ANALYTICAL REPORT

Job Number: 490-158137-1

Job Description: CUF_BS_20180827_1A

For:
Environmental Standards Inc.
1140 Valley Forge Road
PO BOX 810
Valley Forge, PA 19482-0810

Attention: Jennifer N. Gable

Approved for release.
Gail Lage
Senior Project Manager
2/8/2019 8:58 AM

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02/08/2019
Revision: 1

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
W	PS: Post-digestion spike was outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job Narrative
490-158137-1

Revised Report
This report was revised to include the ICPMS data from TestAmerica Pittsburgh. The L4 with the TA-Pittsburgh data will be reported seperately as 490-158137-2

Receipt
The samples were received on 8/27/2018 7:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.7º C, 2.5º C and 3.3º C.

HPLC/IC
Method(s) 9056A: The method blank for analytical batch 490-539643 contained Chloride and Sulfate above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

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

Metals
Method(s) 6020A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 264947 were outside control limits for several analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Detection Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Client Sample ID: CUF-BS-FB05-20180827 — Lab Sample ID: 490-158137-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.253	J B	1.00	0.200	mg/L	1		9056A	Total/NA
Sulfate	0.436	J B	1.00	0.0300	mg/L	1		9056A	Total/NA

Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827 — Lab Sample ID: 490-158137-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.65		1.23	0.982	mg/Kg	1	☼	9056A	Soluble
Sulfate	12.6		12.3	7.37	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0634	J	0.121	0.0363	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.2		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827 — Lab Sample ID: 490-158137-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	18.8		11.7	7.01	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0927	J	0.113	0.0340	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.0		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827 — Lab Sample ID: 490-158137-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	9.39	J	12.2	7.34	mg/Kg	1	☼	9056A	Soluble
Mercury	0.213		0.118	0.0353	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.1		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827 — Lab Sample ID: 490-158137-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	9.26	J	12.7	7.62	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0764	J	0.127	0.0381	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.0		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG01-16.5/18.5-20180827 — Lab Sample ID: 490-158137-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	7.77	J	12.8	7.65	mg/Kg	1	☼	9056A	Soluble
Mercury	0.0989	J	0.125	0.0374	mg/Kg	1	☼	7471B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.2		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827 — Lab Sample ID: 490-158137-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	107		13.3	7.98	mg/Kg	1	☼	9056A	Soluble
Mercury	0.163		0.129	0.0388	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827 (Continued) — Lab Sample ID: 490-158137-7

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	4.6		0.1	0.1	SU	1		9045D	Soluble

Client Sample ID: CUF-BS-EB02-20180827 — Lab Sample ID: 490-158137-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.303	J B	1.00	0.200	mg/L	1		9056A	Total/NA
Sulfate	0.436	J B	1.00	0.0300	mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Client Sample ID: CUF-BS-FB05-20180827 — Lab Sample ID: 490-158137-1

Date Collected: 08/27/18 12:31 — **Matrix: Water**
Date Received: 08/27/18 19:00

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.253**	**J B**	1.00	0.200	mg/L			08/29/18 16:51	1
Fluoride	ND		0.100	0.0100	mg/L			08/29/18 16:51	1
Sulfate	**0.436**	**J B**	1.00	0.0300	mg/L			08/29/18 16:51	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000100	mg/L		08/29/18 14:15	08/31/18 21:03	1

Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827 — Lab Sample ID: 490-158137-2

Date Collected: 08/27/18 13:12 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 80.8**

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.3	8.60	mg/Kg	☼		09/04/18 14:15	1
Fluoride	**1.65**		1.23	0.982	mg/Kg	☼		09/04/18 14:15	1
Sulfate	**12.6**		12.3	7.37	mg/Kg	☼		09/04/18 14:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0634**	**J**	0.121	0.0363	mg/Kg	☼	09/07/18 15:33	09/08/18 15:08	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.2**		0.1	0.1	SU			08/28/18 19:15	1

Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827 — Lab Sample ID: 490-158137-3

Date Collected: 08/27/18 13:59 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 84.7**

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		11.7	8.18	mg/Kg	☼		09/04/18 14:27	1
Fluoride	ND		1.17	0.935	mg/Kg	☼		09/04/18 14:27	1
Sulfate	**18.8**		11.7	7.01	mg/Kg	☼		09/04/18 14:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0927**	**J**	0.113	0.0340	mg/Kg	☼	09/07/18 15:33	09/08/18 15:21	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.0**		0.1	0.1	SU			08/28/18 19:15	1

Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827 — Lab Sample ID: 490-158137-4

Date Collected: 08/27/18 14:19 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 81.9**

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.2	8.56	mg/Kg	☼		09/04/18 14:39	1

Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827 — Lab Sample ID: 490-158137-4

Date Collected: 08/27/18 14:19 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 81.9**

Method: 9056A - Anions, Ion Chromatography - Soluble (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		1.22	0.979	mg/Kg	☼		09/04/18 14:39	1
Sulfate	**9.39**	**J**	12.2	7.34	mg/Kg	☼		09/04/18 14:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.213**		0.118	0.0353	mg/Kg	☼	09/07/18 15:33	09/08/18 15:24	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.1**		0.1	0.1	SU			08/28/18 19:15	1

Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827 — Lab Sample ID: 490-158137-5

Date Collected: 08/27/18 14:45 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 79.3**

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.7	8.89	mg/Kg	☼		09/04/18 14:50	1
Fluoride	ND		1.27	1.02	mg/Kg	☼		09/04/18 14:50	1
Sulfate	**9.26**	**J**	12.7	7.62	mg/Kg	☼		09/04/18 14:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0764**	**J**	0.127	0.0381	mg/Kg	☼	09/07/18 15:33	09/08/18 15:27	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.0**		0.1	0.1	SU			08/28/18 19:15	1

Client Sample ID: CUF-BS-BG01-16.5/18.5-20180827 — Lab Sample ID: 490-158137-6

Date Collected: 08/27/18 15:05 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 78.2**

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.8	8.93	mg/Kg	☼		09/04/18 15:02	1
Fluoride	ND		1.28	1.02	mg/Kg	☼		09/04/18 15:02	1
Sulfate	**7.77**	**J**	12.8	7.65	mg/Kg	☼		09/04/18 15:02	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0989**	**J**	0.125	0.0374	mg/Kg	☼	09/07/18 15:33	09/08/18 15:35	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.2**		0.1	0.1	SU			08/28/18 19:15	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827

Lab Sample ID: 490-158137-7
Date Collected: 08/27/18 15:25
Matrix: Solid
Date Received: 08/27/18 19:00
Percent Solids: 75.7

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		13.3	9.31	mg/Kg	☼		09/04/18 15:13	1
Fluoride	ND		1.33	1.06	mg/Kg	☼		09/04/18 15:13	1
Sulfate	**107**		13.3	7.98	mg/Kg	☼		09/04/18 15:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.163**		0.129	0.0388	mg/Kg	☼	09/07/18 15:33	09/08/18 15:38	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**4.6**		0.1	0.1	SU			08/28/18 19:15	1

Client Sample ID: CUF-BS-EB02-20180827

Lab Sample ID: 490-158137-8
Date Collected: 08/27/18 15:55
Matrix: Water
Date Received: 08/27/18 19:00

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.303**	**J B**	1.00	0.200	mg/L			08/29/18 17:26	1
Fluoride	ND		0.100	0.0100	mg/L			08/29/18 17:26	1
Sulfate	**0.436**	**J B**	1.00	0.0300	mg/L			08/29/18 17:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000100	mg/L		08/29/18 14:15	08/31/18 21:21	1

Default Detection Limits

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Method: 9056A - Anions, Ion Chromatography

Analyte	RL	MDL	Units	Method
Chloride	1.00	0.200	mg/L	9056A
Fluoride	0.100	0.0100	mg/L	9056A
Sulfate	1.00	0.0300	mg/L	9056A

Method: 9056A - Anions, Ion Chromatography - Soluble

Leach: DI Leach

Analyte	RL	MDL	Units	Method
Chloride	10.0	7.00	mg/Kg	9056A
Fluoride	1.00	0.800	mg/Kg	9056A
Sulfate	10.0	6.00	mg/Kg	9056A

Method: 7470A - Mercury (CVAA)

Prep: 7470A

Analyte	RL	MDL	Units	Method
Mercury	0.000200	0.000100	mg/L	7470A

Method: 7471B - Mercury (CVAA)

Prep: 7471B

Analyte	RL	MDL	Units	Method
Mercury	0.100	0.0300	mg/Kg	7471B

General Chemistry - Soluble

Leach: DI Leach

Analyte	RL	RL	Units	Method
pH	0.1	0.1	SU	9045D

QC Sample Results

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 490-539643/3
Matrix: Water
Analysis Batch: 539643

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3023	J	1.00	0.200	mg/L			08/29/18 16:17	1
Fluoride	ND		0.100	0.0100	mg/L			08/29/18 16:17	1
Sulfate	0.4435	J	1.00	0.0300	mg/L			08/29/18 16:17	1

Lab Sample ID: LCS 490-539643/4
Matrix: Water
Analysis Batch: 539643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.02		mg/L		100	80 - 120
Fluoride	1.00	0.9281		mg/L		93	80 - 120
Sulfate	10.0	9.545		mg/L		95	80 - 120

Lab Sample ID: LCSD 490-539643/5
Matrix: Water
Analysis Batch: 539643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.940		mg/L		99	80 - 120	1	20
Fluoride	1.00	0.9472		mg/L		95	80 - 120	2	20
Sulfate	10.0	9.748		mg/L		97	80 - 120	2	20

Lab Sample ID: 490-158137-1 MS
Matrix: Water
Analysis Batch: 539643

Client Sample ID: CUF-BS-FB05-20180827
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	0.253	J B	10.0	10.13		mg/L		99	80 - 120
Fluoride	ND		1.00	0.9375		mg/L		94	80 - 120
Sulfate	0.436	J B	10.0	9.540		mg/L		91	80 - 120

Lab Sample ID: 490-158137-1 MSD
Matrix: Water
Analysis Batch: 539643

Client Sample ID: CUF-BS-FB05-20180827
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	0.253	J B	10.0	11.29		mg/L		110	80 - 120	11	20
Fluoride	ND		1.00	1.071		mg/L		107	80 - 120	13	20
Sulfate	0.436	J B	10.0	10.97		mg/L		105	80 - 120	14	20

Lab Sample ID: MRL 490-540592/1
Matrix: Solid
Analysis Batch: 540592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.00	0.9886	J	mg/L		99	
Fluoride	0.100	0.1130		mg/L		113	
Sulfate	1.00	1.218		mg/L		122	

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 490-540592/33 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 540592

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.00	0.9937	J	mg/L		99	
Fluoride	0.100	0.1130		mg/L		113	
Sulfate	1.00	1.162		mg/L		116	

Lab Sample ID: MB 490-540377/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 540592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		9.92	6.95	mg/Kg			09/04/18 10:12	1
Fluoride	ND		0.992	0.794	mg/Kg			09/04/18 10:12	1
Sulfate	ND		9.92	5.95	mg/Kg			09/04/18 10:12	1

Lab Sample ID: LCS 490-540377/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 540592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	99.6	97.62		mg/Kg		98	80 - 120
Fluoride	9.96	9.789		mg/Kg		98	80 - 120
Sulfate	99.7	98.28		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 490-540377/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 540592

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	99.8	97.51		mg/Kg		98	80 - 120	0	20
Fluoride	9.98	9.919		mg/Kg		99	80 - 120	1	20
Sulfate	99.9	95.61		mg/Kg		96	80 - 120	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 490-539512/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 540387 — **Prep Batch: 539512**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000100	mg/L		08/29/18 14:15	08/31/18 20:58	1

Lab Sample ID: LCS 490-539512/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 540387 — **Prep Batch: 539512**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00100	0.001070		mg/L		107	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 490-158137-1 MS — **Client Sample ID: CUF-BS-FB05-20180827**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 540387 — **Prep Batch: 539512**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00100	0.001046		mg/L		105	75 - 125		

Lab Sample ID: 490-158137-1 MSD — **Client Sample ID: CUF-BS-FB05-20180827**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 540387 — **Prep Batch: 539512**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.001053		mg/L		105	75 - 125	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 490-541313/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541520 — **Prep Batch: 541313**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0992	0.0298	mg/Kg		09/07/18 15:33	09/08/18 15:02	1

Lab Sample ID: LCS 490-541313/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541520 — **Prep Batch: 541313**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.166	0.1566		mg/Kg		94	80 - 120		

Lab Sample ID: 490-158137-2 MS — **Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541520 — **Prep Batch: 541313**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.0634	J	0.199	0.2577		mg/Kg	☼	98	80 - 120		

Lab Sample ID: 490-158137-2 MSD — **Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541520 — **Prep Batch: 541313**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0634	J	0.202	0.2624		mg/Kg	☼	99	80 - 120	2	20

Method: 9045D - pH

Lab Sample ID: LCS 490-539285/1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 539285

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100	98 - 103		

Method: 9045D - pH (Continued)

Lab Sample ID: 490-158137-2 DU
Matrix: Solid
Analysis Batch: 539285

Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	6.2			6.2		SU				0	20

QC Association Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

HPLC/IC

Analysis Batch: 539643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-1	CUF-BS-FB05-20180827	Total/NA	Water	9056A	
490-158137-8	CUF-BS-EB02-20180827	Total/NA	Water	9056A	
MB 490-539643/3	Method Blank	Total/NA	Water	9056A	
LCS 490-539643/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 490-539643/5	Lab Control Sample Dup	Total/NA	Water	9056A	
490-158137-1 MS	CUF-BS-FB05-20180827	Total/NA	Water	9056A	
490-158137-1 MSD	CUF-BS-FB05-20180827	Total/NA	Water	9056A	

Leach Batch: 540377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Soluble	Solid	DI Leach	
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Soluble	Solid	DI Leach	
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Soluble	Solid	DI Leach	
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Soluble	Solid	DI Leach	
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Soluble	Solid	DI Leach	
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Soluble	Solid	DI Leach	
MB 490-540377/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-540377/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-540377/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 540592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Soluble	Solid	9056A	540377
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Soluble	Solid	9056A	540377
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Soluble	Solid	9056A	540377
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Soluble	Solid	9056A	540377
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Soluble	Solid	9056A	540377
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Soluble	Solid	9056A	540377
MB 490-540377/1-A	Method Blank	Soluble	Solid	9056A	540377
LCS 490-540377/2-A	Lab Control Sample	Soluble	Solid	9056A	540377
LCSD 490-540377/3-A	Lab Control Sample Dup	Soluble	Solid	9056A	540377
MRL 490-540592/1	Lab Control Sample	Total/NA	Solid	9056A	
MRL 490-540592/33	Lab Control Sample	Total/NA	Solid	9056A	

Metals

Prep Batch: 539512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-1	CUF-BS-FB05-20180827	Total/NA	Water	7470A	
490-158137-8	CUF-BS-EB02-20180827	Total/NA	Water	7470A	
MB 490-539512/1-A	Method Blank	Total/NA	Water	7470A	
LCS 490-539512/2-A	Lab Control Sample	Total/NA	Water	7470A	
490-158137-1 MS	CUF-BS-FB05-20180827	Total/NA	Water	7470A	
490-158137-1 MSD	CUF-BS-FB05-20180827	Total/NA	Water	7470A	

Analysis Batch: 540387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-1	CUF-BS-FB05-20180827	Total/NA	Water	7470A	539512
490-158137-8	CUF-BS-EB02-20180827	Total/NA	Water	7470A	539512
MB 490-539512/1-A	Method Blank	Total/NA	Water	7470A	539512

Metals (Continued)

Analysis Batch: 540387 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 490-539512/2-A	Lab Control Sample	Total/NA	Water	7470A	539512
490-158137-1 MS	CUF-BS-FB05-20180827	Total/NA	Water	7470A	539512
490-158137-1 MSD	CUF-BS-FB05-20180827	Total/NA	Water	7470A	539512

Prep Batch: 541313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	7471B	
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Total/NA	Solid	7471B	
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Total/NA	Solid	7471B	
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Total/NA	Solid	7471B	
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Total/NA	Solid	7471B	
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Total/NA	Solid	7471B	
MB 490-541313/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 490-541313/2-A	Lab Control Sample	Total/NA	Solid	7471B	
490-158137-2 MS	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	7471B	
490-158137-2 MSD	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	7471B	

Analysis Batch: 541520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	7471B	541313
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Total/NA	Solid	7471B	541313
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Total/NA	Solid	7471B	541313
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Total/NA	Solid	7471B	541313
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Total/NA	Solid	7471B	541313
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Total/NA	Solid	7471B	541313
MB 490-541313/1-A	Method Blank	Total/NA	Solid	7471B	541313
LCS 490-541313/2-A	Lab Control Sample	Total/NA	Solid	7471B	541313
490-158137-2 MS	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	7471B	541313
490-158137-2 MSD	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	7471B	541313

General Chemistry

Analysis Batch: 539184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	Moisture	
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Total/NA	Solid	Moisture	
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Total/NA	Solid	Moisture	
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Total/NA	Solid	Moisture	
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Total/NA	Solid	Moisture	
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Total/NA	Solid	Moisture	
490-158137-2 DU	CUF-BS-BG01-0.0/0.5-20180827	Total/NA	Solid	Moisture	

Leach Batch: 539284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Soluble	Solid	DI Leach	
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Soluble	Solid	DI Leach	
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Soluble	Solid	DI Leach	
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Soluble	Solid	DI Leach	
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Soluble	Solid	DI Leach	
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Soluble	Solid	DI Leach	

General Chemistry (Continued)

Leach Batch: 539284 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2 DU	CUF-BS-BG01-0.0/0.5-20180827	Soluble	Solid	DI Leach	

Analysis Batch: 539285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Soluble	Solid	9045D	539284
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Soluble	Solid	9045D	539284
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Soluble	Solid	9045D	539284
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Soluble	Solid	9045D	539284
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Soluble	Solid	9045D	539284
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Soluble	Solid	9045D	539284
LCS 490-539285/1	Lab Control Sample	Total/NA	Solid	9045D	
490-158137-2 DU	CUF-BS-BG01-0.0/0.5-20180827	Soluble	Solid	9045D	539284

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Client Sample ID: CUF-BS-FB05-20180827 — Lab Sample ID: 490-158137-1

Date Collected: 08/27/18 12:31 — **Matrix: Water**
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			539643	08/29/18 16:51	SW1	TAL NSH
Total/NA	Prep	7470A			30 mL	30 mL	539512	08/29/18 14:15	CSL	TAL NSH
Total/NA	Analysis	7470A		1			540387	08/31/18 21:03	CSL	TAL NSH

Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827 — Lab Sample ID: 490-158137-2

Date Collected: 08/27/18 13:12 — **Matrix: Solid**
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539284	08/28/18 19:08	MXX	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539285	08/28/18 19:15	MXX	TAL NSH
Total/NA	Analysis	Moisture		1			539184	08/28/18 13:18	BAA	TAL NSH

Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827 — Lab Sample ID: 490-158137-2

Date Collected: 08/27/18 13:12 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 80.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.0243 g	30 mL	540377	09/04/18 07:07	JHS	TAL NSH
Soluble	Analysis	9056A		1			540592	09/04/18 14:15	JHS	TAL NSH
Total/NA	Prep	7471B			0.614 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:08	CSL	TAL NSH

Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827 — Lab Sample ID: 490-158137-3

Date Collected: 08/27/18 13:59 — **Matrix: Solid**
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539284	08/28/18 19:08	MXX	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539285	08/28/18 19:15	MXX	TAL NSH
Total/NA	Analysis	Moisture		1			539184	08/28/18 13:18	BAA	TAL NSH

Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827 — Lab Sample ID: 490-158137-3

Date Collected: 08/27/18 13:59 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 84.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.0322 g	30 mL	540377	09/04/18 07:07	JHS	TAL NSH
Soluble	Analysis	9056A		1			540592	09/04/18 14:27	JHS	TAL NSH
Total/NA	Prep	7471B			0.625 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:21	CSL	TAL NSH

