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:04:20 PM

Mean Area 247.6
Mean Conc. 23.55mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCV DOUBLE INJECTION.tpl
Chk. Result Control value: 94.97 / Control within range!

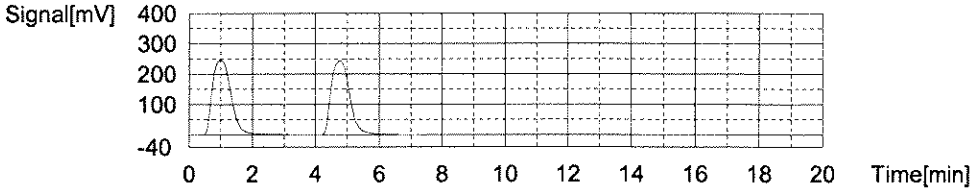
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:94.97 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1002	95.29mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:14:58 PM
2	995.3	94.66mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:18:42 PM

Mean Area 998.7
Mean Conc. 94.97mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.000 / Control within range!

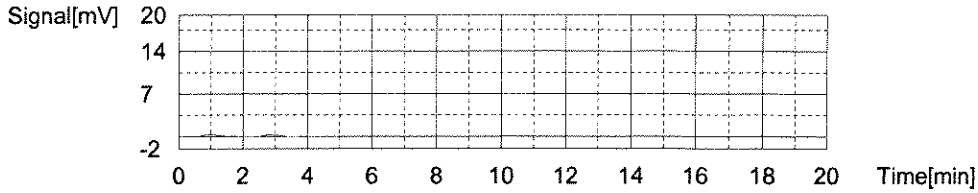
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.000 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:27:29 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:29:35 PM

Mean Area 0.000
Mean Conc. 0.000mg/L



Sample

Sample Name: SO5627-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

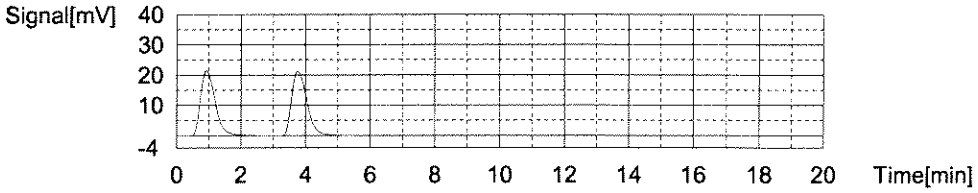
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.650 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.74	6.632mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:39:29 PM
2	70.10	6.667mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:42:24 PM

Mean Area 69.92
Mean Conc. 6.650mg/L



Sample

Sample Name: SO5689-1
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

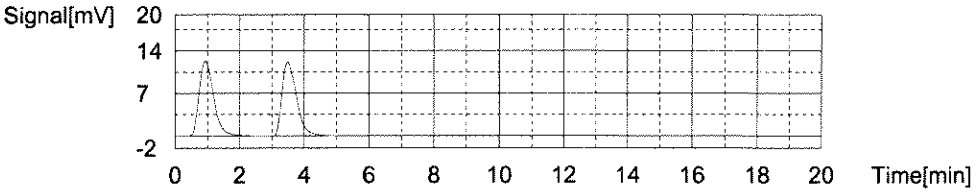
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.709 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.19	3.727mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:51:52 PM
2	38.82	3.692mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 8:54:39 PM

Mean Area 39.01
Mean Conc. 3.709mg/L



Sample

Sample Name: SO5689-3
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

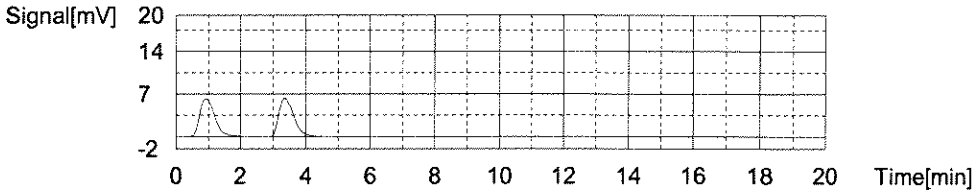
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.913 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.19	1.920mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:03:59 PM
2	20.03	1.905mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:06:33 PM

Mean Area 20.11
Mean Conc. 1.913mg/L



Sample

Sample Name: SO5689-5
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

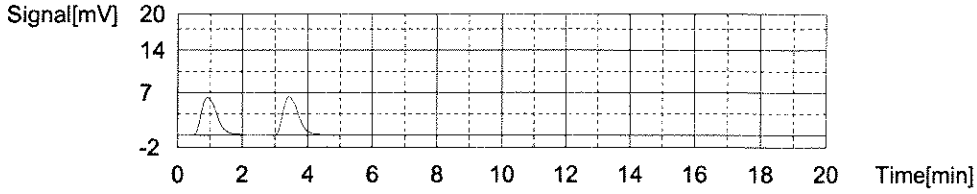
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.979 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.95	1.992mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:15:57 PM
2	20.66	1.965mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:18:32 PM

Mean Area 20.81
Mean Conc. 1.979mg/L



Sample

Sample Name: SO5689-7
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

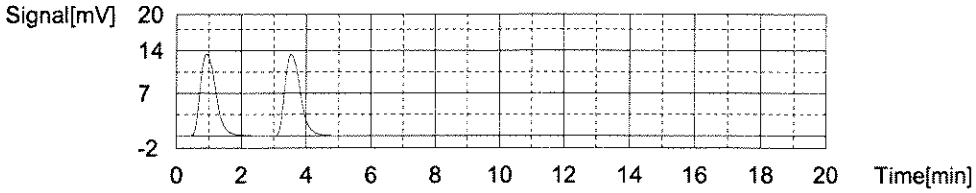
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.314 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	45.18	4.297mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:28:01 PM
2	45.54	4.331mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:30:50 PM

Mean Area 45.36
Mean Conc. 4.314mg/L



Sample

Sample Name: SO5689-9
Sample ID: <Untitled>
Origin: DOUBLE INJECTION B.met
Chk. Result

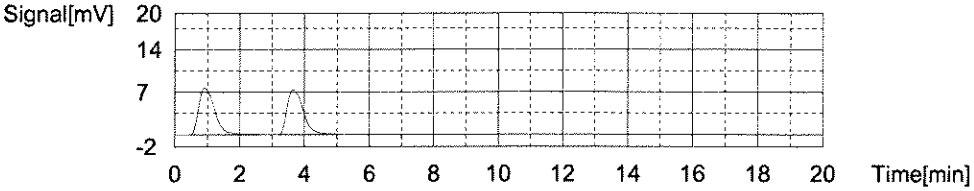
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.476 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.16	2.488mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:40:27 PM
2	25.90	2.463mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:43:16 PM

Mean Area 26.03
Mean Conc. 2.476mg/L



Control Sample

Sample Name: CCV
Sample ID: <Untitled>
Method: CCV DOUBLE INJECTION.tpl
Chk. Result Control value: 95.91 / Control within range!

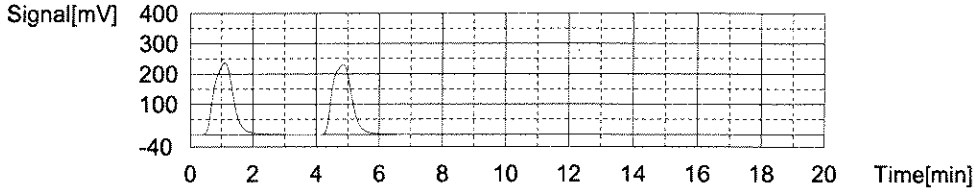
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:95.91 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1016	96.62mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:54:07 PM
2	1001	95.20mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 9:57:54 PM

Mean Area 1009
Mean Conc. 95.91mg/L



Control Sample

Sample Name: BLANK
Sample ID: <Untitled>
Method: BLANK DOUBLE INJECTION.tpl
Chk. Result Control value: 0.000 / Control within range!

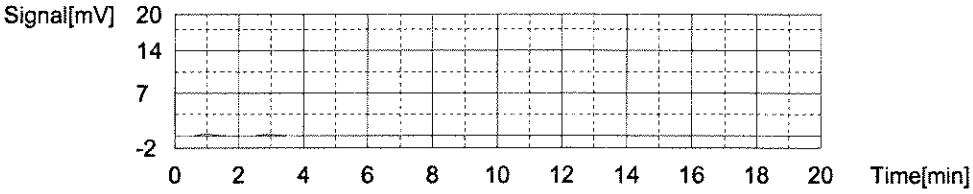
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:0.000 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 10:06:41 PM
2	0.000	0.000mg/L	150uL	1		toc aq cal 072321.2021_07_23_11_47_50.cal	8/30/2021 10:08:47 PM

Mean Area 0.000
Mean Conc. 0.000mg/L



Instr.Information

System	TOC-Vcph / ASI-V
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

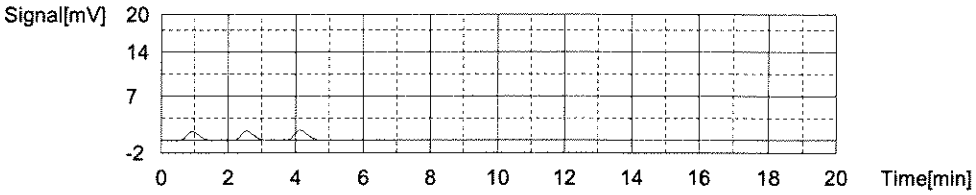
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	toc aq cal 072321.2021_07_23_11_47_50.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.743	50uL	1	*******		7/23/2021 11:56:00 AM
2	3.894	50uL	1	*******		7/23/2021 12:00:13 PM
3	4.231	50uL	1	*******	E	7/23/2021 12:04:26 PM

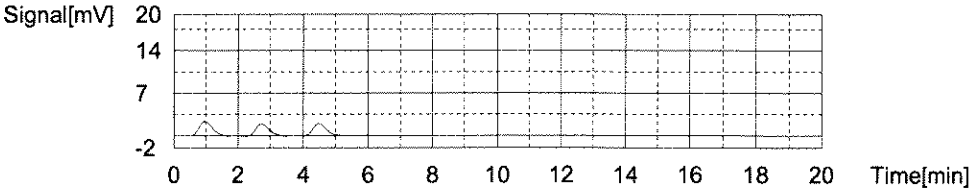
Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	3.819



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.081	50uL	1	*******	E	7/23/2021 12:13:01 PM
2	5.925	50uL	1	*******		7/23/2021 12:17:23 PM
3	5.824	50uL	1	*******		7/23/2021 12:21:43 PM

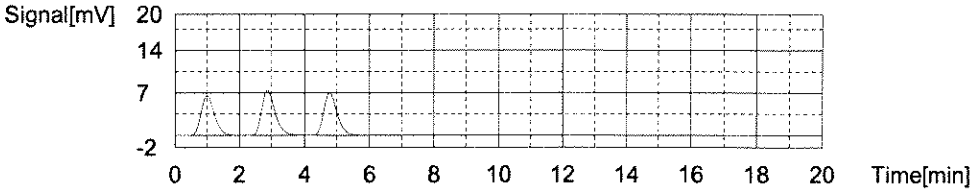
Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	5.875



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	19.47	50uL	1	*******		7/23/2021 12:30:26 PM
2	21.83	50uL	1	*******	E	7/23/2021 12:34:57 PM
3	20.53	50uL	1	*******		7/23/2021 12:39:28 PM

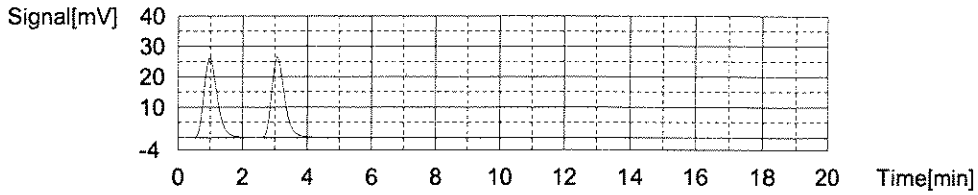
Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	20.00



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	73.99	50uL	1	*******		7/23/2021 12:48:23 PM
2	74.91	50uL	1	*******		7/23/2021 12:53:11 PM

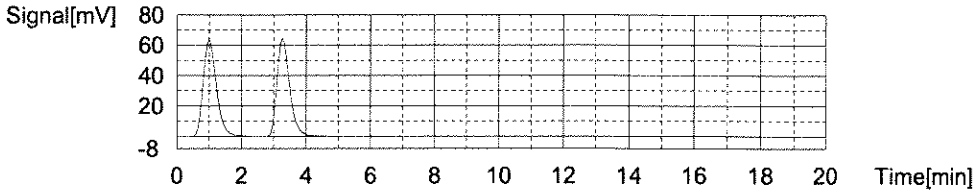
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 74.45



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	180.8	50uL	1	*******		7/23/2021 1:02:19 PM
2	180.2	50uL	1	*******		7/23/2021 1:07:15 PM

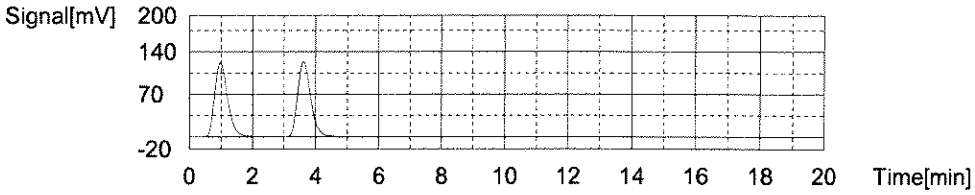
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 180.5



Conc: 100.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	355.3	50uL	1	*******		7/23/2021 1:16:42 PM
2	356.8	50uL	1	*******		7/23/2021 1:21:47 PM

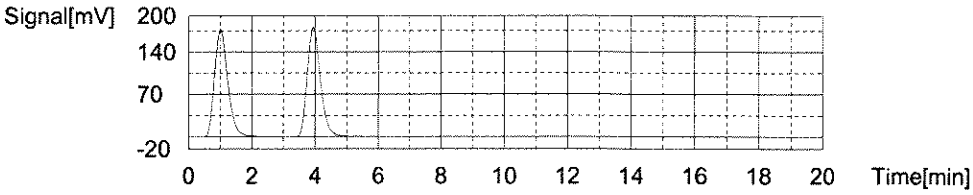
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 356.1



Conc: 150.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	525.6	50uL	1	*******		7/23/2021 1:31:32 PM
2	533.6	50uL	1	*******		7/23/2021 1:36:48 PM

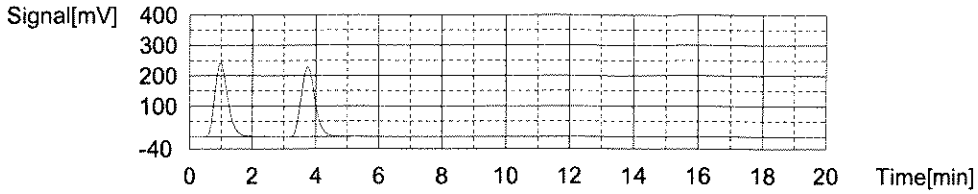
Acid Add. 1.500%
Sp. Time 90.00sec
Mean Area 529.6



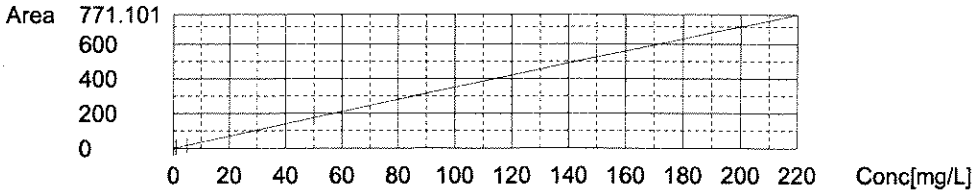
Conc: 200.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	700.5	50uL	1	*******		7/23/2021 1:46:20 PM
2	706.3	50uL	1	*******		7/23/2021 1:51:40 PM

Acid Add.	1.500%
Sp. Time	90.00sec
Mean Area	703.4



Slope:	3.505
Intercept	0.000
r^2	0.999978



SERES ENGINNERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SO5512

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

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SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
SERES ENGINEERING & SERVICES, LLC
FORT DEVENS 2021 LTM
SO5512

Sample Receipt

The following samples were received on August 19, 2021 and were logged in under Katahdin Analytical Services work order number SO5512 for a hardcopy due date of August 31, 2021.

KATAHDIN Sample No.	SERES Sample Identification
SO5512-1	MW-21-2D-BASELINE
SO5512-2	MW-21-2D-BASELINE-FF

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

We certify that the test results provided in this report are accredited under the laboratory's ISO/IEC 17025:2017 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation L2223.

Analytes which are reported but not listed on our ANAB scope of accreditation will be "^" flagged and the following language will be included in the case narrative for all DoD compliant work: "^" Indicates this analyte is not included on Katahdin Analytical Services DoD-ELAP Scope of Accreditation.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Metals Analysis

The samples associated with Katahdin Work Order SO5512 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

Aqueous-matrix Katahdin Sample Numbers SO5512-(1, 2) were digested for ICP analysis on 08/25/21 (QC Batch OH25ICW1) in accordance with USEPA Method 3010A.

ICP analyses of Katahdin Work Order SO5512 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all analytical run QC criteria were met.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I and preparation blanks on Form IIIP have been reported using the laboratory's limits of detection (LOD). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that fall between the MDL and the LOQ are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the LOD is listed in the concentration column. These LOQs, MDLs and LODs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VA, VD, VII, and IX for client samples, matrix QC samples (duplicates and matrix spikes), and laboratory control samples have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted LOD is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, LODs, MDLs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of SO5512 were analyzed in accordance with the specific methods listed on the Report of Analysis. Due to instrument issues sulfate, nitrate, nitrite, and chloride were moved to the methods listed on the Report of Analysis.

Analyses for solids filterable residue, chemical oxygen demand, total biological oxygen demand and alkalinity were performed according to "Standard Methods for the Examination of Water and Wastewater", 15th, 16th, 17th, 18th, 19th, and 20th editions, 1980, 1985, 1989, 1992, 1995, 1999. APHA-AWWA-WPCF.

Analyses for nitrate were performed according to "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA 600/R-93/100, August 1993.

Analyses for total organic carbon and anions were performed according to "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Limit of Quantitation (LOQ) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U LOD", where "LOD" is the numerical value of the Limit of Detection.

All analyses were performed within analytical holding times and all quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond ***Sep 13, 2021***

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. **Sample Receipt Condition Report**

Client: SERES		KAS PM: HHM		Sampled By: Client	
Project:		KIMS Entry By: JCB		Delivered By: KAS	
KAS Work Order#: 505512		KIMS Review By: HHM		Received By: JCB	
		Labeled By: JCB			
SDG #:	Cooler: 1 of 1			Date/Time Rec.: 8/19/21 1743	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?		✓			
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 0.4 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: SERES Engineering
Contact: Heather Levesque
Phone #: (619) 370.0374
Fax #: ( )
Address: 669 Marina Dr. B7
City: Charleston
State: SC
Zip Code: 29492
Purchase Order #: Ft. Devens
Proj. Name / No.: Ft. Devens
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign): Spencer Gust Spencer P Gust
Copies To:

LAB USE ONLY
WORK ORDER #: 505512
KATAHDIN PROJECT NUMBER:
REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C: ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	TOC 40ml, Glass, H_2SO_4 (Filt. ☐Y ☐N)	Total Metals 250ml, HDPE, HNO_3 (Filt. ☐Y ☐N)	Diss. Metals 250ml, HDPE, HNO_3 (Filt. ☒Y ☐N)	COD 250ml, HDPE, H_2SO_4 (Filt. ☐Y ☐N)	BOD5, Alk, TDS 1000ml, HDPE, None (Filt. ☐Y ☐N)	Anions 250ml, HDPE, None (Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)	(Filt. ☐Y ☐N)
	MW-21-2D-Baseline	8.19.21/10:40	GW	7	2	1	—	1	2	1				
	MW-21-2D-Baseline-FF	8.19.21/10:40	GW	1	—	—	1	—	—	—				
	Temp Blank	– / –	—	1										
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COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Spencer P Gust	8.19.21 3:07	08/19/2021 TBuchanan 15:07	08/19/2021 TBuchanan 17:43		
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 23, 2021
12:50 PM

Login Number: SO5512

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Primary Report Address:

Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7

USA
halevesque@seres-es.com

Primary Invoice Address:

Mary Tunstall
SERES Engineering & Services, LLC
669 Marina Drive
Suite B-7
Charleston,SC 29492
USA

Report CC Addresses:
Invoice CC Addresses:

Quote/Incoming: SERES-FT-DEVENS

Login Information:

ANALYSIS INSTRUCTIONS	:	DOD 5.3, ND to LOQ w/ J flags, include LOD on ROAs. Anions list is for Cl & SO4, check sample comments for what to report.
CHECK NO.	:	
CLIENT PO#	:	Project # JV2008 04.03
CLIENT PROJECT MANAGE	:	Heather Levesque
CONTRACT	:	W912WJ-19D-0014
COOLER TEMPERATURE	:	0.4
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	ECC-091317-TXT
LOGIN INITIALS	:	JCB
PM	:	HHM
PROJECT NAME	:	Fort Devens 2021 LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Upload EDD to Ft. Devens Database. Upload to SDS. Email reports to halevesque@seres-es.com; Ian.Martz@arcadis.com; Jennifer.Singer@arcadis.com. Email invoices to METunstall@seres-es.com & HALevesque@seres-es.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

HHM

12:52 pm, Aug 23, 2021

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Aug. 23, 2021
12:50 PM

Login Number: SO5512

Quote/Incoming: SERES-FT-DEVENS

Account: SERES001
SERES Engineering & Services, LLC

Project: SERES-FT-DEVENS
Former Fort Devens - Annual LTM

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO5512-1	MW-21-2D-BASELINE	19-AUG-21 10:40	19-AUG-21			31-AUG-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Service	S	COURIER-BILLING				**Anions please report Cl & SO4.**
Aqueous	S	E353.2-NITRATE	21-AUG-21	125mL Plastic		
Aqueous	S	SM2320B-ALKALINITY	02-SEP-21			
Aqueous	S	SM2540C-TDS	26-AUG-21	250mL Plastic		
Aqueous	S	SM5210B-TBOD	21-AUG-21	250mL Plastic		
Aqueous	S	SM5220-COD-COLOR	16-SEP-21	250mL Plastic+H2SO4		
Aqueous	S	SW3010-PREP	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-CALCIUM	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MAGNESIUM	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-POTASSIUM	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-SODIUM	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW9056-ANIONS	16-SEP-21			
Aqueous	S	SW9060-TOC(1)	16-SEP-21	40 mL Vial+H2SO4		

SO5512-2	MW-21-2D-BASELINE-FF	19-AUG-21 10:40	19-AUG-21			31-AUG-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-ARSENIC-DIS	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-IRON-DIS	15-FEB-22	250mL Plastic+HNO3		
Aqueous	S	SW6010-MANGANESE-DIS	15-FEB-22	250mL Plastic+HNO3		

Total Samples: 2 ***Total Analyses: 20***

12:52 pm, Aug 23, 2021

SAMPLE DATA SUMMARY PACKAGE

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as “U” MDL have a 50% rate for false negatives compared to those results reported as “U” PQL/LOQ or “U” LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results <u>may</u> not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results <u>may</u> not be reportable for compliance purposes.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-BASELINE

Matrix: WATER **SDG Name:** SO5512

Percent Solids: 0.00 **Lab Sample ID:** SO5512-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1650			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	33600			P	1	100	11	80
7439-89-6	IRON, TOTAL	39700			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5240			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	986			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6690			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	21100			P	1	1000	24	500

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-BASELINE-FF

Matrix: WATER **SDG Name:** SO5512

Percent Solids: 0.00 **Lab Sample ID:** SO5512-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1600			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	38500			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	977			P	1	5.0	1.1	4.0

Comments:

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5512-1
Report Date: 11-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5512

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-BASELINE	AQ	19-AUG-21 10:40:00	19-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG305135	25-AUG-21 10:02:31	N/A	N/A	
COD-Color	U15. mg/L	15.	5.7	10	SM 5220	WG304988	23-AUG-21 15:29:00	N/A	N/A	
Chloride	34 mg/L	4.0	0.20	2.0	SW846 9056A	WG305703	07-SEP-21 18:12:00	N/A	N/A	
Nitrate As N	U0.025 mg/L	0.050	0.015	0.025	EPA 353.2	WG304865	20-AUG-21 12:59:22	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG304926	24-AUG-21 11:10:00	SM 2540C	23-AUG-21	
Sulfate	30 mg/L	2.0	0.13	1.0	SW846 9056A	WG305662	07-SEP-21 01:54:00	N/A	N/A	
Total Biochemical Oxygen Demand	J3.6 mg/L	6.0	0.70	1	SM 5210B	WG304847	25-AUG-21 13:11:00	SM 5210B	20-AUG-21 0932	
Total Organic Carbon (1)	1.5 mg/L	1.0	0.10	0.50	SW846 9060A	WG305311	27-AUG-21 20:14:56	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO5512 **SOW No.** SW846

Client Field ID	Lab Sample ID
MW-21-2D-BASELINE	SO5512-001
MW-21-2D-BASELINE-FF	SO5512-002

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: George Brewer Name: George Brewer

Date: 08/28/21 Title: Inorganics Dept. Mgr.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-BASELINE

Matrix: WATER **SDG Name:** SO5512

Percent Solids: 0.00 **Lab Sample ID:** SO5512-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, TOTAL	1650			P	1	8.0	1.4	5.0
7440-70-2	CALCIUM, TOTAL	33600			P	1	100	11	80
7439-89-6	IRON, TOTAL	39700			P	1	100	5.4	80
7439-95-4	MAGNESIUM, TOTAL	5240			P	1	100	7.8	80
7439-96-5	MANGANESE, TOTAL	986			P	1	5.0	1.1	4.0
7440-09-7	POTASSIUM, TOTAL	6690			P	1	1000	41	500
7440-23-5	SODIUM, TOTAL	21100			P	1	1000	24	500

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** MW-21-2D-BASELINE-FF

Matrix: WATER **SDG Name:** SO5512

Percent Solids: 0.00 **Lab Sample ID:** SO5512-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	LOQ	ADJUSTED MDL	LOD
7440-38-2	ARSENIC, DISSOLVED	1600			P	1	8.0	1.4	5.0
7439-89-6	IRON, DISSOLVED	38500			P	1	100	5.4	80
7439-96-5	MANGANESE, DISSOLVED	977			P	1	5.0	1.1	4.0

Comments:

FORM I - IN

QC Summary Section

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Concentration Units: ug/L

SAMPLE: ICV

File: IOH26A Aug 26, 2021 12:48

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9959.00	99.6
ARSENIC	400.0	382.90	95.7
CALCIUM	10000.0	10030.00	100.3
IRON	10000.0	10030.00	100.3
MAGNESIUM	10000.0	10250.00	102.5
MANGANESE	400.0	396.20	99.0
POTASSIUM	13600.0	13540.00	99.6
SODIUM	10000.0	10030.00	100.3

SAMPLE: CCV

File: IOH26A Aug 26, 2021 13:10

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12820.00	102.6
ARSENIC	500.0	502.10	100.4
CALCIUM	12500.0	12820.00	102.6
IRON	12500.0	12850.00	102.8
MAGNESIUM	12500.0	12960.00	103.7
MANGANESE	500.0	508.50	101.7
POTASSIUM	12500.0	12740.00	101.9
SODIUM	12500.0	12820.00	102.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Concentration Units: ug/L

SAMPLE: CCV

File: IOH26A Aug 26, 2021 13:28

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13030.00	104.2
ARSENIC	500.0	507.70	101.5
CALCIUM	12500.0	13020.00	104.2
IRON	12500.0	13010.00	104.1
MAGNESIUM	12500.0	13060.00	104.5
MANGANESE	500.0	518.10	103.6
POTASSIUM	12500.0	13060.00	104.5
SODIUM	12500.0	13100.00	104.8

SAMPLE: CCV

File: IOH26A Aug 26, 2021 14:20

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12750.00	102.0
ARSENIC	500.0	506.80	101.4
CALCIUM	12500.0	12690.00	101.5
IRON	12500.0	12740.00	101.9
MAGNESIUM	12500.0	13080.00	104.6
MANGANESE	500.0	508.70	101.7
POTASSIUM	12500.0	12730.00	101.8
SODIUM	12500.0	12760.00	102.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Concentration Units: ug/L

SAMPLE: CCV

File: IOH26A Aug 26, 2021 15:12

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12560.00	100.5
ARSENIC	500.0	505.90	101.2
CALCIUM	12500.0	12500.00	100.0
IRON	12500.0	12480.00	99.8
MAGNESIUM	12500.0	13060.00	104.5
MANGANESE	500.0	502.70	100.5
POTASSIUM	12500.0	12520.00	100.2
SODIUM	12500.0	12570.00	100.6

SAMPLE: CCV

File: IOH26A Aug 26, 2021 16:05

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12670.00	101.4
ARSENIC	500.0	495.40	99.1
CALCIUM	12500.0	12680.00	101.4
IRON	12500.0	12710.00	101.7
MAGNESIUM	12500.0	12780.00	102.2
MANGANESE	500.0	503.40	100.7
POTASSIUM	12500.0	12670.00	101.4
SODIUM	12500.0	12840.00	102.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Concentration Units: ug/L

SAMPLE: PQL

File: IOH26A Aug 26, 2021 12:56

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	296.20	98.7
ARSENIC	8.0	8.66	108.3
CALCIUM	100.0	107.30	107.3
IRON	100.0	104.90	104.9
MAGNESIUM	100.0	109.20	109.2
MANGANESE	5.0	5.02	100.4
POTASSIUM	1000.0	987.20	98.7

SAMPLE: PQL

File: IOH26A Aug 26, 2021 13:36

Analyte	TRUE	FOUND	% R
SODIUM	1000.0	1060.00	106.0

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Concentration Units: ug/L

SAMPLE: ICB

File: IOH26A Aug 26, 2021 12:52

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	7.586	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 13:14