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827 — Lab Sample ID: 490-158137-4

Date Collected: 08/27/18 14:19
Matrix: Solid
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539284	08/28/18 19:08	MXX	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539285	08/28/18 19:15	MXX	TAL NSH
Total/NA	Analysis	Moisture		1			539184	08/28/18 13:18	BAA	TAL NSH

Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827 — Lab Sample ID: 490-158137-4

Date Collected: 08/27/18 14:19
Matrix: Solid
Date Received: 08/27/18 19:00
Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9926 g	30 mL	540377	09/04/18 07:07	JHS	TAL NSH
Soluble	Analysis	9056A		1			540592	09/04/18 14:39	JHS	TAL NSH
Total/NA	Prep	7471B			0.622 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:24	CSL	TAL NSH

Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827 — Lab Sample ID: 490-158137-5

Date Collected: 08/27/18 14:45
Matrix: Solid
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539284	08/28/18 19:08	MXX	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539285	08/28/18 19:15	MXX	TAL NSH
Total/NA	Analysis	Moisture		1			539184	08/28/18 13:18	BAA	TAL NSH

Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827 — Lab Sample ID: 490-158137-5

Date Collected: 08/27/18 14:45
Matrix: Solid
Date Received: 08/27/18 19:00
Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9788 g	30 mL	540377	09/04/18 07:07	JHS	TAL NSH
Soluble	Analysis	9056A		1			540592	09/04/18 14:50	JHS	TAL NSH
Total/NA	Prep	7471B			0.596 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:27	CSL	TAL NSH

Client Sample ID: CUF-BS-BG01-16.5/18.5-20180827 — Lab Sample ID: 490-158137-6

Date Collected: 08/27/18 15:05
Matrix: Solid
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539284	08/28/18 19:08	MXX	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539285	08/28/18 19:15	MXX	TAL NSH
Total/NA	Analysis	Moisture		1			539184	08/28/18 13:18	BAA	TAL NSH

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Client Sample ID: CUF-BS-BG01-16.5/18.5-20180827 — Lab Sample ID: 490-158137-6

Date Collected: 08/27/18 15:05 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 78.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.0066 g	30 mL	540377	09/04/18 07:07	JHS	TAL NSH
Soluble	Analysis	9056A		1			540592	09/04/18 15:02	JHS	TAL NSH
Total/NA	Prep	7471B			0.615 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:35	CSL	TAL NSH

Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827 — Lab Sample ID: 490-158137-7

Date Collected: 08/27/18 15:25 — **Matrix: Solid**
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			20 g	20 mL	539284	08/28/18 19:08	MXX	TAL NSH
Soluble	Analysis	9045D		1	20 g	20 mL	539285	08/28/18 19:15	MXX	TAL NSH
Total/NA	Analysis	Moisture		1			539184	08/28/18 13:18	BAA	TAL NSH

Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827 — Lab Sample ID: 490-158137-7

Date Collected: 08/27/18 15:25 — **Matrix: Solid**
Date Received: 08/27/18 19:00 — **Percent Solids: 75.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2.9785 g	30 mL	540377	09/04/18 07:07	JHS	TAL NSH
Soluble	Analysis	9056A		1			540592	09/04/18 15:13	JHS	TAL NSH
Total/NA	Prep	7471B			0.612 g	100 mL	541313	09/07/18 15:33	CSL	TAL NSH
Total/NA	Analysis	7471B		1			541520	09/08/18 15:38	CSL	TAL NSH

Client Sample ID: CUF-BS-EB02-20180827 — Lab Sample ID: 490-158137-8

Date Collected: 08/27/18 15:55 — **Matrix: Water**
Date Received: 08/27/18 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			539643	08/29/18 17:26	SW1	TAL NSH
Total/NA	Prep	7470A			30 mL	30 mL	539512	08/29/18 14:15	CSL	TAL NSH
Total/NA	Analysis	7470A		1			540387	08/31/18 21:21	CSL	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Environmental Standards Inc. TestAmerica Job ID: 490-158137-1
Project/Site: CUF_BS_20180827_1A

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	06-30-19 *
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18 *
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL NSH
7470A	Mercury (CVAA)	SW846	TAL NSH
7471B	Mercury (CVAA)	SW846	TAL NSH
9045D	pH	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH
7470A	Preparation, Mercury	SW846	TAL NSH
7471B	Preparation, Mercury	SW846	TAL NSH
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL NSH

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: Environmental Standards Inc.
Project/Site: CUF_BS_20180827_1A

TestAmerica Job ID: 490-158137-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-158137-1	CUF-BS-FB05-20180827	Water	08/27/18 12:31	08/27/18 19:00
490-158137-2	CUF-BS-BG01-0.0/0.5-20180827	Solid	08/27/18 13:12	08/27/18 19:00
490-158137-3	CUF-BS-BG01-1.0/3.0-20180827	Solid	08/27/18 13:59	08/27/18 19:00
490-158137-4	CUF-BS-BG01-6.5/8.5-20180827	Solid	08/27/18 14:19	08/27/18 19:00
490-158137-5	CUF-BS-BG01-11.5/13.5-20180827	Solid	08/27/18 14:45	08/27/18 19:00
490-158137-6	CUF-BS-BG01-16.5/18.5-20180827	Solid	08/27/18 15:05	08/27/18 19:00
490-158137-7	CUF-BS-BG01-21.5/23.5-20180827	Solid	08/27/18 15:25	08/27/18 19:00
490-158137-8	CUF-BS-EB02-20180827	Water	08/27/18 15:55	08/27/18 19:00

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 537313

Lab Sample ID: STD1 490-537313/1 IC Client Sample ID:

Date Analyzed: 08/20/18 09:44 Lab File ID: 082018IC9_010dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:47
Chloride	3.21	Baseline Smoothing	statenj	08/20/18 11:47
Bromide	4.58	Baseline Smoothing	statenj	08/20/18 11:47

Lab Sample ID: STD2 490-537313/2 IC Client Sample ID:

Date Analyzed: 08/20/18 09:55 Lab File ID: 082018IC9_011dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/20/18 11:50
Chloride	3.22	Baseline Smoothing	statenj	08/20/18 11:50
Bromide	4.56	Baseline Smoothing	statenj	08/20/18 11:50

Lab Sample ID: STD3 490-537313/3 IC Client Sample ID:

Date Analyzed: 08/20/18 10:07 Lab File ID: 082018IC9_012dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:50
Chloride	3.22	Baseline Smoothing	statenj	08/20/18 11:50
Bromide	4.55	Baseline Smoothing	statenj	08/20/18 11:50

Lab Sample ID: STD5 490-537313/5 IC Client Sample ID:

Date Analyzed: 08/20/18 10:30 Lab File ID: 082018IC9_014dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.34	Baseline Smoothing	statenj	08/20/18 11:52
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:51
Bromide	4.52	Baseline Smoothing	statenj	08/20/18 11:51

9056A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 537313

Lab Sample ID: ICRT 490-537313/6 Client Sample ID:

Date Analyzed: 08/20/18 10:42 Lab File ID: 082018IC9_015dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:35
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:35
Bromide	4.50	Baseline Smoothing	statenj	08/20/18 11:35

Lab Sample ID: STD7 490-537313/7 IC Client Sample ID:

Date Analyzed: 08/20/18 10:53 Lab File ID: 082018IC9_016dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:35
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:35
Bromide	4.50	Baseline Smoothing	statenj	08/20/18 11:35

Lab Sample ID: STD8 490-537313/8 IC Client Sample ID:

Date Analyzed: 08/20/18 11:05 Lab File ID: 082018IC9_017dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/20/18 11:36
Chloride	3.21	Baseline Smoothing	statenj	08/20/18 11:36
Bromide	4.49	Baseline Smoothing	statenj	08/20/18 11:36

Lab Sample ID: STD9 490-537313/9 IC Client Sample ID:

Date Analyzed: 08/20/18 11:16 Lab File ID: 082018IC9_018dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:36
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:36
Bromide	4.48	Baseline Smoothing	statenj	08/20/18 11:36

9056A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 537313

Lab Sample ID: ICV 490-537313/10 Client Sample ID:

Date Analyzed: 08/20/18 11:28 Lab File ID: 082018IC9_019dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/20/18 11:59
Chloride	3.20	Baseline Smoothing	statenj	08/20/18 11:59
Bromide	4.49	Baseline Smoothing	statenj	08/20/18 11:59

9056A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 539643

Lab Sample ID: CCVRT 490-539643/1 Client Sample ID:

Date Analyzed: 08/29/18 15:53 Lab File ID: 082918IC9_031dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:29
Chloride	3.20	Baseline Smoothing	statenj	08/30/18 08:29
Bromide	4.45	Baseline Smoothing	statenj	08/30/18 08:29

Lab Sample ID: LCS 490-539643/4 Client Sample ID:

Date Analyzed: 08/29/18 16:28 Lab File ID: 082918IC9_034dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:29
Chloride	3.20	Baseline Smoothing	statenj	08/30/18 08:29

Lab Sample ID: LCSD 490-539643/5 Client Sample ID:

Date Analyzed: 08/29/18 16:40 Lab File ID: 082918IC9_035dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:30
Chloride	3.19	Baseline Smoothing	statenj	08/30/18 08:30

Lab Sample ID: 490-158137-1 Client Sample ID: CUF-BS-FB05-20180827

Date Analyzed: 08/29/18 16:51 Lab File ID: 082918IC9_036dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.19	Baseline Smoothing	wanguns	08/31/18 09:57

9056A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 539643

Lab Sample ID: 490-158137-1 MS Client Sample ID: CUF-BS-FB05-20180827 MS

Date Analyzed: 08/29/18 17:03 Lab File ID: 082918IC9_037dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:30
Chloride	3.19	Baseline Smoothing	statenj	08/30/18 08:30

Lab Sample ID: 490-158137-1 MSD Client Sample ID: CUF-BS-FB05-20180827 MSD

Date Analyzed: 08/29/18 17:14 Lab File ID: 082918IC9_038dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	08/30/18 08:31
Chloride	3.19	Baseline Smoothing	statenj	08/30/18 08:31

Lab Sample ID: 490-158137-8 Client Sample ID: CUF-BS-EB02-20180827

Date Analyzed: 08/29/18 17:26 Lab File ID: 082918IC9_039dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.20	Baseline Smoothing	wanguns	08/31/18 09:59

Lab Sample ID: CCV 490-539643/11 Client Sample ID:

Date Analyzed: 08/29/18 17:49 Lab File ID: 082918IC9_041dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	08/30/18 08:31
Chloride	3.19	Baseline Smoothing	statenj	08/30/18 08:31
Bromide	4.44	Baseline Smoothing	statenj	08/30/18 08:31

9056A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 540592

Lab Sample ID: MRL 490-540592/1 Client Sample ID:

Date Analyzed: 09/04/18 09:37 Lab File ID: 090418IC9_006dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.35	Baseline Smoothing	statenj	09/05/18 06:59

Lab Sample ID: CCVRT 490-540592/2 Client Sample ID:

Date Analyzed: 09/04/18 09:49 Lab File ID: 090418IC9_007dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	09/05/18 07:00
Chloride	3.21	Baseline Smoothing	statenj	09/05/18 07:00
Bromide	4.51	Baseline Smoothing	statenj	09/05/18 07:00

Lab Sample ID: LCS 490-540377/2-A Client Sample ID:

Date Analyzed: 09/04/18 10:24 Lab File ID: 090418IC9_010dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	09/05/18 07:01
Chloride	3.21	Baseline Smoothing	statenj	09/05/18 07:01

Lab Sample ID: LCSD 490-540377/3-A Client Sample ID:

Date Analyzed: 09/04/18 10:35 Lab File ID: 090418IC9_011dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	09/05/18 07:01
Chloride	3.21	Baseline Smoothing	statenj	09/05/18 07:01

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 540592

Lab Sample ID: CCV 490-540592/19 Client Sample ID:

Date Analyzed: 09/04/18 13:06 Lab File ID: 090418IC9_024dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	09/05/18 07:04
Chloride	3.19	Baseline Smoothing	statenj	09/05/18 07:04
Bromide	4.45	Baseline Smoothing	statenj	09/05/18 07:04

Lab Sample ID: 490-158137-3 Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827

Date Analyzed: 09/04/18 14:27 Lab File ID: 090418IC9_031dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.37	Baseline Smoothing	statenj	09/05/18 07:04

Lab Sample ID: 490-158137-5 Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827

Date Analyzed: 09/04/18 14:50 Lab File ID: 090418IC9_033dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.37	Baseline Smoothing	statenj	09/05/18 07:05

Lab Sample ID: 490-158137-7 Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827

Date Analyzed: 09/04/18 15:13 Lab File ID: 090418IC9_035dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.37	Incomplete Integration	statenj	09/05/18 07:05

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Analysis Batch Number: 540592

Lab Sample ID: CCV 490-540592/31 Client Sample ID:

Date Analyzed: 09/04/18 15:25 Lab File ID: 090418IC9_036dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.37	Baseline Smoothing	statenj	09/05/18 07:05
Chloride	3.19	Baseline Smoothing	statenj	09/05/18 07:05
Bromide	4.43	Baseline Smoothing	statenj	09/05/18 07:05

Lab Sample ID: MRL 490-540592/33 Client Sample ID:

Date Analyzed: 09/05/18 02:38 Lab File ID: 090418IC9_094dat-Conducti GC Column: Metrohm ASupp ID: 4(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.36	Baseline Smoothing	statenj	09/05/18 07:06

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
CCV 100_00022	09/27/18	06/16/18	DI Water, Lot NA	200 mL	IC Primary_00012	2 mL	Chloride	10 ug/mL
							Fluoride	1 ug/mL
							Sulfate	10 ug/mL
.IC Primary_00012	01/04/21	INORGANIC VENTURES, Lot N2-MEB664399			(Purchased Reagent)		Chloride	1000 ug/mL
							Fluoride	100 ug/mL
							Sulfate	1000 ug/mL
							Bromide	1000 ug/mL
							Chloride	1000 ug/mL
							Fluoride	100 ug/mL
							Sulfate	1000 ug/mL
							Sulfate as Sulfur	333.33 ug/mL
IC Secondary_00013	08/31/19	Agilent, Lot CS-3745			(Purchased Reagent)		Bromide	1002 ug/mL
							Chloride	1001 ug/mL
							Fluoride	100.1 ug/mL
							Nitrate as N	100 ug/mL
							Nitrate as NO3	440 ug/mL
							Nitrate Nitrite as N	200.1 ug/mL
							Nitrite as N	100.1 ug/mL
							Nitrite as NO2	330 ug/mL
							Sulfate	1002 ug/mL
							Sulfate as Sulfur	333.333 ug/mL
LCS 100_00028	01/25/19	07/25/18	DI Water, Lot NA	200 mL	IC Secondary_00013	2 mL	Chloride	10.01 ug/mL
							Fluoride	1.001 ug/mL
							Sulfate	10.02 ug/mL
.IC Secondary_00013	08/31/19	Agilent, Lot CS-3745			(Purchased Reagent)		Chloride	1001 ug/mL
							Fluoride	100.1 ug/mL
							Sulfate	1002 ug/mL
LP_CCV pH 7.0_00068	10/01/18	Fisher Scientific, Lot 180084			(Purchased Reagent)		pH	7 SU
LP_LCS 7.0_00063	10/01/18	Ricca Chemical Company, Lot 2803E24			(Purchased Reagent)		pH	7 SU
MET_AquaRegia_00533	09/08/18	09/07/18	DI Water, Lot HNO3/HCL/DI WATER	280 mL	MET_HCL_00118	105 mL	Hydrogen Chloride	37.5 Percent
					MET_HNO3_00209	35 mL	Nitric acid	12.5 Percent
.MET_HCL_00118	08/14/22	J.T. Baker, Lot 0000186764			(Purchased Reagent)		Hydrogen Chloride	100 %
.MET_HNO3_00209	06/15/19	Fisher Chemical, Lot 1117060			(Purchased Reagent)		Nitric acid	100 %
MET_CALSTD_00328	09/14/18	08/22/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00274	60 uL	Mercury	0.002 ppm
.MET_SPKSTD_00274	09/14/18	08/14/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
..MET_Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
MET_CALSTD_00329	09/14/18	08/22/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00274	6 uL	Mercury	0.2 ppb
.MET_SPKSTD_00274	09/14/18	08/14/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
..MET_Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
MET_CALSTD_00331	09/22/18	08/21/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00275	75 uL	Mercury	2.5 ppb
.MET_SPKSTD_00275	09/22/18	08/21/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00027	100 uL	Mercury	1000 ppb
..MET_Hg_STOCK_00027	08/31/19	High-Purity Standards, Lot 1801717			(Purchased Reagent)		Mercury	1000 ppm
MET_CALSTD_00336	10/06/18	09/07/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00282	75 uL	Mercury	2.5 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MET_SPKSTD_00282	10/06/18	09/07/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00027	100 uL	Mercury	1000 ppb
..MET_Hg_STOCK_00027	08/31/19	High-Purity Standards, Lot 1801717			(Purchased Reagent)		Mercury	1000 ppm
MET_CALSTD_00337	10/07/18	09/07/18	MULTIPLE, Lot MULTIPLE	100 mL	MET_SPKSTD_00281	40 uL	Mercury	0.4 ug/L
.MET_SPKSTD_00281	10/07/18	09/07/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
..MET_Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
MET_CALSTD_00339	10/07/18	09/07/18	MULTIPLE, Lot MULTIPLE	30 mL	MET_SPKSTD_00281	60 uL	Mercury	0.002 ppm
.MET_SPKSTD_00281	10/07/18	09/07/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
..MET_Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
MET_H2SO4_00043	10/10/22	Macron Chemicals, Lot 0000186983			(Purchased Reagent)		Sulfuric acid	100 %
MET_Hg_Hydrox_00090	11/12/18	08/22/18	DI Water, Lot DI Water	2000 mL	MET_Hg_NaCl_00009	240 g	Sodium Chloride	12 Percent
					MET_HgH8N2O6S_00015	240 g	Hydroxylamine sulfate	12 Percent
.MET_Hg_NaCl_00009	12/28/23	Macron Chemicals, Lot 0000165462			(Purchased Reagent)		Sodium Chloride	100 Percent
.MET_HgH8N2O6S_00015	11/12/18	Fisher Chemical, Lot 174236			(Purchased Reagent)		Hydroxylamine sulfate	100 Percent
MET_Hg_Hydrox_00091	11/12/18	08/31/18	DI Water, Lot DI Water	2000 mL	MET_Hg_NaCl_00009	240 g	Sodium Chloride	12 Percent
					MET_HgH8N2O6S_00015	240 g	Hydroxylamine sulfate	12 Percent
.MET_Hg_NaCl_00009	12/28/23	Macron Chemicals, Lot 0000165462			(Purchased Reagent)		Sodium Chloride	100 Percent
.MET_HgH8N2O6S_00015	11/12/18	Fisher Chemical, Lot 174236			(Purchased Reagent)		Hydroxylamine sulfate	100 Percent
MET_Hg_KMnO4_00058	08/10/19	08/28/18	DI Water, Lot DI Water	1000 mL	MET_Hg_Rgnt_00343	50 g	Potassium Permanganate	5 Percent
.MET_Hg_Rgnt_00343	08/10/19	Alfa Aesar, Lot S20D004			(Purchased Reagent)		Potassium Permanganate	100 Percent
MET_Hg_Kpsulf_00044	10/26/18	08/11/18	DI WATER, Lot DI WATER	1 L	MET_Hg_Rgnt_00333	50 g	Potassium persulfate	5 % by Wt
.MET_Hg_Rgnt_00333	05/24/20	Macron Chemicals, Lot 0000070212			(Purchased Reagent)		Potassium persulfate	100 Percent
MET_HNO3_00246	01/04/23	MACRON, Lot 0000200458			(Purchased Reagent)		Nitric acid	100 %
MET_SPKSTD_00274	09/14/18	08/14/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
					MET_HNO3_00209	5 mL	Nitric acid	50000000 ppb
.MET_Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
.MET_HNO3_00209	06/15/19	Fisher Chemical, Lot 1117060			(Purchased Reagent)		Nitric acid	100 %
MET_SPKSTD_00281	10/07/18	09/07/18	DI Water, Lot 1	100 mL	MET_Hg_STOCK_00030	100 uL	Mercury	1000 ppb
					MET_HNO3_00209	5 mL	Nitric acid	50000000 ppb
.MET_Hg_STOCK_00030	01/13/21	Inorganic Ventures, Lot K2-HG653768			(Purchased Reagent)		Mercury	1000 ppm
.MET_HNO3_00209	06/15/19	Fisher Chemical, Lot 1117060			(Purchased Reagent)		Nitric acid	100 %

Reagent

MET_Hg_STOCK_00027

ENVIRONMENTAL EXPRESS®
a Cole-Parmer company

4286775
ID: MET_Hg_STOCK_00027
Exp 08/31/19 Prpd RDH
Sec Src Mercury Stock S

Certificate of Analysis

Product Description:

Mercury

Product Number:	**HP100033-1**
Lot Number:	**1801717**
Matrix:	2% (v/v) HNO_3

Certified Value:

Element	(µg/mL)	SRM ID	SRM Lot#
Hg	1000 ± 6	3133	061204

The Certified value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available via inductively coupled plasma optical emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.
* Refer to Traceability Information, Section d

Density: 1.015 g/mL ± 0.002 g/mL @ 20.0°C ± 0.3°C

Uncertified Values:

Trace Metal Impurity Scan: The data reported are based upon a scan of this specific lot via ICP-OES/ICP-MS analysis. The values are reported in µg/L.

Ag	<	1	Cu	<	0.02	Li	<	0.02	Rb	<	0.02	Th	<	0.02
Al	<	0.05	Dy	<	0.02	Lu	<	0.02	Re	<	0.02	Ti	<	0.02
As	<	0.05	Er	<	0.02	Mg	<	0.1	Rh	<	0.02	Tl	<	0.02
Au	<	0.02	Eu	<	0.02	Mn	<	0.1	Ru	<	0.02	Tm	<	0.02
B	<	1	Fe	<	1	Mo	<	0.02	Sb	<	0.02	U	<	0.05
Ba	<	0.02	Ga	<	0.02	Na	<	3	Sc	<	0.02	V	<	0.05
Be	<	0.02	Gd	<	0.02	Nb	<	0.02	Se	<	0.1	W	<	0.02
Bi	<	0.02	Ge	<	0.02	Nd	<	0.02	Si	<	10	Y	<	0.02
Ca	<	1	Hf	<	0.02	Ni	<	0.02	Sm	<	0.02	Yb	<	0.02
Cd	<	0.02	Ho	<	0.02	Os	<	0.02	Sn	<	0.5	Zn	<	0.02
Ce	<	0.02	In	<	0.02	Pb	<	0.05	Sr	<	0.02	Zr	<	0.02
Co	<	0.05	Ir	<	0.02	Pd	<	0.02	Ta	<	0.02	Hg		M
Cr	<	0.05	K	<	1	Pr	<	0.02	Tb	<	0.02			
Cs		na	La	<	0.02	Pt	<	0.02	Te	<	0.02			

na - not analyzed

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Expiration Information:

The expiry date is guaranteed to be valid for **eighteen** months from the shipping date provided and is guaranteed through the month of expiration. For this reason, standards from the same lot may have different expiration dates

Shipped Date: February 2018

Certificate Issue Date: January 24, 2018

Joe Boyd

Joe Boyd, Director, Environmental Business Segment

Lot No.: **1801717**
Rev. No.: 1.1.0
Page 1 of 1

2345A Charleston Regional Pkwy, Charleston, South Carolina 29492
843-881-6560 • 800-343-5319 • 843-881-3964 (Fax) • EnvExp.com

Method 9056A

Anions, Ion Chromatography by Method 9056A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 082918IC9_034dat-Conductivity

Lab ID: LCS 490-539643/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Chloride	10.0	10.02	100	80-120	
Fluoride	1.00	0.9281	93	80-120	
Sulfate	10.0	9.545	95	80-120	

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 090418IC9_010dat-Conductivity

Lab ID: LCS 490-540377/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Chloride	99.6	97.62	98	80-120	
Fluoride	9.96	9.789	98	80-120	
Sulfate	99.7	98.28	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 082918IC9_035dat-Conductivity

Lab ID: LCSD 490-539643/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloride	10.0	9.940	99	1	20	80-120	
Fluoride	1.00	0.9472	95	2	20	80-120	
Sulfate	10.0	9.748	97	2	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 090418IC9_011dat-Conductivity

Lab ID: LCSD 490-540377/3-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCSD CONCENTRATION (mg/Kg)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloride	99.8	97.51	98	0	20	80-120	
Fluoride	9.98	9.919	99	1	20	80-120	
Sulfate	99.9	95.61	96	3	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 090418IC9_006dat-Conductivity

Lab ID: MRL 490-540592/1 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	MRL CONCENTRATION (mg/L)	MRL % REC	QC LIMITS REC	#
Chloride	1.00	0.9886 J	99		
Fluoride	0.100	0.1130	113		
Sulfate	1.00	1.218	122		

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 090418IC9_094dat-Conductivity

Lab ID: MRL 490-540592/33 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	MRL CONCENTRATION (mg/L)	MRL % REC	QC LIMITS REC	#
Chloride	1.00	0.9937 J	99		
Fluoride	0.100	0.1130	113		
Sulfate	1.00	1.162	116		

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 082918IC9_037dat-Conductivity

Lab ID: 490-158137-1 MS Client ID: CUF-BS-FB05-20180827 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Chloride	10.0	0.253 J	10.13	99	80-120	
Fluoride	1.00	ND	0.9375	94	80-120	
Sulfate	10.0	0.436 J	9.540	91	80-120	

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 082918IC9_038dat-Conductivity

Lab ID: 490-158137-1 MSD Client ID: CUF-BS-FB05-20180827 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloride	10.0	11.29	110	11	20	80-120	
Fluoride	1.00	1.071	107	13	20	80-120	
Sulfate	10.0	10.97	105	14	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 9056A

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab File ID: 082918IC9_033dat-Conductivity Lab Sample ID: MB 490-539643/3

Matrix: Water Date Extracted:

Instrument ID: IC9 Date Analyzed: 08/29/2018 16:17

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 490-539643/2	082918IC9_032dat-Conductivity.d	08/29/2018 16:05
	LCS 490-539643/4	082918IC9_034dat-Conductivity.d	08/29/2018 16:28
	LCSD 490-539643/5	082918IC9_035dat-Conductivity.d	08/29/2018 16:40
CUF-BS-FB05-20180827	490-158137-1	082918IC9_036dat-Conductivity.d	08/29/2018 16:51
CUF-BS-FB05-20180827 MS	490-158137-1 MS	082918IC9_037dat-Conductivity.d	08/29/2018 17:03
CUF-BS-FB05-20180827 MSD	490-158137-1 MSD	082918IC9_038dat-Conductivity.d	08/29/2018 17:14
CUF-BS-EB02-20180827	490-158137-8	082918IC9_039dat-Conductivity.d	08/29/2018 17:26
	CCB 490-539643/12	082918IC9_042dat-Conductivity.d	08/29/2018 18:01

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab File ID: 090418IC9_009dat-Conductivity Lab Sample ID: MB 490-540377/1-A

Matrix: Solid (Soluble) Date Extracted:

Instrument ID: IC9 Date Analyzed: 09/04/2018 10:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 490-540592/3	090418IC9_008dat-Conductivity.d	09/04/2018 10:00
	LCS 490-540377/2-A	090418IC9_010dat-Conductivity.d	09/04/2018 10:24
	LCSD 490-540377/3-A	090418IC9_011dat-Conductivity.d	09/04/2018 10:35
	CCB 490-540592/20	090418IC9_025dat-Conductivity.d	09/04/2018 13:17
CUF-BS-BG01-0.0/0.5-20180827	490-158137-2	090418IC9_030dat-Conductivity.d	09/04/2018 14:15
CUF-BS-BG01-1.0/3.0-20180827	490-158137-3	090418IC9_031dat-Conductivity.d	09/04/2018 14:27
CUF-BS-BG01-6.5/8.5-20180827	490-158137-4	090418IC9_032dat-Conductivity.d	09/04/2018 14:39
CUF-BS-BG01-11.5/13.5-20180827	490-158137-5	090418IC9_033dat-Conductivity.d	09/04/2018 14:50
CUF-BS-BG01-16.5/18.5-20180827	490-158137-6	090418IC9_034dat-Conductivity.d	09/04/2018 15:02
CUF-BS-BG01-21.5/23.5-20180827	490-158137-7	090418IC9_035dat-Conductivity.d	09/04/2018 15:13
	CCB 490-540592/32	090418IC9_037dat-Conductivity.d	09/04/2018 15:37

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-FB05-20180827
Lab Sample ID: 490-158137-1
Matrix: Water
Lab File ID: 082918IC9_036dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 12:31
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 16:51
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.253	J B	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.436	J B	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_036dat-Conductivity.d				
Lims ID:	490-158137-B-1				
Client ID:	CUF-BS-FB05-20180827				
Sample Type:	Client				
Inject. Date:	29-Aug-2018 16:51:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	082918IC9_036				
Misc. Info.:	082918IC9_036				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	31-Aug-2018 09:57:52	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK026				

First Level Reviewer: wanguns Date: 31-Aug-2018 09:57:52

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 Fluoride		2.357			ND	
	2 Chloride	3.193	3.196	-0.003	19625	0.2533	M
	8 Nitrite as NO2	3.730	3.693	0.037	1084	NC	
	7 Nitrite as N	3.730	3.693	0.037	1084	NC	
	1 Bromide		4.446			ND	
	3 Nitrate as N	5.056	5.030	0.026	677	NC	
	9 Nitrate as NO3	5.056	5.030	0.026	677	NC	
	4 Sulfate	7.703	7.696	0.007	1215	0.4356	
	6 Sulfate as Sulfur	7.703	7.696	0.007	1215	0.1452	
S	10 Nitrate Nitrite as N		0.000			ND	

QC Flag Legend

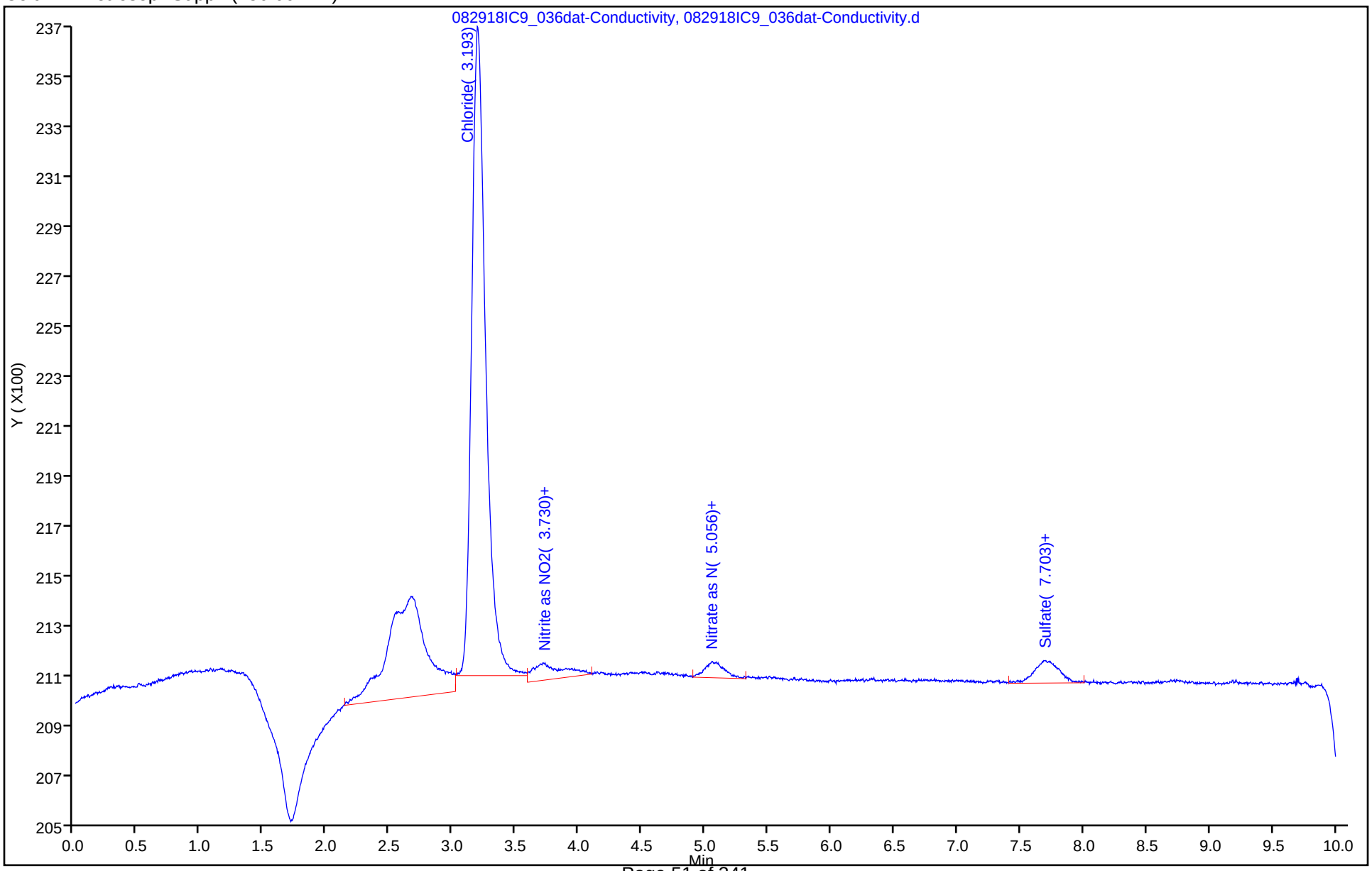
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 31-Aug-2018 09:57:53 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_036dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:51:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-B-1	Lab Sample ID:	490-158137-1	Worklist Smp#:	6
Client ID:	CUF-BS-FB05-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

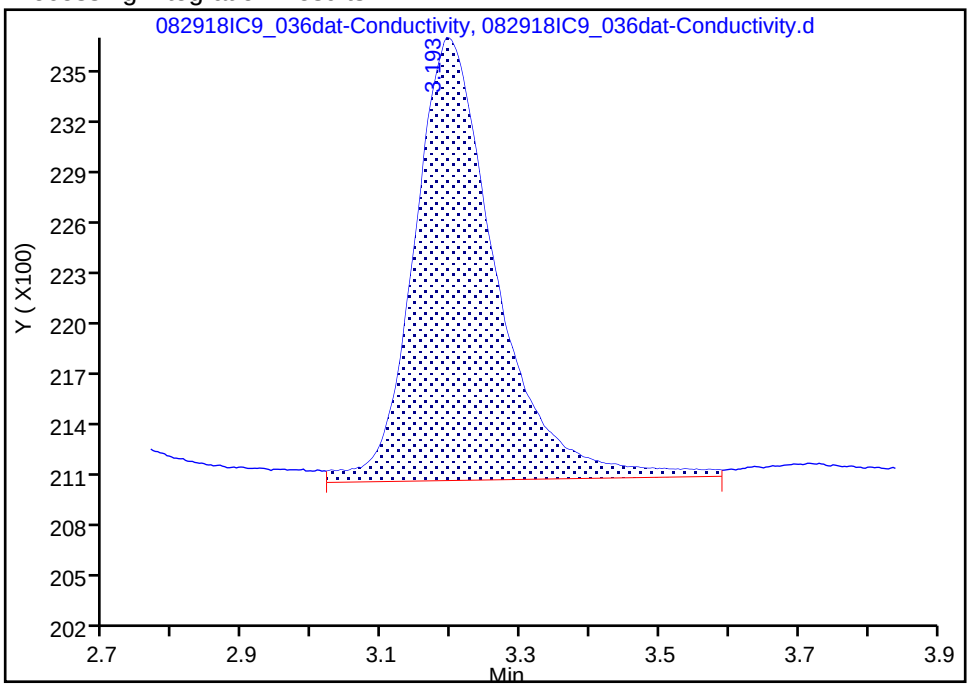
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_036dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:51:00	Instrument ID:	IC9		
Lims ID:	490-158137-B-1	Lab Sample ID:	490-158137-1		
Client ID:	CUF-BS-FB05-20180827				
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

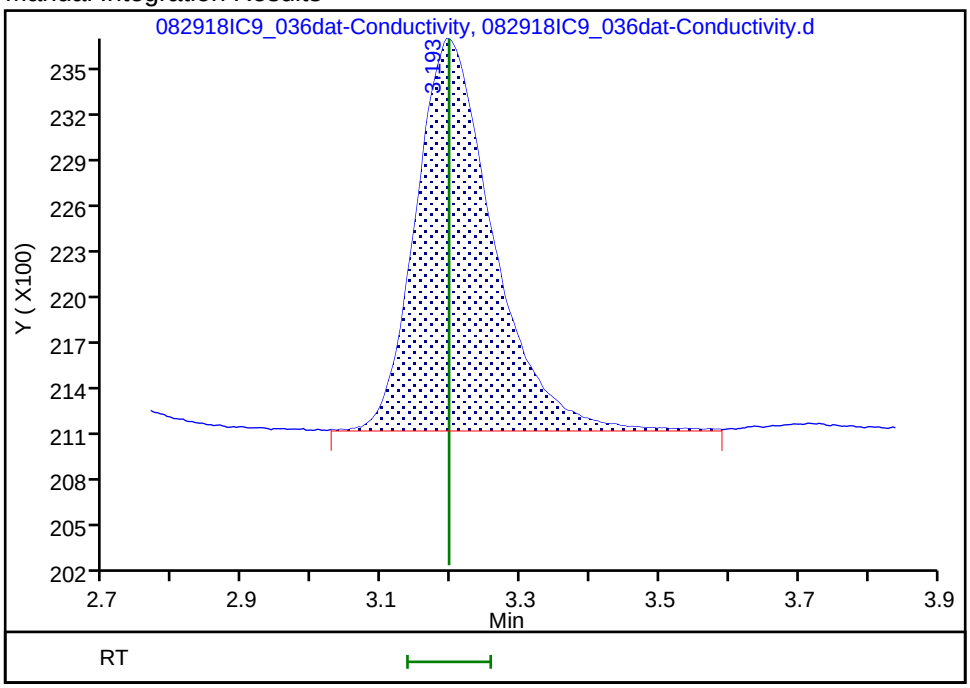
Processing Integration Results

RT: 3.19
Area: 21132
Amount: 0.258738
Amount Units: ug/ml



Manual Integration Results

RT: 3.19
Area: 19625
Amount: 0.253318
Amount Units: ug/ml



Reviewer: wanguns, 31-Aug-2018 09:57:48

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827
Lab Sample ID: 490-158137-2
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_030dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 13:12
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 14:15
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture: 19.2
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		12.3	8.60
16984-48-8	Fluoride	1.65		1.23	0.982
14808-79-8	Sulfate	12.6		12.3	7.37

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_030dat-Conductivity.d				
Lims ID:	490-158137-A-2-B				
Client ID:	CUF-BS-BG01-0.0/0.5-20180827				
Sample Type:	Client				
Inject. Date:	04-Sep-2018 14:15:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_030				
Misc. Info.:	090418IC9_030				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