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	6.755	J
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 13:32

Analyte	Result	C
ALUMINUM	46.980	J
ARSENIC	1.400	U
CALCIUM	51.330	B
IRON	29.980	J
MAGNESIUM	6.756	J
MANGANESE	0.870	U
POTASSIUM	87.900	J
SODIUM	35.560	J

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Concentration Units: ug/L

SAMPLE: CCB

File: IOH26A Aug 26, 2021 14:24

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	6.147	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 15:16

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	3.600	U
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

SAMPLE: CCB

File: IOH26A Aug 26, 2021 16:09

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
CALCIUM	11.000	U
IRON	5.250	J
MAGNESIUM	2.900	U
MANGANESE	0.870	U
POTASSIUM	73.000	U
SODIUM	12.000	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOH25ICW1

Matrix: WATER **SDG Name:** SO5512

QC Batch ID: OH25ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	5.0	U
CALCIUM	80	U
IRON	80	U
MAGNESIUM	80	U
MANGANESE	4.0	U
POTASSIUM	500	U
SODIUM	500	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Concentration Units: ug/L

SAMPLE: ICSA

File: IOH26A Aug 26, 2021 13:01

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	527700.00	105.5
ARSENIC	0	-0.28	
CALCIUM	500000.00	487700.00	97.5
IRON	200000.00	188800.00	94.4
MAGNESIUM	500000.00	433200.00	86.6
MANGANESE	0	-0.17	
POTASSIUM	0	-22.15	
SODIUM	0	11.86	

SAMPLE: ICSAB

File: IOH26A Aug 26, 2021 13:05

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	525700.00	105.1
ARSENIC	100.00	99.37	99.0
CALCIUM	500000.00	480300.00	96.1
IRON	200000.00	188100.00	94.0
MAGNESIUM	500000.00	430500.00	86.1
MANGANESE	500.00	470.50	94.2
POTASSIUM	20000.00	21570.00	107.8
SODIUM	20000.00	21750.00	108.7

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOH25ICW1

Matrix: WATER **SDG Name:** SO5512

QC Batch ID: OH25ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	102	101.7	87	113
CALCIUM	2500	2610	104.5	87	113
IRON	1000	1020	102.5	87	115
MAGNESIUM	5000	5270	105.4	85	113
MANGANESE	500	495	98.9	90	114
POTASSIUM	10000	10600	105.5	86	114
SODIUM	7500	7980	106.4	87	115

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
CALCIUM	100	11	P
IRON	100	3.6	P
MAGNESIUM	100	2.9	P
MANGANESE	5.0	0.87	P
POTASSIUM	1000	73	P
SODIUM	1000	12	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 06/11/2010

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ARSENIC	5.0	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	80	ug/L	P	SW846 3010A / SW846 6010C
IRON	80	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	80	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	4.0	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	500	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	500	ug/L	P	SW846 3010A / SW846 6010C

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
CALCIUM	11	ug/L	P	SW846 3010A / SW846 6010C
IRON	5.4	ug/L	P	SW846 3010A / SW846 6010C
MAGNESIUM	7.8	ug/L	P	SW846 3010A / SW846 6010C
MANGANESE	1.1	ug/L	P	SW846 3010A / SW846 6010C
POTASSIUM	41	ug/L	P	SW846 3010A / SW846 6010C
SODIUM	24	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
CALCIUM	5.00	500000	P
IRON	5.00	250000	P
MAGNESIUM	45.00	200000	P
MANGANESE	5.00	20000	P
POTASSIUM	5.00	300000	P
SODIUM	5.00	200000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OH25ICW1

Matrix: WATER **SDG Name:** SO5512

Method: P **Prep Date:** 08/25/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOH25ICW1	LCSWOH25ICW1	0.05	0.05	
PBWOH25ICW1	PBWOH25ICW1	0.05	0.05	
MW-21-2D-BASELINE	SO5512-001	0.05	0.05	C
MW-21-2D-BASELINE-FF	SO5512-002	0.05	0.05	A

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Instrument ID: THERMO ICAP 6500 **File Name:** IOH26A

Date: 08/26/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
Blank		1	12:39	AL	AS	CA	FE	MG MN	K	NA
Std 1		1	12:44	AL	AS	CA	FE	MG MN	K	NA
ICV		1	12:48	AL	AS	CA	FE	MG MN	K	NA
ICB		1	12:52	AL	AS	CA	FE	MG MN	K	NA
PQL		1	12:56	AL	AS	CA	FE	MG MN	K	
ICSA		1	13:01	AL	AS	CA	FE	MG MN	K	NA
ICSAB		1	13:05	AL	AS	CA	FE	MG MN	K	NA
CCV		1	13:10	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:14	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:19							
ZZZZZZ		1	13:23							
CCV		1	13:28	AL	AS	CA	FE	MG MN	K	NA
CCB		1	13:32	AL	AS	CA	FE	MG MN	K	NA
PQL		1	13:36							NA
LCSWOH25ICW1		1	13:41		AS	CA	FE	MG MN	K	NA
PBWOH25ICW1		1	13:45		AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	13:49							
ZZZZZZ		2	13:54							
ZZZZZZ		1	13:58							
ZZZZZZ		5	14:03							
ZZZZZZ		1	14:07							
ZZZZZZ		1	14:11							
ZZZZZZ		1	14:16							
CCV		1	14:20	AL	AS	CA	FE	MG MN	K	NA
CCB		1	14:24	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	14:28							
ZZZZZZ		1	14:33							

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO5512

Instrument ID: THERMO ICAP 6500 **File Name:** IOH26A

Date: 08/26/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements						
ZZZZZZ		1	14:37							
ZZZZZZ		1	14:42							
ZZZZZZ		1	14:46							
ZZZZZZ		1	14:50							
ZZZZZZ		1	14:55							
ZZZZZZ		1	14:59							
ZZZZZZ		1	15:03							
ZZZZZZ		1	15:08							
CCV		1	15:12	AL	AS	CA	FE	MG MN	K	NA
CCB		1	15:16	AL	AS	CA	FE	MG MN	K	NA
ZZZZZZ		1	15:21							
ZZZZZZ		1	15:25							
ZZZZZZ		1	15:29							
ZZZZZZ		1	15:34							
SO5512-001	MW-21-2D-BASELINE	1	15:38		AS	CA	FE	MG MN	K	NA
SO5512-002	MW-21-2D-BASELINE-FF	1	15:43		AS		FE	MN		
ZZZZZZ		1	15:47							
ZZZZZZ		1	15:51							
ZZZZZZ		1	15:56							
ZZZZZZ		1	16:00							
CCV		1	16:05	AL	AS	CA	FE	MG MN	K	NA
CCB		1	16:09	AL	AS	CA	FE	MG MN	K	NA

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP **ANALYSIS DATE**: 08/26/2021

METHOD: **ICP**
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOH26A

REVIEWED
08/28/21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed
to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by
EP (initals) on 8/26/21 (date). Client IDs verified

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20471	08/24/2021	08/24/2022	0 ug/L
Standard 1	MW20463	08/20/2021	09/11/2021	Varies by Element
ICV	MW20364	08/20/2021	11/04/2021	Varies by Element
PQL	MW20454	08/17/2021	9/11/2021	Varies by Element
LRS1	MW20455	08/18/2021	09/15/2021	Varies by Element
LRS2	MW20469	08/24/2021	09/11/2021	Varies by Element
ICSA	MW20453	08/17/2021	11/17/2021	Varies by Element
ICSAB	MW20412	08/05/2021	10/05/2021	Varies by Element
CCV	MW20468	08/24/2021	09/11/2021	Varies by Element
Internal Standard	MW20452	08/17/2021	11/17/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

PQL failed low for sodium. Replaced with Sodium PQL. PQL warned high for zinc, failed low for selenium. Samples accepted at 10x the warning value of the PQL or ½ the true value of the PQL for zinc.

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 1.6 mL of sample (pipet M25) + 6.4 mL of MW19407 (pipet M25)

Post Spike: 0.123mL MW20305 (pipet M27) to 6.0mL of sample (pipet M25)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOH26A	08/26/2021	12:39	EP
Std 1	1.000	IOH26A	08/26/2021	12:44	EP
ICV	1.000	IOH26A	08/26/2021	12:48	EP
ICB	1.000	IOH26A	08/26/2021	12:52	EP
PQL	1.000	IOH26A	08/26/2021	12:56	EP
ICSA	1.000	IOH26A	08/26/2021	13:01	EP
ICSAB	1.000	IOH26A	08/26/2021	13:05	EP
CCV	1.000	IOH26A	08/26/2021	13:10	EP
CCB	1.000	IOH26A	08/26/2021	13:14	EP
LRS1	1.000	IOH26A	08/26/2021	13:19	EP
LRS2	1.000	IOH26A	08/26/2021	13:23	EP
CCV	1.000	IOH26A	08/26/2021	13:28	EP
CCB	1.000	IOH26A	08/26/2021	13:32	EP
SODIUM PQL	1.000	IOH26A	08/26/2021	13:36	EP
LCSWOH25ICW1	1.000	IOH26A	08/26/2021	13:41	EP
PBWOH25ICW1	1.000	IOH26A	08/26/2021	13:45	EP
SO5596-001	1.000	IOH26A	08/26/2021	13:49	EP
SO5478-001	2.000	IOH26A	08/26/2021	13:54	EP
SO5506-002	1.000	IOH26A	08/26/2021	13:58	EP
SO5506-002L	5.000	IOH26A	08/26/2021	14:03	EP
SO5506-002A	1.000	IOH26A	08/26/2021	14:07	EP
SO5506-002P	1.000	IOH26A	08/26/2021	14:11	EP
SO5506-002S	1.000	IOH26A	08/26/2021	14:16	EP
CCV	1.000	IOH26A	08/26/2021	14:20	EP
CCB	1.000	IOH26A	08/26/2021	14:24	EP
SO5506-003	1.000	IOH26A	08/26/2021	14:28	EP
SO5506-004	1.000	IOH26A	08/26/2021	14:33	EP
SO5506-005	1.000	IOH26A	08/26/2021	14:37	EP
SO5506-007	1.000	IOH26A	08/26/2021	14:42	EP
SO5506-008	1.000	IOH26A	08/26/2021	14:46	EP
SO5506-009	1.000	IOH26A	08/26/2021	14:50	EP
SO5506-010	1.000	IOH26A	08/26/2021	14:55	EP
SO5506-012	1.000	IOH26A	08/26/2021	14:59	EP
SO5506-013	1.000	IOH26A	08/26/2021	15:03	EP
SO5506-014	1.000	IOH26A	08/26/2021	15:08	EP
CCV	1.000	IOH26A	08/26/2021	15:12	EP
CCB	1.000	IOH26A	08/26/2021	15:16	EP
SO5506-017	1.000	IOH26A	08/26/2021	15:21	EP
SO5506-018	1.000	IOH26A	08/26/2021	15:25	EP
SO5506-019	1.000	IOH26A	08/26/2021	15:29	EP
SO5154-001R	1.000	IOH26A	08/26/2021	15:34	EP
SO5512-001	1.000	IOH26A	08/26/2021	15:38	EP
SO5512-002	1.000	IOH26A	08/26/2021	15:43	EP
SO5516-002	1.000	IOH26A	08/26/2021	15:47	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO5520-001	1.000	IOH26A	08/26/2021	15:51	EP
SO5520-002	1.000	IOH26A	08/26/2021	15:56	EP
SO5520-003	1.000	IOH26A	08/26/2021	16:00	EP
CCV	1.000	IOH26A	08/26/2021	16:05	EP
CCB	1.000	IOH26A	08/26/2021	16:09	EP
SO5520-004	1.000	IOH26A	08/26/2021	16:13	EP
SO5556-002	1.000	IOH26A	08/26/2021	16:18	EP
SO5556-002L	5.000	IOH26A	08/26/2021	16:22	EP
SO5556-002A	1.000	IOH26A	08/26/2021	16:26	EP
SO5556-002P	1.000	IOH26A	08/26/2021	16:31	EP
SO5556-002S	1.000	IOH26A	08/26/2021	16:35	EP
SO5556-003	1.000	IOH26A	08/26/2021	16:39	EP
SO5556-004	1.000	IOH26A	08/26/2021	16:44	EP
SO5556-005	1.000	IOH26A	08/26/2021	16:48	EP
SO5556-006	1.000	IOH26A	08/26/2021	16:52	EP
CCV	1.000	IOH26A	08/26/2021	16:57	EP
CCB	1.000	IOH26A	08/26/2021	17:01	EP
SO5556-007	1.000	IOH26A	08/26/2021	17:05	EP
SO5556-009	1.000	IOH26A	08/26/2021	17:10	EP
SO5556-010	1.000	IOH26A	08/26/2021	17:14	EP
SO5556-011	1.000	IOH26A	08/26/2021	17:19	EP
SO5556-012	1.000	IOH26A	08/26/2021	17:23	EP
SO5556-013	1.000	IOH26A	08/26/2021	17:27	EP
SO5557-001	1.000	IOH26A	08/26/2021	17:32	EP
SODIUM PQL	1.000	IOH26A	08/26/2021	17:36	EP
CCV	1.000	IOH26A	08/26/2021	17:41	EP
CCB	1.000	IOH26A	08/26/2021	17:45	EP
PQL	1.000	IOH26A	08/26/2021	17:49	EP
ICSA	1.000	IOH26A	08/26/2021	17:54	EP
ICSAB	1.000	IOH26A	08/26/2021	17:58	EP
CCV	1.000	IOH26A	08/26/2021	18:03	EP
CCB	1.000	IOH26A	08/26/2021	18:07	EP

Intensity Report

Author:

Published: 8/27/2021 8:18:10AM

Notes:

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Method Name: FAST-2016_NO_AU

Method Revision: 1,006

Analyst Name: EP

Acquire Date: 8/26/2021 12:39:52PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001320	Cts/S	0.00001000	7.269	-18.81
Al3961_R		0.00009100	Cts/S	0.00008800	97.58	1.845
As1891_A		-0.0003410	Cts/S	0.00005600	16.39	-2.530
B_2089_A		0.0009900	Cts/S	0.00006800	6.857	7.354
Ba4554_R		0.0009140	Cts/S	0.0009230	100.9	19.25
Be3130_R		0.000005000	Cts/S	0.00002200	420.4	-0.1135
Ca3158_R		-0.001382	Cts/S	0.000005000	0.3920	-28.60
Cd2265_A		-0.0001880	Cts/S	0.00001600	8.262	-1.399
Co2286_A		0.000003000	Cts/S	0.00002900	899.1	0.02497
Cr2677_A		0.000006000	Cts/S	0.000001000	9.372	0.8177
Cu3273_A		-0.0001190	Cts/S	0.000003000	2.241	-16.98
Fe2599_R		0.00007300	Cts/S	0.00005000	67.91	1.537
K_7664_R		-0.001305	Cts/S	0.0003310	25.37	-26.89
Li6707_R		0.00007600	Cts/S	0.0004340	573.7	1.414
Mg2025_A		-0.001027	Cts/S	0.00001000	1.003	-7.628
Mn2576_R		0.0002670	Cts/S	0.00006800	25.39	5.551
Mo2020_A		0.00004100	Cts/S	0.00001100	27.93	0.3023
Na5895_R		0.003145	Cts/S	0.0003390	10.79	64.99
Ni2316_A		0.0000	Cts/S	0.00001000	2,456	-0.002618
Pb2203_A		-0.0001690	Cts/S	0.0001080	63.90	-1.261
Sb2068_A		0.00006500	Cts/S	0.000005000	6.970	0.4840
Se1960_A		0.0002380	Cts/S	0.00005000	20.95	1.768
Si2516_R		0.003130	Cts/S	0.0002680	8.576	64.70
Sn1899_A		0.0001620	Cts/S	0.00003000	18.71	1.205
Sr4215_R		-0.001332	Cts/S	0.00003400	2.536	-27.57
Ti3349_A		-0.0001070	Cts/S	0.00003700	34.75	-15.18
Tl1908_A		-0.0002780	Cts/S	0.00001500	5.428	-2.064
V_2924_A		-0.00002100	Cts/S	0.000001000	5.277	-3.016
Zn2062_A		0.00001700	Cts/S	0.00001100	61.43	0.1293
Y_3600_R		20,700	Cts/S	704.95	3.4056	20,700
Y_2243_A		7,428.2	Cts/S	70.486	0.94889	7,428.2
Y_3600_A		142,080	Cts/S	180.03	0.12671	142,080

Std 1

Method Name: FAST-2016_NO_AU

Method Revision: 1,006

Analyst Name: EP

Acquire Date: 8/26/2021 12:44:16PM

Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1227	Cts/S	0.0004740	0.3866	17,260
Al3961_R		1.456	Cts/S	0.01307	0.8978	28,800
As1891_A		0.04610	Cts/S	0.00005300	0.1150	340.2
B_2089_A		0.1973	Cts/S	0.0004120	0.2089	1,456
Ba4554_R		3.845	Cts/S	0.05908	1.536	76,060
Be3130_R		5.349	Cts/S	0.07211	1.348	105,800
Ca3158_R		1.581	Cts/S	0.009615	0.6082	31,260
Cd2265_A		1.538	Cts/S	0.002819	0.1833	11,350
Co2286_A		0.4531	Cts/S	0.0008330	0.1839	3,343
Cr2677_A		0.08042	Cts/S	0.0002220	0.2756	11,310
Cu3273_A		0.1019	Cts/S	0.0004290	0.4212	14,320
Fe2599_R		2.607	Cts/S	0.03094	1.187	51,560
K_7664_R		0.9108	Cts/S	0.008069	0.8859	18,020
Li6707_R		0.7519	Cts/S	0.01295	1.722	14,870

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:44:16PM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.225	Cts/S	0.001120	0.09141	9,040
Mn2576_R		0.5353	Cts/S	0.002697	0.5037	10,590
Mo2020_A		0.4117	Cts/S	0.0004700	0.1142	3,038
Na5895_R		3.079	Cts/S	0.04304	1.398	60,900
Ni2316_A		0.2116	Cts/S	0.0001240	0.05853	1,562
Pb2203_A		0.1178	Cts/S	0.0002800	0.2374	869.4
Sb2068_A		0.06718	Cts/S	0.00009900	0.1468	495.8
Se1960_A		0.03562	Cts/S	0.00006000	0.1674	262.8
Si2516_R		0.6225	Cts/S	0.002670	0.4290	12,310
Sn1899_A		0.05447	Cts/S	0.00008200	0.1502	401.9
Sr4215_R		5.137	Cts/S	0.07428	1.446	101,600
Ti3349_A		0.1782	Cts/S	0.0008500	0.4771	25,060
Tl1908_A		0.06953	Cts/S	0.00001500	0.02177	513.0
V_2924_A		0.07853	Cts/S	0.0002130	0.2718	11,040
Zn2062_A		0.3071	Cts/S	0.00003900	0.01258	2,266
Y_3600_R		19,779	Cts/S	14.602	0.073828	19,779
Y_2243_A		7,379.1	Cts/S	7.7818	0.10546	7,379.1
Y_3600_A		140,620	Cts/S	517.16	0.36776	140,620

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:48:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		407.2	ug/L	7.010	1.721	7,056
Al3961_R		9,959	ug/L	11.03	0.1108	11,590
As1891_A		382.9	ug/L	1.587	0.4145	131.9
B_2089_A		399.3	ug/L	0.4627	0.1159	600.6
Ba4554_R		395.0	ug/L	4.728	1.197	30,360
Be3130_R		403.1	ug/L	3.903	0.9682	43,080
Ca3158_R		10,030	ug/L	36.90	0.3678	12,660
Cd2265_A		397.7	ug/L	0.5112	0.1285	4,625
Co2286_A		403.2	ug/L	0.7602	0.1885	1,382
Cr2677_A		404.6	ug/L	5.548	1.371	4,602
Cu3273_A		409.6	ug/L	5.933	1.448	5,890
Fe2599_R		10,030	ug/L	122.6	1.222	20,910
K_7664_R		13,540	ug/L	21.37	0.1579	9,843
Li6707_R		406.6	ug/L	2.940	0.7232	6,109
Mg2025_A		10,250	ug/L	8.159	0.07959	3,795
Mn2576_R		396.2	ug/L	1.210	0.3053	4,241
Mo2020_A		406.0	ug/L	1.003	0.2470	1,264
Na5895_R		10,030	ug/L	2.400	0.02392	24,730
Ni2316_A		401.5	ug/L	0.3510	0.08740	642.8
Pb2203_A		408.4	ug/L	0.9920	0.2429	363.2
Sb2068_A		393.4	ug/L	1.886	0.4794	200.1
Se1960_A		395.2	ug/L	3.241	0.8199	107.6
Si2516_R		9,837	ug/L	14.49	0.1474	4,837
Sn1899_A		409.3	ug/L	0.06522	0.01593	169.3
Sr4215_R		403.7	ug/L	2.188	0.5420	41,420
Ti3349_A		403.2	ug/L	5.118	1.269	10,150
Tl1908_A		409.8	ug/L	0.8299	0.2025	214.3
V_2924_A		405.8	ug/L	5.323	1.312	4,504
Zn2062_A		396.2	ug/L	0.7798	0.1968	920.3
Y_3600_R		19,981	Cts/S	3.7112	0.018574	19,981
Y_2243_A		7,563.6	Cts/S	20.284	0.26817	7,563.6
Y_3600_A		141,400	Cts/S	1,466.3	1.0370	141,400

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:52:31PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07747	ug/L	0.05439	70.22	-17.57
Al3961_R		-4.824	ug/L	0.6237	12.93	-3.679
As1891_A		-0.4971	ug/L	1.437	289.0	-2.725
B_2089_A		1.650	ug/L	0.3573	21.66	9.791
Ba4554_R		-0.06074	ug/L	0.03983	65.57	13.28
Be3130_R		0.1356	ug/L	0.04525	33.37	14.03
Ca3158_R		-0.5769	ug/L	2.024	350.9	-27.66
Cd2265_A		0.05839	ug/L	0.01470	25.18	-0.7238
Co2286_A		-0.01482	ug/L	0.04783	322.8	-0.02500
Cr2677_A		-0.06149	ug/L	0.2003	325.7	0.1106
Cu3273_A		0.01185	ug/L	0.03828	323.1	-16.89
Fe2599_R		7.586	ug/L	0.3629	4.783	16.86
K_7664_R		10.16	ug/L	23.89	235.2	-18.20
Li6707_R		0.6631	ug/L	0.5336	80.48	11.19
Mg2025_A		0.8987	ug/L	1.362	151.5	-7.354
Mn2576_R		-0.01770	ug/L	0.06505	367.6	5.020
Mo2020_A		0.4731	ug/L	0.2430	51.36	1.758
Na5895_R		0.6301	ug/L	2.776	440.6	62.86
Ni2316_A		-0.07084	ug/L	0.2347	331.4	-0.1083
Pb2203_A		0.1017	ug/L	0.5714	562.1	-1.173
Sb2068_A		0.2260	ug/L	0.3555	157.3	0.6015
Se1960_A		-0.8420	ug/L	0.2650	31.47	1.556
Si2516_R		12.46	ug/L	3.766	30.22	66.94
Sn1899_A		-0.1715	ug/L	0.004867	2.838	1.142
Sr4215_R		0.1166	ug/L	0.01301	11.15	-14.30
Ti3349_A		0.04886	ug/L	0.1284	262.7	-14.00
Tl1908_A		0.5890	ug/L	0.09706	16.48	-1.771
V_2924_A		-0.2278	ug/L	0.1572	69.03	-5.638
Zn2062_A		0.03128	ug/L	0.1083	346.1	0.2035
Y_3600_R		19,503	Cts/S	56.175	0.28804	19,503
Y_2243_A		7,479.2	Cts/S	55.299	0.73938	7,479.2
Y_3600_A		142,820	Cts/S	765.49	0.53599	142,820

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:56:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		10.38	ug/L	0.03498	0.3368	167.5
Al3961_R		296.2	ug/L	2.425	0.8189	345.3
As1891_A		8.658	ug/L	0.1448	1.673	0.4773
B_2089_A		49.14	ug/L	0.2029	0.4130	80.68
Ba4554_R		5.984	ug/L	0.03021	0.5049	476.7
Be3130_R		5.104	ug/L	0.0008730	0.01710	543.6
Ca3158_R		107.3	ug/L	2.646	2.465	107.8
Cd2265_A		5.019	ug/L	0.01449	0.2888	57.95
Co2286_A		10.51	ug/L	0.2158	2.053	36.72
Cr2677_A		9.976	ug/L	0.1828	1.832	118.1
Cu3273_A		25.55	ug/L	0.02860	0.1119	363.5
Fe2599_R		104.9	ug/L	0.3861	0.3682	219.4
K_7664_R		987.2	ug/L	17.89	1.812	691.9
Li6707_R		101.6	ug/L	0.8812	0.8671	1,524
Mg2025_A		109.2	ug/L	0.2723	0.2494	33.69
Mn2576_R		5.018	ug/L	0.01002	0.1996	58.80
Mo2020_A		10.10	ug/L	0.09441	0.9350	32.32
Na5895_R	F	2.980	ug/L	3.792	127.2	70.01
Ni2316_A		10.25	ug/L	0.02315	0.2258	16.71

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 12:56:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.612	ug/L	0.5871	10.46	3.785
Sb2068_A		7.052	ug/L	0.6645	9.422	3.646
Se1960_A	F	6.175	ug/L	1.220	19.76	3.514
Si2516_R		197.7	ug/L	6.527	3.302	158.1
Sn1899_A		99.93	ug/L	0.2663	0.2665	43.04
Sr4215_R		10.41	ug/L	0.1018	0.9780	1,039
Ti3349_A		15.06	ug/L	0.2233	1.483	376.8
Tl1908_A		17.11	ug/L	0.4368	2.552	7.053
V_2924_A		9.941	ug/L	0.1916	1.927	111.1
Zn2062_A	W	24.54	ug/L	0.06957	0.2835	58.21
Y_3600_R		19,930	Cts/S	64.663	0.32444	19,930
Y_2243_A		7,700.4	Cts/S	17.355	0.22538	7,700.4
Y_3600_A		146,170	Cts/S	980.03	0.67047	146,170

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:01:21PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.278	ug/L	0.1386	10.85	-450.9
Al3961_R		527,700	ug/L	8,184	1.551	579,100
As1891_A		-0.2794	ug/L	0.2046	73.24	-10.28
B_2089_A		-1.679	ug/L	0.2048	12.20	4.337
Ba4554_R		1.519	ug/L	0.1584	10.43	127.5
Be3130_R		-0.04573	ug/L	0.009881	21.61	-4.690
Ca3158_R		487,700	ug/L	5,266	1.080	582,400
Cd2265_A		1.968	ug/L	0.04262	2.166	363.9
Co2286_A		0.3294	ug/L	0.01933	5.869	3.544
Cr2677_A		-1.748	ug/L	0.1294	7.403	1.323
Cu3273_A		0.3216	ug/L	0.1955	60.81	-13.17
Fe2599_R		188,800	ug/L	1,155	0.6119	371,600
K_7664_R		-22.15	ug/L	43.10	194.5	-39.82
Li6707_R		5.328	ug/L	0.7422	13.93	77.05
Mg2025_A		433,200	ug/L	995.2	0.2297	139,100
Mn2576_R		-0.1655	ug/L	0.3403	205.7	-1.242
Mo2020_A		-2.182	ug/L	0.1115	5.109	-5.648
Na5895_R		11.86	ug/L	3.968	33.45	86.91
Ni2316_A		0.2560	ug/L	0.3332	130.2	-8.574
Pb2203_A		-2.055	ug/L	2.174	105.8	-29.16
Sb2068_A		2.202	ug/L	1.095	49.74	4.590
Se1960_A		-1.403	ug/L	2.482	176.9	3.619
Si2516_R		21.86	ug/L	1.800	8.237	54.63
Sn1899_A		12.42	ug/L	0.6178	4.974	5.508
Sr4215_R	W	5.143	ug/L	0.06607	1.285	473.6
Ti3349_A		0.7859	ug/L	0.05688	7.238	4.146
Tl1908_A		2.121	ug/L	0.4341	20.47	-0.2587
V_2924_A		1.150	ug/L	0.2732	23.76	32.13
Zn2062_A		4.529	ug/L	0.09592	2.118	9.285
Y_3600_R		18,872	Cts/S	74.597	0.39528	18,872
Y_2243_A		6,585.8	Cts/S	9.4817	0.14397	6,585.8
Y_3600_A		126,150	Cts/S	226.19	0.17931	126,150

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:05:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000032

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:05:56PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		218.1	ug/L	2.119	0.9713	2,885
Al3961_R		525,700	ug/L	10,160	1.932	572,800
As1891_A		99.37	ug/L	0.007819	0.007869	20.26
B_2089_A		485.5	ug/L	1.714	0.3530	631.0
Ba4554_R		493.2	ug/L	3.223	0.6536	35,540
Be3130_R		500.1	ug/L	6.804	1.361	50,120
Ca3158_R		480,300	ug/L	8,793	1.831	569,500
Cd2265_A		911.1	ug/L	6.806	0.7470	9,481
Co2286_A		449.0	ug/L	3.521	0.7841	1,336
Cr2677_A		469.8	ug/L	4.439	0.9448	4,725
Cu3273_A		534.8	ug/L	3.452	0.6455	6,779
Fe2599_R		188,100	ug/L	3,049	1.622	367,400
K_7664_R		21,570	ug/L	154.0	0.7139	14,720
Li6707_R		554.3	ug/L	2.136	0.3853	7,810
Mg2025_A		430,500	ug/L	3,140	0.7294	137,500
Mn2576_R		470.5	ug/L	3.470	0.7376	4,718
Mo2020_A		483.3	ug/L	3.161	0.6540	1,304
Na5895_R		21,750	ug/L	121.6	0.5589	50,210
Ni2316_A		881.5	ug/L	6.100	0.6921	1,211
Pb2203_A		43.61	ug/L	0.8336	1.912	6.208
Sb2068_A		595.5	ug/L	3.243	0.5446	265.5
Se1960_A		47.79	ug/L	3.583	7.498	15.03
Si2516_R		2,132	ug/L	18.14	0.8506	1,018
Sn1899_A		478.8	ug/L	3.213	0.6710	171.4
Sr4215_R		519.5	ug/L	4.735	0.9114	49,990
Ti3349_A		502.1	ug/L	4.122	0.8210	11,140
Tl1908_A		84.56	ug/L	0.7270	0.8597	37.84
V_2924_A		485.2	ug/L	4.922	1.014	4,768
Zn2062_A		892.5	ug/L	4.637	0.5195	1,797
Y_3600_R		18,738	Cts/S	122.43	0.65336	18,738
Y_2243_A		6,552.7	Cts/S	46.521	0.70996	6,552.7
Y_3600_A		124,580	Cts/S	424.10	0.34042	124,580