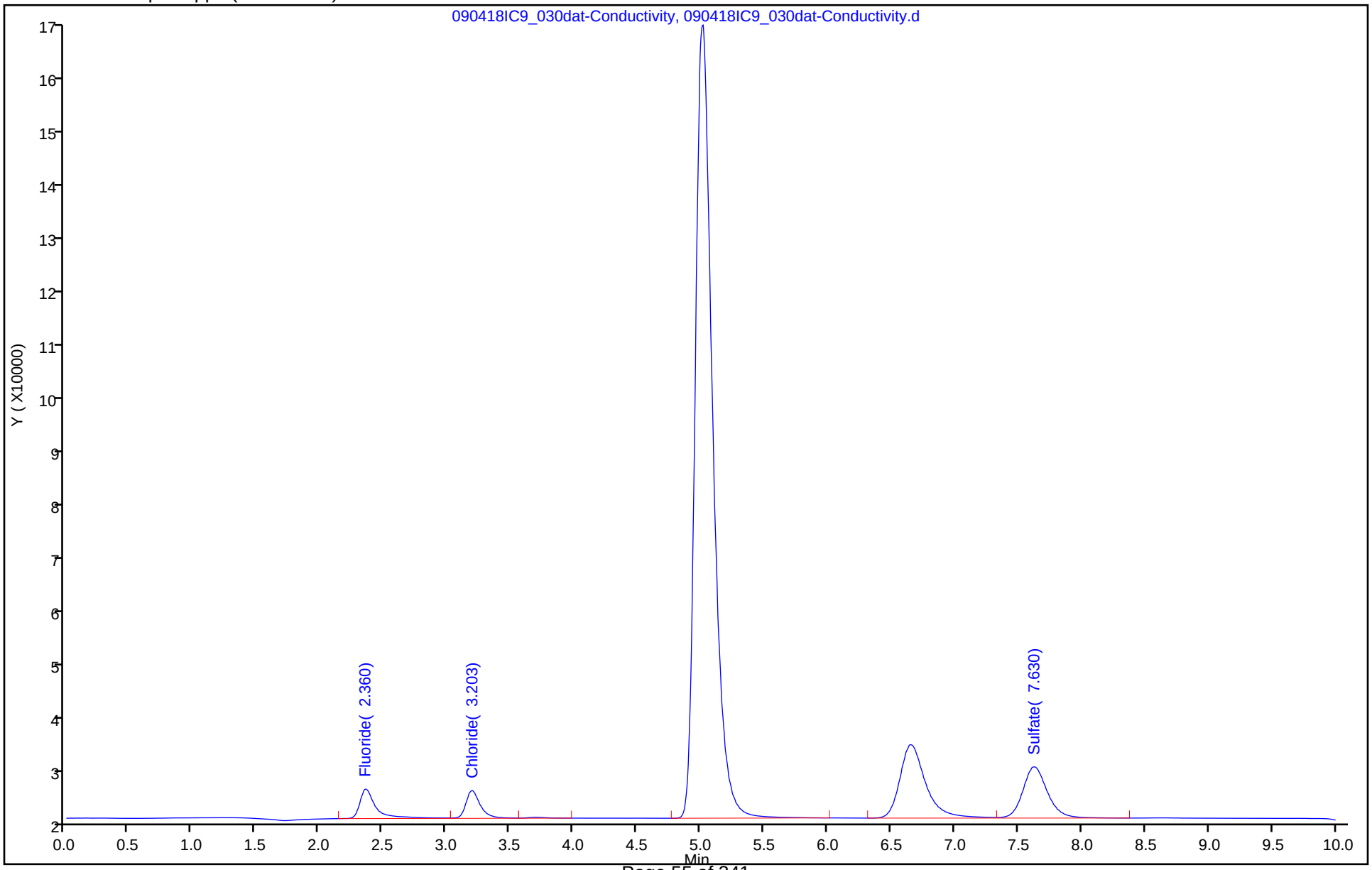
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.363	-0.003	46956	0.1346	
2 Chloride	3.203	3.213	-0.010	39101	0.3234	
4 Sulfate	7.630	7.573	0.057	122845	1.02	

Report Date: 05-Sep-2018 07:06:58 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_030dat-Conductivity.d				
Injection Date:	04-Sep-2018 14:15:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-A-2-B	Lab Sample ID:	490-158137-2	Worklist Smp#:	25
Client ID:	CUF-BS-BG01-0.0/0.5-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827
Lab Sample ID: 490-158137-3
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_031dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 13:59
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 14:27
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture: 15.3
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		11.7	8.18
16984-48-8	Fluoride	ND		1.17	0.935
14808-79-8	Sulfate	18.8		11.7	7.01

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_031dat-Conductivity.d				
Lims ID:	490-158137-A-3-B				
Client ID:	CUF-BS-BG01-1.0/3.0-20180827				
Sample Type:	Client				
Inject. Date:	04-Sep-2018 14:27:00	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_031				
Misc. Info.:	090418IC9_031				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:04:52

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.367	2.363	0.004	12251	0.0581	M
2 Chloride	3.200	3.213	-0.013	17443	0.2455	
4 Sulfate	7.630	7.573	0.057	243389	1.61	

QC Flag Legend

Review Flags

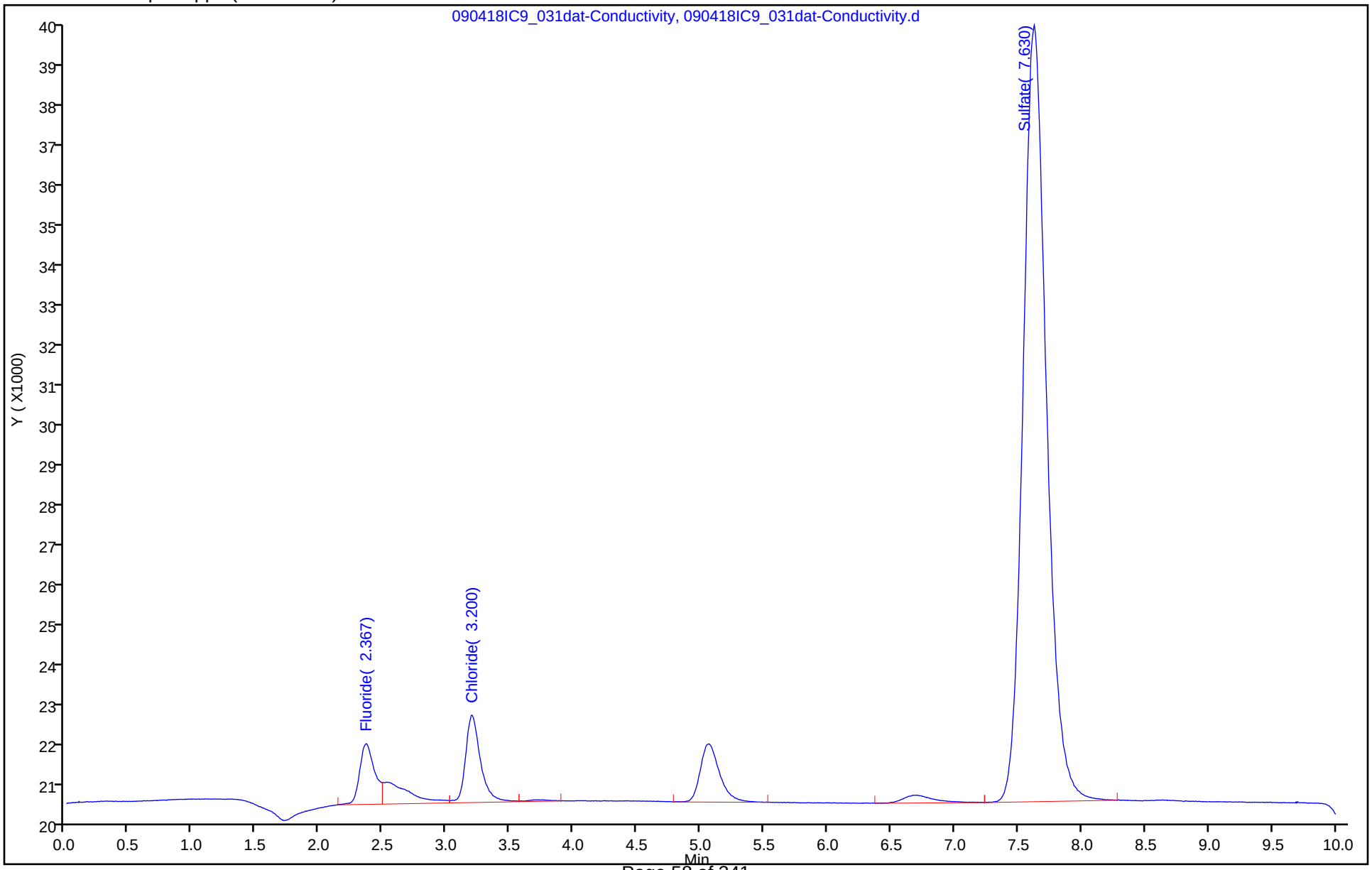
M - Manually Integrated

Report Date: 05-Sep-2018 07:06:59 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_031dat-Conductivity.d				
Injection Date:	04-Sep-2018 14:27:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-A-3-B	Lab Sample ID:	490-158137-3	Worklist Smp#:	26
Client ID:	CUF-BS-BG01-1.0/3.0-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

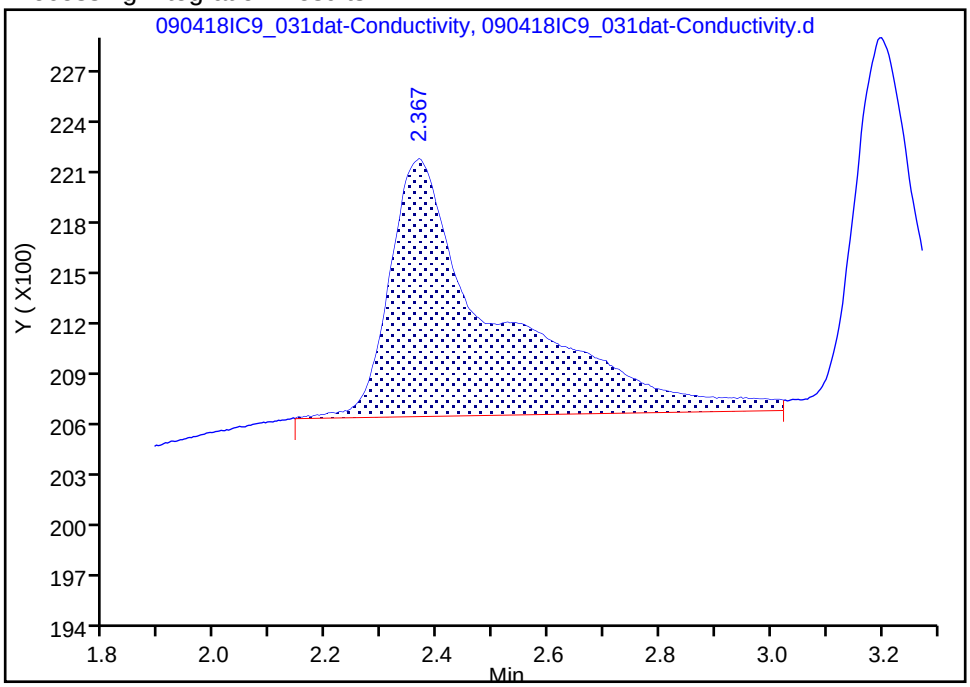
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_031dat-Conductivity.d				
Injection Date:	04-Sep-2018 14:27:00	Instrument ID:	IC9		
Lims ID:	490-158137-A-3-B	Lab Sample ID:	490-158137-3		
Client ID:	CUF-BS-BG01-1.0/3.0-20180827				
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

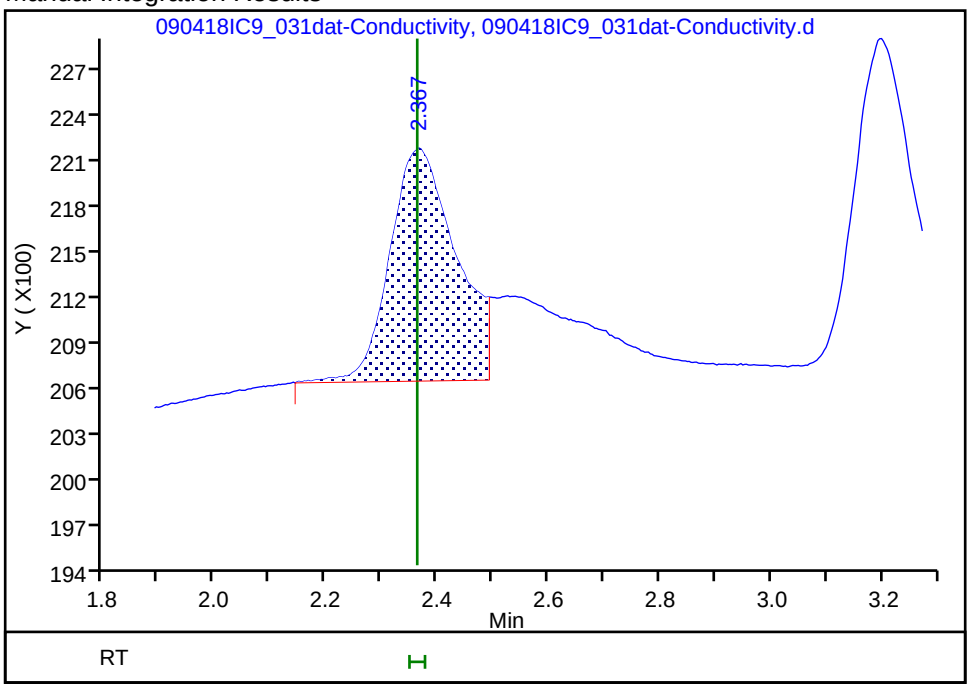
Processing Integration Results

RT: 2.37
Area: 20036
Amount: 0.075248
Amount Units: ug/ml



Manual Integration Results

RT: 2.37
Area: 12251
Amount: 0.058074
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:04:50

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827
Lab Sample ID: 490-158137-4
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_032dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 14:19
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 14:39
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture: 18.1
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		12.2	8.56
16984-48-8	Fluoride	ND		1.22	0.979
14808-79-8	Sulfate	9.39	J	12.2	7.34

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_032dat-Conductivity.d				
Lims ID:	490-158137-A-4-B				
Client ID:	CUF-BS-BG01-6.5/8.5-20180827				
Sample Type:	Client				
Inject. Date:	04-Sep-2018 14:39:00	ALS Bottle#:	0	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_032				
Misc. Info.:	090418IC9_032				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

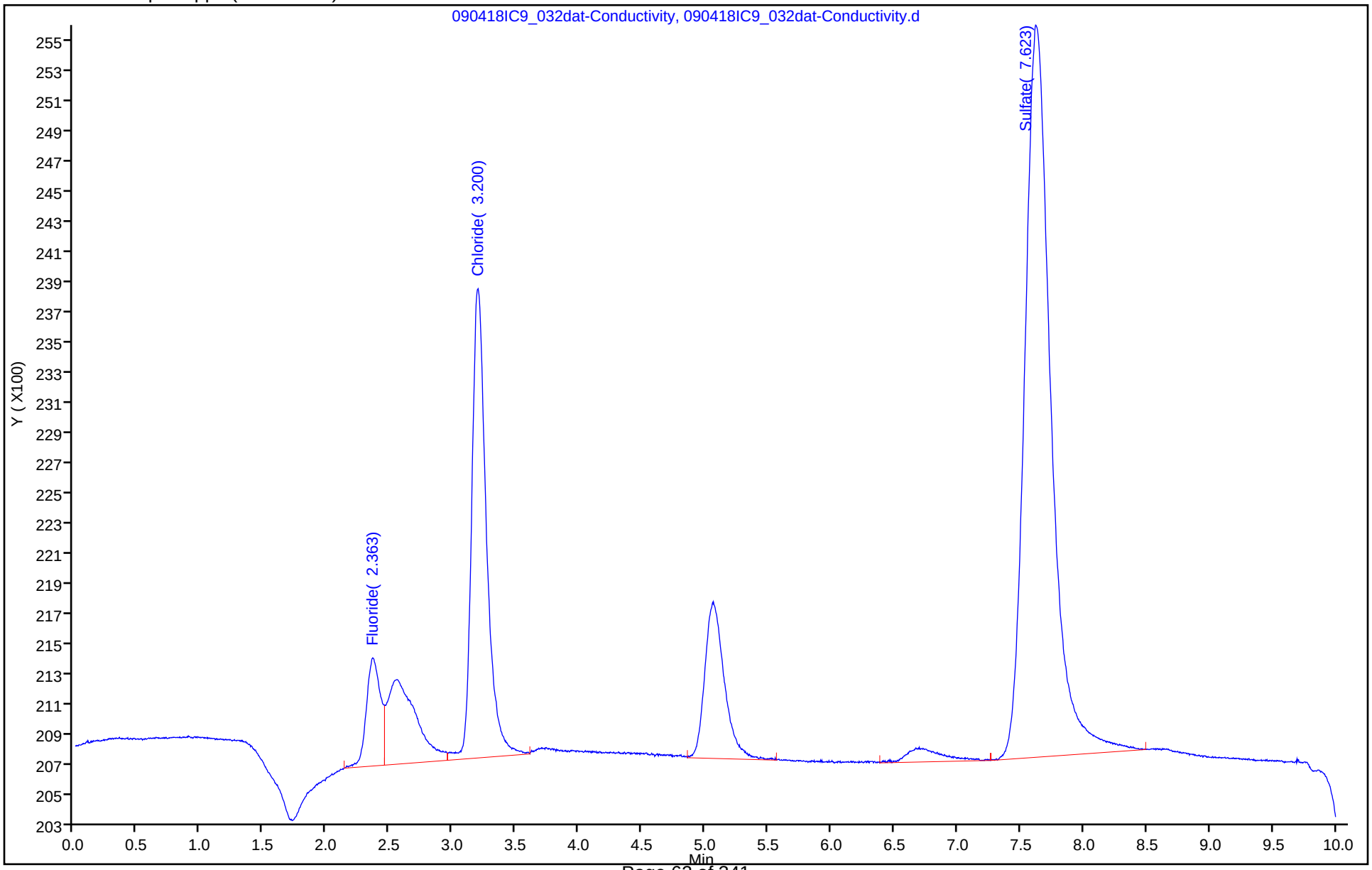
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	5577	0.0434	
2 Chloride	3.200	3.213	-0.013	25330	0.2738	
4 Sulfate	7.623	7.573	0.050	69860	0.7672	

Report Date: 05-Sep-2018 07:06:59 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_032dat-Conductivity.d				
Injection Date:	04-Sep-2018 14:39:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-A-4-B	Lab Sample ID:	490-158137-4	Worklist Smp#:	27
Client ID:	CUF-BS-BG01-6.5/8.5-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827
Lab Sample ID: 490-158137-5
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_033dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 14:45
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 14:50
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture: 20.7
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		12.7	8.89
16984-48-8	Fluoride	ND		1.27	1.02
14808-79-8	Sulfate	9.26	J	12.7	7.62

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_033dat-Conductivity.d				
Lims ID:	490-158137-A-5-B				
Client ID:	CUF-BS-BG01-11.5/13.5-20180827				
Sample Type:	Client				
Inject. Date:	04-Sep-2018 14:50:00	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_033				
Misc. Info.:	090418IC9_033				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:05:15

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.367	2.363	0.004	4541	0.0411	M
2 Chloride	3.193	3.213	-0.020	47488	0.3535	
4 Sulfate	7.623	7.573	0.050	62012	0.7292	

QC Flag Legend

Review Flags

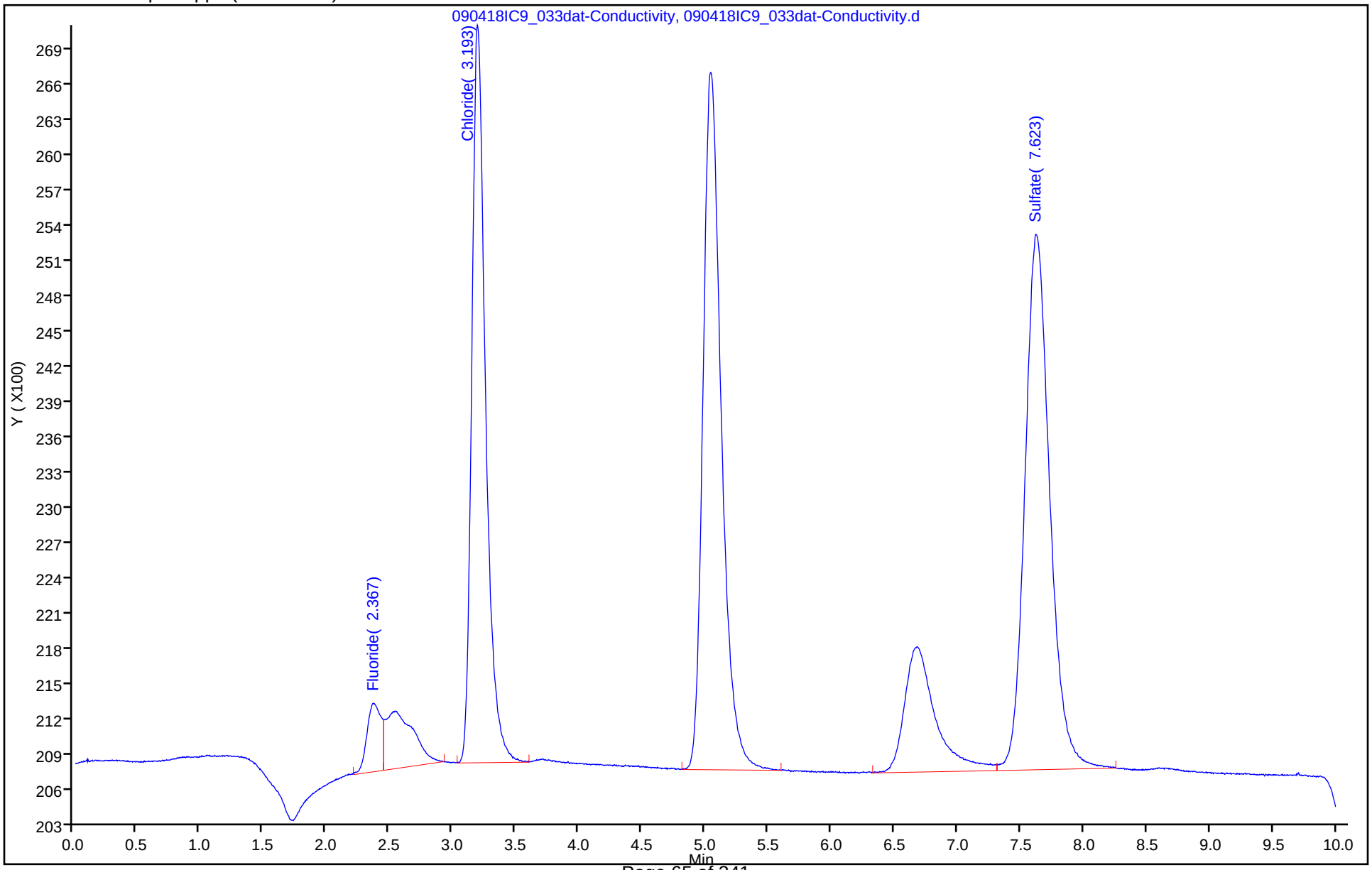
M - Manually Integrated

Report Date: 05-Sep-2018 07:07:00 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_033dat-Conductivity.d				
Injection Date:	04-Sep-2018 14:50:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-A-5-B	Lab Sample ID:	490-158137-5	Worklist Smp#:	28
Client ID:	CUF-BS-BG01-11.5/13.5-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

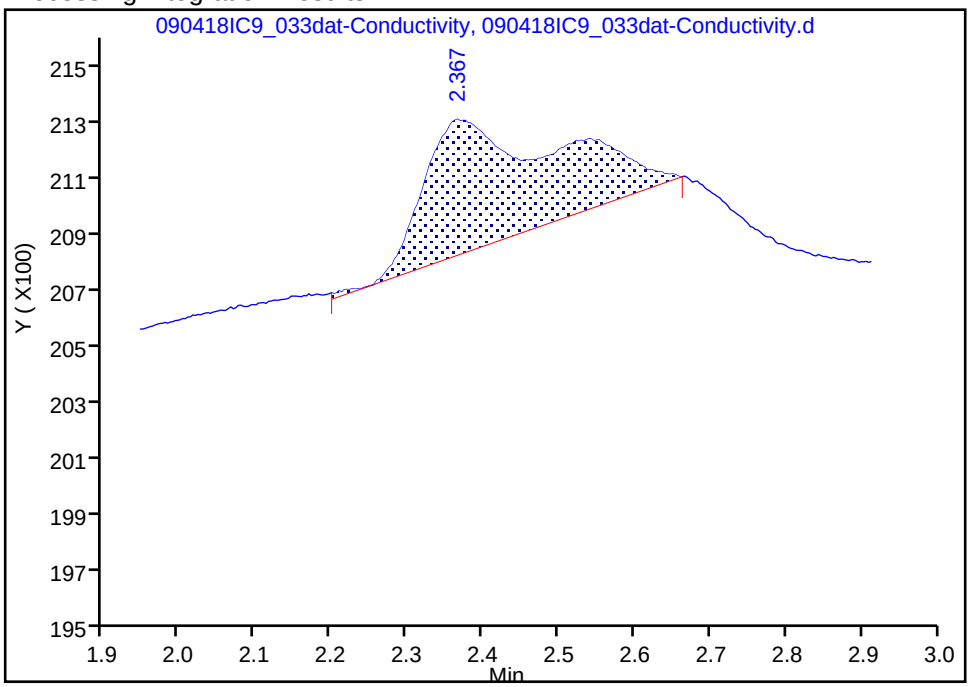
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_033dat-Conductivity.d				
Injection Date:	04-Sep-2018 14:50:00	Instrument ID:	IC9		
Lims ID:	490-158137-A-5-B	Lab Sample ID:	490-158137-5		
Client ID:	CUF-BS-BG01-11.5/13.5-20180827				
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

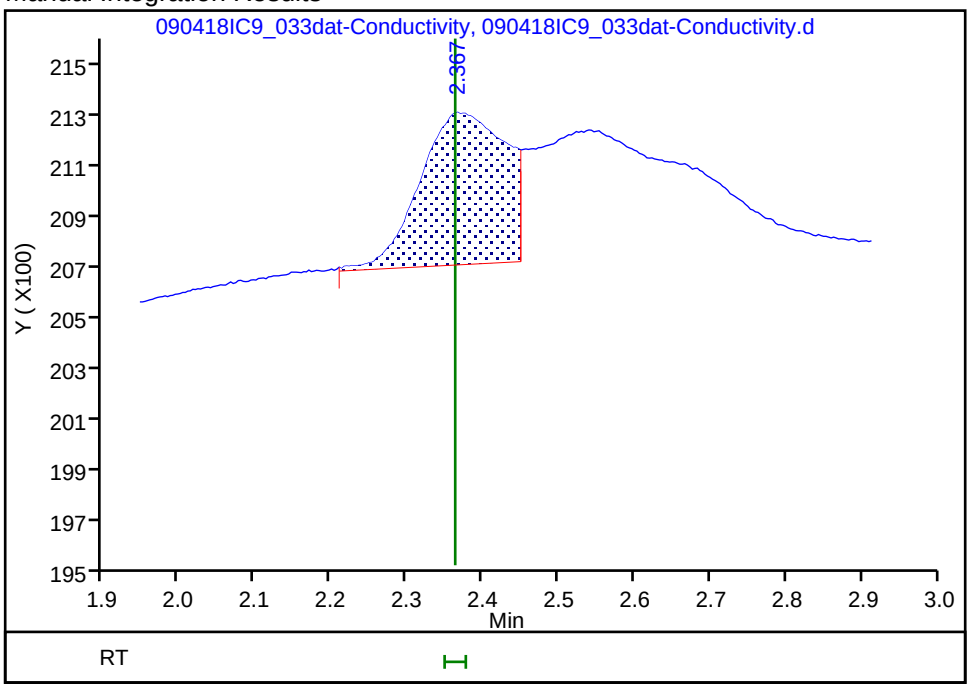
Processing Integration Results

RT: 2.37
Area: 5464
Amount: 0.043101
Amount Units: ug/ml



Manual Integration Results

RT: 2.37
Area: 4541
Amount: 0.041065
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:05:13

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-BG01-16.5/18.5-20180827
Lab Sample ID: 490-158137-6
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_034dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 15:05
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 15:02
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture: 21.8
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		12.8	8.93
16984-48-8	Fluoride	ND		1.28	1.02
14808-79-8	Sulfate	7.77	J	12.8	7.65

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_034dat-Conductivity.d				
Lims ID:	490-158137-A-6-B				
Client ID:	CUF-BS-BG01-16.5/18.5-20180827				
Sample Type:	Client				
Inject. Date:	04-Sep-2018 15:02:00	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_034				
Misc. Info.:	090418IC9_034				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

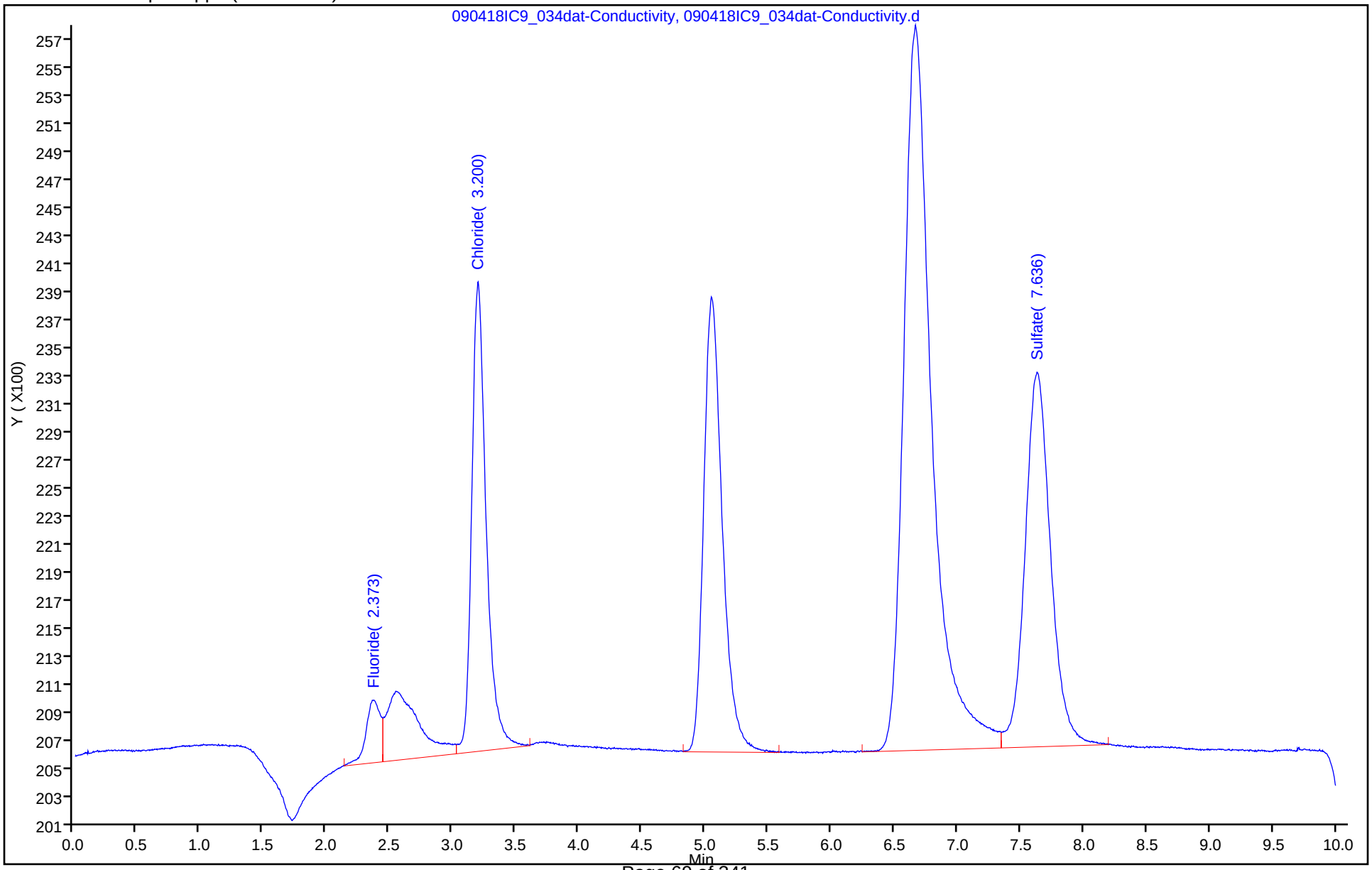
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.373	2.363	0.010	3491	0.0387	
2 Chloride	3.200	3.213	-0.013	26321	0.2774	
4 Sulfate	7.636	7.573	0.063	37089	0.6089	

Report Date: 05-Sep-2018 07:07:00 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_034dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:02:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-A-6-B	Lab Sample ID:	490-158137-6	Worklist Smp#:	29
Client ID:	CUF-BS-BG01-16.5/18.5-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827
Lab Sample ID: 490-158137-7
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_035dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 15:25
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 15:13
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture: 24.3
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		13.3	9.31
16984-48-8	Fluoride	ND		1.33	1.06
14808-79-8	Sulfate	107		13.3	7.98

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_035dat-Conductivity.d				
Lims ID:	490-158137-A-7-B				
Client ID:	CUF-BS-BG01-21.5/23.5-20180827				
Sample Type:	Client				
Inject. Date:	04-Sep-2018 15:13:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_035				
Misc. Info.:	090418IC9_035				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:05:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride	2.373	2.363	0.010	3611	0.0390	M
2 Chloride	3.196	3.213	-0.017	70575	0.4366	
4 Sulfate	7.626	7.573	0.053	1581229	8.07	

QC Flag Legend

Review Flags

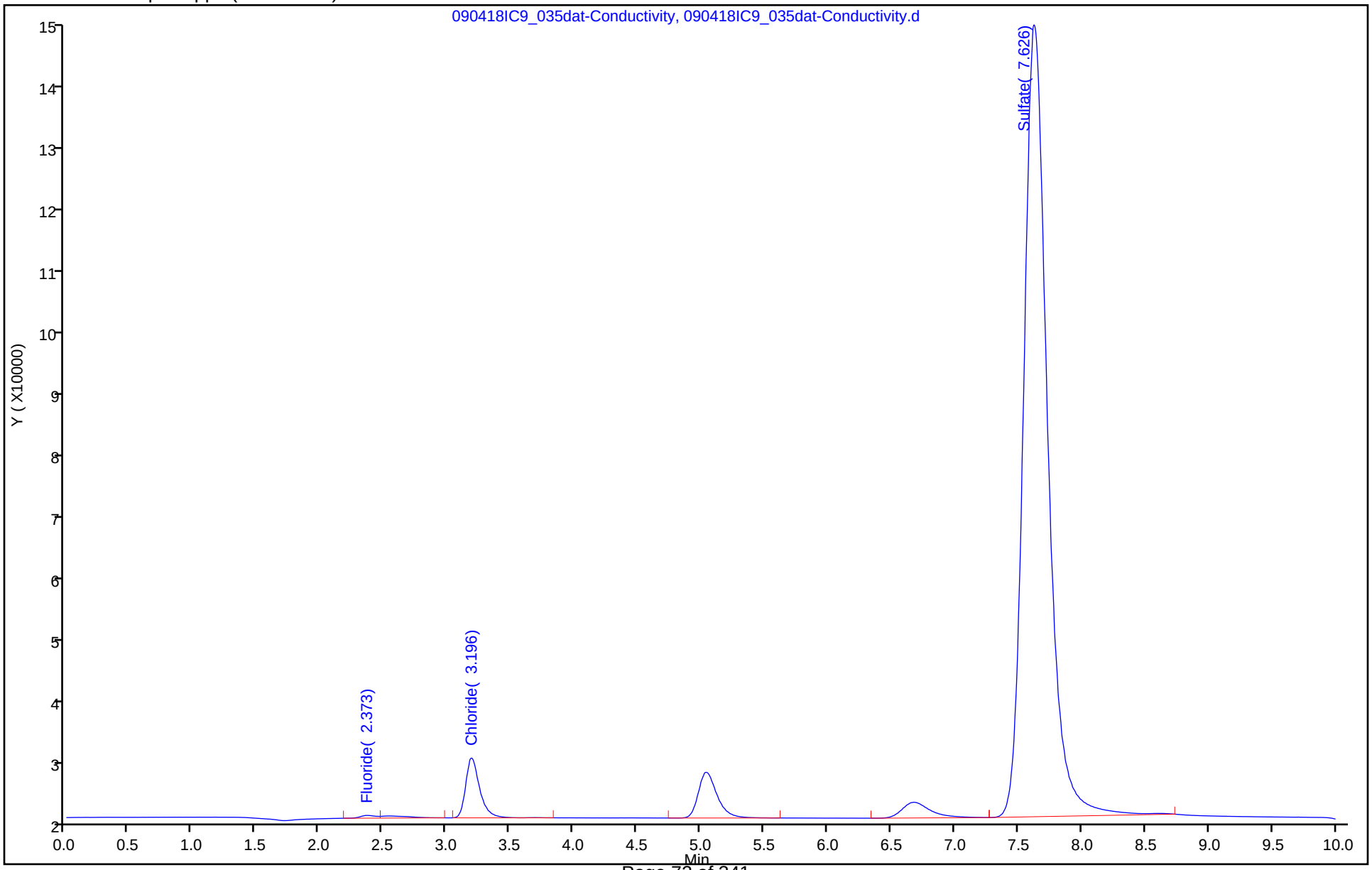
M - Manually Integrated

Report Date: 05-Sep-2018 07:07:01 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_035dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:13:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-A-7-B	Lab Sample ID:	490-158137-7	Worklist Smp#:	30
Client ID:	CUF-BS-BG01-21.5/23.5-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

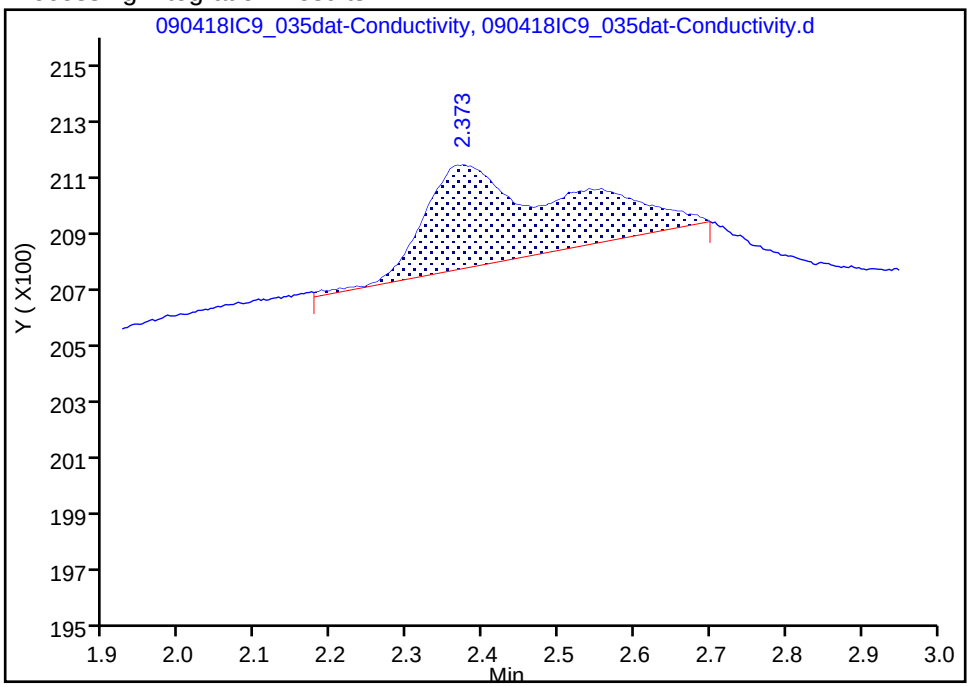
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_035dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:13:00	Instrument ID:	IC9		
Lims ID:	490-158137-A-7-B	Lab Sample ID:	490-158137-7		
Client ID:	CUF-BS-BG01-21.5/23.5-20180827				
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