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.1	ug/L	0.3773	0.07439	8,824
Al3961_R		12,820	ug/L	138.4	1.080	14,780
As1891_A		502.1	ug/L	0.4185	0.08334	171.0
B_2089_A		508.9	ug/L	0.9352	0.1838	751.0
Ba4554_R		510.5	ug/L	7.727	1.514	38,870
Be3130_R		513.6	ug/L	7.422	1.445	54,390
Ca3158_R		12,820	ug/L	119.8	0.9345	16,030
Cd2265_A		509.1	ug/L	0.9921	0.1949	5,826
Co2286_A		512.2	ug/L	0.5055	0.09869	1,727
Cr2677_A		511.0	ug/L	2.019	0.3952	5,832
Cu3273_A		510.1	ug/L	1.133	0.2222	7,366
Fe2599_R		12,850	ug/L	149.7	1.165	26,530
K_7664_R		12,740	ug/L	138.1	1.083	9,179
Li6707_R		517.0	ug/L	9.359	1.810	7,697
Mg2025_A		12,960	ug/L	13.16	0.1016	4,721
Mn2576_R		508.5	ug/L	3.507	0.6898	5,392
Mo2020_A		509.3	ug/L	0.8388	0.1647	1,560
Na5895_R		12,820	ug/L	171.1	1.335	31,290
Ni2316_A		514.1	ug/L	0.8328	0.1620	809.6

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:10:25PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		515.8	ug/L	0.1969	0.03818	451.7
Sb2068_A		504.3	ug/L	0.3290	0.06523	252.4
Se1960_A		503.1	ug/L	1.245	0.2475	134.2
Si2516_R		13,110	ug/L	112.0	0.8545	6,368
Sn1899_A		512.8	ug/L	0.2446	0.04770	208.4
Sr4215_R		511.7	ug/L	7.465	1.459	52,030
Ti3349_A		506.5	ug/L	0.1890	0.03732	12,800
Tl1908_A		519.0	ug/L	0.6926	0.1334	267.5
V_2924_A		507.4	ug/L	2.109	0.4156	5,653
Zn2062_A		508.1	ug/L	0.4124	0.08117	1,161
Y_3600_R		19,800	Cts/S	86.000	0.43435	19,800
Y_2243_A		7,442.2	Cts/S	1.4110	0.018959	7,442.2
Y_3600_A		141,920	Cts/S	42.095	0.029662	141,920

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:14:35PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.05219	ug/L	0.06803	130.3	-19.80
Al3961_R		-6.093	ug/L	4.343	71.28	-5.079
As1891_A		0.06571	ug/L	1.196	1,820	-2.501
B_2089_A		2.066	ug/L	0.5623	27.22	10.29
Ba4554_R		-0.02898	ug/L	0.05418	187.0	15.64
Be3130_R		-0.01501	ug/L	0.02330	155.3	-1.677
Ca3158_R		3.120	ug/L	1.887	60.48	-23.05
Cd2265_A		0.03198	ug/L	0.007352	22.99	-1.026
Co2286_A		0.1146	ug/L	0.07961	69.44	0.4098
Cr2677_A		-0.1910	ug/L	0.1517	79.45	-1.365
Cu3273_A		-0.1347	ug/L	0.1395	103.5	-18.99
Fe2599_R		2.630	ug/L	1.719	65.39	6.748
K_7664_R		-3.769	ug/L	26.27	696.9	-27.99
Li6707_R		0.2451	ug/L	0.3597	146.7	5.036
Mg2025_A		6.755	ug/L	1.662	24.61	-5.158
Mn2576_R		0.03579	ug/L	0.08371	233.9	5.574
Mo2020_A		0.5530	ug/L	0.1275	23.05	1.986
Na5895_R		3.640	ug/L	2.133	58.58	69.93
Ni2316_A		0.09903	ug/L	0.3403	343.6	0.1590
Pb2203_A		-0.2531	ug/L	0.4194	165.7	-1.474
Sb2068_A		0.6410	ug/L	0.1131	17.64	0.8001
Se1960_A		-0.5872	ug/L	1.714	291.8	1.609
Si2516_R		14.64	ug/L	2.711	18.52	67.82
Sn1899_A		0.4233	ug/L	0.1569	37.07	1.371
Sr4215_R		-0.02232	ug/L	0.01101	49.34	-28.15
Ti3349_A		0.1375	ug/L	0.1691	123.0	-11.73
Tl1908_A		0.7450	ug/L	0.7264	97.51	-1.674
V_2924_A		0.06282	ug/L	0.4718	750.9	-2.338
Zn2062_A		0.05511	ug/L	0.05420	98.35	0.2557
Y_3600_R		19,457	Cts/S	167.64	0.86156	19,457
Y_2243_A		7,407.3	Cts/S	50.493	0.68166	7,407.3
Y_3600_A		142,530	Cts/S	367.93	0.25814	142,530

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:19:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:19:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,052	ug/L	23.26	1.133	34,380
Al3961_R		19.81	ug/L	0.4146	2.093	236.5
As1891_A		20,000	ug/L	18.50	0.09254	6,709
B_2089_A		19,840	ug/L	2.047	0.01032	27,620
Ba4554_R		19,710	ug/L	68.13	0.3458	1,478,000
Be3130_R		19,800	ug/L	58.99	0.2980	2,066,000
Ca3158_R		26.20	ug/L	1.751	6.682	19.79
Cd2265_A		19,260	ug/L	42.05	0.2183	212,400
Co2286_A		20,060	ug/L	20.49	0.1022	65,450
Cr2677_A		20,260	ug/L	396.2	1.956	222,900
Cu3273_A		20,480	ug/L	335.3	1.637	286,000
Fe2599_R		9.524	ug/L	0.1705	1.791	20.81
K_7664_R		14.31	ug/L	1.198	8.372	-15.27
Li6707_R		20,570	ug/L	252.8	1.229	301,800
Mg2025_A		-206.5	ug/L	2.438	1.181	939.6
Mn2576_R		19,980	ug/L	74.22	0.3715	208,600
Mo2020_A		5,057	ug/L	5.204	0.1029	14,990
Na5895_R		25.23	ug/L	6.410	25.41	121.9
Ni2316_A		20,040	ug/L	18.95	0.09459	30,410
Pb2203_A		20,770	ug/L	24.16	0.1163	17,670
Sb2068_A		20,180	ug/L	0.09547	0.0004730	9,752
Se1960_A		20,610	ug/L	36.44	0.1768	5,248
Si2516_R		122.7	ug/L	10.53	8.587	233.6
Sn1899_A		20,060	ug/L	38.86	0.1937	7,847
Sr4215_R		20,060	ug/L	84.61	0.4218	2,011,000
Ti3349_A		20,040	ug/L	490.2	2.446	488,800
Tl1908_A		19,900	ug/L	14.99	0.07535	10,000
V_2924_A		20,350	ug/L	400.6	1.969	219,600
Zn2062_A		19,270	ug/L	54.79	0.2843	42,620
Y_3600_R		19,510	Cts/S	68.495	0.35108	19,510
Y_2243_A		7,201.5	Cts/S	4.5918	0.063761	7,201.5
Y_3600_A		136,890	Cts/S	1,980.5	1.4468	136,890

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:23:40PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.467	ug/L	0.7629	30.93	-523.8
Al3961_R		505,400	ug/L	10,230	2.024	558,400
As1891_A		1.817	ug/L	0.4156	22.87	-11.39
B_2089_A		37.19	ug/L	5.907	15.88	53.55
Ba4554_R		6.588	ug/L	4.995	75.83	497.3
Be3130_R		5.350	ug/L	5.169	96.62	541.8
Ca3158_R		476,200	ug/L	5,884	1.236	572,400
Cd2265_A		3.640	ug/L	1.698	46.64	450.1
Co2286_A		2.633	ug/L	0.7491	28.45	10.95
Cr2677_A		3.770	ug/L	0.1891	5.017	60.90
Cu3273_A		10.09	ug/L	0.3520	3.489	104.7
Fe2599_R		227,300	ug/L	4,433	1.950	450,200
K_7664_R		305,500	ug/L	806.4	0.2639	211,800
Li6707_R		9.472	ug/L	7.377	77.88	136.4
Mg2025_A		183,400	ug/L	423.8	0.2311	58,740
Mn2576_R		16.35	ug/L	5.329	32.59	81.29
Mo2020_A		1.761	ug/L	0.4346	24.68	5.030
Na5895_R		204,100	ug/L	2,545	1.247	477,100
Ni2316_A		2.293	ug/L	0.5121	22.33	-7.509

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:23:40PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.000	ug/L	0.7615	76.11	-24.05
Sb2068_A		3.055	ug/L	0.9965	32.62	5.468
Se1960_A		4.560	ug/L	1.631	35.78	5.097
Si2516_R		51,230	ug/L	161.1	0.3145	23,670
Sn1899_A		14.51	ug/L	1.114	7.679	6.245
Sr4215_R		9.531	ug/L	5.245	55.04	903.4
Ti3349_A		9.941	ug/L	0.1255	1.262	209.5
Tl1908_A		2.381	ug/L	0.6873	28.87	-0.2051
V_2924_A		9.008	ug/L	0.03897	0.4327	114.7
Zn2062_A		8.824	ug/L	0.5097	5.777	17.94
Y_3600_R		18,999	Cts/S	125.88	0.66259	18,999
Y_2243_A		6,572.5	Cts/S	20.069	0.30535	6,572.5
Y_3600_A		125,880	Cts/S	151.80	0.12059	125,880

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:28:20PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		517.2	ug/L	3.341	0.6459	8,865
Al3961_R		13,030	ug/L	75.01	0.5755	14,780
As1891_A		507.7	ug/L	1.016	0.2002	171.2
B_2089_A	W	532.3	ug/L	2.676	0.5027	777.0
Ba4554_R		517.8	ug/L	0.9898	0.1912	38,780
Be3130_R		521.0	ug/L	0.9794	0.1880	54,260
Ca3158_R		13,020	ug/L	83.83	0.6439	16,020
Cd2265_A		512.7	ug/L	0.7801	0.1522	5,810
Co2286_A		516.5	ug/L	0.3569	0.06910	1,725
Cr2677_A		517.5	ug/L	1.445	0.2792	5,818
Cu3273_A		518.9	ug/L	0.7288	0.1405	7,381
Fe2599_R		13,010	ug/L	115.4	0.8871	26,420
K_7664_R		13,060	ug/L	48.20	0.3690	9,255
Li6707_R		524.7	ug/L	3.725	0.7100	7,683
Mg2025_A		13,060	ug/L	22.62	0.1733	4,712
Mn2576_R		518.1	ug/L	3.597	0.6943	5,403
Mo2020_A		513.8	ug/L	0.7382	0.1437	1,559
Na5895_R		13,100	ug/L	27.48	0.2097	31,450
Ni2316_A		516.5	ug/L	1.779	0.3444	805.5
Pb2203_A		519.2	ug/L	0.6580	0.1267	450.2
Sb2068_A		510.6	ug/L	1.310	0.2566	253.0
Se1960_A		509.5	ug/L	2.802	0.5499	134.6
Si2516_R		13,400	ug/L	114.5	0.8549	6,398
Sn1899_A		517.1	ug/L	1.045	0.2021	208.1
Sr4215_R		521.0	ug/L	0.5227	0.1003	52,100
Ti3349_A		518.5	ug/L	2.873	0.5541	12,910
Tl1908_A		523.1	ug/L	1.896	0.3625	267.0
V_2924_A		514.3	ug/L	0.8190	0.1592	5,645
Zn2062_A		511.5	ug/L	0.04017	0.007854	1,158
Y_3600_R		19,472	Cts/S	29.466	0.15133	19,472
Y_2243_A		7,369.6	Cts/S	21.437	0.29089	7,369.6
Y_3600_A		139,790	Cts/S	86.793	0.062087	139,790

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:32:29PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:32:29PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.09467	ug/L	0.08006	84.57	-17.52
Al3961_R		46.98	ug/L	6.848	14.58	56.32
As1891_A		-0.2341	ug/L	1.093	467.0	-2.637
B_2089_A	W	14.15	ug/L	1.498	10.58	27.79
Ba4554_R		0.6237	ug/L	0.06858	11.00	66.08
Be3130_R		0.6361	ug/L	0.1337	21.01	67.69
Ca3158_R		51.33	ug/L	3.726	7.259	37.21
Cd2265_A		0.1888	ug/L	0.04516	23.93	0.8142
Co2286_A		0.2040	ug/L	0.02024	9.919	0.7185
Cr2677_A		0.6022	ug/L	0.2210	36.70	7.818
Cu3273_A		0.4212	ug/L	0.4047	96.07	-11.06
Fe2599_R		29.98	ug/L	3.856	12.86	63.79
K_7664_R		87.90	ug/L	13.56	15.43	37.97
Li6707_R		1.139	ug/L	0.4303	37.77	18.62
Mg2025_A		6.756	ug/L	1.508	22.33	-5.209
Mn2576_R		0.3930	ug/L	0.3548	90.30	9.492
Mo2020_A		1.010	ug/L	0.3851	38.13	3.409
Na5895_R		35.56	ug/L	0.09739	0.2739	150.0
Ni2316_A		0.1235	ug/L	0.4162	337.1	0.1973
Pb2203_A		0.6355	ug/L	0.3996	62.88	-0.7052
Sb2068_A		1.257	ug/L	0.09936	7.905	1.126
Se1960_A		-0.8151	ug/L	0.8864	108.8	1.563
Si2516_R		19.75	ug/L	6.127	31.02	71.99
Sn1899_A		-0.3193	ug/L	0.8593	269.1	1.081
Sr4215_R		0.7350	ug/L	0.07049	9.591	48.73
Ti3349_A		0.6516	ug/L	0.1785	27.40	1.350
Tl1908_A		0.4767	ug/L	0.2779	58.28	-1.831
V_2924_A		0.3606	ug/L	0.1159	32.14	0.9792
Zn2062_A		0.2743	ug/L	0.03160	11.52	0.7599
Y_3600_R		19,946	Cts/S	139.75	0.70066	19,946
Y_2243_A		7,484.2	Cts/S	82.574	1.1033	7,484.2
Y_3600_A		144,340	Cts/S	360.80	0.24997	144,340

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:36:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1318	ug/L	0.005965	4.525	-16.92
Al3961_R		17.54	ug/L	0.6853	3.908	22.56
As1891_A		0.9844	ug/L	0.1479	15.03	-2.248
B_2089_A		9.249	ug/L	0.6014	6.503	21.10
Ba4554_R		0.3231	ug/L	0.007468	2.311	43.35
Be3130_R		0.1937	ug/L	0.02967	15.32	20.70
Ca3158_R		248.1	ug/L	2.866	1.155	287.8
Cd2265_A		0.08582	ug/L	0.07434	86.62	-0.4108
Co2286_A		0.3371	ug/L	0.2158	64.00	1.187
Cr2677_A		0.2605	ug/L	0.1091	41.87	3.878
Cu3273_A		0.8477	ug/L	0.002748	0.3242	-4.800
Fe2599_R		11.49	ug/L	0.5552	4.833	25.55
K_7664_R		48.88	ug/L	17.54	35.88	9.606
Li6707_R		0.04044	ug/L	0.1773	438.5	2.135
Mg2025_A		17.71	ug/L	1.630	9.204	-1.204
Mn2576_R		0.8022	ug/L	0.3141	39.15	13.99
Mo2020_A		0.3644	ug/L	0.07621	20.91	1.452
Na5895_R		1,060	ug/L	13.46	1.270	2,685
Ni2316_A		0.6962	ug/L	0.05348	7.681	1.116

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:36:54PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.8034	ug/L	0.1887	23.49	-0.5669
Sb2068_A		0.1322	ug/L	0.5470	413.9	0.5617
Se1960_A		-1.874	ug/L	0.5169	27.58	1.307
Si2516_R		-10.04	ug/L	1.935	19.28	58.02
Sn1899_A		0.8433	ug/L	0.2036	24.15	1.583
Sr4215_R		0.5019	ug/L	0.09623	19.17	25.05
Ti3349_A		0.3454	ug/L	0.02542	7.360	-6.574
Tl1908_A		1.467	ug/L	1.035	70.54	-1.339
V_2924_A		0.04819	ug/L	0.03044	63.16	-2.561
Zn2062_A		46.99	ug/L	0.3263	0.6944	110.2
Y_3600_R		20,100	Cts/S	36.035	0.17928	20,100
Y_2243_A		7,618.6	Cts/S	28.192	0.37005	7,618.6
Y_3600_A		145,400	Cts/S	1,233.5	0.84835	145,400

LCSWOH25ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:41:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		48.21	ug/L	0.4497	0.9327	816.8
Al3961_R		2,010	ug/L	35.51	1.767	2,301
As1891_A		101.7	ug/L	0.6252	0.6147	32.54
B_2089_A		501.7	ug/L	2.986	0.5952	724.7
Ba4554_R		2,001	ug/L	36.81	1.839	151,100
Be3130_R		50.62	ug/L	1.199	2.369	5,314
Ca3158_R		2,613	ug/L	49.77	1.905	3,220
Cd2265_A		259.4	ug/L	1.489	0.5738	2,942
Co2286_A		502.5	ug/L	3.036	0.6042	1,686
Cr2677_A		196.0	ug/L	0.1131	0.05769	2,241
Cu3273_A		251.0	ug/L	1.060	0.4224	3,620
Fe2599_R		1,025	ug/L	16.66	1.625	2,100
K_7664_R		10,550	ug/L	177.4	1.682	7,532
Li6707_R		521.1	ug/L	8.765	1.682	7,694
Mg2025_A		5,268	ug/L	33.60	0.6378	1,920
Mn2576_R		494.7	ug/L	7.297	1.475	5,204
Mo2020_A		101.6	ug/L	0.6549	0.6443	310.0
Na5895_R		7,978	ug/L	129.6	1.625	19,330
Ni2316_A		501.2	ug/L	2.481	0.4951	781.8
Pb2203_A		105.6	ug/L	0.4463	0.4224	91.09
Sb2068_A		101.9	ug/L	0.03844	0.03772	48.98
Se1960_A		103.6	ug/L	0.7887	0.7616	28.94
Si2516_R		1,101	ug/L	20.68	1.879	589.0
Sn1899_A		508.9	ug/L	3.113	0.6118	205.9
Sr4215_R		514.3	ug/L	8.899	1.730	51,860
Ti3349_A		499.1	ug/L	0.7423	0.1487	12,620
Tl1908_A		107.2	ug/L	1.466	1.368	53.83
V_2924_A		490.4	ug/L	0.1856	0.03786	5,502
Zn2062_A		483.9	ug/L	2.909	0.6012	1,102
Y_3600_R		19,637	Cts/S	396.01	2.0166	19,637
Y_2243_A		7,406.6	Cts/S	17.518	0.23651	7,406.6
Y_3600_A		142,090	Cts/S	892.23	0.62794	142,090

PBWOH25ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:45:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOH25ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:45:32PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1140	ug/L	0.1290	113.2	-21.44
Al3961_R		-4.977	ug/L	1.293	25.98	-4.018
As1891_A		0.1704	ug/L	0.7162	420.3	-2.529
B_2089_A		8.605	ug/L	0.4168	4.844	20.10
Ba4554_R		0.4356	ug/L	0.05682	13.04	52.81
Be3130_R		-0.00005900	ug/L	0.04003	68,260	-0.09704
Ca3158_R		9.699	ug/L	0.3431	3.538	-15.65
Cd2265_A		0.02171	ug/L	0.01094	50.38	-1.173
Co2286_A		0.2810	ug/L	0.008111	2.886	0.9910
Cr2677_A		0.1242	ug/L	0.1849	149.0	2.297
Cu3273_A		0.1929	ug/L	0.1641	85.06	-14.60
Fe2599_R		2.363	ug/L	0.5511	23.32	6.525
K_7664_R		15.57	ug/L	10.03	64.44	-14.99
Li6707_R		0.4348	ug/L	0.9481	218.1	8.284
Mg2025_A		6.979	ug/L	1.081	15.49	-5.201
Mn2576_R		0.5302	ug/L	0.1523	28.72	11.24
Mo2020_A		0.2778	ug/L	0.03521	12.67	1.177
Na5895_R		21.39	ug/L	0.1218	0.5694	117.8
Ni2316_A		0.4095	ug/L	0.1723	42.08	0.6538
Pb2203_A		-0.2912	ug/L	0.7166	246.1	-1.548
Sb2068_A		0.009388	ug/L	0.2259	2,407	0.4973
Se1960_A		-0.1363	ug/L	0.9997	733.3	1.770
Si2516_R		80.82	ug/L	7.216	8.929	103.8
Sn1899_A		0.4482	ug/L	0.1026	22.89	1.416
Sr4215_R		0.1398	ug/L	0.02537	18.14	-12.50
Ti3349_A		0.1352	ug/L	0.1836	135.8	-12.09
Tl1908_A		0.6371	ug/L	0.9384	147.3	-1.774
V_2924_A		0.01819	ug/L	0.2688	1,478	-2.926
Zn2062_A		1.898	ug/L	0.03715	1.957	4.567
Y_3600_R		20,387	Cts/S	211.35	1.0367	20,387
Y_2243_A		7,597.6	Cts/S	29.032	0.38212	7,597.6
Y_3600_A		146,320	Cts/S	789.39	0.53948	146,320

SO5596-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:49:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1953	ug/L	0.4159	212.9	-22.12
Al3961_R		-1.365	ug/L	5.142	376.7	1.509
As1891_A		14.18	ug/L	0.1521	1.073	2.391
B_2089_A		115.4	ug/L	1.073	0.9299	173.4
Ba4554_R		1.265	ug/L	0.05380	4.251	115.6
Be3130_R		0.04521	ug/L	0.001879	4.155	4.707
Ca3158_R		1,256	ug/L	7.697	0.6126	1,564
Cd2265_A		0.08390	ug/L	0.01833	21.84	-0.4341
Co2286_A		0.2206	ug/L	0.1788	81.03	0.7709
Cr2677_A		-0.01423	ug/L	0.1920	1,349	0.6497
Cu3273_A		16.24	ug/L	0.1001	0.6163	217.2
Fe2599_R		5.970	ug/L	0.2281	3.820	13.92
K_7664_R		3,390	ug/L	1.886	0.05564	2,449
Li6707_R		5.277	ug/L	0.6641	12.59	80.99
Mg2025_A		354.9	ug/L	2.153	0.6065	121.7
Mn2576_R		1.491	ug/L	0.04047	2.715	21.42
Mo2020_A		0.05929	ug/L	0.1058	178.4	0.4868
Na5895_R	W	126,700	ug/L	1,094	0.8634	312,000
Ni2316_A		-0.4011	ug/L	0.1288	32.11	-0.6337

SO5596-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:49:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9725	ug/L	0.2731	28.08	-0.4023
Sb2068_A		-2.080	ug/L	1.080	51.91	-0.5598
Se1960_A		-2.843	ug/L	1.753	61.64	1.028
Si2516_R		4,783	ug/L	88.71	1.855	2,387
Sn1899_A		-0.4919	ug/L	0.3430	69.72	1.012
Sr4215_R		9.556	ug/L	0.02381	0.2491	956.1
Ti3349_A		0.1609	ug/L	0.1594	99.11	-11.03
Tl1908_A		2.950	ug/L	0.1393	4.720	-0.5407
V_2924_A		-0.2469	ug/L	0.01059	4.288	-5.766
Zn2062_A		3.300	ug/L	0.2131	6.458	7.720
Y_3600_R		20,015	Cts/S	281.83	1.4081	20,015
Y_2243_A		7,480.5	Cts/S	11.248	0.15037	7,480.5
Y_3600_A		141,270	Cts/S	496.87	0.35170	141,270

SO5478-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:54:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.104	ug/L	0.0008480	0.07677	-55.46
Al3961_R		7,475	ug/L	28.91	0.3868	4,308
As1891_A		12.63	ug/L	1.077	8.532	-1.166
B_2089_A		104.7	ug/L	0.8207	0.7836	76.47
Ba4554_R		323.3	ug/L	1.201	0.3714	12,240
Be3130_R		0.3122	ug/L	0.01066	3.413	8.879
Ca3158_R	W	75,210	ug/L	151.7	0.2018	46,760
Cd2265_A		0.7585	ug/L	0.1134	14.96	36.85
Co2286_A		14.98	ug/L	0.07943	0.5303	24.31
Cr2677_A		18.63	ug/L	0.04950	0.2658	105.4
Cu3273_A		64.01	ug/L	1.377	2.151	417.6
Fe2599_R		35,480	ug/L	29.77	0.08392	36,370
K_7664_R	W	65,170	ug/L	502.6	0.7713	23,350
Li6707_R		26.35	ug/L	0.4207	1.597	196.3
Mg2025_A		27,890	ug/L	104.6	0.3751	4,693
Mn2576_R	W	5,624	ug/L	18.22	0.3241	29,590
Mo2020_A		1.833	ug/L	0.2058	11.23	2.724
Na5895_R	W	326,300	ug/L	9,285	2.846	394,700
Ni2316_A		24.98	ug/L	0.3715	1.487	17.29
Pb2203_A		7.420	ug/L	2.735	36.86	2.249
Sb2068_A		-0.9872	ug/L	0.1269	12.86	0.4953
Se1960_A		-0.7639	ug/L	5.749	752.6	2.010
Si2516_R		15,950	ug/L	65.01	0.4075	3,869
Sn1899_A		3.120	ug/L	1.173	37.61	1.707
Sr4215_R		1,555	ug/L	9.624	0.6187	78,550
Ti3349_A		222.2	ug/L	2.882	1.297	2,637
Tl1908_A		1.080	ug/L	0.1892	17.51	-3.108
V_2924_A		15.57	ug/L	0.7282	4.676	72.26
Zn2062_A		317.1	ug/L	0.1935	0.06101	337.2
Y_3600_R		19,663	Cts/S	118.93	0.60484	19,663
Y_2243_A		6,914.7	Cts/S	36.928	0.53404	6,914.7
Y_3600_A		133,980	Cts/S	504.78	0.37677	133,980

SO5506-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:58:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 1:58:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1976	ug/L	0.01258	6.369	-49.26
Al3961_R		20.86	ug/L	1.995	9.563	32.15
As1891_A		1.373	ug/L	0.7019	51.13	-2.695
B_2089_A		44.84	ug/L	0.3466	0.7729	71.26
Ba4554_R		15.41	ug/L	0.5095	3.306	1,190
Be3130_R		0.03933	ug/L	0.02683	68.23	4.036
Ca3158_R		6,496	ug/L	139.9	2.153	8,104
Cd2265_A		-0.04565	ug/L	0.05170	113.3	23.81
Co2286_A		4.161	ug/L	0.003970	0.09541	14.17
Cr2677_A		-0.1582	ug/L	0.05649	35.71	0.7736
Cu3273_A		0.6524	ug/L	0.08073	12.37	-9.866
Fe2599_R		12,490	ug/L	362.3	2.900	25,770
K_7664_R		1,429	ug/L	65.00	4.549	1,005
Li6707_R		3.713	ug/L	1.097	29.55	56.54
Mg2025_A		3,048	ug/L	20.53	0.6736	1,094
Mn2576_R		419.2	ug/L	8.824	2.105	4,440
Mo2020_A		0.3666	ug/L	0.01310	3.575	1.394
Na5895_R		8,940	ug/L	278.9	3.120	21,820
Ni2316_A		1.517	ug/L	0.2177	14.35	1.705
Pb2203_A		-0.1120	ug/L	0.06073	54.23	-0.8780
Sb2068_A		-0.3389	ug/L	0.5231	154.4	0.5031
Se1960_A		0.5016	ug/L	0.3170	63.21	2.013
Si2516_R		12,690	ug/L	309.2	2.437	6,155
Sn1899_A		1.101	ug/L	0.8195	74.44	1.646
Sr4215_R		39.85	ug/L	1.142	2.866	4,024
Ti3349_A		0.9467	ug/L	0.1351	14.27	8.803
Tl1908_A		0.4713	ug/L	1.072	227.5	-2.046
V_2924_A		0.1304	ug/L	0.02751	21.10	-1.465
Zn2062_A		91.92	ug/L	0.6421	0.6986	209.7
Y_3600_R		19,786	Cts/S	479.27	2.4223	19,786
Y_2243_A		7,415.0	Cts/S	51.067	0.68869	7,415.0
Y_3600_A		142,240	Cts/S	206.01	0.14483	142,240

SO5506-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:03:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.106	ug/L	0.7573	68.46	-22.33
Al3961_R		40.09	ug/L	29.82	74.39	12.56
As1891_A		5.668	ug/L	1.804	31.82	-2.304
B_2089_A		55.40	ug/L	0.6541	1.181	23.55
Ba4554_R		15.77	ug/L	0.7778	4.933	262.3
Be3130_R		0.008518	ug/L	0.1058	1,242	0.05110
Ca3158_R		6,625	ug/L	79.72	1.203	1,659
Cd2265_A		0.2920	ug/L	0.01838	6.293	4.478
Co2286_A		4.974	ug/L	0.6122	12.31	3.459
Cr2677_A		-0.7088	ug/L	0.03097	4.369	-0.4632
Cu3273_A		1.618	ug/L	0.7398	45.71	-13.13
Fe2599_R		12,470	ug/L	75.18	0.6030	5,233
K_7664_R		1,529	ug/L	49.29	3.223	198.3
Li6707_R		2.924	ug/L	2.394	81.87	10.41
Mg2025_A		3,213	ug/L	6.647	0.2069	228.7
Mn2576_R		417.8	ug/L	5.769	1.381	904.6
Mo2020_A		0.9372	ug/L	0.2809	29.97	0.8833
Na5895_R		8,880	ug/L	75.23	0.8471	4,460
Ni2316_A		3.731	ug/L	0.2182	5.847	1.049