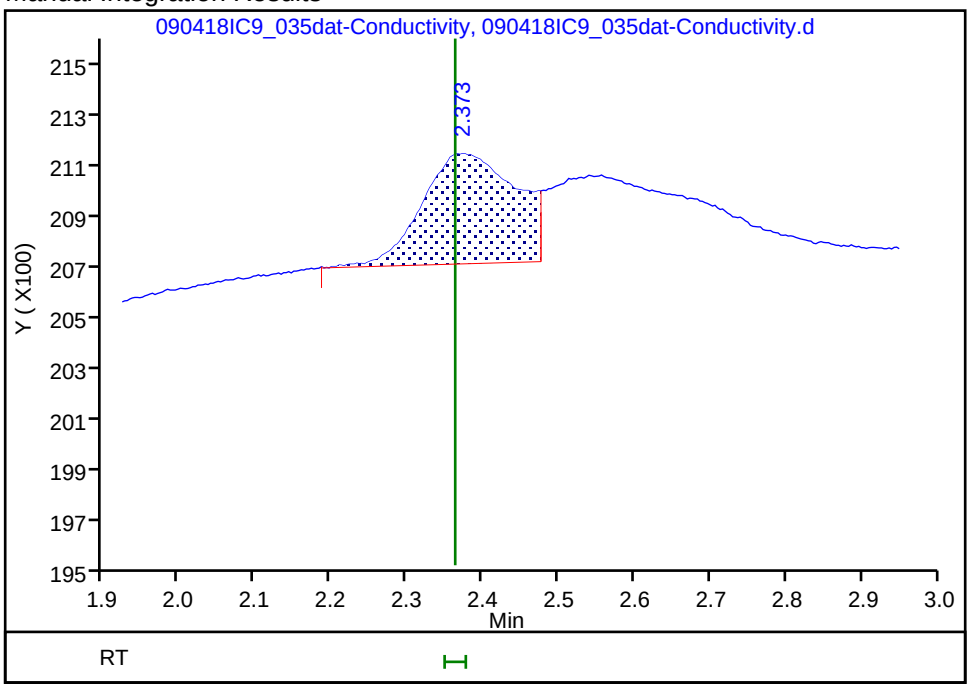
Processing Integration Results

RT: 2.37
Area: 4459
Amount: 0.040884
Amount Units: ug/ml



Manual Integration Results

RT: 2.37
Area: 3611
Amount: 0.039013
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:05:32

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-EB02-20180827
Lab Sample ID: 490-158137-8
Matrix: Water
Lab File ID: 082918IC9_039dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 15:55
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 17:26
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.303	J B	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.436	J B	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_039dat-Conductivity.d				
Lims ID:	490-158137-B-8				
Client ID:	CUF-BS-EB02-20180827				
Sample Type:	Client				
Inject. Date:	29-Aug-2018 17:26:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	xx				
Misc. Info.:	xx				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	31-Aug-2018 09:59:59	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK026				

First Level Reviewer: wanguns Date: 31-Aug-2018 09:59:59

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 Fluoride		2.357			ND	
2 Chloride	3.196	3.196	0.000	33414	0.3029	M
4 Sulfate	7.693	7.696	-0.003	1379	0.4364	

QC Flag Legend

Review Flags

M - Manually Integrated

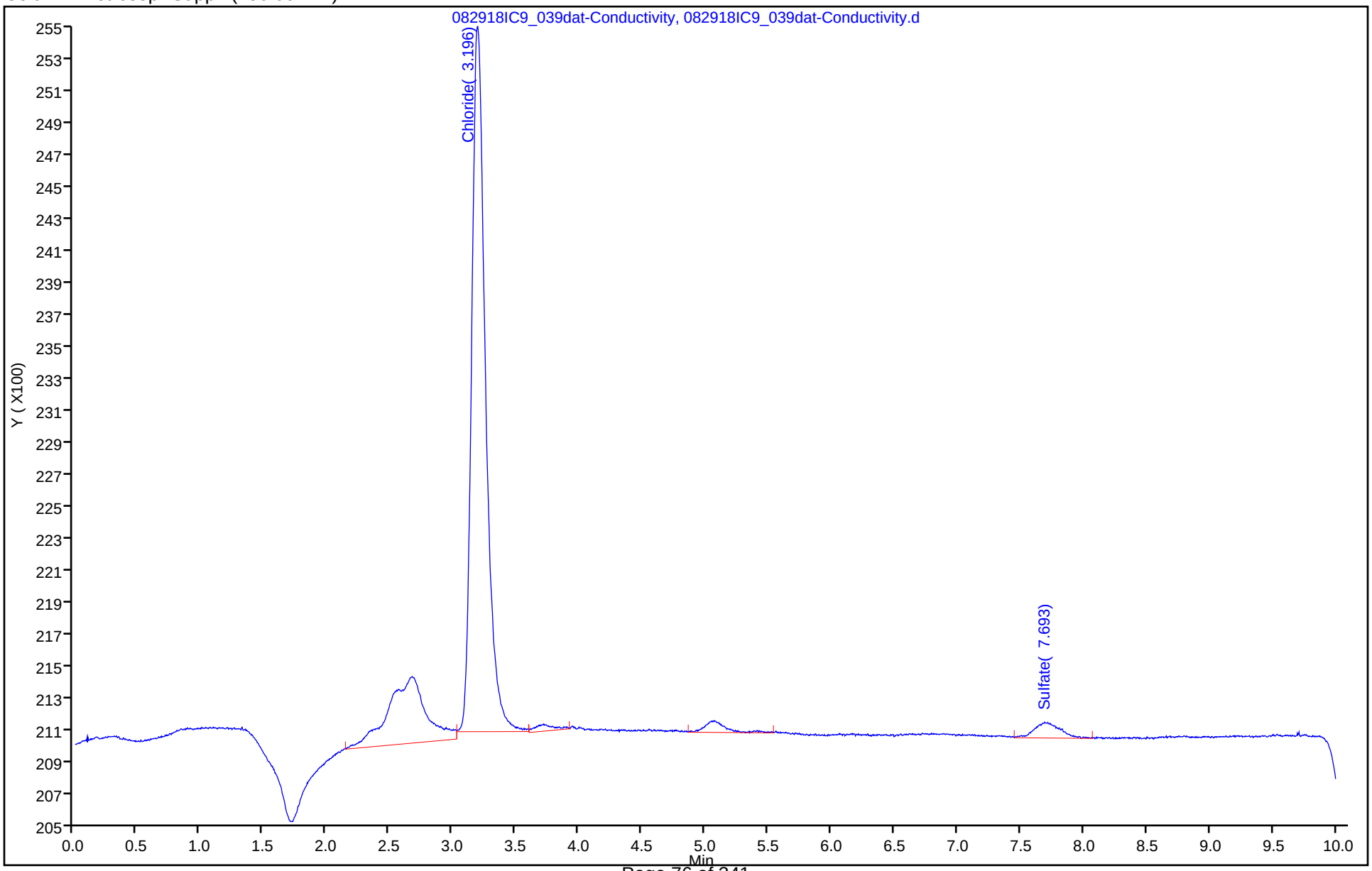
Report Date: 31-Aug-2018 10:00:00 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_039dat-Conductivity.d

Injection Date:	29-Aug-2018 17:26:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-B-8	Lab Sample ID:	490-158137-8	Worklist Smp#:	9
Client ID:	CUF-BS-EB02-20180827				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

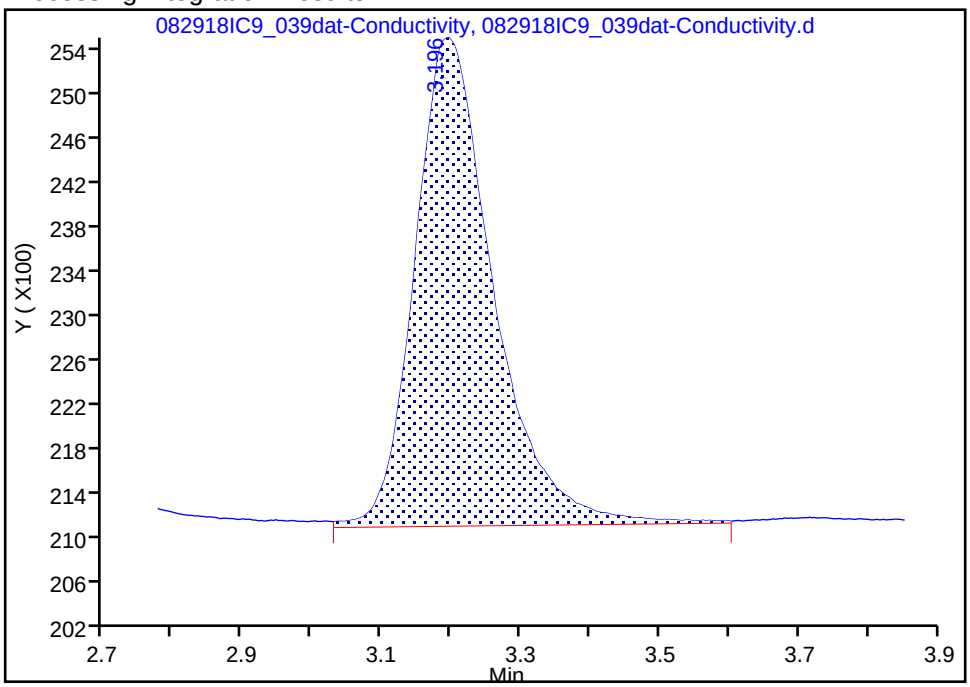
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_039dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:26:00	Instrument ID:	IC9		
Lims ID:	490-158137-B-8	Lab Sample ID:	490-158137-8		
Client ID:	CUF-BS-EB02-20180827				
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

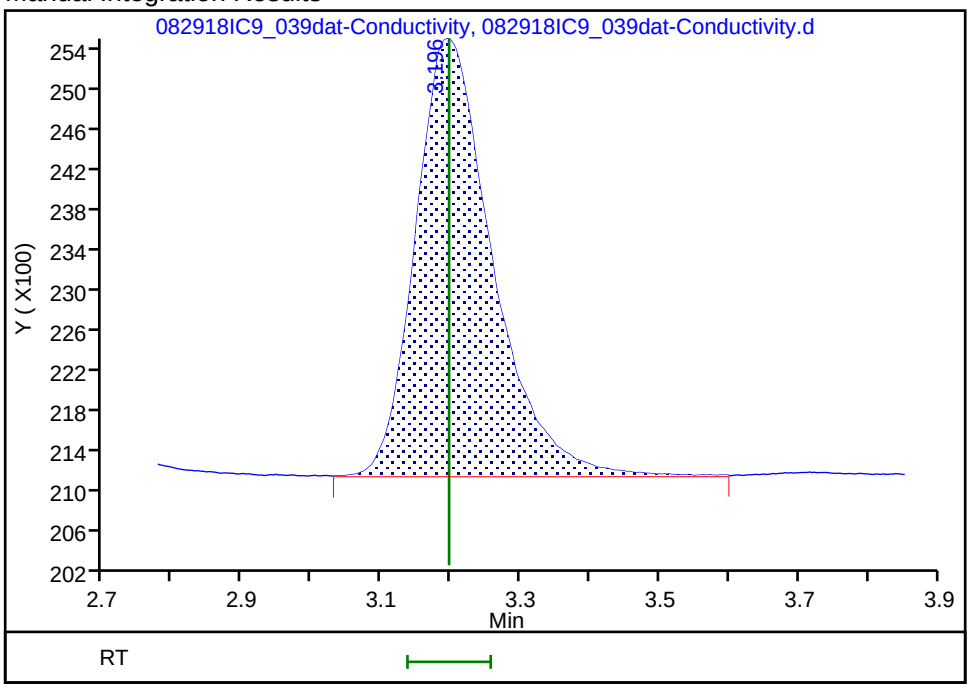
Processing Integration Results

RT: 3.20
Area: 34293
Amount: 0.306070
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 33414
Amount: 0.302909
Amount Units: ug/ml



Reviewer: wanguns, 31-Aug-2018 09:59:55
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1 Analy Batch No.: 537313

SDG No.:

Instrument ID: IC9 GC Column: Metrohm ASu ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/20/2018 09:44 Calibration End Date: 08/20/2018 11:16 Calibration ID: 72334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-537313/1	082018IC9_010dat-Conductivity.d
Level 2	STD2 490-537313/2	082018IC9_011dat-Conductivity.d
Level 3	STD3 490-537313/3	082018IC9_012dat-Conductivity.d
Level 4	STD4 490-537313/4	082018IC9_013dat-Conductivity.d
Level 5	STD5 490-537313/5	082018IC9_014dat-Conductivity.d
Level 6	ICRT 490-537313/6	082018IC9_015dat-Conductivity.d
Level 7	STD7 490-537313/7	082018IC9_016dat-Conductivity.d
Level 8	STD8 490-537313/8	082018IC9_017dat-Conductivity.d
Level 9	STD9 490-537313/9	082018IC9_018dat-Conductivity.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Fluoride	+++++	+++++	2.353	2.350	2.343	2.347	2.347	2.357	2.347		2.336 - 2.364	2.349
Chloride	+++++	+++++	3.216	3.206	3.203	3.200	3.203	3.210	3.203		3.153 - 3.273	3.206
Bromide	+++++	+++++	4.553	4.540	4.516	4.500	4.496	4.490	4.480		4.436 - 4.716	4.511
Sulfate	+++++	+++++	7.596	7.596	7.600	7.590	7.596	7.590	7.576		7.327 - 7.845	7.592
Sulfate as Sulfur	+++++	+++++	7.596	7.596	7.600	7.590	7.596	7.590	7.576		6.586 - 8.586	7.592

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Nashville Job No.: 490-158137-1 Analy Batch No.: 537313

SDG No.:

Instrument ID: IC9 GC Column: Metrohm ASu ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/20/2018 09:44 Calibration End Date: 08/20/2018 11:16 Calibration ID: 72334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-537313/1	082018IC9_010dat-Conductivity.d
Level 2	STD2 490-537313/2	082018IC9_011dat-Conductivity.d
Level 3	STD3 490-537313/3	082018IC9_012dat-Conductivity.d
Level 4	STD4 490-537313/4	082018IC9_013dat-Conductivity.d
Level 5	STD5 490-537313/5	082018IC9_014dat-Conductivity.d
Level 6	ICRT 490-537313/6	082018IC9_015dat-Conductivity.d
Level 7	STD7 490-537313/7	082018IC9_016dat-Conductivity.d
Level 8	STD8 490-537313/8	082018IC9_017dat-Conductivity.d
Level 9	STD9 490-537313/9	082018IC9_018dat-Conductivity.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	+++++ 396210 454392	+++++ 417128	339490 447841	397725 451683	Lin1	-14073.254	453290.442							0.9990		0.9900
Chloride	+++++ 261512 274845	+++++ 272377	240240 279551	243186 277724	Lin1	-50811.901	278057.170							1.0000		0.9900
Bromide	+++++ 103270 122326	+++++ 110801	85787 118805	91787 120781	Lin1	-51686.940	121741.765							0.9990		0.9900
Sulfate	+++++ 179505 207678	+++++ 191014	147312 200955	147635 205328	Lin1	-88963.064	207028.291							0.9990		0.9900
Sulfate as Sulfur	+++++ 538520 623041	+++++ 573049	441940 602872	442908 615989	Lin1	-88963.064	621091.084							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Nashville Job No.: 490-158137-1 Analy Batch No.: 537313

SDG No.:

Instrument ID: IC9 GC Column: Metrohm ASu ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/20/2018 09:44 Calibration End Date: 08/20/2018 11:16 Calibration ID: 72334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 490-537313/1	082018IC9_010dat-Conductivity.d
Level 2	STD2 490-537313/2	082018IC9_011dat-Conductivity.d
Level 3	STD3 490-537313/3	082018IC9_012dat-Conductivity.d
Level 4	STD4 490-537313/4	082018IC9_013dat-Conductivity.d
Level 5	STD5 490-537313/5	082018IC9_014dat-Conductivity.d
Level 6	ICRT 490-537313/6	082018IC9_015dat-Conductivity.d
Level 7	STD7 490-537313/7	082018IC9_016dat-Conductivity.d
Level 8	STD8 490-537313/8	082018IC9_017dat-Conductivity.d
Level 9	STD9 490-537313/9	082018IC9_018dat-Conductivity.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Fluoride	Lin1	+++++ 417128	+++++ 895682	33949 1355049	79545 1817566	198105	+++++ 1.00	+++++ 2.00	0.100 3.00	0.200 4.00	0.500
Chloride	Lin1	+++++ 2723767	+++++ 5591014	240240 8331734	486371 10993807	1307558	+++++ 10.0	+++++ 20.0	1.00 30.0	2.00 40.0	5.00
Bromide	Lin1	+++++ 1108008	+++++ 2376106	85787 3623429	183573 4893051	516348	+++++ 10.0	+++++ 20.0	1.00 30.0	2.00 40.0	5.00
Sulfate	Lin1	+++++ 1910143	+++++ 4019109	147312 6159826	295269 8307131	897524	+++++ 10.0	+++++ 20.0	1.00 30.0	2.00 40.0	5.00
Sulfate as Sulfur	Lin1	+++++ 1910143	+++++ 4019109	147312 6159826	295269 8307131	897524	+++++ 3.33	+++++ 6.67	0.333 10.00	0.667 13.3	1.67

Curve Type Legend:

Lin1 = Linear 1/conc

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Aug-2018 09:44:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_010
Misc. Info.: 082018IC9_010
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:32 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:33:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.350	2.350	0.000	7298	0.0200	0.0471	M
2 Chloride	3.213	3.213	0.000	47126	0.2000	0.3522	M
7 Nitrite as N	3.753	3.753	0.000	9375	NC	NC	M
8 Nitrite as NO2	3.753	3.753	0.000	9375	NC	NC	M
1 Bromide	4.576	4.576	0.000	17532	0.2000	0.5686	M
9 Nitrate as NO3	5.206	5.206	0.000	10412	NC	NC	M
3 Nitrate as N	5.206	5.206	0.000	10412	NC	NC	M
6 Sulfate as Sulfur	7.586	7.586	0.000	23278	0.0667	0.1807	
4 Sulfate	7.586	7.586	0.000	23278	0.2000	0.5422	
S 10 Nitrate Nitrite as N		0.000			0.0400	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

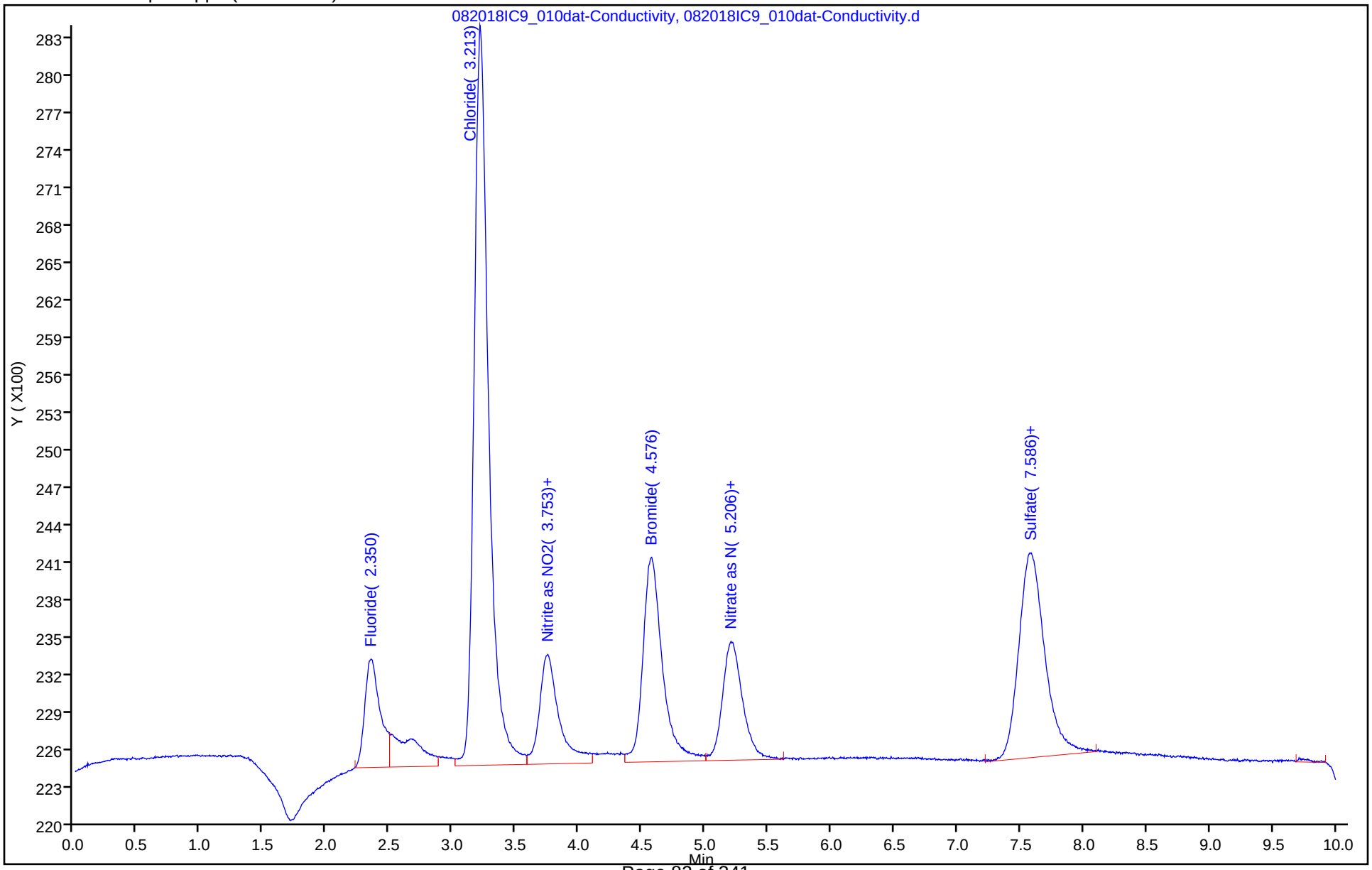
IC Primary_00012 Amount Added: 10.00 Units: uL

Report Date: 20-Aug-2018 12:39:32 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:44:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD1			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

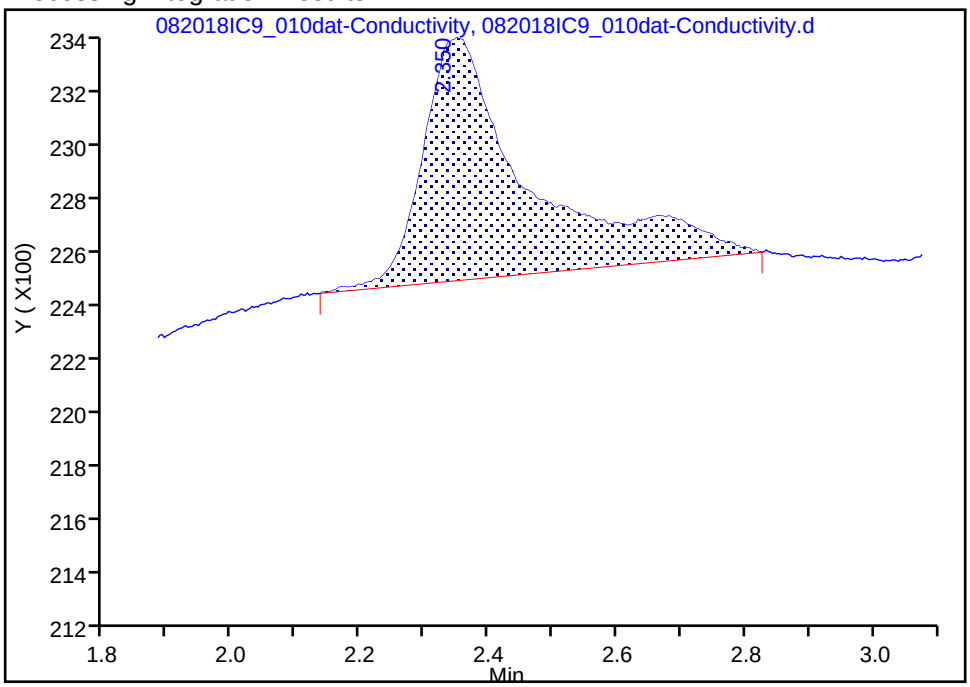
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:44:00	Instrument ID:	IC9		
Lims ID:	STD1				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

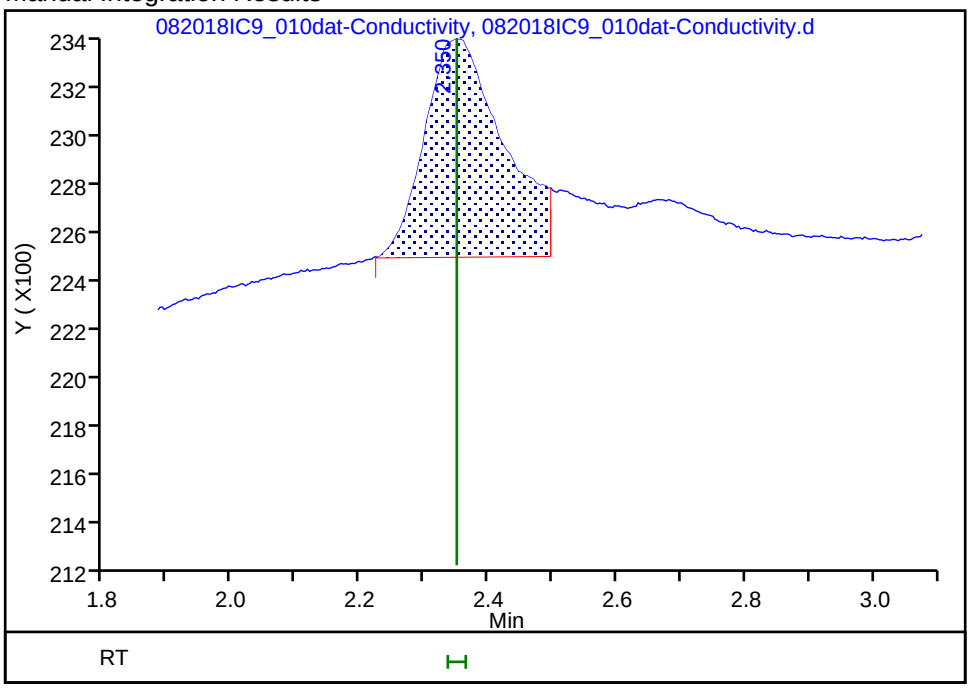
Processing Integration Results

RT: 2.35
Area: 9977
Amount: 0.021006
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 7298
Amount: 0.047147
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:47:39
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

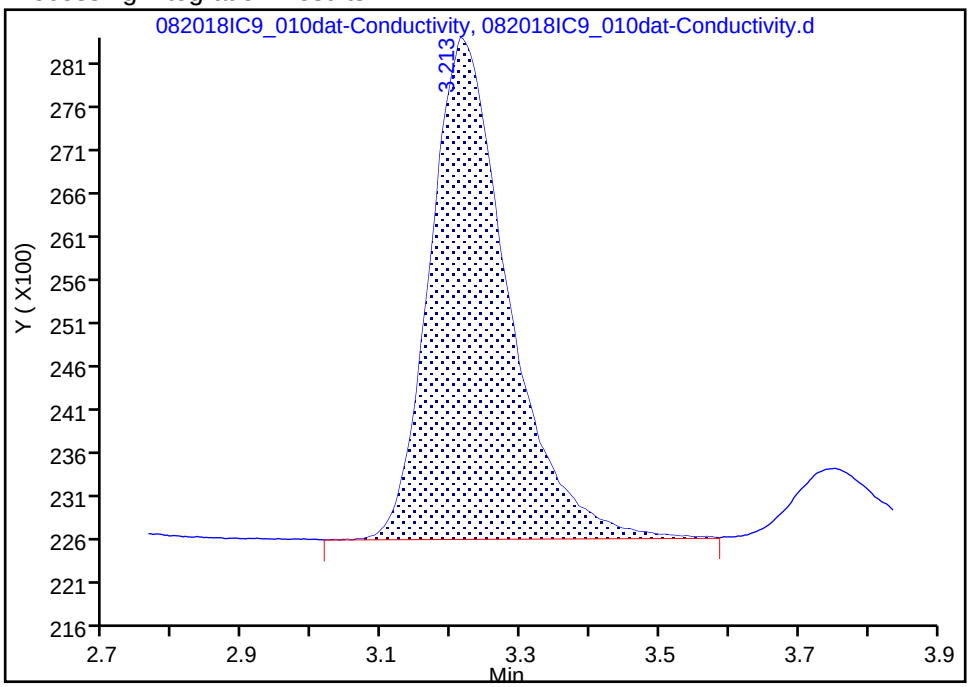
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:44:00	Instrument ID:	IC9		
Lims ID:	STD1				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

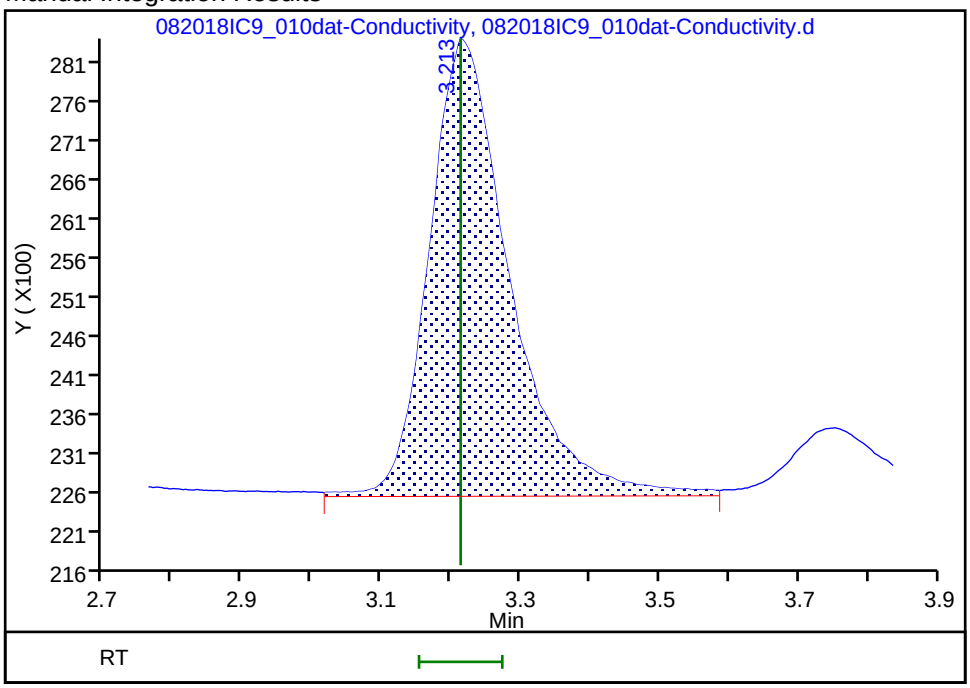
Processing Integration Results

RT: 3.21
Area: 45228
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.21
Area: 47126
Amount: 0.352222
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:47:39
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

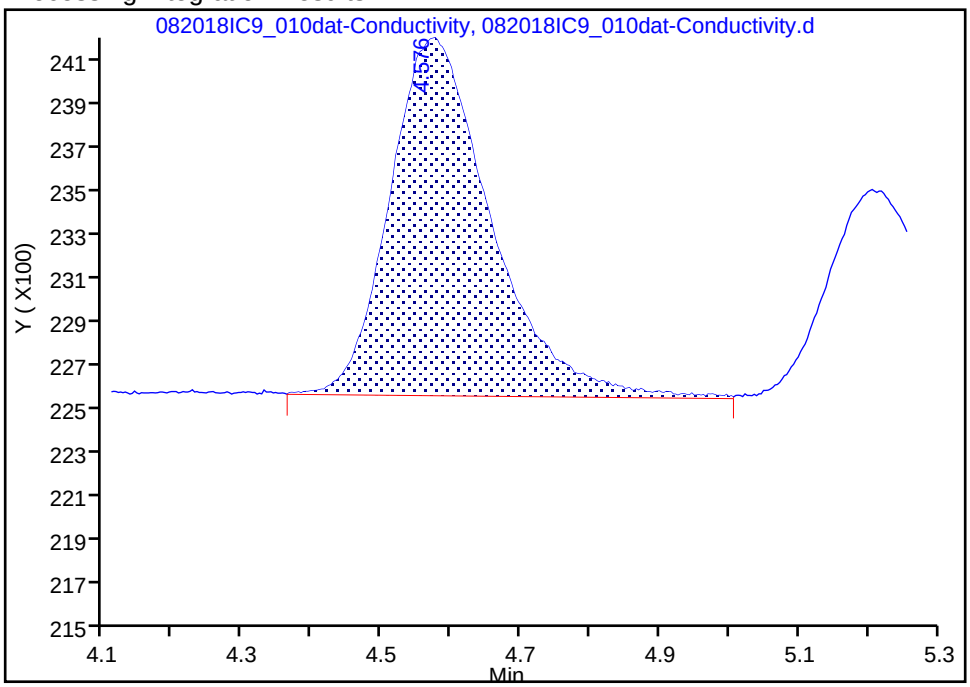
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_010dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:44:00	Instrument ID:	IC9		
Lims ID:	STD1				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

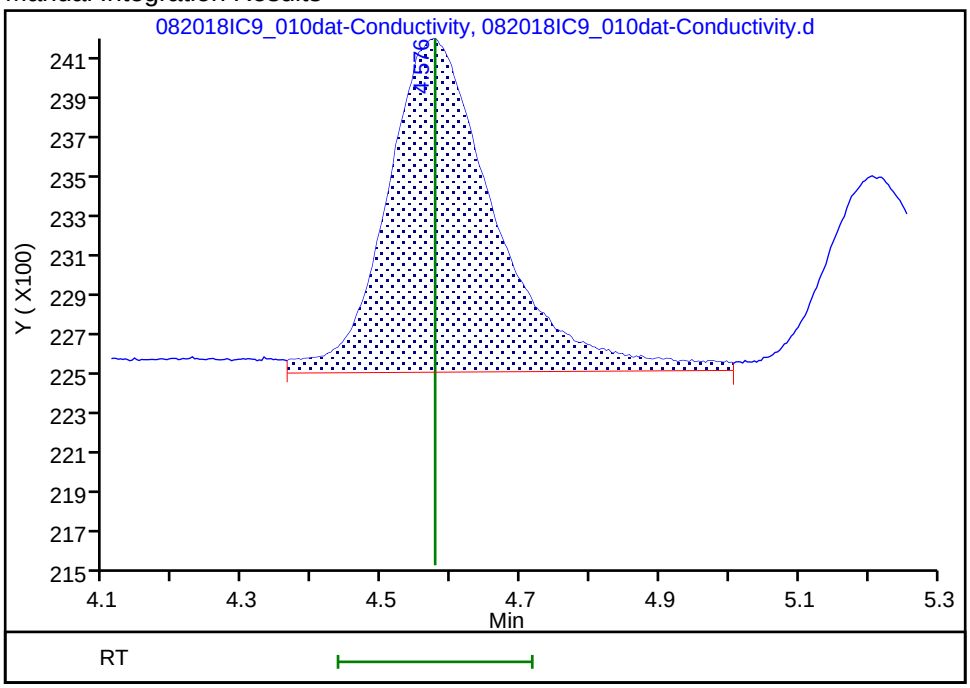
Processing Integration Results

RT: 4.58
Area: 15872
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.58
Area: 17532
Amount: 0.568572
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:47:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Aug-2018 09:55:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_011
Misc. Info.: 082018IC9_011
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:35 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:33:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.350	0.010	14450	0.0400	0.0629	M
2 Chloride	3.223	3.213	0.010	87457	0.4000	0.4973	M
8 Nitrite as NO2	3.753	3.753	0.000	17713	NC	NC	M
7 Nitrite as N	3.753	3.753	0.000	17713	NC	NC	M
1 Bromide	4.563	4.576	-0.013	35229	0.4000	0.7139	M
3 Nitrate as N	5.193	5.206	-0.013	25361	NC	NC	M
9 Nitrate as NO3	5.193	5.206	-0.013	25361	NC	NC	M
4 Sulfate	7.600	7.586	0.014	59779	0.4000	0.7185	
6 Sulfate as Sulfur	7.600	7.586	0.014	59779	0.1333	0.2395	
S 10 Nitrate Nitrite as N		0.000			0.0800	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

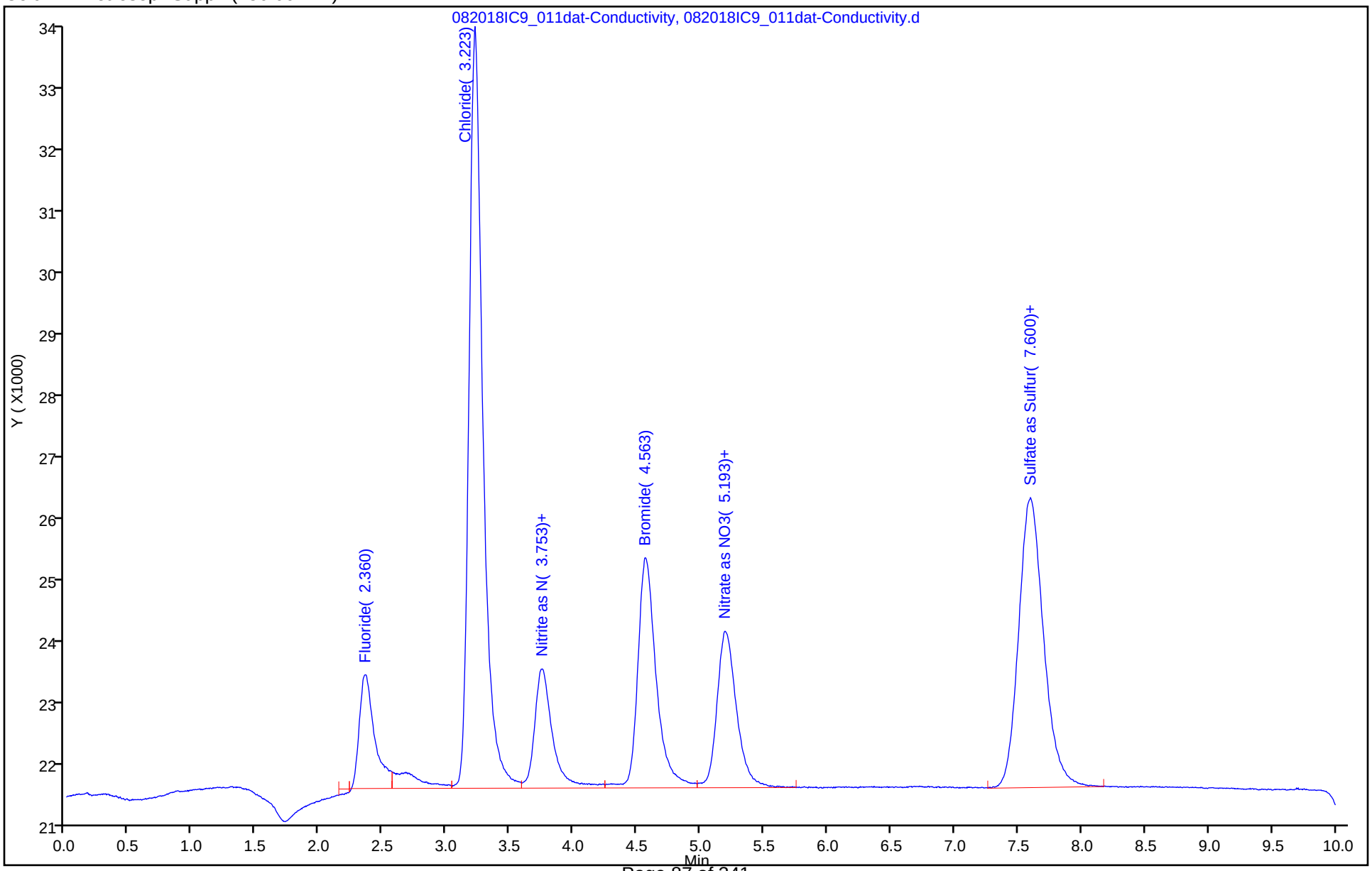
IC Primary_00012 Amount Added: 20.00 Units: uL