SO5506-002L

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:03:14PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-2.000	ug/L	1.270	63.53	-1.537
Sb2068_A		-1.658	ug/L	4.117	248.3	0.3565
Se1960_A		-7.880	ug/L	2.239	28.42	1.398
Si2516_R		12,490	ug/L	80.15	0.6420	1,283
Sn1899_A		4.261	ug/L	0.6254	14.68	1.572
Sr4215_R		39.93	ug/L	0.1638	0.4103	799.0
Ti3349_A		1.145	ug/L	0.9723	84.89	-9.643
Tl1908_A		10.60	ug/L	0.1443	1.361	-1.028
V_2924_A		-0.001546	ug/L	0.2889	18,680	-3.093
Zn2062_A		119.8	ug/L	1.943	1.622	55.72
Y_3600_R		20,122	Cts/S	217.96	1.0832	20,122
Y_2243_A		7,547.4	Cts/S	40.364	0.53481	7,547.4
Y_3600_A		146,310	Cts/S	625.93	0.42783	146,310

SO5506-002A

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:07:38PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		40.64	ug/L	0.02199	0.05410	636.3
Al3961_R		10,820	ug/L	128.7	1.189	12,490
As1891_A		477.3	ug/L	2.383	0.4993	160.6
B_2089_A		531.5	ug/L	1.403	0.2640	775.9
Ba4554_R		513.4	ug/L	8.568	1.669	39,090
Be3130_R		507.3	ug/L	10.05	1.981	53,710
Ca3158_R		11,820	ug/L	202.8	1.716	14,780
Cd2265_A		492.0	ug/L	0.4765	0.09685	5,587
Co2286_A		507.7	ug/L	0.9932	0.1956	1,696
Cr2677_A		493.9	ug/L	1.764	0.3571	5,621
Cu3273_A		502.6	ug/L	0.01380	0.002745	7,234
Fe2599_R		17,580	ug/L	334.4	1.902	36,290
K_7664_R		11,420	ug/L	135.4	1.186	8,222
Li6707_R		517.0	ug/L	8.163	1.579	7,697
Mg2025_A		8,463	ug/L	20.64	0.2439	3,061
Mn2576_R		905.7	ug/L	11.67	1.288	9,597
Mo2020_A		511.8	ug/L	1.050	0.2052	1,553
Na5895_R		14,190	ug/L	173.5	1.223	34,620
Ni2316_A		501.6	ug/L	0.8587	0.1712	782.3
Pb2203_A		501.3	ug/L	1.932	0.3854	435.1
Sb2068_A		491.7	ug/L	1.685	0.3426	243.7
Se1960_A		490.6	ug/L	0.4646	0.09470	129.8
Si2516_R		12,690	ug/L	114.6	0.9031	6,164
Sn1899_A		515.0	ug/L	1.074	0.2085	207.3
Sr4215_R		547.9	ug/L	8.101	1.479	55,700
Ti3349_A		498.6	ug/L	1.846	0.3702	12,560
Tl1908_A		499.2	ug/L	0.5428	0.1087	254.6
V_2924_A		500.4	ug/L	1.274	0.2545	5,557
Zn2062_A		575.7	ug/L	1.244	0.2161	1,304
Y_3600_R		19,798	Cts/S	165.47	0.83579	19,798
Y_2243_A		7,370.7	Cts/S	29.918	0.40590	7,370.7
Y_3600_A		141,470	Cts/S	34.781	0.024584	141,470

SO5506-002P

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:11:48PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:11:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.01	ug/L	0.1940	0.3803	816.4
Al3961_R		2,118	ug/L	25.79	1.218	2,441
As1891_A		103.8	ug/L	1.253	1.208	32.33
B_2089_A		548.5	ug/L	2.487	0.4534	784.2
Ba4554_R	W	2,106	ug/L	0.08277	0.003930	159,700
Be3130_R		53.29	ug/L	0.3374	0.6332	5,621
Ca3158_R		8,638	ug/L	129.1	1.495	10,750
Cd2265_A		259.6	ug/L	1.197	0.4612	2,942
Co2286_A		532.5	ug/L	2.380	0.4470	1,771
Cr2677_A		208.4	ug/L	2.256	1.082	2,339
Cu3273_A		268.0	ug/L	3.875	1.446	3,790
Fe2599_R		13,290	ug/L	52.91	0.3982	27,320
K_7664_R		11,970	ug/L	32.56	0.2720	8,587
Li6707_R		535.4	ug/L	1.558	0.2910	7,939
Mg2025_A		8,159	ug/L	17.02	0.2087	2,939
Mn2576_R		922.6	ug/L	11.48	1.244	9,741
Mo2020_A		105.2	ug/L	0.7088	0.6737	317.9
Na5895_R		16,670	ug/L	110.1	0.6608	40,500
Ni2316_A		525.8	ug/L	2.330	0.4432	812.2
Pb2203_A		104.6	ug/L	1.635	1.563	89.79
Sb2068_A		103.2	ug/L	1.909	1.850	49.29
Se1960_A		105.4	ug/L	2.429	2.304	29.27
Si2516_R		13,570	ug/L	119.3	0.8787	6,562
Sn1899_A		519.7	ug/L	2.477	0.4767	208.3
Sr4215_R		563.4	ug/L	2.066	0.3667	57,060
Ti3349_A		524.9	ug/L	3.601	0.6859	13,020
Tl1908_A		108.0	ug/L	0.3813	0.3532	53.57
V_2924_A		527.4	ug/L	5.308	1.006	5,806
Zn2062_A		525.9	ug/L	1.985	0.3774	1,186
Y_3600_R		19,720	Cts/S	27.811	0.14103	19,720
Y_2243_A		7,339.1	Cts/S	37.986	0.51759	7,339.1
Y_3600_A		139,400	Cts/S	1,515.4	1.0871	139,400

SO5506-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:16:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		49.42	ug/L	1.335	2.701	797.3
Al3961_R		2,080	ug/L	3.067	0.1475	2,399
As1891_A		100.8	ug/L	0.6683	0.6630	31.49
B_2089_A		540.9	ug/L	1.614	0.2984	777.6
Ba4554_R	W	2,069	ug/L	18.49	0.8937	157,000
Be3130_R		52.32	ug/L	0.3229	0.6171	5,522
Ca3158_R		8,551	ug/L	29.37	0.3435	10,650
Cd2265_A		251.8	ug/L	0.7428	0.2950	2,870
Co2286_A		519.5	ug/L	1.080	0.2078	1,737
Cr2677_A		202.9	ug/L	5.460	2.691	2,299
Cu3273_A		262.6	ug/L	6.577	2.505	3,750
Fe2599_R		13,170	ug/L	85.09	0.6463	27,090
K_7664_R		11,660	ug/L	84.37	0.7236	8,369
Li6707_R		529.6	ug/L	4.255	0.8034	7,859
Mg2025_A		7,966	ug/L	11.38	0.1429	2,884
Mn2576_R		910.4	ug/L	1.774	0.1949	9,618
Mo2020_A		103.2	ug/L	0.3894	0.3772	313.7
Na5895_R		16,400	ug/L	65.54	0.3997	39,880
Ni2316_A		513.9	ug/L	1.843	0.3586	798.1

SO5506-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:16:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		100.5	ug/L	0.3828	0.3807	86.75
Sb2068_A		100.3	ug/L	0.8893	0.8867	48.17
Se1960_A		101.5	ug/L	2.185	2.153	28.42
Si2516_R		13,410	ug/L	46.60	0.3476	6,487
Sn1899_A		509.8	ug/L	0.1825	0.03580	205.5
Sr4215_R		557.7	ug/L	2.147	0.3850	56,520
Ti3349_A		512.4	ug/L	14.24	2.778	12,840
Tl1908_A		104.0	ug/L	0.02558	0.02459	51.82
V_2924_A		512.5	ug/L	13.76	2.685	5,696
Zn2062_A		517.5	ug/L	1.509	0.2915	1,174
Y_3600_R		19,733	Cts/S	185.01	0.93757	19,733
Y_2243_A		7,378.6	Cts/S	0.085269	0.0011560	7,378.6
Y_3600_A		140,790	Cts/S	2,823.6	2.0055	140,790

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:20:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.3	ug/L	2.079	0.4097	8,851
Al3961_R		12,750	ug/L	198.1	1.555	14,730
As1891_A		506.8	ug/L	1.605	0.3167	171.3
B_2089_A		514.1	ug/L	0.3359	0.06533	752.7
Ba4554_R		509.2	ug/L	0.3385	0.06647	38,860
Be3130_R		507.9	ug/L	0.8775	0.1728	53,900
Ca3158_R		12,690	ug/L	102.1	0.8047	15,910
Cd2265_A		510.3	ug/L	0.4184	0.08200	5,794
Co2286_A		516.6	ug/L	0.3368	0.06519	1,729
Cr2677_A		506.3	ug/L	2.528	0.4993	5,795
Cu3273_A		506.6	ug/L	2.475	0.4885	7,336
Fe2599_R		12,740	ug/L	14.18	0.1112	26,370
K_7664_R		12,730	ug/L	120.7	0.9478	9,192
Li6707_R		514.2	ug/L	0.9619	0.1871	7,672
Mg2025_A		13,080	ug/L	14.15	0.1081	4,730
Mn2576_R		508.7	ug/L	6.347	1.248	5,406
Mo2020_A		512.3	ug/L	0.6667	0.1301	1,557
Na5895_R		12,760	ug/L	114.0	0.8929	31,220
Ni2316_A		516.7	ug/L	0.06601	0.01278	807.5
Pb2203_A		516.3	ug/L	0.9283	0.1798	448.6
Sb2068_A		511.0	ug/L	1.552	0.3037	253.7
Se1960_A		508.1	ug/L	1.498	0.2947	134.5
Si2516_R		13,150	ug/L	188.7	1.434	6,402
Sn1899_A		514.1	ug/L	1.241	0.2415	207.4
Sr4215_R		511.2	ug/L	3.253	0.6363	52,100
Ti3349_A		508.1	ug/L	1.294	0.2548	12,870
Tl1908_A		523.9	ug/L	0.2421	0.04621	268.0
V_2924_A		508.1	ug/L	1.113	0.2190	5,676
Zn2062_A		508.1	ug/L	1.000	0.1968	1,152
Y_3600_R		19,842	Cts/S	1.8059	0.0091010	19,842
Y_2243_A		7,384.3	Cts/S	2.3969	0.032459	7,384.3
Y_3600_A		142,300	Cts/S	562.58	0.39534	142,300

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:24:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:24:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1193	ug/L	0.1183	99.15	-16.68
Al3961_R		5.870	ug/L	5.496	93.62	8.494
As1891_A		-0.1233	ug/L	0.1606	130.3	-2.542
B_2089_A		3.692	ug/L	0.3756	10.17	12.48
Ba4554_R		0.08081	ug/L	0.04951	61.27	24.08
Be3130_R		0.1482	ug/L	0.07799	52.61	15.45
Ca3158_R		1.878	ug/L	2.526	134.5	-24.81
Cd2265_A		0.07218	ug/L	0.04836	67.00	-0.5555
Co2286_A		0.1504	ug/L	0.04355	28.95	0.5236
Cr2677_A		-0.01194	ug/L	0.1025	857.8	0.6788
Cu3273_A		-0.03472	ug/L	0.4865	1,402	-17.42
Fe2599_R		6.147	ug/L	0.2945	4.790	14.04
K_7664_R		35.38	ug/L	18.83	53.22	-0.3080
Li6707_R		0.8392	ug/L	0.1010	12.04	13.89
Mg2025_A		0.03868	ug/L	0.6937	1,794	-7.506
Mn2576_R		-0.1128	ug/L	0.06573	58.25	4.059
Mo2020_A		0.5390	ug/L	0.05292	9.819	1.924
Na5895_R		7.761	ug/L	2.137	27.53	80.59
Ni2316_A		-0.07682	ug/L	0.3718	484.0	-0.1144
Pb2203_A		0.3911	ug/L	0.6923	177.0	-0.9037
Sb2068_A		0.9416	ug/L	0.8508	90.36	0.9422
Se1960_A		0.1239	ug/L	0.3280	264.7	1.776
Si2516_R		19.22	ug/L	3.297	17.16	70.68
Sn1899_A		0.08153	ug/L	0.6897	845.9	1.220
Sr4215_R		0.2548	ug/L	0.03512	13.78	-0.4616
Ti3349_A		0.1369	ug/L	0.08626	63.00	-11.66
Tl1908_A		0.4616	ug/L	0.3866	83.76	-1.801
V_2924_A		-0.1085	ug/L	0.2618	241.3	-4.252
Zn2062_A		0.1134	ug/L	0.08238	72.64	0.3841
Y_3600_R		19,652	Cts/S	90.120	0.45859	19,652
Y_2243_A		7,331.3	Cts/S	37.353	0.50950	7,331.3
Y_3600_A		141,550	Cts/S	102.58	0.072468	141,550

SO5506-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:28:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2228	ug/L	0.08811	39.55	-22.00
Al3961_R		10.21	ug/L	2.889	28.28	27.09
As1891_A		9.854	ug/L	1.391	14.12	0.6984
B_2089_A		86.47	ug/L	1.165	1.347	126.9
Ba4554_R		55.89	ug/L	0.05190	0.09286	4,186
Be3130_R		0.05445	ug/L	0.03611	66.32	5.483
Ca3158_R		14,070	ug/L	50.55	0.3592	17,250
Cd2265_A		0.06827	ug/L	0.03466	50.77	5.434
Co2286_A		2.463	ug/L	0.05199	2.111	8.078
Cr2677_A		0.4368	ug/L	0.04621	10.58	6.422
Cu3273_A		1.111	ug/L	0.1303	11.72	-1.373
Fe2599_R		3,025	ug/L	1.705	0.05635	6,121
K_7664_R		9,626	ug/L	34.59	0.3593	6,788
Li6707_R		1.785	ug/L	0.3156	17.69	27.52
Mg2025_A		14,990	ug/L	64.38	0.4295	5,245
Mn2576_R		644.8	ug/L	0.5871	0.09104	6,705
Mo2020_A		8.610	ug/L	0.04975	0.5778	25.73
Na5895_R	W	81,510	ug/L	211.9	0.2600	194,600
Ni2316_A		1.060	ug/L	0.2463	23.23	1.537

SO5506-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:28:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3450	ug/L	0.03762	10.90	-0.8183
Sb2068_A		-0.4483	ug/L	0.1741	38.83	0.2978
Se1960_A		-0.8369	ug/L	2.035	243.1	1.597
Si2516_R		6,051	ug/L	6.413	0.1060	2,911
Sn1899_A		-0.4563	ug/L	0.2894	63.43	0.9869
Sr4215_R		191.0	ug/L	0.1191	0.06237	19,010
Ti3349_A		0.7048	ug/L	0.1322	18.76	2.671
Tl1908_A		0.2909	ug/L	0.7557	259.8	-2.183
V_2924_A		-0.09714	ug/L	0.1018	104.8	-6.420
Zn2062_A		20.37	ug/L	0.03247	0.1594	45.15
Y_3600_R		19,401	Cts/S	121.90	0.62833	19,401
Y_2243_A		7,188.6	Cts/S	51.863	0.72146	7,188.6
Y_3600_A		135,240	Cts/S	447.26	0.33071	135,240

SO5506-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:33:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06655	ug/L	0.1549	232.7	-28.96
Al3961_R		18.13	ug/L	4.950	27.30	41.37
As1891_A		3.327	ug/L	0.1531	4.603	-1.561
B_2089_A		47.17	ug/L	0.3002	0.6364	72.66
Ba4554_R		5.271	ug/L	0.03813	0.7233	415.9
Be3130_R		0.2280	ug/L	0.02431	10.66	23.82
Ca3158_R		19,530	ug/L	41.05	0.2102	24,240
Cd2265_A		0.06114	ug/L	0.01351	22.09	8.053
Co2286_A		1.632	ug/L	0.2032	12.45	5.421
Cr2677_A		0.09206	ug/L	0.2960	321.5	3.278
Cu3273_A		0.6637	ug/L	0.1024	15.43	-8.030
Fe2599_R		4,356	ug/L	24.91	0.5719	8,921
K_7664_R		2,242	ug/L	2.744	0.1224	1,581
Li6707_R		11.15	ug/L	0.4581	4.108	166.1
Mg2025_A		4,557	ug/L	5.508	0.1209	1,597
Mn2576_R	W	1,055	ug/L	0.3126	0.02963	11,100
Mo2020_A		0.2947	ug/L	0.08891	30.17	1.106
Na5895_R		14,370	ug/L	29.96	0.2085	34,780
Ni2316_A		0.05653	ug/L	0.03926	69.44	-0.1390
Pb2203_A		0.02879	ug/L	0.7872	2,735	-1.038
Sb2068_A		-0.1743	ug/L	0.6888	395.3	0.4528
Se1960_A		-1.729	ug/L	0.3037	17.57	1.441
Si2516_R		15,180	ug/L	12.27	0.08082	7,301
Sn1899_A		0.1862	ug/L	0.8373	449.7	1.243
Sr4215_R		125.3	ug/L	0.03737	0.02982	12,620
Ti3349_A		0.4525	ug/L	0.1450	32.04	-3.669
Tl1908_A		0.4333	ug/L	0.5588	129.0	-2.340
V_2924_A		0.08039	ug/L	0.2564	318.9	-5.544
Zn2062_A		67.58	ug/L	0.1356	0.2006	150.2
Y_3600_R		19,639	Cts/S	60.268	0.30688	19,639
Y_2243_A		7,224.7	Cts/S	8.8645	0.12270	7,224.7
Y_3600_A		139,760	Cts/S	900.08	0.64402	139,760

SO5506-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:37:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:37:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08439	ug/L	0.1698	201.2	-20.62
Al3961_R		78.65	ug/L	2.969	3.774	93.49
As1891_A		1.990	ug/L	0.1275	6.408	-1.822
B_2089_A		110.3	ug/L	1.129	1.024	162.7
Ba4554_R		2.264	ug/L	0.1704	7.524	190.3
Be3130_R		0.02587	ug/L	0.001686	6.520	2.411
Ca3158_R		444.4	ug/L	1.690	0.3801	529.3
Cd2265_A		0.01531	ug/L	0.04217	275.5	-0.8656
Co2286_A		0.2341	ug/L	0.06647	28.39	0.8197
Cr2677_A		0.2805	ug/L	0.2236	79.72	4.017
Cu3273_A		1.339	ug/L	0.1636	12.21	2.362
Fe2599_R		166.7	ug/L	0.9405	0.5643	345.4
K_7664_R		2,250	ug/L	41.78	1.857	1,599
Li6707_R		0.8996	ug/L	0.9825	109.2	14.82
Mg2025_A		229.9	ug/L	2.499	1.087	74.52
Mn2576_R		11.39	ug/L	0.1188	1.044	125.9
Mo2020_A		19.18	ug/L	0.3946	2.058	57.98
Na5895_R	W	43,760	ug/L	31.25	0.07141	106,600
Ni2316_A		0.5313	ug/L	0.1684	31.70	1.010
Pb2203_A		-0.6803	ug/L	0.2813	41.35	-1.837
Sb2068_A		0.7967	ug/L	0.6213	77.99	0.8645
Se1960_A		0.8677	ug/L	0.2139	24.65	1.964
Si2516_R		6,784	ug/L	14.12	0.2082	3,322
Sn1899_A		0.3521	ug/L	0.3171	90.06	1.323
Sr4215_R		2.821	ug/L	0.004699	0.1666	260.5
Ti3349_A		3.509	ug/L	0.1680	4.788	73.34
Tl1908_A		1.297	ug/L	0.4453	34.33	-1.376
V_2924_A		0.3939	ug/L	0.1062	26.97	0.2057
Zn2062_A		26.18	ug/L	0.4223	1.613	58.96
Y_3600_R		19,793	Cts/S	169.58	0.85680	19,793
Y_2243_A		7,308.3	Cts/S	61.829	0.84602	7,308.3
Y_3600_A		140,880	Cts/S	135.32	0.096055	140,880

SO5506-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:42:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.03507	ug/L	0.2346	668.8	-21.96
Al3961_R		283.9	ug/L	1.486	0.5236	335.2
As1891_A		0.3668	ug/L	0.6770	184.6	-2.441
B_2089_A		12.37	ug/L	0.07164	0.5794	24.98
Ba4554_R		15.32	ug/L	0.09460	0.6177	1,188
Be3130_R		-0.01687	ug/L	0.03249	192.6	-2.938
Ca3158_R		5,906	ug/L	77.27	1.308	7,395
Cd2265_A		0.05016	ug/L	0.005351	10.67	0.8545
Co2286_A		0.8083	ug/L	0.05155	6.378	2.837
Cr2677_A		1.841	ug/L	0.09964	5.414	22.08
Cu3273_A		5.374	ug/L	0.4237	7.883	60.95
Fe2599_R		810.4	ug/L	11.90	1.469	1,680
K_7664_R		1,415	ug/L	8.953	0.6329	999.2
Li6707_R		1.838	ug/L	1.240	67.46	28.93
Mg2025_A		1,482	ug/L	3.059	0.2065	527.9
Mn2576_R		39.38	ug/L	1.107	2.812	424.1
Mo2020_A		0.5381	ug/L	0.07783	14.46	1.941
Na5895_R	W	35,970	ug/L	438.5	1.219	87,950
Ni2316_A		1.178	ug/L	0.01009	0.8563	1.797

SO5506-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:42:00PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.893	ug/L	1.176	24.03	3.046
Sb2068_A		-0.6316	ug/L	0.8803	139.4	0.1843
Se1960_A		-0.5551	ug/L	0.1407	25.34	1.628
Si2516_R		4,674	ug/L	77.19	1.652	2,316
Sn1899_A		0.3779	ug/L	0.2648	70.07	1.353
Sr4215_R		50.68	ug/L	0.6460	1.275	5,146
Ti3349_A		15.35	ug/L	0.08910	0.5806	375.2
Tl1908_A		1.102	ug/L	0.3656	33.17	-1.518
V_2924_A		1.058	ug/L	0.03439	3.251	8.917
Zn2062_A		90.68	ug/L	0.4202	0.4634	206.8
Y_3600_R		19,861	Cts/S	62.347	0.31391	19,861
Y_2243_A		7,414.2	Cts/S	31.000	0.41811	7,414.2
Y_3600_A		142,790	Cts/S	450.94	0.31582	142,790

SO5506-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:46:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.006406	ug/L	0.1706	2,663	-18.58
Al3961_R		6.621	ug/L	1.815	27.42	40.30
As1891_A		-0.5583	ug/L	0.09448	16.92	-2.655
B_2089_A		40.83	ug/L	0.5149	1.261	63.92
Ba4554_R		16.91	ug/L	0.005821	0.03443	1,284
Be3130_R		0.01535	ug/L	0.000006000	0.03946	1.524
Ca3158_R	W	32,340	ug/L	108.1	0.3344	39,830
Cd2265_A		0.1567	ug/L	0.03905	24.92	0.4285
Co2286_A		0.1180	ug/L	0.1409	119.4	0.4074
Cr2677_A		0.3778	ug/L	0.1215	32.17	5.047
Cu3273_A		0.6175	ug/L	0.4512	73.06	-7.855
Fe2599_R		28.14	ug/L	0.6986	2.483	58.56
K_7664_R		2,154	ug/L	19.58	0.9090	1,505
Li6707_R		4.671	ug/L	0.08271	1.771	69.88
Mg2025_A		1,766	ug/L	5.023	0.2845	614.9
Mn2576_R		24.59	ug/L	0.1878	0.7639	262.0
Mo2020_A		0.5037	ug/L	0.1212	24.06	1.791
Na5895_R		21,510	ug/L	96.88	0.4503	51,610
Ni2316_A		0.9553	ug/L	0.2579	27.00	1.454
Pb2203_A		-0.4828	ug/L	0.7617	157.8	-1.636
Sb2068_A		-0.2516	ug/L	0.1830	72.73	0.3497
Se1960_A		-1.637	ug/L	0.4018	24.54	1.305
Si2516_R		4,650	ug/L	55.57	1.195	2,260
Sn1899_A		-0.08251	ug/L	1.011	1,226	1.139
Sr4215_R		103.3	ug/L	0.5050	0.4890	10,310
Ti3349_A		-0.3182	ug/L	0.003657	1.149	-22.72
Tl1908_A		1.123	ug/L	0.4272	38.05	-1.456
V_2924_A		0.03160	ug/L	0.06867	217.3	-2.738
Zn2062_A		6.166	ug/L	0.03859	0.6258	13.83
Y_3600_R		19,476	Cts/S	56.680	0.29103	19,476
Y_2243_A		7,230.7	Cts/S	18.817	0.26024	7,230.7
Y_3600_A		139,010	Cts/S	165.71	0.11921	139,010

SO5506-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:50:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:50:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04125	ug/L	0.1629	394.9	-19.54
Al3961_R		8.329	ug/L	3.514	42.19	22.91
As1891_A		-0.06228	ug/L	0.1535	246.4	-2.495
B_2089_A		16.12	ug/L	0.002491	0.01546	29.64
Ba4554_R		8.888	ug/L	0.09913	1.115	695.5
Be3130_R		0.03578	ug/L	0.05386	150.5	3.674
Ca3158_R		11,770	ug/L	75.93	0.6449	14,740
Cd2265_A		0.09269	ug/L	0.01603	17.29	-0.2470
Co2286_A		0.4911	ug/L	0.008012	1.631	1.633
Cr2677_A		0.4394	ug/L	0.08440	19.21	5.850
Cu3273_A		0.4056	ug/L	0.2030	50.06	-11.04
Fe2599_R		45.30	ug/L	0.5190	1.146	95.09
K_7664_R		2,111	ug/L	39.59	1.875	1,501
Li6707_R		2.440	ug/L	0.006169	0.2529	37.87
Mg2025_A		4,339	ug/L	19.49	0.4490	1,526
Mn2576_R		46.87	ug/L	0.3780	0.8065	504.0
Mo2020_A		-0.05534	ug/L	0.02225	40.21	0.1268
Na5895_R	W	34,930	ug/L	224.2	0.6419	85,250
Ni2316_A		1.624	ug/L	0.08967	5.521	2.471
Pb2203_A		-0.2359	ug/L	0.06612	28.02	-1.428
Sb2068_A		-0.4933	ug/L	0.2155	43.69	0.2265
Se1960_A		-0.2354	ug/L	0.02380	10.11	1.670
Si2516_R		6,628	ug/L	68.36	1.031	3,252
Sn1899_A		1.173	ug/L	0.2443	20.83	1.637
Sr4215_R		123.0	ug/L	0.6418	0.5218	12,500
Ti3349_A		-0.3288	ug/L	0.1930	58.70	-23.36
Tl1908_A		0.9711	ug/L	0.5359	55.19	-1.547
V_2924_A		-0.1298	ug/L	0.4460	343.7	-4.636
Zn2062_A		28.38	ug/L	0.07468	0.2632	63.39
Y_3600_R		19,825	Cts/S	229.68	1.1585	19,825
Y_2243_A		7,250.9	Cts/S	11.095	0.15302	7,250.9
Y_3600_A		141,230	Cts/S	56.810	0.040226	141,230

SO5506-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:55:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3373	ug/L	0.09375	27.79	-14.23
Al3961_R		-0.8257	ug/L	2.194	265.7	12.68
As1891_A		0.6951	ug/L	0.04099	5.897	-2.271
B_2089_A		59.32	ug/L	0.1398	0.2356	90.16
Ba4554_R		5.514	ug/L	0.01365	0.2475	438.4
Be3130_R		0.006517	ug/L	0.0007410	11.36	0.5869
Ca3158_R		12,120	ug/L	92.86	0.7663	15,170
Cd2265_A		0.09014	ug/L	0.03409	37.82	0.6705
Co2286_A		2.179	ug/L	0.08238	3.780	7.204
Cr2677_A		0.1507	ug/L	0.2220	147.3	4.976
Cu3273_A		0.8488	ug/L	0.09940	11.71	-4.746
Fe2599_R		517.5	ug/L	6.140	1.187	1,071
K_7664_R		2,310	ug/L	14.19	0.6142	1,645
Li6707_R		5.028	ug/L	0.3915	7.786	76.46
Mg2025_A		4,314	ug/L	5.896	0.1367	1,522
Mn2576_R	W	2,538	ug/L	24.07	0.9483	26,940
Mo2020_A		0.2484	ug/L	0.1141	45.96	0.8850
Na5895_R		15,630	ug/L	83.52	0.5345	38,180
Ni2316_A		7.785	ug/L	0.1331	1.709	11.89

SO5506-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:55:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.2848	ug/L	0.4401	154.5	-1.456
Sb2068_A		0.02567	ug/L	0.1664	648.1	0.4873
Se1960_A		-1.476	ug/L	0.5838	39.56	1.701
Si2516_R		10,700	ug/L	92.45	0.8644	5,210
Sn1899_A		0.9670	ug/L	0.1564	16.18	1.561
Sr4215_R		80.31	ug/L	0.6930	0.8628	8,155
Ti3349_A		-0.1046	ug/L	0.06356	60.79	-17.73
Tl1908_A		1.019	ug/L	0.003535	0.3470	-2.834
V_2924_A		-0.1469	ug/L	0.1161	79.04	-14.41
Zn2062_A		10.63	ug/L	0.1666	1.567	23.90
Y_3600_R		19,825	Cts/S	83.589	0.42162	19,825
Y_2243_A		7,275.0	Cts/S	16.453	0.22615	7,275.0
Y_3600_A		141,400	Cts/S	413.56	0.29248	141,400

SO5506-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 2:59:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3245	ug/L	0.01385	4.266	-45.62
Al3961_R		7.283	ug/L	0.7512	10.31	16.35
As1891_A		0.6858	ug/L	0.3327	48.52	-2.879
B_2089_A		40.65	ug/L	0.02247	0.05527	64.74
Ba4554_R		16.37	ug/L	0.1321	0.8071	1,288
Be3130_R		0.05855	ug/L	0.009865	16.85	6.221
Ca3158_R		6,000	ug/L	125.8	2.098	7,633
Cd2265_A		0.04577	ug/L	0.07266	158.8	23.50
Co2286_A		3.952	ug/L	0.08804	2.228	13.34
Cr2677_A		-0.1538	ug/L	0.04666	30.33	0.7515
Cu3273_A		0.2737	ug/L	0.07835	28.63	-15.29
Fe2599_R		11,940	ug/L	184.5	1.545	25,130
K_7664_R		1,409	ug/L	1.452	0.1030	1,011
Li6707_R		2.770	ug/L	1.064	38.41	43.59
Mg2025_A		3,059	ug/L	4.049	0.1324	1,089
Mn2576_R		404.7	ug/L	7.866	1.944	4,373
Mo2020_A		0.4213	ug/L	0.05450	12.94	1.549
Na5895_R		8,605	ug/L	105.9	1.231	21,430
Ni2316_A		1.344	ug/L	0.2018	15.02	1.452
Pb2203_A		-0.5298	ug/L	0.7543	142.4	-1.252
Sb2068_A		-0.06059	ug/L	0.3030	500.1	0.6323
Se1960_A		-0.1294	ug/L	0.7387	570.7	1.828
Si2516_R		12,330	ug/L	213.9	1.734	6,104
Sn1899_A		0.4009	ug/L	0.7322	182.7	1.351
Sr4215_R		38.20	ug/L	0.5324	1.394	3,934
Ti3349_A		0.08642	ug/L	0.1150	133.1	-13.03
Tl1908_A		0.6015	ug/L	0.5541	92.12	-1.952
V_2924_A		0.1140	ug/L	0.2544	223.0	-1.683
Zn2062_A		39.99	ug/L	0.3418	0.8548	90.51
Y_3600_R		20,180	Cts/S	92.248	0.45712	20,180
Y_2243_A		7,352.0	Cts/S	22.163	0.30145	7,352.0
Y_3600_A		142,570	Cts/S	9.6571	0.0067740	142,570

SO5506-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:03:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:03:53PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2060	ug/L	0.2374	115.2	-22.08
Al3961_R		6.763	ug/L	5.336	78.89	23.01
As1891_A		9.738	ug/L	0.2669	2.741	0.6659
B_2089_A		82.45	ug/L	0.04167	0.05054	120.8
Ba4554_R		58.39	ug/L	0.2845	0.4872	4,402
Be3130_R		0.02134	ug/L	0.05228	245.0	2.083
Ca3158_R		13,760	ug/L	1.595	0.01159	16,980
Cd2265_A		0.009178	ug/L	0.01831	199.5	4.451
Co2286_A		2.084	ug/L	0.02027	0.9724	6.817
Cr2677_A		0.3125	ug/L	0.08675	27.76	5.093
Cu3273_A		1.794	ug/L	0.2914	16.24	8.163
Fe2599_R		2,868	ug/L	1.463	0.05101	5,840
K_7664_R		9,516	ug/L	49.32	0.5183	6,755
Li6707_R		1.846	ug/L	0.4910	26.60	28.56
Mg2025_A		15,040	ug/L	39.64	0.2635	5,242
Mn2576_R		634.0	ug/L	1.344	0.2119	6,636
Mo2020_A		7.516	ug/L	0.09498	1.264	22.40
Na5895_R	W	79,260	ug/L	326.7	0.4121	190,500
Ni2316_A		1.241	ug/L	0.04325	3.484	1.799
Pb2203_A		-0.01483	ug/L	0.05328	359.2	-1.124
Sb2068_A		0.1532	ug/L	0.3719	242.7	0.5779
Se1960_A		-0.5400	ug/L	1.030	190.8	1.665
Si2516_R		5,967	ug/L	22.20	0.3720	2,890
Sn1899_A		0.8763	ug/L	0.3183	36.33	1.500
Sr4215_R		187.0	ug/L	1.021	0.5459	18,730
Ti3349_A		0.6048	ug/L	0.002825	0.4671	0.2496
Tl1908_A		1.127	ug/L	0.2990	26.53	-1.754
V_2924_A		0.1938	ug/L	0.09259	47.79	-3.248
Zn2062_A		6.543	ug/L	0.1285	1.965	14.53
Y_3600_R		19,528	Cts/S	113.94	0.58345	19,528
Y_2243_A		7,159.3	Cts/S	25.488	0.35601	7,159.3
Y_3600_A		136,540	Cts/S	39.349	0.028819	136,540

SO5506-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:08:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.003605	ug/L	0.1691	4,691	-27.80
Al3961_R		18.31	ug/L	9.802	53.53	41.44
As1891_A		3.154	ug/L	1.914	60.70	-1.581
B_2089_A		44.83	ug/L	0.5243	1.170	69.93
Ba4554_R		5.180	ug/L	0.2731	5.272	418.0
Be3130_R		0.1672	ug/L	0.03546	21.21	17.80
Ca3158_R		18,300	ug/L	653.7	3.571	23,220
Cd2265_A		0.03459	ug/L	0.02408	69.61	5.931
Co2286_A		1.452	ug/L	0.05005	3.448	4.852
Cr2677_A		0.5250	ug/L	0.1619	30.84	8.035
Cu3273_A		0.5128	ug/L	0.08031	15.66	-10.05
Fe2599_R		3,423	ug/L	150.3	4.390	7,165
K_7664_R		2,179	ug/L	49.18	2.257	1,570
Li6707_R		12.01	ug/L	0.1853	1.543	182.9
Mg2025_A		4,414	ug/L	37.24	0.8436	1,558
Mn2576_R	W	1,001	ug/L	34.67	3.465	10,760
Mo2020_A		0.3368	ug/L	0.1392	41.32	1.246
Na5895_R		13,780	ug/L	433.3	3.144	34,100
Ni2316_A		0.6915	ug/L	0.1775	25.67	0.8796

SO5506-014

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:08:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.6525	ug/L	0.6550	100.4	-1.663
Sb2068_A		0.1664	ug/L	0.3632	218.2	0.5994
Se1960_A		-0.6525	ug/L	0.3497	53.59	1.716
Si2516_R		14,370	ug/L	514.4	3.581	7,064
Sn1899_A		1.891	ug/L	0.3405	18.01	1.927
Sr4215_R		119.4	ug/L	4.396	3.683	12,280
Ti3349_A		0.2445	ug/L	0.07219	29.52	-8.866
Tl1908_A		0.7132	ug/L	1.079	151.3	-2.189
V_2924_A		0.1182	ug/L	0.3723	314.9	-5.073
Zn2062_A		13.14	ug/L	0.04661	0.3546	29.53
Y_3600_R		20,082	Cts/S	487.65	2.4283	20,082
Y_2243_A		7,277.4	Cts/S	65.477	0.89973	7,277.4
Y_3600_A		140,310	Cts/S	121.64	0.086697	140,310

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:12:37PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		509.6	ug/L	0.8651	0.1698	8,931
Al3961_R		12,560	ug/L	52.47	0.4176	14,690
As1891_A		505.9	ug/L	3.788	0.7486	170.3
B_2089_A		511.1	ug/L	1.205	0.2358	745.2
Ba4554_R		497.6	ug/L	6.321	1.270	38,410
Be3130_R		498.0	ug/L	5.380	1.080	53,460
Ca3158_R		12,500	ug/L	52.16	0.4172	15,850
Cd2265_A		508.7	ug/L	1.799	0.3536	5,751
Co2286_A		515.1	ug/L	1.917	0.3721	1,716
Cr2677_A		499.5	ug/L	0.5048	0.1011	5,742
Cu3273_A		500.3	ug/L	1.114	0.2226	7,276
Fe2599_R		12,480	ug/L	140.2	1.123	26,120
K_7664_R		12,520	ug/L	96.82	0.7735	9,139
Li6707_R		503.0	ug/L	5.199	1.033	7,592
Mg2025_A		13,060	ug/L	34.92	0.2673	4,703
Mn2576_R		502.7	ug/L	0.2711	0.05392	5,404
Mo2020_A		511.4	ug/L	1.959	0.3832	1,548
Na5895_R		12,570	ug/L	72.39	0.5761	31,090
Ni2316_A		512.0	ug/L	1.240	0.2421	796.8
Pb2203_A		515.2	ug/L	1.520	0.2951	445.7
Sb2068_A		511.8	ug/L	0.3783	0.07391	253.0
Se1960_A		508.4	ug/L	0.9363	0.1842	134.0
Si2516_R		12,970	ug/L	24.65	0.1900	6,385
Sn1899_A		510.3	ug/L	1.299	0.2546	204.9
Sr4215_R		501.0	ug/L	4.531	0.9045	51,630
Ti3349_A		503.6	ug/L	0.9771	0.1940	12,820
Tl1908_A		524.1	ug/L	1.735	0.3310	266.9
V_2924_A		501.8	ug/L	0.6183	0.1232	5,630
Zn2062_A		507.0	ug/L	1.049	0.2069	1,145
Y_3600_R		20,068	Cts/S	43.365	0.21609	20,068
Y_2243_A		7,352.6	Cts/S	14.376	0.19553	7,352.6
Y_3600_A		142,940	Cts/S	340.51	0.23822	142,940

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:16:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:16:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.09250	ug/L	0.04956	53.57	-17.26
Al3961_R		0.6109	ug/L	5.121	838.2	2.488
As1891_A		0.2610	ug/L	0.2781	106.5	-2.422
B_2089_A		1.691	ug/L	0.3340	19.76	9.699
Ba4554_R		-0.05556	ug/L	0.1827	328.8	13.72
Be3130_R		0.02990	ug/L	0.06207	207.5	2.999
Ca3158_R		-0.4358	ug/L	2.097	481.1	-27.60
Cd2265_A		0.08617	ug/L	0.04588	53.24	-0.4101
Co2286_A		0.1539	ug/L	0.08980	58.34	0.5361
Cr2677_A		-0.1633	ug/L	0.4008	245.5	-1.047
Cu3273_A		0.06645	ug/L	0.04320	65.02	-16.07
Fe2599_R		3.029	ug/L	0.7545	24.91	7.622
K_7664_R		11.10	ug/L	17.49	157.6	-17.63
Li6707_R		0.1146	ug/L	0.08562	74.71	3.170
Mg2025_A		1.962	ug/L	0.2178	11.10	-6.850
Mn2576_R		0.01521	ug/L	0.02872	188.8	5.387
Mo2020_A		0.4231	ug/L	0.03613	8.540	1.582
Na5895_R		7.107	ug/L	1.122	15.79	78.71
Ni2316_A		-0.02660	ug/L	0.07513	282.5	-0.03931
Pb2203_A		0.009443	ug/L	0.3389	3,589	-1.237
Sb2068_A		-0.1445	ug/L	0.3887	269.0	0.4085
Se1960_A		-0.8289	ug/L	0.1270	15.33	1.536
Si2516_R		15.05	ug/L	0.5298	3.521	68.45
Sn1899_A		-0.3233	ug/L	0.3684	113.9	1.063
Sr4215_R		0.07321	ug/L	0.02933	40.07	-18.72
Ti3349_A		0.1076	ug/L	0.02291	21.29	-12.49
Tl1908_A		1.042	ug/L	0.1724	16.54	-1.511
V_2924_A		-0.3431	ug/L	0.1697	49.45	-6.920
Zn2062_A		0.1621	ug/L	0.1416	87.36	0.4972
Y_3600_R		19,582	Cts/S	7.9558	0.040629	19,582
Y_2243_A		7,365.7	Cts/S	53.607	0.72780	7,365.7
Y_3600_A		142,560	Cts/S	195.99	0.13748	142,560

SO5506-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:21:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07820	ug/L	0.1739	222.3	-17.71
Al3961_R		27.07	ug/L	0.3253	1.202	39.05
As1891_A		-0.1988	ug/L	1.170	588.7	-2.540
B_2089_A		12.49	ug/L	0.02972	0.2379	24.54
Ba4554_R		14.35	ug/L	0.05860	0.4085	1,117
Be3130_R		0.02734	ug/L	0.04147	151.7	2.839
Ca3158_R		5,992	ug/L	12.19	0.2034	7,529
Cd2265_A		0.08130	ug/L	0.04941	60.78	-0.1470
Co2286_A		0.5128	ug/L	0.05503	10.73	1.704
Cr2677_A		0.8317	ug/L	0.1699	20.43	10.27
Cu3273_A		2.433	ug/L	0.05858	2.408	18.11
Fe2599_R		157.6	ug/L	0.8411	0.5338	328.9
K_7664_R		1,420	ug/L	15.06	1.060	1,007
Li6707_R		1.526	ug/L	0.8205	53.78	24.43
Mg2025_A		1,478	ug/L	1.365	0.09237	513.4
Mn2576_R		29.00	ug/L	0.1313	0.4527	315.0
Mo2020_A		0.2797	ug/L	0.01189	4.250	1.125
Na5895_R	W	36,070	ug/L	228.3	0.6329	88,490
Ni2316_A		1.754	ug/L	0.1042	5.939	2.660

SO5506-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:21:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.9208	ug/L	0.03032	3.293	-0.4322
Sb2068_A		-0.2439	ug/L	0.3718	152.5	0.3528
Se1960_A		-1.183	ug/L	0.2835	23.96	1.422
Si2516_R		4,253	ug/L	7.360	0.1731	2,120
Sn1899_A		0.9143	ug/L	0.1166	12.75	1.531
Sr4215_R		50.94	ug/L	0.2431	0.4773	5,189
Ti3349_A		0.2234	ug/L	0.1892	84.68	-9.448
Tl1908_A		0.7623	ug/L	0.2656	34.85	-1.639
V_2924_A		0.3072	ug/L	0.1577	51.32	0.3105
Zn2062_A		93.04	ug/L	0.02107	0.02265	207.0
Y_3600_R		19,928	Cts/S	192.15	0.96427	19,928
Y_2243_A		7,231.0	Cts/S	10.386	0.14363	7,231.0
Y_3600_A		140,850	Cts/S	941.18	0.66824	140,850

SO5506-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:25:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2431	ug/L	0.1889	77.71	-22.71
Al3961_R		-2.169	ug/L	4.482	206.6	30.06
As1891_A		0.5240	ug/L	0.1081	20.64	-2.286
B_2089_A		40.60	ug/L	0.4403	1.084	63.51
Ba4554_R		16.74	ug/L	0.2443	1.459	1,266
Be3130_R		0.02819	ug/L	0.03284	116.5	2.853
Ca3158_R	W	32,180	ug/L	192.5	0.5983	39,460
Cd2265_A		0.1352	ug/L	0.04157	30.76	0.1494
Co2286_A		0.08517	ug/L	0.1007	118.3	0.2999
Cr2677_A		0.5551	ug/L	0.1235	22.24	7.062
Cu3273_A		-0.1017	ug/L	0.2518	247.7	-18.10
Fe2599_R		7.610	ug/L	1.383	18.18	16.81
K_7664_R		2,157	ug/L	41.93	1.944	1,501
Li6707_R		4.128	ug/L	1.034	25.06	61.65
Mg2025_A		1,747	ug/L	6.139	0.3514	607.4
Mn2576_R		22.86	ug/L	0.2890	1.264	243.0
Mo2020_A		0.3907	ug/L	0.05146	13.17	1.453
Na5895_R		21,290	ug/L	181.3	0.8516	50,850
Ni2316_A		0.8892	ug/L	0.09844	11.07	1.351
Pb2203_A		0.2875	ug/L	0.6050	210.4	-0.9766
Sb2068_A		-0.7002	ug/L	0.2129	30.40	0.1277
Se1960_A		0.1106	ug/L	0.5699	515.3	1.748
Si2516_R		4,562	ug/L	30.93	0.6780	2,209
Sn1899_A		0.4620	ug/L	0.5947	128.7	1.351
Sr4215_R		101.9	ug/L	0.9370	0.9195	10,130
Ti3349_A		-0.2745	ug/L	0.03380	12.31	-21.72
Tl1908_A		0.7937	ug/L	0.08727	11.00	-1.618
V_2924_A		0.1350	ug/L	0.02131	15.79	-1.602
Zn2062_A		4.926	ug/L	0.05836	1.185	11.06
Y_3600_R		19,391	Cts/S	6.6519	0.034304	19,391
Y_2243_A		7,220.5	Cts/S	10.228	0.14166	7,220.5
Y_3600_A		139,570	Cts/S	1,728.4	1.2383	139,570

SO5506-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:29:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5506-019

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:29:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.02610	ug/L	0.3206	1,228	-19.07
Al3961_R		9.686	ug/L	1.141	11.78	24.31
As1891_A		0.1281	ug/L	0.1477	115.4	-2.434
B_2089_A		16.15	ug/L	0.08478	0.5251	29.74
Ba4554_R		8.957	ug/L	0.1176	1.313	699.9
Be3130_R		0.04547	ug/L	0.01222	26.87	4.696
Ca3158_R		11,650	ug/L	20.50	0.1759	14,570
Cd2265_A		0.1017	ug/L	0.07043	69.27	-0.2106
Co2286_A		0.6240	ug/L	0.08018	12.85	2.075
Cr2677_A		0.6543	ug/L	0.01878	2.871	8.219
Cu3273_A		0.4449	ug/L	0.1406	31.59	-10.38
Fe2599_R		14.01	ug/L	0.6787	4.844	30.39
K_7664_R		2,166	ug/L	31.61	1.459	1,539
Li6707_R		2.687	ug/L	0.3722	13.85	41.53
Mg2025_A		4,275	ug/L	1.469	0.03435	1,506
Mn2576_R		44.62	ug/L	0.4316	0.9674	479.5
Mo2020_A		0.07330	ug/L	0.09180	125.2	0.5118
Na5895_R	W	34,430	ug/L	124.4	0.3614	83,940
Ni2316_A		1.965	ug/L	0.1040	5.293	3.001
Pb2203_A		-0.3100	ug/L	0.5246	169.2	-1.495
Sb2068_A		0.6351	ug/L	0.5838	91.92	0.7859
Se1960_A		-1.011	ug/L	1.444	142.9	1.474
Si2516_R		6,573	ug/L	2.990	0.04549	3,222
Sn1899_A		0.1298	ug/L	0.3814	293.8	1.228
Sr4215_R		121.6	ug/L	0.5144	0.4230	12,350
Ti3349_A		0.1451	ug/L	0.04765	32.85	-11.34
Tl1908_A		0.6186	ug/L	0.8844	143.0	-1.727
V_2924_A		-0.02968	ug/L	0.1443	486.2	-3.489
Zn2062_A		26.17	ug/L	0.3765	1.439	58.58
Y_3600_R		19,802	Cts/S	206.52	1.0430	19,802
Y_2243_A		7,264.8	Cts/S	0.68719	0.0094590	7,264.8
Y_3600_A		140,130	Cts/S	1,169.4	0.83453	140,130

SO5154-001R

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:34:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1794	ug/L	0.09158	51.04	-22.25
Al3961_R		350.4	ug/L	7.901	2.255	437.4
As1891_A		0.4568	ug/L	0.1806	39.53	-2.281
B_2089_A		11.50	ug/L	0.2669	2.322	22.81
Ba4554_R		15.73	ug/L	0.008421	0.05352	1,192
Be3130_R		-0.004074	ug/L	0.01276	313.3	-2.199
Ca3158_R	W	42,060	ug/L	513.9	1.222	51,640
Cd2265_A		0.2705	ug/L	0.01229	4.546	2.186
Co2286_A		0.3773	ug/L	0.08155	21.62	1.404
Cr2677_A		1.802	ug/L	0.05666	3.145	20.70
Cu3273_A		7.832	ug/L	0.3679	4.698	92.52
Fe2599_R		284.3	ug/L	3.844	1.352	576.8
K_7664_R		3,282	ug/L	60.52	1.844	2,299
Li6707_R		7.199	ug/L	0.6834	9.493	106.5
Mg2025_A		2,709	ug/L	26.02	0.9604	929.6
Mn2576_R		120.2	ug/L	1.240	1.032	1,254
Mo2020_A		3.665	ug/L	0.09465	2.583	10.98
Na5895_R	W	30,540	ug/L	148.5	0.4862	72,990
Ni2316_A		1.416	ug/L	0.04458	3.149	2.134

SO5154-001R

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:34:22PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.6937	ug/L	0.9065	130.7	-1.800
Sb2068_A		-0.1970	ug/L	0.02600	13.20	0.3749
Se1960_A		0.1413	ug/L	0.5839	413.4	1.740
Si2516_R		1,968	ug/L	26.99	1.372	988.2
Sn1899_A		-0.1417	ug/L	0.5143	363.0	1.096
Sr4215_R		133.9	ug/L	0.7763	0.5796	13,330
Ti3349_A		28.96	ug/L	0.7244	2.501	690.0
Tl1908_A		0.09222	ug/L	0.5268	571.3	-1.997
V_2924_A		5.414	ug/L	0.05413	0.9998	55.15
Zn2062_A		19.17	ug/L	0.03140	0.1638	41.93
Y_3600_R		19,412	Cts/S	0.55241	0.0028460	19,412
Y_2243_A		7,095.0	Cts/S	55.584	0.78343	7,095.0
Y_3600_A		136,540	Cts/S	10.167	0.0074460	136,540

SO5512-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:38:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7187	ug/L	0.3857	53.66	-111.4
Al3961_R		22.81	ug/L	5.198	22.79	60.68
As1891_A	W	1,648	ug/L	8.815	0.5349	553.3
B_2089_A		69.08	ug/L	0.1499	0.2170	103.7
Ba4554_R		25.55	ug/L	0.07122	0.2788	1,954
Be3130_R		0.003821	ug/L	0.01515	396.4	0.3093
Ca3158_R	W	33,610	ug/L	4.199	0.01249	41,910
Cd2265_A		-0.4071	ug/L	0.01731	4.252	74.13
Co2286_A		7.778	ug/L	0.03645	0.4686	26.16
Cr2677_A		-0.1912	ug/L	0.1378	72.07	3.828
Cu3273_A		0.4153	ug/L	0.3408	82.07	-17.99
Fe2599_R	W	39,690	ug/L	1.186	0.002987	81,590
K_7664_R		6,694	ug/L	10.96	0.1637	4,790
Li6707_R		3.386	ug/L	0.1712	5.056	51.68
Mg2025_A		5,244	ug/L	24.67	0.4704	1,850
Mn2576_R		986.4	ug/L	1.243	0.1260	10,400
Mo2020_A		3.233	ug/L	0.1288	3.985	9.903
Na5895_R		21,100	ug/L	74.78	0.3544	51,250
Ni2316_A		1.331	ug/L	0.06972	5.237	0.002053
Pb2203_A		0.1598	ug/L	1.011	632.4	0.3852
Sb2068_A		0.4670	ug/L	0.07074	15.15	1.364
Se1960_A		-0.4641	ug/L	1.033	222.6	1.973
Si2516_R		12,580	ug/L	6.738	0.05358	6,079
Sn1899_A		1.049	ug/L	0.1559	14.86	1.591
Sr4215_R		272.0	ug/L	0.7853	0.2887	27,530
Ti3349_A		0.4748	ug/L	0.1279	26.93	-3.048
Tl1908_A		0.5645	ug/L	0.3755	66.52	-2.269
V_2924_A		0.5176	ug/L	0.1945	37.58	4.179
Zn2062_A		3.565	ug/L	0.04770	1.338	8.086
Y_3600_R		19,715	Cts/S	114.76	0.58208	19,715
Y_2243_A		7,262.8	Cts/S	35.098	0.48326	7,262.8
Y_3600_A		139,200	Cts/S	481.26	0.34574	139,200

SO5512-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:43:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5512-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:43:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.5685	ug/L	0.03406	5.991	-110.0
Al3961_R		-5.173	ug/L	6.514	125.9	28.37
As1891_A	W	1,597	ug/L	3.214	0.2012	530.3
B_2089_A		69.47	ug/L	0.2128	0.3063	103.1
Ba4554_R		25.06	ug/L	0.1344	0.5365	1,902
Be3130_R		-0.01786	ug/L	0.01767	98.96	-1.918
Ca3158_R	W	33,580	ug/L	18.17	0.05410	41,540
Cd2265_A		-0.2816	ug/L	0.007619	2.706	72.32
Co2286_A		7.396	ug/L	0.02350	0.3177	24.61
Cr2677_A		-0.3356	ug/L	0.2007	59.80	2.068
Cu3273_A		0.2375	ug/L	0.06977	29.37	-20.13
Fe2599_R	W	38,490	ug/L	98.81	0.2567	78,500
K_7664_R		6,741	ug/L	10.65	0.1579	4,785
Li6707_R		3.105	ug/L	0.6559	21.13	47.15
Mg2025_A		5,248	ug/L	0.9479	0.01806	1,831
Mn2576_R		976.7	ug/L	0.1824	0.01868	10,220
Mo2020_A		3.361	ug/L	0.03057	0.9095	10.17
Na5895_R		21,220	ug/L	75.75	0.3570	51,120
Ni2316_A		1.400	ug/L	0.1072	7.656	0.1685
Pb2203_A		-0.7495	ug/L	0.2818	37.60	-0.4311
Sb2068_A		-0.3040	ug/L	0.3697	121.6	0.9537
Se1960_A		-1.199	ug/L	0.6003	50.05	1.756
Si2516_R		12,390	ug/L	34.56	0.2790	5,940
Sn1899_A		1.168	ug/L	0.2567	21.98	1.620
Sr4215_R		268.9	ug/L	0.3392	0.1261	27,000
Ti3349_A		-0.4448	ug/L	0.2536	57.02	-25.62
Tl1908_A		-0.2250	ug/L	0.1635	72.67	-2.633
V_2924_A		0.2097	ug/L	0.3132	149.4	0.6580
Zn2062_A		3.164	ug/L	0.04042	1.277	7.114
Y_3600_R		19,557	Cts/S	81.120	0.41479	19,557
Y_2243_A		7,183.4	Cts/S	10.323	0.14370	7,183.4
Y_3600_A		138,140	Cts/S	1,216.3	0.88052	138,140

SO5516-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:47:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.08929	ug/L	0.01892	21.19	-15.60
Al3961_R		-20.47	ug/L	1.157	5.655	75.43
As1891_A		-0.06683	ug/L	0.5087	761.2	-2.333
B_2089_A		8.419	ug/L	0.4046	4.806	17.69
Ba4554_R		62.24	ug/L	0.3431	0.5512	4,556
Be3130_R		-0.04609	ug/L	0.002529	5.486	-4.739
Ca3158_R	W	103,100	ug/L	1,476	1.432	123,700
Cd2265_A		-0.02370	ug/L	0.04617	194.8	-1.499
Co2286_A		0.1263	ug/L	0.1228	97.23	0.4073
Cr2677_A		0.5694	ug/L	0.2253	39.56	6.611
Cu3273_A		0.1258	ug/L	0.2406	191.3	-13.68
Fe2599_R		13.00	ug/L	1.036	7.973	27.09
K_7664_R		222.2	ug/L	8.480	3.817	129.0
Li6707_R		1.868	ug/L	1.002	53.61	28.02
Mg2025_A		779.6	ug/L	2.948	0.3782	250.7
Mn2576_R		2.031	ug/L	0.2687	13.23	25.91
Mo2020_A		-0.01382	ug/L	0.1681	1,217	0.2362
Na5895_R	F	330,900	ug/L	6,172	1.865	772,200
Ni2316_A		-0.04516	ug/L	0.08055	178.4	-0.06804

SO5516-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:47:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.2816	ug/L	0.7979	283.3	-0.9188
Sb2068_A		0.1268	ug/L	0.4509	355.8	0.4978
Se1960_A		-1.500	ug/L	0.1982	13.22	1.253
Si2516_R		273.8	ug/L	8.506	3.107	185.4
Sn1899_A		0.6928	ug/L	0.5628	81.24	1.353
Sr4215_R		320.6	ug/L	3.243	1.012	31,220
Ti3349_A		-0.4042	ug/L	0.07281	18.01	-22.94
Tl1908_A		0.002556	ug/L	0.02361	923.5	-1.883
V_2924_A		0.1046	ug/L	0.03922	37.51	-1.685
Zn2062_A		10.78	ug/L	0.08005	0.7428	22.58
Y_3600_R		18,967	Cts/S	159.27	0.83970	18,967
Y_2243_A		6,780.1	Cts/S	19.605	0.28915	6,780.1
Y_3600_A		128,300	Cts/S	358.71	0.27960	128,300

SO5520-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:51:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1505	ug/L	0.1062	70.59	-20.92
Al3961_R		6.504	ug/L	1.999	30.73	69.84
As1891_A		1.577	ug/L	1.113	70.60	-1.927
B_2089_A		33.52	ug/L	0.1271	0.3793	53.56
Ba4554_R		7.157	ug/L	0.1636	2.286	553.4
Be3130_R		-0.01887	ug/L	0.03489	184.9	-2.046
Ca3158_R	W	63,320	ug/L	1,056	1.667	77,980
Cd2265_A		-0.02353	ug/L	0.02074	88.14	-1.595
Co2286_A		0.04584	ug/L	0.005405	11.79	0.1699
Cr2677_A		0.3969	ug/L	0.09586	24.15	5.218
Cu3273_A		0.3309	ug/L	0.2619	79.14	-11.87
Fe2599_R		10.09	ug/L	0.2064	2.045	21.91
K_7664_R		2,173	ug/L	40.65	1.870	1,518
Li6707_R		2.328	ug/L	0.7508	32.26	35.58
Mg2025_A		1,945	ug/L	4.566	0.2347	675.8
Mn2576_R		0.3508	ug/L	0.3064	87.33	9.477
Mo2020_A		0.2152	ug/L	0.05551	25.79	0.9315
Na5895_R		9,009	ug/L	35.48	0.3938	21,640
Ni2316_A		-0.1765	ug/L	0.1991	112.8	-0.2682
Pb2203_A		-0.4623	ug/L	1.045	226.0	-1.611
Sb2068_A		-0.3859	ug/L	0.3011	78.03	0.2800
Se1960_A		-0.5564	ug/L	0.2162	38.86	1.572
Si2516_R		6,593	ug/L	111.7	1.694	3,177
Sn1899_A		0.5133	ug/L	0.03843	7.486	1.368
Sr4215_R		163.4	ug/L	2.419	1.481	16,320
Ti3349_A		-0.4416	ug/L	0.1087	24.63	-25.67
Tl1908_A		0.4910	ug/L	0.1896	38.62	-1.755
V_2924_A		-0.03903	ug/L	0.1686	431.9	-3.390
Zn2062_A		1.136	ug/L	0.1219	10.73	2.642
Y_3600_R		19,468	Cts/S	106.45	0.54680	19,468
Y_2243_A		7,205.1	Cts/S	24.456	0.33943	7,205.1
Y_3600_A		138,430	Cts/S	594.22	0.42925	138,430

SO5520-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:56:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000058

SO5520-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 3:56:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1897	ug/L	0.2151	113.4	-25.29
Al3961_R		-18.59	ug/L	4.740	25.50	47.24
As1891_A		0.7009	ug/L	0.3776	53.87	-2.308
B_2089_A		34.97	ug/L	0.5343	1.528	55.77
Ba4554_R		10.43	ug/L	0.09841	0.9435	787.9
Be3130_R		-0.02018	ug/L	0.01371	67.93	-2.136
Ca3158_R	W	70,010	ug/L	486.1	0.6943	85,090
Cd2265_A		0.01623	ug/L	0.01077	66.34	1.998
Co2286_A		-0.02699	ug/L	0.08883	329.1	-0.04624
Cr2677_A		0.3082	ug/L	0.04744	15.39	4.337
Cu3273_A		5.069	ug/L	0.4948	9.761	53.84
Fe2599_R		1,583	ug/L	2.062	0.1302	3,173
K_7664_R		2,327	ug/L	34.48	1.482	1,606
Li6707_R		1.836	ug/L	0.3727	20.30	27.97
Mg2025_A		2,055	ug/L	24.97	1.215	717.0
Mn2576_R		18.85	ug/L	0.2287	1.214	199.1
Mo2020_A		0.1004	ug/L	0.04914	48.93	0.5913
Na5895_R		8,658	ug/L	14.50	0.1675	20,520
Ni2316_A		-0.1530	ug/L	0.1047	68.44	-0.3172
Pb2203_A		-0.2380	ug/L	0.08064	33.88	-1.366
Sb2068_A		-0.7358	ug/L	0.02696	3.664	0.1326
Se1960_A		-1.579	ug/L	0.2645	16.74	1.326
Si2516_R		7,028	ug/L	36.33	0.5170	3,338
Sn1899_A		0.8257	ug/L	0.1299	15.74	1.496
Sr4215_R		181.9	ug/L	0.4811	0.2644	17,930
Ti3349_A		-0.5862	ug/L	0.1112	18.97	-28.74
Tl1908_A		0.4148	ug/L	0.04236	10.21	-1.811
V_2924_A		-0.07765	ug/L	0.03759	48.41	-3.605
Zn2062_A		2.664	ug/L	0.07907	2.968	6.050
Y_3600_R		19,211	Cts/S	15.039	0.078283	19,211
Y_2243_A		7,232.3	Cts/S	50.209	0.69424	7,232.3
Y_3600_A		136,050	Cts/S	504.73	0.37100	136,050

SO5520-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:00:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.008834	ug/L	0.01831	207.3	-21.18
Al3961_R		-8.704	ug/L	7.961	91.46	59.16
As1891_A		2.295	ug/L	2.035	88.66	-1.752
B_2089_A		13.96	ug/L	0.05057	0.3623	26.53
Ba4554_R		12.46	ug/L	0.1881	1.510	945.1
Be3130_R		-0.06146	ug/L	0.02208	35.93	-6.427
Ca3158_R	W	70,430	ug/L	1,165	1.654	86,280
Cd2265_A		-0.03373	ug/L	0.01483	43.96	0.7973
Co2286_A		0.9803	ug/L	0.07521	7.672	3.241
Cr2677_A		0.4727	ug/L	0.1128	23.87	6.131
Cu3273_A		8.311	ug/L	0.04716	0.5674	99.12
Fe2599_R		1,263	ug/L	17.69	1.401	2,551
K_7664_R		1,192	ug/L	22.53	1.890	817.2
Li6707_R		1.201	ug/L	1.333	111.0	19.01
Mg2025_A		1,732	ug/L	9.090	0.5249	602.4
Mn2576_R		31.30	ug/L	0.1685	0.5385	329.7
Mo2020_A		0.1327	ug/L	0.06882	51.85	0.6861
Na5895_R		6,037	ug/L	40.82	0.6762	14,440
Ni2316_A		1.473	ug/L	0.07815	5.304	2.172

SO5520-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:00:43PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.023	ug/L	0.4792	46.85	-0.2994
Sb2068_A		-0.5344	ug/L	0.9154	171.3	0.2264
Se1960_A		-0.9217	ug/L	1.384	150.1	1.492
Si2516_R		5,400	ug/L	73.92	1.369	2,599
Sn1899_A		0.8272	ug/L	0.07122	8.610	1.495
Sr4215_R		164.2	ug/L	1.781	1.084	16,320
Ti3349_A		-0.6348	ug/L	0.05364	8.451	-29.98
Tl1908_A		0.7954	ug/L	0.02355	2.961	-1.621
V_2924_A		0.009190	ug/L	0.2380	2,590	-2.780
Zn2062_A		17.13	ug/L	0.1608	0.9386	38.16
Y_3600_R		19,365	Cts/S	119.96	0.61950	19,365
Y_2243_A		7,223.3	Cts/S	15.305	0.21189	7,223.3
Y_3600_A		136,340	Cts/S	975.54	0.71553	136,340

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:05:05PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		507.8	ug/L	1.763	0.3473	8,793
Al3961_R		12,670	ug/L	85.30	0.6731	14,570
As1891_A		495.4	ug/L	2.577	0.5201	168.7
B_2089_A		507.0	ug/L	2.142	0.4224	748.1
Ba4554_R		509.3	ug/L	4.098	0.8046	38,670
Be3130_R		516.1	ug/L	5.873	1.138	54,510
Ca3158_R		12,680	ug/L	67.61	0.5332	15,820
Cd2265_A		505.8	ug/L	1.571	0.3106	5,788
Co2286_A		504.7	ug/L	0.3400	0.06736	1,702
Cr2677_A		504.9	ug/L	1.886	0.3735	5,735
Cu3273_A		511.6	ug/L	1.598	0.3124	7,353
Fe2599_R		12,710	ug/L	129.5	1.019	26,170
K_7664_R		12,670	ug/L	22.86	0.1804	9,100
Li6707_R		516.5	ug/L	2.670	0.5169	7,668
Mg2025_A		12,780	ug/L	38.81	0.3036	4,658
Mn2576_R		503.4	ug/L	0.7149	0.1420	5,323
Mo2020_A		501.7	ug/L	0.9501	0.1894	1,537
Na5895_R		12,840	ug/L	43.79	0.3411	31,250
Ni2316_A		509.7	ug/L	1.813	0.3557	802.7
Pb2203_A		514.4	ug/L	1.732	0.3367	450.5
Sb2068_A		495.9	ug/L	1.029	0.2075	248.1
Se1960_A		499.3	ug/L	1.715	0.3436	133.2
Si2516_R		12,880	ug/L	50.32	0.3908	6,237
Sn1899_A		512.2	ug/L	1.690	0.3300	208.2
Sr4215_R		514.6	ug/L	4.815	0.9357	52,170
Ti3349_A		503.3	ug/L	2.279	0.4527	12,660
Tl1908_A		509.0	ug/L	1.514	0.2975	262.4
V_2924_A		497.4	ug/L	0.9825	0.1975	5,514
Zn2062_A		505.0	ug/L	1.225	0.2425	1,154
Y_3600_R		19,743	Cts/S	37.709	0.19100	19,743
Y_2243_A		7,442.3	Cts/S	16.065	0.21587	7,442.3
Y_3600_A		141,230	Cts/S	228.66	0.16190	141,230

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:09:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:09:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2953	ug/L	0.2221	75.20	-13.46
Al3961_R		-2.699	ug/L	6.995	259.1	-1.241
As1891_A		-0.4932	ug/L	0.5249	106.4	-2.687
B_2089_A		1.467	ug/L	0.0004450	0.03036	9.409
Ba4554_R		-0.002982	ug/L	0.09919	3,326	17.87
Be3130_R		0.1562	ug/L	0.05159	33.03	16.42
Ca3158_R		5.245	ug/L	3.071	58.55	-20.81
Cd2265_A		0.1192	ug/L	0.06459	54.18	-0.03120
Co2286_A		0.04062	ug/L	0.2255	555.2	0.1611
Cr2677_A		0.1361	ug/L	0.04602	33.81	2.341
Cu3273_A		0.3374	ug/L	0.1031	30.54	-11.93
Fe2599_R		5.250	ug/L	2.464	46.94	12.29
K_7664_R		-7.699	ug/L	5.756	74.76	-31.44
Li6707_R		0.4154	ug/L	1.309	315.1	7.806
Mg2025_A		1.771	ug/L	2.721	153.6	-6.939
Mn2576_R		-0.05892	ug/L	0.1102	187.1	4.677
Mo2020_A		0.5320	ug/L	0.07938	14.92	1.917
Na5895_R		5.898	ug/L	0.8732	14.81	76.80
Ni2316_A		0.1840	ug/L	0.1314	71.42	0.2883
Pb2203_A		0.1320	ug/L	0.1552	117.6	-1.134
Sb2068_A		0.7865	ug/L	0.2506	31.87	0.8735
Se1960_A		-1.015	ug/L	0.6155	60.65	1.491
Si2516_R		19.84	ug/L	2.143	10.80	71.65
Sn1899_A		-0.06903	ug/L	0.03135	45.41	1.168
Sr4215_R		0.2439	ug/L	0.05077	20.82	-1.598
Ti3349_A		0.2713	ug/L	0.3069	113.1	-8.182
Tl1908_A		0.9312	ug/L	0.1777	19.09	-1.572
V_2924_A		-0.07237	ug/L	0.2402	331.9	-3.810
Zn2062_A		0.1473	ug/L	0.04423	30.02	0.4629
Y_3600_R		19,838	Cts/S	220.49	1.1114	19,838
Y_2243_A		7,382.1	Cts/S	0.19379	0.0026250	7,382.1
Y_3600_A		140,170	Cts/S	256.69	0.18313	140,170

SO5520-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:13:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1899	ug/L	0.2262	119.1	-21.62
Al3961_R		-6.715	ug/L	2.173	32.37	55.52
As1891_A		-0.2924	ug/L	1.371	468.9	-2.557
B_2089_A		29.41	ug/L	0.09448	0.3212	47.87
Ba4554_R		8.133	ug/L	0.1951	2.399	630.6
Be3130_R		-0.01858	ug/L	0.03599	193.8	-1.983
Ca3158_R	W	63,640	ug/L	2,019	3.173	78,880
Cd2265_A		-0.04118	ug/L	0.05790	140.6	-1.631
Co2286_A		0.06544	ug/L	0.09329	142.6	0.2336
Cr2677_A		0.4388	ug/L	0.07916	18.04	5.650
Cu3273_A		-0.1272	ug/L	0.05988	47.07	-18.19
Fe2599_R		89.04	ug/L	2.186	2.455	183.4
K_7664_R		2,120	ug/L	43.58	2.055	1,490
Li6707_R		2.200	ug/L	0.4003	18.19	33.86
Mg2025_A		1,971	ug/L	5.198	0.2637	684.9
Mn2576_R		10.37	ug/L	0.5190	5.007	114.5
Mo2020_A		0.1481	ug/L	0.08751	59.10	0.7307
Na5895_R		8,714	ug/L	265.0	3.041	21,070
Ni2316_A		-0.1642	ug/L	0.06278	38.23	-0.2550

SO5520-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:13:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.9761	ug/L	0.4721	48.37	-2.051
Sb2068_A		0.5699	ug/L	0.8277	145.2	0.7421
Se1960_A		-1.656	ug/L	0.6169	37.26	1.293
Si2516_R		6,448	ug/L	166.4	2.580	3,129
Sn1899_A		1.169	ug/L	0.8229	70.40	1.625
Sr4215_R		165.1	ug/L	5.073	3.072	16,600
Ti3349_A		-0.5280	ug/L	0.1076	20.38	-27.57
Tl1908_A		0.3345	ug/L	0.002025	0.6052	-1.838
V_2924_A		-0.09413	ug/L	0.3617	384.2	-3.988
Zn2062_A		2.853	ug/L	0.1220	4.276	6.443
Y_3600_R		19,600	Cts/S	353.97	1.8060	19,600
Y_2243_A		7,204.5	Cts/S	37.692	0.52317	7,204.5
Y_3600_A		137,250	Cts/S	25.421	0.018521	137,250

SO5556-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:18:03PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05887	ug/L	0.1024	173.9	-24.02
Al3961_R		2.441	ug/L	1.255	51.44	13.78
As1891_A		6.198	ug/L	1.264	20.39	-0.5074
B_2089_A		340.4	ug/L	0.4702	0.1381	463.0
Ba4554_R		58.93	ug/L	1.894	3.215	4,322
Be3130_R		0.03469	ug/L	0.02695	77.67	3.457
Ca3158_R		9,838	ug/L	203.7	2.070	11,800
Cd2265_A		-0.01249	ug/L	0.07264	581.5	4.345
Co2286_A		1.004	ug/L	0.07255	7.228	3.228
Cr2677_A		0.2974	ug/L	0.6212	208.9	4.519
Cu3273_A		-0.05183	ug/L	0.07595	146.5	-16.96
Fe2599_R		2,993	ug/L	84.45	2.822	5,931
K_7664_R		23,760	ug/L	546.8	2.301	16,450
Li6707_R		7.121	ug/L	0.4036	5.668	103.2
Mg2025_A		24,040	ug/L	16.70	0.06947	8,160
Mn2576_R		346.6	ug/L	6.501	1.876	3,537
Mo2020_A		3.936	ug/L	0.2314	5.878	11.56
Na5895_R	F	208,600	ug/L	4,346	2.083	487,800
Ni2316_A		0.5902	ug/L	0.1914	32.42	0.7533
Pb2203_A		-0.6571	ug/L	0.2027	30.84	-1.616
Sb2068_A		0.2541	ug/L	0.09809	38.60	0.6151
Se1960_A		-0.7490	ug/L	0.7143	95.37	1.532
Si2516_R		7,077	ug/L	154.2	2.179	3,324
Sn1899_A		0.4535	ug/L	0.2184	48.17	1.301
Sr4215_R		188.3	ug/L	6.004	3.189	18,350
Ti3349_A		-0.2152	ug/L	0.01999	9.287	-19.07
Tl1908_A		1.265	ug/L	0.1984	15.67	-1.497
V_2924_A		0.3792	ug/L	0.2393	63.09	0.05417
Zn2062_A		2.415	ug/L	0.04294	1.778	5.295
Y_3600_R		19,004	Cts/S	190.47	1.0023	19,004
Y_2243_A		6,969.3	Cts/S	4.5337	0.065052	6,969.3
Y_3600_A		131,840	Cts/S	14.876	0.011283	131,840

SO5556-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:22:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5556-002L

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:22:30PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-1.019	ug/L	0.1577	15.46	-23.10
Al3961_R		45.72	ug/L	1.896	4.146	14.23
As1891_A		12.31	ug/L	0.4966	4.034	-1.677
B_2089_A		345.3	ug/L	4.170	1.208	103.8
Ba4554_R		59.12	ug/L	0.3142	0.5316	903.3
Be3130_R		0.1028	ug/L	0.1331	129.4	2.020
Ca3158_R		10,780	ug/L	25.20	0.2338	2,631
Cd2265_A		0.06955	ug/L	0.07587	109.1	0.01739
Co2286_A		1.402	ug/L	0.3949	28.17	0.9571
Cr2677_A		1.215	ug/L	0.1198	9.855	3.581
Cu3273_A		0.4268	ug/L	0.2052	48.09	-15.24
Fe2599_R		3,049	ug/L	11.89	0.3899	1,240
K_7664_R		23,290	ug/L	51.32	0.2203	3,286
Li6707_R		1.883	ug/L	1.903	101.1	6.969
Mg2025_A		25,470	ug/L	341.6	1.341	1,800
Mn2576_R		346.1	ug/L	0.9495	0.2743	728.4
Mo2020_A		4.547	ug/L	0.2761	6.071	3.016
Na5895_R	W	207,000	ug/L	702.9	0.3396	99,280
Ni2316_A		2.768	ug/L	0.1907	6.892	0.8228
Pb2203_A		1.841	ug/L	1.689	91.75	-0.8918
Sb2068_A		-2.119	ug/L	1.774	83.71	0.2736
Se1960_A		-7.127	ug/L	13.97	196.0	1.373
Si2516_R		6,842	ug/L	8.851	0.1294	708.2
Sn1899_A		1.219	ug/L	6.886	564.8	1.278
Sr4215_R		187.6	ug/L	0.8018	0.4273	3,731
Ti3349_A		0.2741	ug/L	0.4811	175.5	-13.24
Tl1908_A		5.979	ug/L	3.266	54.63	-1.454
V_2924_A		-0.5799	ug/L	0.6804	117.3	-4.391
Zn2062_A		82.53	ug/L	1.897	2.298	37.06
Y_3600_R		19,483	Cts/S	149.13	0.76545	19,483
Y_2243_A		7,278.3	Cts/S	71.070	0.97647	7,278.3
Y_3600_A		136,540	Cts/S	99.113	0.072590	136,540

SO5556-002A

Method Name: FAST-2016_NO_AU Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:26:55PM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		627.5	ug/L	0.5912	0.09422	10,110
Al3961_R		11,250	ug/L	107.4	0.9552	12,400
As1891_A		504.5	ug/L	2.914	0.5777	160.8
B_2089_A		845.3	ug/L	1.504	0.1779	1,152
Ba4554_R		576.4	ug/L	1.412	0.2450	41,940
Be3130_R		541.3	ug/L	2.383	0.4402	54,790
Ca3158_R		15,340	ug/L	183.2	1.194	18,350
Cd2265_A		508.1	ug/L	0.8431	0.1659	5,427
Co2286_A		498.8	ug/L	0.3123	0.06261	1,572
Cr2677_A		505.7	ug/L	0.2124	0.04201	5,334
Cu3273_A		526.6	ug/L	1.893	0.3594	7,028
Fe2599_R		8,692	ug/L	84.01	0.9666	17,150
K_7664_R	W	33,910	ug/L	230.9	0.6809	23,380
Li6707_R		547.8	ug/L	0.1847	0.03372	7,795
Mg2025_A	W	28,830	ug/L	30.84	0.1069	9,796
Mn2576_R		845.1	ug/L	11.60	1.373	8,568
Mo2020_A		523.0	ug/L	0.04445	0.008498	1,498
Na5895_R	F	211,600	ug/L	556.9	0.2632	492,700
Ni2316_A		501.5	ug/L	1.310	0.2613	738.8

SO5556-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:26:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		498.8	ug/L	1.447	0.2902	408.2
Sb2068_A		497.6	ug/L	1.251	0.2515	232.6
Se1960_A		514.9	ug/L	2.009	0.3901	128.4
Si2516_R		7,198	ug/L	69.08	0.9596	3,369
Sn1899_A		524.7	ug/L	2.475	0.4717	199.4
Sr4215_R		719.5	ug/L	3.918	0.5445	69,920
Ti3349_A		506.1	ug/L	0.1706	0.03371	11,820
Tl1908_A		471.7	ug/L	0.3807	0.08071	227.0
V_2924_A		505.0	ug/L	0.8409	0.1665	5,197
Zn2062_A		511.3	ug/L	0.6543	0.1280	1,092
Y_3600_R		18,921	Cts/S	48.591	0.25681	18,921
Y_2243_A		6,956.8	Cts/S	10.711	0.15396	6,956.8
Y_3600_A		131,140	Cts/S	140.96	0.10749	131,140

SO5556-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:31:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.73	ug/L	0.2538	0.4814	819.4
Al3961_R		2,110	ug/L	43.44	2.059	2,373
As1891_A		110.3	ug/L	1.062	0.9633	33.39
B_2089_A		840.0	ug/L	5.856	0.6971	1,139
Ba4554_R	W	2,155	ug/L	35.08	1.628	159,200
Be3130_R		54.71	ug/L	0.9069	1.658	5,623
Ca3158_R		11,920	ug/L	220.6	1.851	14,470
Cd2265_A		259.8	ug/L	1.188	0.4574	2,789
Co2286_A		509.3	ug/L	4.130	0.8108	1,614
Cr2677_A		208.2	ug/L	3.302	1.586	2,196
Cu3273_A		272.0	ug/L	2.979	1.095	3,620
Fe2599_R		3,910	ug/L	78.23	2.001	7,835
K_7664_R	W	33,180	ug/L	499.4	1.505	23,240
Li6707_R		538.7	ug/L	9.637	1.789	7,784
Mg2025_A	W	27,910	ug/L	232.5	0.8331	9,535
Mn2576_R		834.5	ug/L	12.85	1.540	8,594
Mo2020_A		105.6	ug/L	0.4688	0.4440	304.2
Na5895_R	F	206,300	ug/L	5,644	2.736	487,600
Ni2316_A		513.6	ug/L	3.359	0.6541	756.6
Pb2203_A		101.0	ug/L	0.9462	0.9371	82.28
Sb2068_A		101.4	ug/L	0.6956	0.6860	46.06
Se1960_A		105.4	ug/L	0.8152	0.7735	27.84
Si2516_R		7,737	ug/L	131.3	1.696	3,672
Sn1899_A		512.7	ug/L	2.450	0.4778	195.9
Sr4215_R		700.8	ug/L	11.14	1.589	69,170
Ti3349_A		510.7	ug/L	5.147	1.008	11,920
Tl1908_A		98.57	ug/L	1.291	1.310	46.50
V_2924_A		518.2	ug/L	7.668	1.480	5,364
Zn2062_A		522.0	ug/L	1.704	0.3264	1,122
Y_3600_R		19,216	Cts/S	177.36	0.92301	19,216
Y_2243_A		6,995.8	Cts/S	55.116	0.78785	6,995.8
Y_3600_A		131,120	Cts/S	1,218.0	0.92888	131,120

SO5556-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:35:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5556-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:35:31PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		55.12	ug/L	1.364	2.475	835.0
Al3961_R		2,216	ug/L	57.46	2.593	2,432
As1891_A		114.0	ug/L	1.268	1.112	34.10
B_2089_A		867.8	ug/L	6.006	0.6921	1,160
Ba4554_R	W	2,275	ug/L	42.88	1.885	163,900
Be3130_R		57.50	ug/L	1.053	1.830	5,766
Ca3158_R		12,730	ug/L	379.8	2.984	15,070
Cd2265_A		268.7	ug/L	2.129	0.7922	2,844
Co2286_A		528.0	ug/L	4.156	0.7871	1,650
Cr2677_A		218.9	ug/L	2.991	1.366	2,250
Cu3273_A		287.6	ug/L	5.354	1.861	3,730
Fe2599_R		4,180	ug/L	104.9	2.509	8,171
K_7664_R	W	35,290	ug/L	660.3	1.871	24,110
Li6707_R		557.8	ug/L	6.726	1.206	7,863
Mg2025_A	W	29,250	ug/L	301.7	1.031	9,849
Mn2576_R		887.1	ug/L	29.86	3.365	8,912
Mo2020_A		108.0	ug/L	1.012	0.9374	306.6
Na5895_R	F	219,900	ug/L	5,332	2.425	507,300
Ni2316_A		533.1	ug/L	3.801	0.7131	774.1
Pb2203_A		103.6	ug/L	0.6236	0.6020	83.23
Sb2068_A		104.1	ug/L	1.607	1.544	46.61
Se1960_A		106.1	ug/L	1.351	1.273	27.62
Si2516_R		8,231	ug/L	260.6	3.166	3,807
Sn1899_A		521.7	ug/L	5.148	0.9868	196.4
Sr4215_R		731.5	ug/L	15.84	2.166	70,430
Ti3349_A		528.2	ug/L	8.286	1.569	12,010
Tl1908_A		100.5	ug/L	1.815	1.806	46.79
V_2924_A		545.1	ug/L	7.662	1.406	5,497
Zn2062_A		541.1	ug/L	3.230	0.5970	1,147
Y_3600_R		18,748	Cts/S	211.97	1.1306	18,748
Y_2243_A		6,895.2	Cts/S	63.030	0.91411	6,895.2
Y_3600_A		127,740	Cts/S	1,360.4	1.0650	127,740

SO5556-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:39:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06559	ug/L	0.2795	426.2	-53.74
Al3961_R		178.0	ug/L	6.423	3.608	218.0
As1891_A		3.667	ug/L	1.857	50.64	-1.933
B_2089_A		94.20	ug/L	0.8424	0.8943	137.5
Ba4554_R		22.43	ug/L	0.3050	1.359	1,674
Be3130_R		0.07187	ug/L	0.01582	22.01	7.067
Ca3158_R		18,620	ug/L	429.5	2.306	22,600
Cd2265_A		-0.1468	ug/L	0.01066	7.263	25.46
Co2286_A		3.677	ug/L	0.1014	2.758	12.22
Cr2677_A		0.7520	ug/L	0.1594	21.20	11.32
Cu3273_A		1.213	ug/L	0.09302	7.669	-1.972
Fe2599_R		14,230	ug/L	267.7	1.882	28,490
K_7664_R		2,244	ug/L	58.17	2.592	1,547
Li6707_R		5.683	ug/L	0.6275	11.04	83.47
Mg2025_A		4,913	ug/L	42.35	0.8621	1,716
Mn2576_R		938.7	ug/L	23.13	2.464	9,649
Mo2020_A		0.6703	ug/L	0.01686	2.515	2.222
Na5895_R		22,770	ug/L	350.2	1.538	53,860
Ni2316_A		1.735	ug/L	0.3587	20.68	1.896

SO5556-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:39:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.6954	ug/L	0.03143	4.519	-0.1119
Sb2068_A		-0.1138	ug/L	0.7718	678.1	0.6284
Se1960_A		-0.7053	ug/L	1.132	160.5	1.727
Si2516_R		12,430	ug/L	273.5	2.201	5,852
Sn1899_A		0.7571	ug/L	0.1579	20.86	1.462
Sr4215_R		106.5	ug/L	1.340	1.257	10,490
Ti3349_A		3.423	ug/L	0.1667	4.870	68.29
Tl1908_A		0.8360	ug/L	0.3209	38.39	-2.074
V_2924_A		0.4178	ug/L	0.06171	14.77	-0.03514
Zn2062_A		9.525	ug/L	0.004330	0.04546	21.20
Y_3600_R		19,202	Cts/S	132.60	0.69055	19,202
Y_2243_A		7,197.1	Cts/S	27.019	0.37542	7,197.1
Y_3600_A		135,740	Cts/S	220.77	0.16265	135,740

SO5556-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:44:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1028	ug/L	0.04709	45.81	-21.03
Al3961_R		116.9	ug/L	2.887	2.470	135.7
As1891_A		0.1028	ug/L	0.3989	388.0	-2.547
B_2089_A		4.504	ug/L	0.07791	1.730	13.64
Ba4554_R		25.12	ug/L	0.08186	0.3259	1,883
Be3130_R		0.03136	ug/L	0.005408	17.24	2.820
Ca3158_R		2,880	ug/L	0.2166	0.007521	3,494
Cd2265_A		0.7923	ug/L	0.05573	7.034	10.78
Co2286_A		0.4528	ug/L	0.06583	14.54	1.581
Cr2677_A		0.4375	ug/L	0.1119	25.58	6.001
Cu3273_A		5.181	ug/L	0.2352	4.539	56.78
Fe2599_R		1,596	ug/L	4.330	0.2713	3,216
K_7664_R		465.4	ug/L	7.402	1.590	302.8
Li6707_R		0.7429	ug/L	0.5983	80.53	12.29
Mg2025_A		230.4	ug/L	1.635	0.7098	74.93
Mn2576_R		128.7	ug/L	1.404	1.091	1,335
Mo2020_A		0.5789	ug/L	0.007763	1.341	2.039
Na5895_R		2,893	ug/L	11.42	0.3947	6,935
Ni2316_A		0.4958	ug/L	0.1705	34.39	0.6844
Pb2203_A		2.790	ug/L	0.6963	24.96	1.230
Sb2068_A		0.3440	ug/L	0.5907	171.7	0.6723
Se1960_A		-1.245	ug/L	2.030	163.1	1.447
Si2516_R		483.2	ug/L	12.83	2.654	287.0
Sn1899_A		0.5725	ug/L	0.6128	107.0	1.417
Sr4215_R		19.03	ug/L	0.03815	0.2005	1,863
Ti3349_A		5.179	ug/L	0.1606	3.101	113.9
Tl1908_A		0.6724	ug/L	0.7569	112.6	-1.766
V_2924_A		0.6037	ug/L	0.1689	27.98	3.425
Zn2062_A		60.42	ug/L	0.2276	0.3767	136.4
Y_3600_R		19,315	Cts/S	171.67	0.88881	19,315
Y_2243_A		7,337.4	Cts/S	16.957	0.23110	7,337.4
Y_3600_A		139,560	Cts/S	326.70	0.23410	139,560

SO5556-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:48:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO5556-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:48:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2719	ug/L	0.2406	88.49	-21.93
Al3961_R		-29.76	ug/L	0.03023	0.1015	79.31
As1891_A		1.131	ug/L	0.2327	20.58	-2.014
B_2089_A		174.4	ug/L	0.6531	0.3745	241.2
Ba4554_R		9.935	ug/L	0.07545	0.7594	747.2
Be3130_R		-0.05106	ug/L	0.04856	95.10	-5.207
Ca3158_R	W	117,400	ug/L	418.5	0.3564	142,000
Cd2265_A		-0.01309	ug/L	0.005961	45.55	-1.428
Co2286_A		0.05192	ug/L	0.04248	81.82	0.1837
Cr2677_A		0.6391	ug/L	0.04210	6.588	7.540
Cu3273_A		0.4436	ug/L	0.1101	24.83	-9.773
Fe2599_R		14.35	ug/L	1.203	8.380	30.01
K_7664_R		18,970	ug/L	196.3	1.035	13,200
Li6707_R		11.20	ug/L	0.7786	6.951	162.3
Mg2025_A		7,126	ug/L	22.53	0.3161	2,420
Mn2576_R		8.874	ug/L	0.2468	2.782	98.09
Mo2020_A		2.892	ug/L	0.05823	2.014	8.601
Na5895_R		13,920	ug/L	147.6	1.061	32,770
Ni2316_A		0.2198	ug/L	0.1551	70.54	0.3487
Pb2203_A		0.1948	ug/L	0.8456	434.0	-1.022
Sb2068_A		0.02812	ug/L	1.082	3,849	0.4686
Se1960_A		-0.1705	ug/L	2.807	1,646	1.622
Si2516_R		10,130	ug/L	58.29	0.5753	4,760
Sn1899_A		0.3026	ug/L	1.230	406.3	1.246
Sr4215_R		629.3	ug/L	4.765	0.7573	61,760
Ti3349_A		-0.5760	ug/L	0.1958	33.99	-27.55
Tl1908_A		0.7106	ug/L	0.3784	53.25	-1.599
V_2924_A		1.338	ug/L	0.06796	5.079	10.94
Zn2062_A		2.479	ug/L	0.1260	5.084	5.447
Y_3600_R		19,108	Cts/S	176.58	0.92413	19,108
Y_2243_A		6,987.0	Cts/S	30.555	0.43732	6,987.0
Y_3600_A		131,850	Cts/S	1,073.1	0.81384	131,850

SO5556-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:52:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1993	ug/L	0.05827	29.23	-21.15
Al3961_R		35.38	ug/L	6.155	17.40	42.64
As1891_A		2.136	ug/L	0.8931	41.81	-1.707
B_2089_A		262.7	ug/L	0.2245	0.08544	363.6
Ba4554_R		11.61	ug/L	0.01490	0.1284	860.2
Be3130_R		-0.01025	ug/L	0.02573	251.0	-1.248
Ca3158_R		1,350	ug/L	18.20	1.349	1,587
Cd2265_A		0.007909	ug/L	0.03353	424.0	-1.044
Co2286_A		0.2212	ug/L	0.2247	101.6	0.7396
Cr2677_A		-0.04570	ug/L	0.06088	133.2	0.3077
Cu3273_A		0.2170	ug/L	0.04975	22.93	-12.97
Fe2599_R		100.5	ug/L	0.7227	0.7193	199.3
K_7664_R		6,913	ug/L	75.74	1.096	4,739
Li6707_R		6.163	ug/L	0.1843	2.990	88.96
Mg2025_A		2,721	ug/L	3.986	0.1465	927.6
Mn2576_R		23.98	ug/L	0.04798	0.2000	248.3
Mo2020_A		20.60	ug/L	0.08177	0.3969	60.06
Na5895_R	W	115,600	ug/L	1,219	1.054	268,800
Ni2316_A		-0.07309	ug/L	0.1629	222.9	0.09699

SO5556-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:52:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.6113	ug/L	0.1905	31.16	-0.6977
Sb2068_A		0.5632	ug/L	0.4877	86.60	0.7186
Se1960_A		-2.613	ug/L	1.340	51.27	1.029
Si2516_R		6,294	ug/L	46.77	0.7430	2,946
Sn1899_A		1.022	ug/L	0.9818	96.07	1.533
Sr4215_R		31.61	ug/L	0.3680	1.164	3,043
Ti3349_A		1.676	ug/L	0.07492	4.470	25.82
Tl1908_A		0.3604	ug/L	0.3538	98.16	-1.794
V_2924_A		-0.02026	ug/L	0.2433	1,201	-4.303
Zn2062_A		5.638	ug/L	0.05042	0.8943	12.34
Y_3600_R		18,889	Cts/S	23.447	0.12413	18,889
Y_2243_A		7,048.8	Cts/S	14.144	0.20066	7,048.8
Y_3600_A		132,920	Cts/S	187.31	0.14092	132,920

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 4:57:21PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		519.1	ug/L	0.1268	0.02442	8,752
Al3961_R		13,100	ug/L	217.8	1.663	14,680
As1891_A		504.7	ug/L	4.559	0.9034	169.1
B_2089_A		521.8	ug/L	3.391	0.6499	757.3
Ba4554_R	W	530.6	ug/L	6.198	1.168	39,270
Be3130_R	W	537.6	ug/L	7.355	1.368	55,330
Ca3158_R		13,010	ug/L	200.9	1.545	15,810
Cd2265_A		520.8	ug/L	4.117	0.7905	5,865
Co2286_A		510.0	ug/L	3.852	0.7554	1,693
Cr2677_A		519.3	ug/L	2.970	0.5720	5,743
Cu3273_A	W	535.2	ug/L	1.294	0.2417	7,490
Fe2599_R		13,150	ug/L	220.4	1.676	26,390
K_7664_R		13,030	ug/L	134.9	1.035	9,124
Li6707_R	W	539.4	ug/L	6.334	1.174	7,804
Mg2025_A		12,930	ug/L	78.31	0.6055	4,638
Mn2576_R		514.6	ug/L	9.821	1.908	5,303
Mo2020_A		510.6	ug/L	3.395	0.6650	1,540
Na5895_R	W	13,340	ug/L	160.2	1.201	31,630
Ni2316_A		522.9	ug/L	4.126	0.7892	810.3
Pb2203_A		525.1	ug/L	3.564	0.6787	452.6
Sb2068_A		497.2	ug/L	4.100	0.8246	244.8
Se1960_A		508.0	ug/L	1.265	0.2489	133.4
Si2516_R		13,170	ug/L	190.9	1.449	6,217
Sn1899_A	W	528.8	ug/L	2.793	0.5282	211.5
Sr4215_R	W	535.5	ug/L	6.848	1.279	52,920
Ti3349_A		512.3	ug/L	1.285	0.2508	12,550
Tl1908_A		514.4	ug/L	5.179	1.007	260.9
V_2924_A		507.5	ug/L	1.887	0.3719	5,478
Zn2062_A		518.1	ug/L	4.408	0.8507	1,166
Y_3600_R		19,242	Cts/S	105.08	0.54610	19,242
Y_2243_A		7,324.2	Cts/S	27.059	0.36945	7,324.2
Y_3600_A		137,520	Cts/S	435.23	0.31649	137,520

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:01:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:01:30PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2145	ug/L	0.1398	65.19	-14.68
Al3961_R		-0.8874	ug/L	0.07224	8.141	0.7816
As1891_A		-0.9442	ug/L	2.007	212.5	-2.848
B_2089_A		2.355	ug/L	0.3611	15.33	10.68
Ba4554_R		0.02062	ug/L	0.08362	405.5	19.24
Be3130_R		0.05063	ug/L	0.02228	44.00	5.156
Ca3158_R		0.8765	ug/L	2.028	231.4	-25.68
Cd2265_A		0.06009	ug/L	0.001340	2.230	-0.7019
Co2286_A		0.05011	ug/L	0.1035	206.5	0.1925
Cr2677_A		0.02439	ug/L	0.09805	402.0	1.068
Cu3273_A		0.2622	ug/L	0.04028	15.36	-12.85
Fe2599_R		4.359	ug/L	1.266	29.04	10.22
K_7664_R		-10.29	ug/L	4.632	45.01	-32.53
Li6707_R		0.04161	ug/L	0.4263	1,024	2.073
Mg2025_A		2.975	ug/L	0.0001820	0.006115	-6.514
Mn2576_R		-0.09894	ug/L	0.004148	4.193	4.143
Mo2020_A		0.5921	ug/L	0.1116	18.85	2.101
Na5895_R		14.92	ug/L	0.9711	6.509	96.42
Ni2316_A		-0.2548	ug/L	0.02210	8.675	-0.3930
Pb2203_A		-0.3985	ug/L	0.7467	187.4	-1.601
Sb2068_A		1.039	ug/L	0.7941	76.43	0.9993
Se1960_A		-0.2095	ug/L	0.1024	48.85	1.703
Si2516_R		23.39	ug/L	0.2431	1.039	71.59
Sn1899_A		-0.05707	ug/L	0.1500	262.8	1.175
Sr4215_R		0.1355	ug/L	0.01824	13.46	-12.31
Ti3349_A		0.01774	ug/L	0.1202	677.8	-14.34
Tl1908_A		0.4985	ug/L	0.6222	124.8	-1.796
V_2924_A		0.2027	ug/L	0.2714	133.9	-0.7503
Zn2062_A		0.1224	ug/L	0.07408	60.54	0.4076
Y_3600_R		19,359	Cts/S	10.209	0.052734	19,359
Y_2243_A		7,392.4	Cts/S	46.709	0.63186	7,392.4
Y_3600_A		138,520	Cts/S	386.16	0.27878	138,520

SO5556-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:05:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.004352	ug/L	0.05408	1,243	-56.93
Al3961_R		62.67	ug/L	9.880	15.77	115.6
As1891_A		4.547	ug/L	0.1091	2.400	-1.669
B_2089_A		70.34	ug/L	0.4909	0.6979	102.8
Ba4554_R		132.2	ug/L	0.8331	0.6300	9,638
Be3130_R		0.06427	ug/L	0.0003370	0.5244	6.348
Ca3158_R	W	48,260	ug/L	209.8	0.4348	57,770
Cd2265_A		-0.2484	ug/L	0.06555	26.39	26.30
Co2286_A		0.9179	ug/L	0.1171	12.76	3.191
Cr2677_A		1.617	ug/L	0.04125	2.551	21.59
Cu3273_A		2.853	ug/L	0.4080	14.30	20.24
Fe2599_R		15,430	ug/L	94.17	0.6102	30,450
K_7664_R		4,110	ug/L	14.31	0.3483	2,813
Li6707_R		12.04	ug/L	0.4591	3.813	172.8
Mg2025_A		8,466	ug/L	28.26	0.3339	2,914
Mn2576_R	W	2,107	ug/L	1.474	0.06996	21,340
Mo2020_A		0.9976	ug/L	0.05043	5.055	3.070
Na5895_R	W	33,150	ug/L	75.66	0.2282	77,240
Ni2316_A		1.942	ug/L	0.2605	13.42	2.117

SO5556-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:05:56PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3062	ug/L	0.3405	111.2	-0.3847
Sb2068_A		-0.2124	ug/L	0.3573	168.2	0.5880
Se1960_A		0.3461	ug/L	0.2593	74.92	2.122
Si2516_R		10,740	ug/L	6.743	0.06278	4,993
Sn1899_A		1.102	ug/L	0.07487	6.793	1.571
Sr4215_R		857.3	ug/L	3.965	0.4625	83,330
Ti3349_A		1.355	ug/L	0.07411	5.470	17.98
Tl1908_A		0.9969	ug/L	0.04904	4.919	-2.563
V_2924_A		0.4866	ug/L	0.2907	59.73	-3.461
Zn2062_A		4.274	ug/L	0.09067	2.121	9.422
Y_3600_R		18,924	Cts/S	33.000	0.17439	18,924
Y_2243_A		7,079.4	Cts/S	37.282	0.52663	7,079.4
Y_3600_A		133,560	Cts/S	1,114.4	0.83441	133,560

SO5556-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:10:18PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1681	ug/L	0.2460	146.3	-27.26
Al3961_R		6.922	ug/L	2.752	39.76	18.76
As1891_A		5.317	ug/L	0.6842	12.87	-0.7948
B_2089_A		347.9	ug/L	2.137	0.6142	471.9
Ba4554_R		62.16	ug/L	0.9851	1.585	4,456
Be3130_R		0.01541	ug/L	0.01773	115.1	1.427
Ca3158_R		10,300	ug/L	137.9	1.339	12,080
Cd2265_A		-0.05812	ug/L	0.02581	44.41	4.009
Co2286_A		0.4008	ug/L	0.07976	19.90	1.326
Cr2677_A		0.4291	ug/L	0.2649	61.73	5.802
Cu3273_A		-0.2922	ug/L	0.3215	110.0	-19.76
Fe2599_R		3,076	ug/L	55.90	1.817	5,960
K_7664_R		24,830	ug/L	515.4	2.076	16,810
Li6707_R		7.080	ug/L	0.4343	6.134	100.3
Mg2025_A		24,320	ug/L	208.6	0.8579	8,235
Mn2576_R		357.7	ug/L	5.371	1.502	3,568
Mo2020_A		4.034	ug/L	0.05533	1.371	11.81
Na5895_R	F	214,400	ug/L	610.5	0.2847	490,200
Ni2316_A		0.7046	ug/L	0.2513	35.66	0.9170
Pb2203_A		0.2243	ug/L	0.4071	181.5	-0.8867
Sb2068_A		0.2287	ug/L	1.014	443.5	0.6033
Se1960_A		-0.02964	ug/L	0.1019	343.9	1.707
Si2516_R		7,222	ug/L	131.5	1.821	3,315
Sn1899_A		0.7697	ug/L	1.040	135.2	1.416
Sr4215_R		198.4	ug/L	3.854	1.942	18,910
Ti3349_A		0.007664	ug/L	0.09108	1,188	-13.52
Tl1908_A		0.8212	ug/L	0.5609	68.30	-1.716
V_2924_A		0.08909	ug/L	0.2525	283.4	-2.934
Zn2062_A		4.969	ug/L	0.009940	0.2001	10.74
Y_3600_R		18,579	Cts/S	301.25	1.6215	18,579
Y_2243_A		6,953.3	Cts/S	44.548	0.64067	6,953.3
Y_3600_A		128,770	Cts/S	681.59	0.52931	128,770

SO5556-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:14:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000070

SO5556-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:14:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02285	ug/L	0.3034	1,328	-53.57
Al3961_R		55.60	ug/L	6.296	11.32	81.54
As1891_A		4.030	ug/L	0.8017	19.89	-1.790
B_2089_A		92.94	ug/L	0.2425	0.2609	135.5
Ba4554_R		20.42	ug/L	0.06619	0.3241	1,527
Be3130_R		0.06008	ug/L	0.08113	135.0	6.026
Ca3158_R		18,640	ug/L	251.7	1.350	22,660
Cd2265_A		-0.2236	ug/L	0.02280	10.20	23.87
Co2286_A		3.283	ug/L	0.1724	5.250	10.91
Cr2677_A		0.1414	ug/L	0.05964	42.18	4.612
Cu3273_A		0.1464	ug/L	0.1987	135.7	-16.68
Fe2599_R		13,870	ug/L	166.6	1.201	27,820
K_7664_R		2,268	ug/L	2.323	0.1024	1,567
Li6707_R		5.175	ug/L	0.5842	11.29	76.27
Mg2025_A		4,943	ug/L	7.095	0.1435	1,725
Mn2576_R		923.9	ug/L	11.47	1.242	9,512
Mo2020_A		0.4397	ug/L	0.07811	17.76	1.537
Na5895_R		23,130	ug/L	72.29	0.3125	54,790
Ni2316_A		1.365	ug/L	0.2167	15.87	1.352
Pb2203_A		0.1675	ug/L	0.5953	355.4	-0.5649
Sb2068_A		0.1951	ug/L	0.09413	48.25	0.7699
Se1960_A		0.4868	ug/L	0.8858	182.0	2.023
Si2516_R		12,140	ug/L	80.54	0.6633	5,729
Sn1899_A		0.7779	ug/L	0.4042	51.95	1.468
Sr4215_R		107.7	ug/L	0.5832	0.5416	10,610
Ti3349_A		0.9507	ug/L	0.09277	9.758	8.504
Tl1908_A		0.7837	ug/L	0.4474	57.09	-2.090
V_2924_A		0.04885	ug/L	0.05010	102.6	-3.982
Zn2062_A		6.423	ug/L	0.1378	2.145	14.32
Y_3600_R		19,231	Cts/S	36.089	0.18766	19,231
Y_2243_A		7,187.6	Cts/S	3.3989	0.047288	7,187.6
Y_3600_A		135,900	Cts/S	498.15	0.36655	135,900

SO5556-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:19:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2173	ug/L	0.1647	75.82	-15.91
Al3961_R		41.51	ug/L	0.9406	2.266	50.69
As1891_A		-0.4716	ug/L	0.3875	82.16	-2.652
B_2089_A		4.061	ug/L	0.2433	5.992	12.84
Ba4554_R		6.895	ug/L	0.3301	4.788	527.2
Be3130_R		-0.009798	ug/L	0.002615	26.69	-1.115
Ca3158_R		2,659	ug/L	127.0	4.778	3,209
Cd2265_A		0.07896	ug/L	0.01960	24.82	0.4025
Co2286_A		0.2162	ug/L	0.1539	71.15	0.7398
Cr2677_A		0.4083	ug/L	0.1884	46.14	5.520
Cu3273_A		1.200	ug/L	0.02641	2.200	0.3373
Fe2599_R		443.2	ug/L	19.03	4.294	890.0
K_7664_R		485.3	ug/L	2.734	0.5633	315.5
Li6707_R		1.174	ug/L	0.9507	80.97	18.24
Mg2025_A		186.3	ug/L	1.818	0.9756	58.38
Mn2576_R		98.20	ug/L	4.328	4.407	1,016
Mo2020_A		0.2908	ug/L	0.01312	4.511	1.156
Na5895_R		2,820	ug/L	103.0	3.654	6,732
Ni2316_A		1.142	ug/L	0.1406	12.31	1.718

SO5556-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:19:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.01267	ug/L	0.5214	4,116	-1.202
Sb2068_A		1.372	ug/L	0.2964	21.61	1.146
Se1960_A		-0.2114	ug/L	0.4551	215.3	1.685
Si2516_R		309.6	ug/L	18.23	5.889	204.7
Sn1899_A		1.037	ug/L	0.8609	83.04	1.582
Sr4215_R		14.71	ug/L	0.6965	4.736	1,427
Ti3349_A		0.1599	ug/L	0.1804	112.9	-10.92
Tl1908_A		-0.6991	ug/L	0.06387	9.136	-2.417
V_2924_A		-0.01260	ug/L	0.1768	1,403	-3.444
Zn2062_A		14.06	ug/L	0.3272	2.327	31.45
Y_3600_R		19,240	Cts/S	560.27	2.9121	19,240
Y_2243_A		7,246.6	Cts/S	2.3191	0.032002	7,246.6
Y_3600_A		139,480	Cts/S	128.06	0.091815	139,480

SO5556-012

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:23:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04632	ug/L	0.07581	163.7	-18.25
Al3961_R		-25.87	ug/L	3.885	15.02	85.32
As1891_A		1.135	ug/L	1.114	98.15	-1.999
B_2089_A		178.7	ug/L	1.066	0.5967	245.3
Ba4554_R		10.49	ug/L	0.06708	0.6398	777.9
Be3130_R		-0.02332	ug/L	0.01412	60.54	-2.341
Ca3158_R	W	120,400	ug/L	744.7	0.6186	143,700
Cd2265_A		0.02048	ug/L	0.05377	262.5	-1.068
Co2286_A		-0.1042	ug/L	0.2701	259.2	-0.3060
Cr2677_A		0.8172	ug/L	0.04160	5.090	9.436
Cu3273_A		1.478	ug/L	0.01846	1.248	4.143
Fe2599_R		11.06	ug/L	0.5624	5.087	23.14
K_7664_R		19,600	ug/L	60.47	0.3086	13,470
Li6707_R		12.90	ug/L	0.1145	0.8879	184.4
Mg2025_A		7,286	ug/L	38.96	0.5347	2,457
Mn2576_R		9.960	ug/L	0.2591	2.602	107.9
Mo2020_A		2.883	ug/L	0.1949	6.760	8.518
Na5895_R		14,510	ug/L	101.0	0.6961	33,740
Ni2316_A		0.2406	ug/L	0.07842	32.59	0.3771
Pb2203_A		0.4731	ug/L	0.07058	14.92	-0.7859
Sb2068_A		0.5044	ug/L	0.1924	38.15	0.6843
Se1960_A		-1.440	ug/L	0.4779	33.20	1.298
Si2516_R		10,610	ug/L	69.68	0.6568	4,920
Sn1899_A		1.025	ug/L	0.4101	40.00	1.511
Sr4215_R		649.5	ug/L	6.486	0.9987	62,950
Ti3349_A		-0.4087	ug/L	0.07746	18.95	-23.65
Tl1908_A		0.2444	ug/L	1.243	508.7	-1.813
V_2924_A		1.237	ug/L	0.09946	8.043	9.884
Zn2062_A		3.619	ug/L	0.1193	3.296	7.841
Y_3600_R		18,869	Cts/S	104.64	0.55456	18,869
Y_2243_A		6,939.4	Cts/S	14.196	0.20457	6,939.4
Y_3600_A		131,930	Cts/S	49.680	0.037657	131,930

SO5556-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:27:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

Katahdin Analytical Services 4000072

SO5556-013

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:27:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1689	ug/L	0.3404	201.6	-20.39
Al3961_R		11.93	ug/L	5.987	50.18	17.02
As1891_A		1.736	ug/L	1.590	91.56	-1.832
B_2089_A		264.9	ug/L	0.4923	0.1858	365.8
Ba4554_R		11.12	ug/L	0.03108	0.2794	831.0
Be3130_R		-0.02666	ug/L	0.01558	58.45	-2.834
Ca3158_R		1,378	ug/L	16.95	1.230	1,633
Cd2265_A		0.005955	ug/L	0.0006690	11.23	-1.139
Co2286_A		0.1985	ug/L	0.07980	40.20	0.6560
Cr2677_A		0.3866	ug/L	0.2661	68.84	4.888
Cu3273_A		0.4009	ug/L	0.3406	84.95	-10.38
Fe2599_R		61.75	ug/L	1.421	2.301	123.9
K_7664_R		7,081	ug/L	7.424	0.1048	4,891
Li6707_R		6.006	ug/L	0.8497	14.15	87.38
Mg2025_A		2,815	ug/L	1.791	0.06361	958.1
Mn2576_R		23.61	ug/L	0.1605	0.6800	246.4
Mo2020_A		19.86	ug/L	0.1248	0.6286	57.78
Na5895_R	W	117,100	ug/L	672.0	0.5739	274,200
Ni2316_A		-0.06888	ug/L	0.1213	176.1	0.09710
Pb2203_A		-0.2810	ug/L	0.6035	214.8	-1.437
Sb2068_A		-0.07117	ug/L	0.9593	1,348	0.4176
Se1960_A		-2.240	ug/L	0.4651	20.76	1.119
Si2516_R		6,341	ug/L	27.83	0.4390	2,989
Sn1899_A		0.7063	ug/L	0.8819	124.9	1.409
Sr4215_R		32.05	ug/L	0.1395	0.4352	3,109
Ti3349_A		0.2159	ug/L	0.07949	36.82	-8.712
Tl1908_A		1.089	ug/L	0.5671	52.05	-1.432
V_2924_A		-0.1347	ug/L	0.3271	242.8	-5.452
Zn2062_A		2.341	ug/L	0.2158	9.217	5.185
Y_3600_R		19,029	Cts/S	13.254	0.069653	19,029
Y_2243_A		7,034.4	Cts/S	4.7830	0.067994	7,034.4
Y_3600_A		132,100	Cts/S	457.62	0.34642	132,100

SO5557-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:32:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.3252	ug/L	0.1141	35.08	-135.0
Al3961_R		4.228	ug/L	5.404	127.8	47.70
As1891_A		415.3	ug/L	2.070	0.4985	132.1
B_2089_A		138.7	ug/L	0.1551	0.1118	195.6
Ba4554_R		42.08	ug/L	0.2365	0.5621	3,111
Be3130_R		-0.05369	ug/L	0.006286	11.71	-5.554
Ca3158_R	W	43,570	ug/L	310.9	0.7136	52,710
Cd2265_A		-0.6891	ug/L	0.04562	6.620	84.79
Co2286_A		3.133	ug/L	0.2775	8.855	10.72
Cr2677_A		-0.6459	ug/L	0.08990	13.92	-0.2155
Cu3273_A		1.344	ug/L	0.008487	0.6316	-6.053
Fe2599_R	W	47,690	ug/L	366.6	0.7688	95,110
K_7664_R		13,530	ug/L	39.14	0.2893	9,417
Li6707_R		2.020	ug/L	0.1282	6.347	30.49
Mg2025_A		5,480	ug/L	2.022	0.03690	1,881
Mn2576_R	W	1,187	ug/L	11.07	0.9324	12,150
Mo2020_A		5.380	ug/L	0.01156	0.2148	15.87
Na5895_R	W	44,070	ug/L	219.1	0.4972	103,800
Ni2316_A		1.744	ug/L	0.09650	5.533	0.2320

SO5557-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:32:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.7645	ug/L	0.3279	42.90	-0.1037
Sb2068_A		-0.4693	ug/L	0.1778	37.89	0.9536
Se1960_A		-0.3974	ug/L	0.4894	123.2	1.969
Si2516_R		7,521	ug/L	88.87	1.182	3,549
Sn1899_A		1.201	ug/L	0.6993	58.22	1.607
Sr4215_R		449.2	ug/L	2.525	0.5621	44,120
Ti3349_A		0.05435	ug/L	0.1195	219.9	-13.02
Tl1908_A		0.2770	ug/L	0.4093	147.8	-2.466
V_2924_A		0.6004	ug/L	0.002455	0.4089	5.117
Zn2062_A		2.993	ug/L	0.02604	0.8698	6.627
Y_3600_R		19,127	Cts/S	53.595	0.28021	19,127
Y_2243_A		7,067.8	Cts/S	32.546	0.46048	7,067.8
Y_3600_A		134,800	Cts/S	767.49	0.56937	134,800

SODIUM PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:36:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07691	ug/L	0.07145	92.91	-17.45
Al3961_R		7.077	ug/L	1.546	21.85	9.877
As1891_A		2.006	ug/L	1.487	74.12	-1.845
B_2089_A		0.1056	ug/L	0.02401	22.73	7.529
Ba4554_R		0.1575	ug/L	0.07748	49.21	29.56
Be3130_R		0.01273	ug/L	0.02547	200.1	1.222
Ca3158_R		126.2	ug/L	5.347	4.236	128.5
Cd2265_A		0.03751	ug/L	0.002790	7.437	-0.9346
Co2286_A		0.2721	ug/L	0.1538	56.52	0.9423
Cr2677_A		0.1002	ug/L	0.1004	100.2	1.958
Cu3273_A		-0.07169	ug/L	0.01925	26.86	-17.95
Fe2599_R		19.80	ug/L	2.576	13.01	41.58
K_7664_R		13.61	ug/L	11.20	82.28	-15.72
Li6707_R		0.4030	ug/L	0.5150	127.8	7.368
Mg2025_A		12.21	ug/L	1.274	10.44	-3.193
Mn2576_R		1.021	ug/L	0.2391	23.41	15.82
Mo2020_A		-0.1307	ug/L	0.05028	38.47	-0.09804
Na5895_R		1,119	ug/L	5.005	0.4473	2,739
Ni2316_A		0.4083	ug/L	0.06012	14.72	0.6349
Pb2203_A		0.1500	ug/L	0.3816	254.5	-1.128
Sb2068_A		-0.5135	ug/L	0.5163	100.5	0.2289
Se1960_A		-2.479	ug/L	0.3186	12.85	1.120
Si2516_R		-3.987	ug/L	1.709	42.87	59.00
Sn1899_A		-0.09860	ug/L	1.116	1,131	1.167
Sr4215_R		0.3205	ug/L	0.01966	6.133	6.122
Ti3349_A		-0.03090	ug/L	0.1697	549.3	-15.90
Tl1908_A		1.110	ug/L	0.8444	76.08	-1.494
V_2924_A		-0.06335	ug/L	0.06932	109.4	-3.710
Zn2062_A		26.14	ug/L	0.3892	1.489	60.03
Y_3600_R		19,450	Cts/S	9.3825	0.048238	19,450
Y_2243_A		7,454.0	Cts/S	17.070	0.22900	7,454.0
Y_3600_A		141,500	Cts/S	209.56	0.14810	141,500

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:41:06PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:41:06PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		505.4	ug/L	8.445	1.671	8,657
Al3961_R		12,850	ug/L	103.0	0.8019	14,530
As1891_A		501.5	ug/L	1.362	0.2716	167.7
B_2089_A		513.8	ug/L	1.074	0.2090	744.4
Ba4554_R		519.9	ug/L	1.101	0.2117	38,820
Be3130_R		525.0	ug/L	0.1017	0.01937	54,510
Ca3158_R		12,760	ug/L	68.26	0.5351	15,640
Cd2265_A		511.3	ug/L	1.726	0.3375	5,746
Co2286_A		509.0	ug/L	1.592	0.3127	1,686
Cr2677_A		505.5	ug/L	3.664	0.7248	5,681
Cu3273_A		517.6	ug/L	3.661	0.7073	7,358
Fe2599_R		12,920	ug/L	41.40	0.3205	26,150
K_7664_R		12,890	ug/L	83.04	0.6441	9,107
Li6707_R	W	530.1	ug/L	2.060	0.3887	7,739
Mg2025_A		12,930	ug/L	49.56	0.3833	4,627
Mn2576_R		506.9	ug/L	2.507	0.4946	5,270
Mo2020_A		507.0	ug/L	1.759	0.3469	1,526
Na5895_R		13,060	ug/L	83.59	0.6402	31,250
Ni2316_A		516.7	ug/L	2.625	0.5079	799.1
Pb2203_A		518.1	ug/L	2.241	0.4325	445.6
Sb2068_A		500.3	ug/L	2.213	0.4424	245.8
Se1960_A		504.9	ug/L	2.099	0.4158	132.3
Si2516_R		13,000	ug/L	104.0	0.7999	6,190
Sn1899_A		519.1	ug/L	0.01888	0.003636	207.2
Sr4215_R		523.3	ug/L	1.919	0.3667	52,180
Ti3349_A		501.8	ug/L	5.988	1.193	12,490
Tl1908_A		512.9	ug/L	3.181	0.6202	259.6
V_2924_A		500.7	ug/L	2.532	0.5058	5,492
Zn2062_A		507.2	ug/L	1.871	0.3689	1,138
Y_3600_R		19,413	Cts/S	173.98	0.89618	19,413
Y_2243_A		7,308.6	Cts/S	6.1103	0.083605	7,308.6
Y_3600_A		139,720	Cts/S	1,035.4	0.74101	139,720

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:45:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02715	ug/L	0.07756	285.7	-18.18
Al3961_R		2.123	ug/L	4.415	208.0	4.192
As1891_A		-0.7129	ug/L	1.059	148.5	-2.751
B_2089_A		1.556	ug/L	0.03249	2.088	9.494
Ba4554_R		0.04404	ug/L	0.1212	275.3	21.09
Be3130_R		0.03573	ug/L	0.006304	17.65	3.599
Ca3158_R		2.992	ug/L	3.378	112.9	-23.20
Cd2265_A		0.05873	ug/L	0.07104	121.0	-0.7120
Co2286_A		0.1361	ug/L	0.2103	154.6	0.4761
Cr2677_A		0.07530	ug/L	0.1698	225.5	1.671
Cu3273_A		-0.1899	ug/L	0.2047	107.8	-19.53
Fe2599_R		4.486	ug/L	0.2043	4.554	10.53
K_7664_R		-1.547	ug/L	2.172	140.4	-26.49
Li6707_R		0.5591	ug/L	0.7685	137.4	9.649
Mg2025_A		2.853	ug/L	0.9829	34.45	-6.517
Mn2576_R		-0.1391	ug/L	0.1948	140.1	3.745
Mo2020_A		0.5545	ug/L	0.2191	39.51	1.976
Na5895_R		7.752	ug/L	3.476	44.84	79.77
Ni2316_A		-0.1666	ug/L	0.04597	27.60	-0.2548

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:45:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.2200	ug/L	0.4601	209.2	-1.435
Sb2068_A		1.259	ug/L	0.1997	15.86	1.102
Se1960_A		0.4959	ug/L	1.602	323.0	1.877
Si2516_R		15.26	ug/L	3.967	25.99	68.12
Sn1899_A		0.2885	ug/L	0.1188	41.18	1.306
Sr4215_R		0.1789	ug/L	0.03815	21.32	-8.033
Ti3349_A		0.1694	ug/L	0.004968	2.934	-10.78
Tl1908_A		0.7029	ug/L	0.7219	102.7	-1.682
V_2924_A		-0.1159	ug/L	0.03909	33.74	-4.309
Zn2062_A		0.1228	ug/L	0.02729	22.22	0.4056
Y_3600_R		19,459	Cts/S	15.155	0.077881	19,459
Y_2243_A		7,350.2	Cts/S	18.388	0.25017	7,350.2
Y_3600_A		140,710	Cts/S	1,331.6	0.94640	140,710

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:49:39PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		10.29	ug/L	0.3311	3.216	161.2
Al3961_R		298.9	ug/L	4.411	1.476	348.1
As1891_A		8.070	ug/L	0.07051	0.8738	0.2574
B_2089_A		50.76	ug/L	0.08136	0.1603	80.29
Ba4554_R	W	6.064	ug/L	0.1643	2.710	482.2
Be3130_R		5.155	ug/L	0.2053	3.983	548.3
Ca3158_R		100.5	ug/L	5.891	5.861	99.05
Cd2265_A		5.186	ug/L	0.01215	0.2343	57.91
Co2286_A		10.49	ug/L	0.06832	0.6515	35.41
Cr2677_A		10.16	ug/L	0.04589	0.4517	116.8
Cu3273_A		26.61	ug/L	0.2444	0.9182	368.6
Fe2599_R		103.3	ug/L	4.480	4.337	215.8
K_7664_R		980.7	ug/L	46.80	4.773	686.0
Li6707_R		103.0	ug/L	3.659	3.552	1,543
Mg2025_A		111.0	ug/L	0.5499	0.4952	33.23
Mn2576_R		4.961	ug/L	0.06480	1.306	58.15
Mo2020_A		10.08	ug/L	0.1429	1.417	31.19
Na5895_R	F	9.073	ug/L	1.289	14.20	84.90
Ni2316_A		10.34	ug/L	0.2354	2.277	16.28
Pb2203_A		5.799	ug/L	0.1244	2.146	3.821
Sb2068_A		7.705	ug/L	0.1562	2.027	3.836
Se1960_A	W	7.429	ug/L	0.8300	11.17	3.725
Si2516_R		196.9	ug/L	16.29	8.274	157.5
Sn1899_A		102.7	ug/L	1.337	1.301	42.72
Sr4215_R		10.37	ug/L	0.4697	4.528	1,034
Ti3349_A		15.05	ug/L	0.1503	0.9986	365.8
Tl1908_A		17.97	ug/L	0.2157	1.200	7.259
V_2924_A		10.08	ug/L	0.2310	2.293	109.4
Zn2062_A	W	25.09	ug/L	0.005406	0.02154	57.52
Y_3600_R		19,912	Cts/S	520.19	2.6125	19,912
Y_2243_A		7,441.3	Cts/S	2.9432	0.039552	7,441.3
Y_3600_A		142,030	Cts/S	124.89	0.087933	142,030

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:54:03PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:54:03PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.9202	ug/L	1.372	149.1	-479.0
Al3961_R		542,300	ug/L	10,660	1.966	576,000
As1891_A		0.1291	ug/L	1.871	1,449	-10.04
B_2089_A		-2.382	ug/L	1.182	49.62	3.347
Ba4554_R		1.647	ug/L	0.05669	3.441	132.4
Be3130_R		-0.04684	ug/L	0.007322	15.63	-4.650
Ca3158_R		491,500	ug/L	13,680	2.784	568,100
Cd2265_A		1.388	ug/L	0.5163	37.20	355.5
Co2286_A		0.1980	ug/L	0.1270	64.16	3.121
Cr2677_A		-1.758	ug/L	0.004439	0.2525	1.559
Cu3273_A		0.7469	ug/L	0.2205	29.53	-7.298
Fe2599_R		192,700	ug/L	3,458	1.794	367,100
K_7664_R		-18.68	ug/L	13.20	70.65	-36.25
Li6707_R		5.854	ug/L	0.2464	4.209	81.78
Mg2025_A		436,700	ug/L	442.0	0.1012	136,500
Mn2576_R		0.2679	ug/L	0.2084	77.78	0.7466
Mo2020_A		-2.509	ug/L	0.2154	8.585	-6.362
Na5895_R		17.09	ug/L	2.849	16.67	95.83
Ni2316_A		0.6149	ug/L	0.1015	16.51	-8.045
Pb2203_A		0.1280	ug/L	0.6677	521.5	-27.49
Sb2068_A		-2.282	ug/L	0.05325	2.333	2.602
Se1960_A		-0.7262	ug/L	5.288	728.1	3.735
Si2516_R		22.23	ug/L	0.8583	3.861	52.76
Sn1899_A		11.25	ug/L	1.764	15.69	4.954
Sr4215_R	W	5.352	ug/L	0.1820	3.401	478.0
Ti3349_A		0.8736	ug/L	0.1081	12.38	5.935
Tl1908_A		2.175	ug/L	0.04219	1.940	-0.2109
V_2924_A		1.250	ug/L	0.6307	50.46	32.61
Zn2062_A		4.238	ug/L	0.0009350	0.02206	8.464
Y_3600_R		18,268	Cts/S	165.38	0.90530	18,268
Y_2243_A		6,411.0	Cts/S	1.1178	0.017436	6,411.0
Y_3600_A		122,200	Cts/S	1,283.1	1.0500	122,200

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:58:39PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		218.5	ug/L	1.089	0.4984	2,807
Al3961_R		535,700	ug/L	8,537	1.594	571,300
As1891_A		96.86	ug/L	3.204	3.308	18.82
B_2089_A		497.8	ug/L	4.700	0.9442	628.7
Ba4554_R		512.0	ug/L	2.805	0.5479	36,110
Be3130_R		520.4	ug/L	0.6122	0.1176	51,050
Ca3158_R		486,800	ug/L	5,488	1.127	564,900
Cd2265_A		925.7	ug/L	3.612	0.3902	9,366
Co2286_A		448.7	ug/L	2.180	0.4859	1,298
Cr2677_A		473.0	ug/L	0.9447	0.1997	4,631
Cu3273_A		552.6	ug/L	0.3285	0.05945	6,821
Fe2599_R		191,300	ug/L	1,257	0.6568	365,900
K_7664_R		22,070	ug/L	128.3	0.5815	14,740
Li6707_R		578.8	ug/L	6.345	1.096	7,981
Mg2025_A		434,500	ug/L	1,226	0.2822	134,900
Mn2576_R		470.4	ug/L	5.379	1.144	4,616
Mo2020_A		486.0	ug/L	2.384	0.4905	1,275
Na5895_R		22,430	ug/L	87.50	0.3901	50,670
Ni2316_A		895.7	ug/L	3.819	0.4263	1,196

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ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 5:58:39PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		44.22	ug/L	0.7027	1.589	6.002
Sb2068_A		595.6	ug/L	0.5185	0.08706	258.2
Se1960_A		47.85	ug/L	1.657	3.463	14.67
Si2516_R		2,131	ug/L	12.76	0.5989	995.7
Sn1899_A		493.5	ug/L	2.746	0.5563	171.8
Sr4215_R		539.2	ug/L	1.377	0.2553	50,780
Ti3349_A		504.6	ug/L	0.5653	0.1120	10,900
Tl1908_A		83.80	ug/L	1.309	1.562	36.46
V_2924_A		483.9	ug/L	1.239	0.2561	4,629
Zn2062_A		900.4	ug/L	3.966	0.4405	1,763
Y_3600_R		18,338	Cts/S	9.6731	0.052748	18,338
Y_2243_A		6,370.6	Cts/S	28.994	0.45513	6,370.6
Y_3600_A		121,290	Cts/S	381.53	0.31456	121,290

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 6:03:08PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		509.2	ug/L	3.132	0.6151	8,696
Al3961_R		12,910	ug/L	389.5	3.017	14,780
As1891_A		495.2	ug/L	0.2002	0.04042	166.2
B_2089_A		511.3	ug/L	1.337	0.2615	743.3
Ba4554_R		510.9	ug/L	10.15	1.986	38,630
Be3130_R		516.6	ug/L	10.01	1.937	54,320
Ca3158_R		12,750	ug/L	363.4	2.849	15,840
Cd2265_A		507.5	ug/L	0.06181	0.01218	5,723
Co2286_A		504.4	ug/L	0.05668	0.01124	1,676
Cr2677_A		505.3	ug/L	1.825	0.3612	5,660
Cu3273_A		518.5	ug/L	0.7739	0.1492	7,348
Fe2599_R		12,730	ug/L	308.3	2.421	26,100
K_7664_R		12,780	ug/L	210.7	1.649	9,140
Li6707_R		524.9	ug/L	7.984	1.521	7,761
Mg2025_A		12,890	ug/L	30.79	0.2389	4,627
Mn2576_R		504.1	ug/L	15.49	3.072	5,307
Mo2020_A		504.0	ug/L	0.6538	0.1297	1,522
Na5895_R		13,000	ug/L	223.3	1.718	31,500
Ni2316_A		509.9	ug/L	0.07533	0.01477	791.3
Pb2203_A		514.8	ug/L	0.09282	0.01803	444.2
Sb2068_A		494.6	ug/L	0.8055	0.1629	243.8
Se1960_A		497.5	ug/L	0.5152	0.1035	130.8
Si2516_R		12,920	ug/L	386.0	2.986	6,233
Sn1899_A		513.6	ug/L	2.178	0.4240	205.7
Sr4215_R		517.1	ug/L	10.51	2.032	52,200
Ti3349_A		503.8	ug/L	0.9520	0.1890	12,490
Tl1908_A		509.4	ug/L	1.262	0.2478	258.7
V_2924_A		497.9	ug/L	1.655	0.3324	5,443
Zn2062_A		503.3	ug/L	0.7050	0.1401	1,134
Y_3600_R		19,661	Cts/S	224.24	1.1405	19,661
Y_2243_A		7,333.5	Cts/S	13.861	0.18901	7,333.5
Y_3600_A		139,270	Cts/S	131.34	0.094310	139,270

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 6:07:17PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,006
Analyst Name: EP
Acquire Date: 8/26/2021 6:07:17PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2929	ug/L	0.1675	57.20	-13.50
Al3961_R		38.81	ug/L	10.46	26.96	45.73
As1891_A		-0.7972	ug/L	0.8464	106.2	-2.769
B_2089_A		1.429	ug/L	0.04594	3.216	9.277
Ba4554_R		0.2159	ug/L	0.09821	45.49	33.94
Be3130_R		0.2717	ug/L	0.003183	1.171	28.17
Ca3158_R		39.14	ug/L	1.156	2.953	21.31
Cd2265_A		0.1143	ug/L	0.004081	3.569	-0.05044
Co2286_A		0.06377	ug/L	0.1234	193.4	0.2362
Cr2677_A		-0.06786	ug/L	0.1121	165.1	0.04333
Cu3273_A		0.05675	ug/L	0.2916	513.9	-15.89
Fe2599_R		22.48	ug/L	2.304	10.25	47.05
K_7664_R		22.00	ug/L	18.37	83.51	-9.794
Li6707_R		0.3329	ug/L	0.05079	15.25	6.346
Mg2025_A		13.60	ug/L	3.449	25.35	-2.657
Mn2576_R		-0.02475	ug/L	0.1791	723.8	4.927
Mo2020_A		0.4877	ug/L	0.1260	25.83	1.768
Na5895_R		13.36	ug/L	0.5130	3.840	93.20
Ni2316_A		0.08847	ug/L	0.09304	105.2	0.1375
Pb2203_A		-0.5652	ug/L	0.05038	8.914	-1.730
Sb2068_A		0.8027	ug/L	0.01699	2.116	0.8751
Se1960_A		-0.7461	ug/L	0.4164	55.80	1.548
Si2516_R		13.86	ug/L	4.161	30.01	67.47
Sn1899_A		-0.2334	ug/L	0.3217	137.8	1.093
Sr4215_R		0.2995	ug/L	0.02235	7.460	4.027
Ti3349_A		0.2411	ug/L	0.03617	15.00	-8.910
Tl1908_A		0.4076	ug/L	0.2958	72.57	-1.826
V_2924_A		-0.03813	ug/L	0.05280	138.5	-3.409
Zn2062_A		0.1388	ug/L	0.03372	24.30	0.4404
Y_3600_R		19,462	Cts/S	55.266	0.28397	19,462
Y_2243_A		7,322.2	Cts/S	14.906	0.20357	7,322.2
Y_3600_A		139,660	Cts/S	185.39	0.13275	139,660

Katahdin Analytical Services 4000079

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc. | **Metals Preparation Benchsheet**

Reagents and Consumables Information: | **Method:** 3010

HNO3: MSC847 | HCL: MSC845 | Digestion Vessels: 17303050

1:1 HNO3: MC342 | 1:1 HCL: MSC844

Pipet	LCS/Spiking Information:
M11	CLPP-SPK-1 (ID/Vol): MS23248 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW20443 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW20444 / 0.5 mL
—	— Spike (ID/Vol): — / — mL

Heat Source ID: A
Start Time: 0755 /Temp. 90 °C
End Time: 1450 /Temp. 93 °C
Thermometer ID/Pos: AL30 12.7

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LCSWOH25ICW1	OH25ICW1	0.05	L	0.05	L	AQ	IC	CD	08/25/2021	-	✓
PBWOH25ICW1	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	-	
SO5154-001R	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	D	
SO5512-001	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	C	
SO5512-002	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	A	
SO5520-001	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	D	
SO5520-002	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5520-003	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5520-004	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-002	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	H	
SO5556-003	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-004	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-005	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-006	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-007	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
~~SO5556-008~~	~~OH25ICW1~~		~~L~~		~~L~~	~~AQ~~	~~IC~~	~~CD~~	~~08/25/2021~~		
SO5556-009	OH25ICW1		L		L	AQ	IC	CD	08/25/2021	D	
SO5556-010	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-011	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-012	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5556-013	OH25ICW1		L		L	AQ	IC	CD	08/25/2021		
SO5557-001		0.05		0.05	L	AQ	IC	CD		C	
TCLP → 5516-2		0.01	L	0.05	L						
5556-25 P		0.05									

Client IDs CD 8-26-21 Verified

REVIEWED
CD/JT 8-26-21
KATAHDIN ANALYTICAL
METALS SECTION

QA-064-Revision 5 -12/07/2018 | Digestion performed by: CD/IM/JT | On: 8-25-21 | Page: OH080 | Revision: 00

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Alkalinity

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305135	SM2320B	25-AUG-21	N/A	J 1.6 mg/L	5.0 mg/L	4.0

COD-Color

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304988	SM 5220	23-AUG-21	N/A	U 10. mg/L	15. mg/L	10.

Chloride

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305703	SW846 9056A	07-SEP-21	N/A	J 0.10 mg/L	2.0 mg/L	1.0

Nitrate As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304865	EPA 353.2	20-AUG-21	N/A	U 0.025 mg/L	0.050 mg/L	0.025

Nitrite As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304865	EPA 353.2	20-AUG-21	N/A	U 0.025 mg/L	0.050 mg/L	0.025

Solids-Filterable Residue

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304926	SM 2540C	24-AUG-21	23-AUG-21	U 8.0 mg/L	10. mg/L	8.0

Sulfate

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305662	SW846 9056A	06-SEP-21	N/A	U 1.0 mg/L	1.0 mg/L	0.50

Total Biochemical Oxygen Demand

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG304847	SM 5210B	25-AUG-21	20-AUG-21	U 1.0 mg/L	2.0 mg/L	1.0

Total Organic Carbon (1)

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG305311	SW846 9060A	27-AUG-21	N/A	J 0.20 mg/L	1.0 mg/L	0.50

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Laboratory Control Sample Summary Report

Alkalinity

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305135-2	LCS	WG305135	25-AUG-21	N/A	mg/L	120	140	113	80-120	
WG305135-4	LCSD	WG305135	25-AUG-21	N/A	mg/L	120	130	112	80-120	1

COD-Color

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304988-2	LCS	WG304988	23-AUG-21	N/A	mg/L	75	74.	99	80-120	

Chloride

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305703-2	LCS	WG305703	07-SEP-21	N/A	mg/L	3.75	3.58	95.5	90-110	

Nitrate As N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304865-2	LCS	WG304865	20-AUG-21	N/A	mg/L	1	0.95	95	90-110	

Nitrite As N

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304865-3	LCS	WG304865	20-AUG-21	N/A	mg/L	1	1.0	100	90-110	

Solids-Filterable Residue

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304926-2	LCS	WG304926	24-AUG-21	23-AUG-21	mg/L	750	710	94	80-120	
WG304926-3	LCSD	WG304926	24-AUG-21	23-AUG-21	mg/L	750	700	94	80-120	1

Sulfate

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305662-2	LCS	WG305662	06-SEP-21	N/A	mg/L	3.75	3.55	94.7	90-110	

Total Biochemical Oxygen Demand

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG304847-2	LCS	WG304847	25-AUG-21	20-AUG-21	mg/L	198	220	111	85-115	

Total Organic Carbon (1)

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG305311-2	LCS	WG305311	27-AUG-21	N/A	mg/L	50	52.	104	80-120	

Quality Control Report

Matrix Spike Sample Summary Report

Alkalinity

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG305135-3	MS	SO5512-1	WG305135	25-AUG-21	mg/L	120	130	210	82	75 - 125

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Heather Levesque, PMP
SERES Engineering & Services, LLC
669 Marina Drive
Charleston,SC 29492

Lab Sample ID: SO5512-1
Report Date: 11-SEP-21
Project: Fort Devens 2021 LTM
SDG: SO5512

Sample Description	Matrix	Date Sampled	Date Received
MW-21-2D-BASELINE	AQ	19-AUG-21 10:40:00	19-AUG-21

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Alkalinity	130 mg/L	5.0	0.23	4	STDM 2320B	WG305135	25-AUG-21 10:02:31	N/A	N/A	
COD-Color	U15. mg/L	15.	5.7	10	SM 5220	WG304988	23-AUG-21 15:29:00	N/A	N/A	
Chloride	34 mg/L	4.0	0.20	2.0	SW846 9056A	WG305703	07-SEP-21 18:12:00	N/A	N/A	
Nitrate As N	U0.025 mg/L	0.050	0.015	0.025	EPA 353.2	WG304865	20-AUG-21 12:59:22	N/A	N/A	
Solids-Filterable Residue	240 mg/L	10.	5.0	8	STDM 2540C	WG304926	24-AUG-21 11:10:00	SM 2540C	23-AUG-21	
Sulfate	30 mg/L	2.0	0.13	1.0	SW846 9056A	WG305662	07-SEP-21 01:54:00	N/A	N/A	
Total Biochemical Oxygen Demand	J3.6 mg/L	6.0	0.70	1	SM 5210B	WG304847	25-AUG-21 13:11:00	SM 5210B	20-AUG-21 0932	
Total Organic Carbon (1)	1.5 mg/L	1.0	0.10	0.50	SW846 9060A	WG305311	27-AUG-21 20:14:56	N/A	N/A	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Raw Data Section

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Wet Chemistry Batch Report

Analyst Initials: SS/ZF
Date Analyzed: 07-SEP-21

Batch: WG305703
Prep Method: N/A
Prep Chemist: SS/ZF

Sample	Samp Type	Method	Parameter	DF	Result	Rpt. Result	Units	PQL	Adj. PQL	MDL	Adj. MDL	RPD	Rec.
SO5463-1DLE	SAMP	SW846 9056A	Chloride	2	35.98	36	mg/L	2	4.0	.0993	0.20		
SO5512-1DLE	SAMP	SW846 9056A	Chloride	2	33.7715	34	mg/L	2	4.0	.0993	0.20		
SO5557-1DLE	SAMP	SW846 9056A	Sulfate	1	26.7868	27	mg/L	1	1.0	.0637	0.064		
SO5557-1DLF	SAMP	SW846 9056A	Chloride	5	46.0023	46	mg/L	2	10.	.0993	0.50		
SO5557-3DLE	SAMP	SW846 9056A	Chloride	2	27.5865	28	mg/L	2	4.0	.0993	0.20		
SO5557-3DLE	SAMP	SW846 9056A	Sulfate	2	17.8259	18	mg/L	1	2.0	.0637	0.13		
WG305703-1	MBLANK	SW846 9056A	Chloride	1	.1012	J 0.10	mg/L	2	2.0	.0993	0.099		
WG305703-1	MBLANK	SW846 9056A	Sulfate	1	.0147	U 1.0	mg/L	1	1.0	.0637	0.064		
WG305703-2	LCS	SW846 9056A	Chloride	1	3.5842	3.58	mg/L	2	2.0	.0993	0.099		95.5
WG305703-2DL	LCS	SW846 9056A	Sulfate	1	3.6281	3.63	mg/L	1	1.0	.0637	0.064		96.8

Comments:

SO5463-1	Anions report Cl & SC
SO5512-1	Anions please report C
WG305703-1	SO5463-1
WG305703-2	SO5463-1

Entered by: SS Date: 9/8/21 Accepted by: ZF Date: 9/11/21

IC STANDARDS PREPARATION

Fill sheet in completely, file with each batch of samples analyzed.

L MIX ID: W20334	Expiration Date:09/14/21	ICAL Date: 08/31/21

ALYTE	INITIAL AMOUNT (mL)	OF	STOCK CONC. (mg/L)	TO	FINAL VOLUME(mL)	=	FINAL CONC.(mg/L)
Cl	2.0	OF	1000	TO	100	=	20
2 (as N)	0.8	OF	1000			=	8
3 (as N)	0.8	OF	1000			=	8
Br	4.0	OF	1000			=	40
SO4	4.0	OF	1000			=	40
F	1.0	OF	1000			=	10
4 (as P)	1	OF	1000			=	10

WORKING STANDARDS Standards prepared on each day of use

.	INITIAL AMOUNT (mL)	OF	Final Volume (mL)	FINAL CONC. (mg/L)							STD ID*
				Cl	NO2	NO3	Br	SO4	PO4	F	
7	1	ICAL	1	20	8	8	40	40	10	10	IC7-083121
6	0.5	IC7	1	10	4	4	20	20	5	5	IC6-083121
5	0.25	IC7	1	5	2	2	10	10	2.5	2.5	IC5-083121
4	0.25	IC6	1	2.5	1	1	5	5	1.25	1.25	IC4-083121
3	0.1	IC6	1	1	0.4	0.4	2	2	0.5	.5	IC3-083121
2	0.1	IC3	1	0.1	0.04	0.04	0.2	0.2	0.05	.05	IC2-083121
V	0.5	IC7	1	10	4	4	20	20	5	5	CCV-090721

*** STD ID is prefix followed by the date of preparation (ie. IC6-020216)**

S/MATRIX SPIKE MIX ID: W20335	Expiration Date:091521

7.5 mL of High Purity multi-element IC standard solution "A" and 7.5 mL of High Purity multi-element standard solution "B" diluted to 100 mL. For MS, add 0.05 mL of mix to 1.0 mL of sample. For LCS, add 0.05 mL of mix to 1.0 mL of DI water.

Final Concentrations (mg/L):

Cl	NO2 (as N)	NO3 (as N)	Br	SO4	PO4 (as P)	F	STD ID*
75	1.14	0.845	3.75	3.75	1.22	3.75	IC-LCS-090721

*** STD ID is prefix followed by the date of preparation (ie. IC-LCS-020216)**

Comments:
2x dil = 0.5mL 1x→1.0mL
20x dil = 0.05mL 1x→1.0mL

Pipettes: W3, W5
5x dil = 0.2mL 1x→1.0mL
50x dil = 0.02mL 1x→1.0mL

10x dil = 0.1mL 1x→1.0mL
100x dil = 0.1mL 10x→1.0mL

WL-068 – Revision 2 – 04/08/2019

Katahdin Analytical Services

ION CHROMATOGRAPHY RUNLOG

Dionex ICS-2100 (Instrument IC-3)

Analysis Date: 09/07/21	**Analytical Column S/N:** 191122078	**Calibration Date:** 08/31/21
Analysis Sequence: 09072A	**Guard Column S/N:** 191120342	**Calibration Sequence:** 083121A Cal
Analyst: SS/ZF	**Suppressor S/N:** 180825029	☐ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes: ✓ Report without manipulation; S Report, peak automatically reintegrated with SmartPeak; M Report, peak manually integrated; A Report, peak manually assigned; R Do not report, reanalyze sample

Method Codes: E EPA 300.0; SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
CCS			✓	✓	✓		✓	✓		
LCS						✓				
SO 5463-1	2	S		✓						MSD was missspiked, remn
5463-2	2			R ✓						at 2x for CL.
-2 MS	⊥			R ✓						⊥
-2 MSD				R						
5512-1	2			✓						
5557-1	1					✓				
5557-1	5			✓						
5557-3	2	~		✓		✓				
CCV			✓	✓	✓	✓	✓	✓		
CCB			M	M	M	M	M	M		
5506-6	1	S		R		R				Cl 20x, SO4 1x
5556-2	1			R		R				Cl 20x, SO4 1x
5689-1	1			R		R				Cl 2x, SO4 1x
-3	1			R		R				Cl 2x, SO4 1x
-5	1			R		R				Cl 2x, SO4 1x
-7	1			R		R				Cl 2x, SO4 1x
-9	1	⊥		R		R				Cl 2x, SO4 1x
4882-16	1	E	R	R	R	R	R	R		10x

S: WG305703 → R576016
F: SL: WG305704 → R576015
SL: WG305718 → R576031

Reviewed by: ZF

Review Date: 9/11/21

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QAWL1026 - 000343

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Katahdin Analytical Services **ION CHROMATOGRAPHY RUNLOG** Dionex ICS-2100 (Instrument IC-3)

Analysis Date:	**Analytical Column S/N:**	**Calibration Date:**
Analysis Sequence:	**Guard Column S/N:**	**Calibration Sequence:**
Analyst:	**Suppressor S/N:**	☑ If box at left is checked, continued from previous page. Refer to previous page for header information.

Reporting / Reanalysis Codes:
✓ Report without manipulation
S Report, peak automatically reintegrated with SmartPeak
M Report, peak manually integrated
A Report, peak manually assigned
R Do not report, reanalyze sample

Method Codes:
E EPA 300.0
SW SW846 9056A

Katahdin Sample Number	Dilution Factor	Method Code	Report or Reanalyze (enter appropriate code): F	Cl	NO_2	SO_4	Br	NO_3	PO_4	Comments
SO 4882-L6	10	E	R	R		R	R	R		10X – Due to low Sample Cups must be reported
SL Blank 8/23			M	M	M	M	M	M		
CCV			R	R	R	R	R	R		remn. mis spiked - SS 9/8/21
CCB			M	M	M	M	M	M		
Soil LCS 08/23			✓	✓	✓	✓	✓	✓		
4882-6	1	E			R					10 x
4882-6	10	I			R					I – Due to low sample Cups must be reported
Soil Blank 9/07			M	M	M	M	M	M		
Soil LCS 9/07			✓	✓	✓	✓	✓	✓		
CCV			R	R	R	R	R	R		remn, mis spiked - SS 9/8/21
CCB			M	M	M	M	M	M		

SS 9/8/21

SS 9/08/21

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Reviewed by: EF **Review Date:** 9/11/21

QAWL1026 - 000343

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