Report Date: 20-Aug-2018 12:39:36 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:55:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD2			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

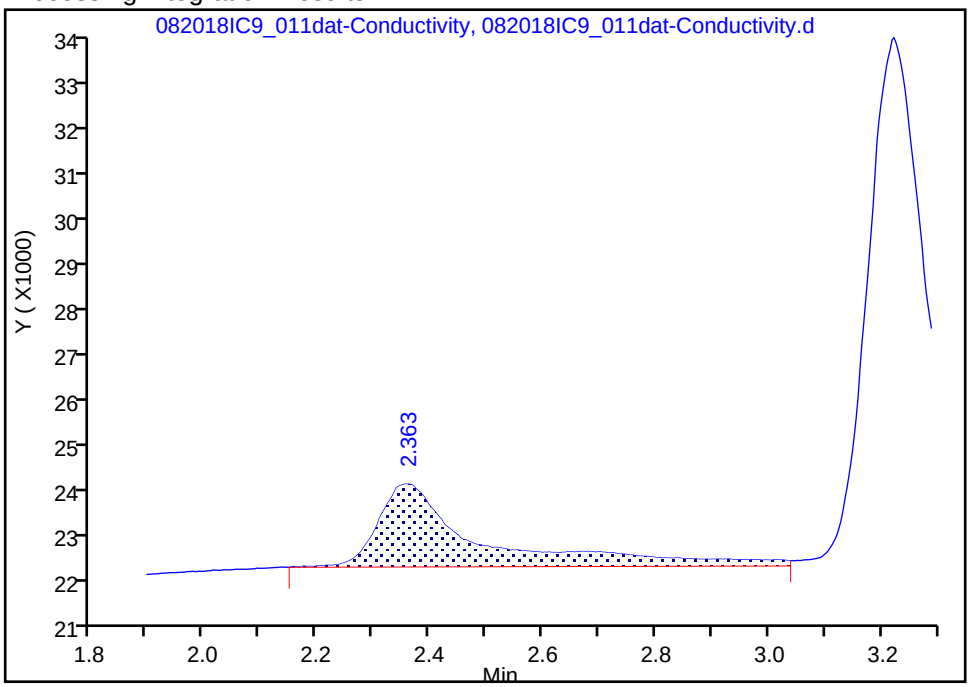
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:55:00	Instrument ID:	IC9		
Lims ID:	STD2				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

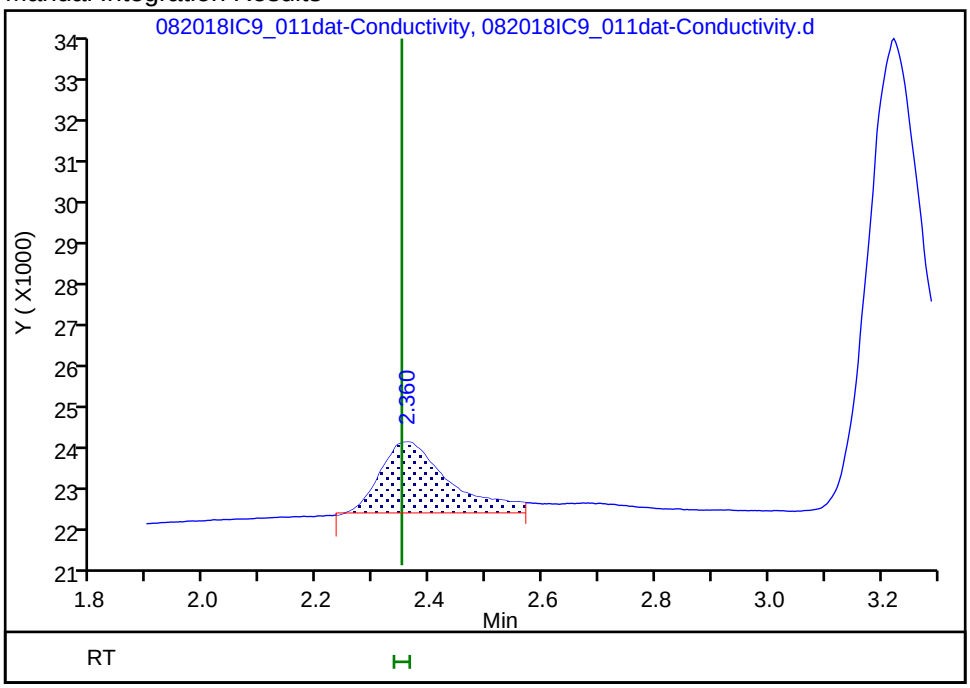
Processing Integration Results

RT: 2.36
Area: 22705
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 14450
Amount: 0.062925
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:50:08
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

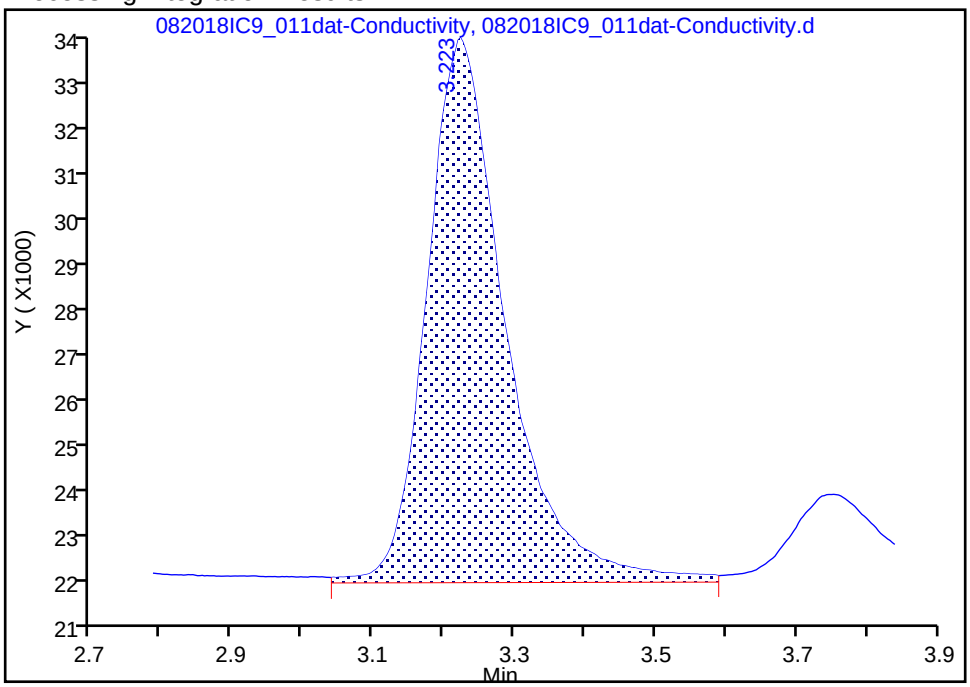
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:55:00	Instrument ID:	IC9		
Lims ID:	STD2				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

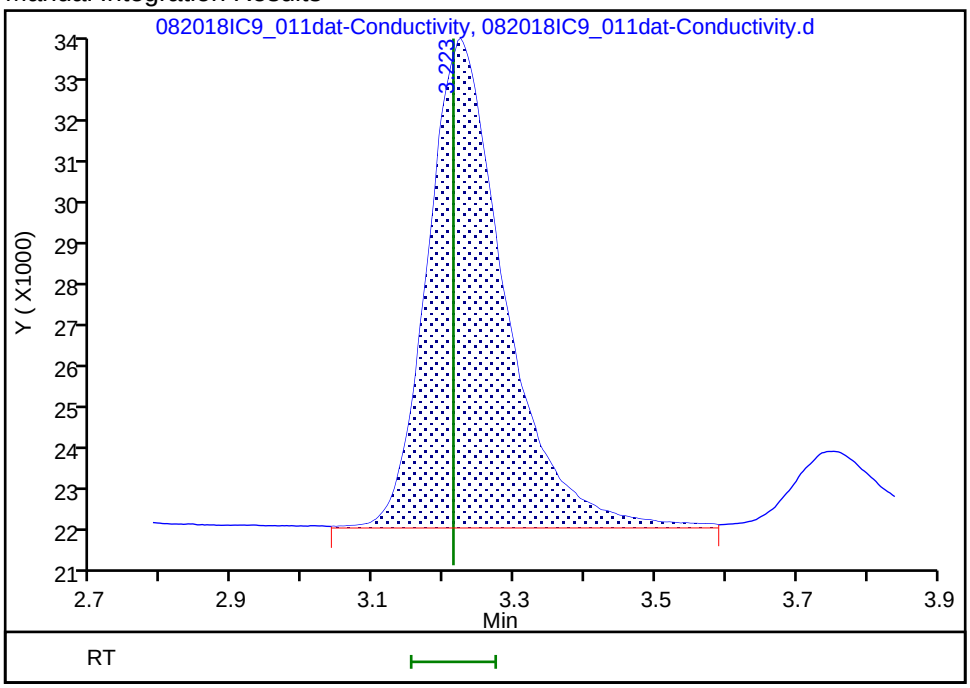
Processing Integration Results

RT: 3.22
Area: 89833
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.22
Area: 87457
Amount: 0.497268
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:50:08
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

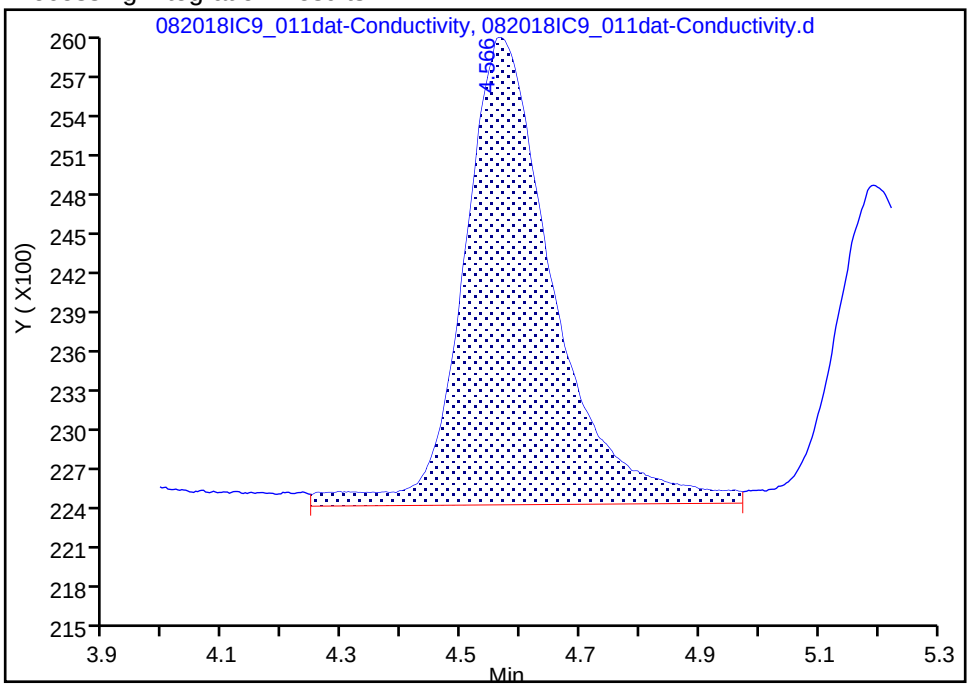
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_011dat-Conductivity.d				
Injection Date:	20-Aug-2018 09:55:00	Instrument ID:	IC9		
Lims ID:	STD2				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

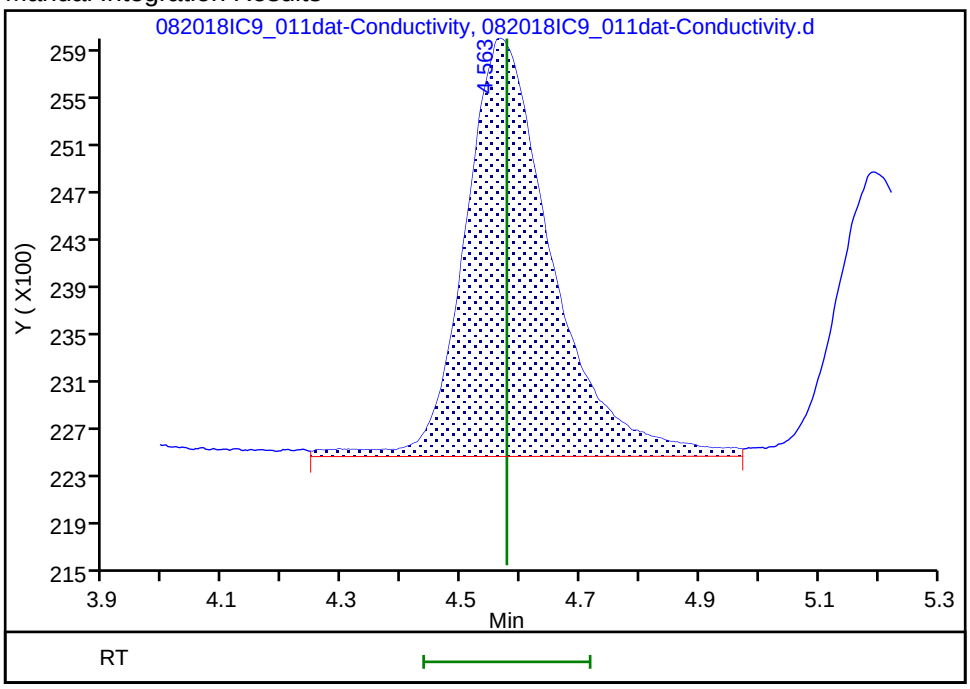
Processing Integration Results

RT: 4.57
Area: 36755
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.56
Area: 35229
Amount: 0.713937
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:50:08
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Aug-2018 10:07:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_012
Misc. Info.: 082018IC9_012
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:38 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:34:13

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.353	2.350	0.003	33949	0.1000	0.1059	M
2 Chloride	3.216	3.213	0.003	240240	1.00	1.05	M
7 Nitrite as N	3.740	3.753	-0.013	43471	NC	NC	M
8 Nitrite as NO2	3.740	3.753	-0.013	43471	NC	NC	M
1 Bromide	4.553	4.576	-0.023	85787	1.00	1.13	M
9 Nitrate as NO3	5.180	5.206	-0.026	52805	NC	NC	M
3 Nitrate as N	5.180	5.206	-0.026	52805	NC	NC	M
6 Sulfate as Sulfur	7.596	7.586	0.010	147312	0.3333	0.3804	
4 Sulfate	7.596	7.586	0.010	147312	1.00	1.14	
S 10 Nitrate Nitrite as N		0.000			0.2000	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

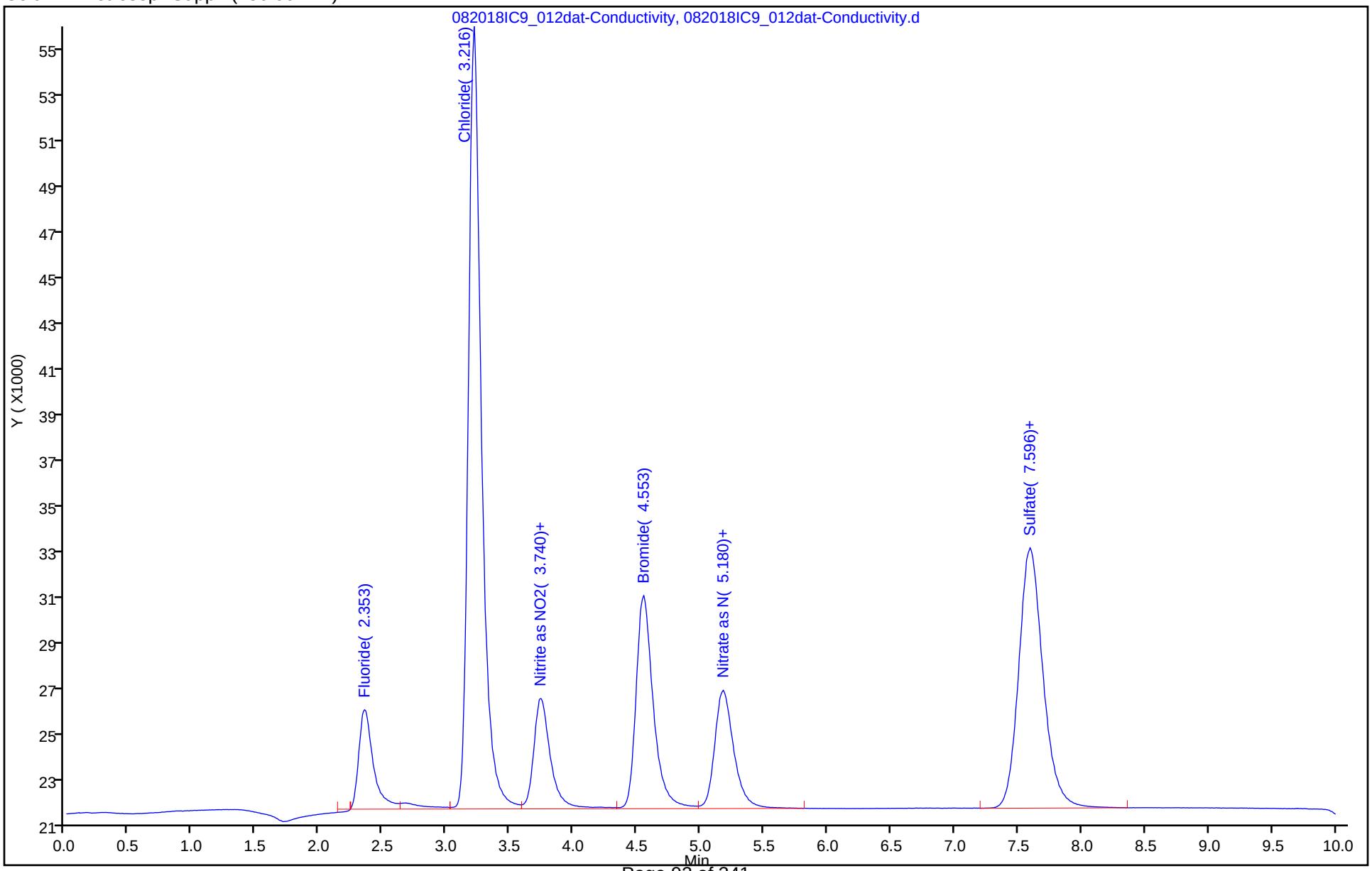
IC Primary_00012 Amount Added: 50.00 Units: uL

Report Date: 20-Aug-2018 12:39:39 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:07:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD3			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

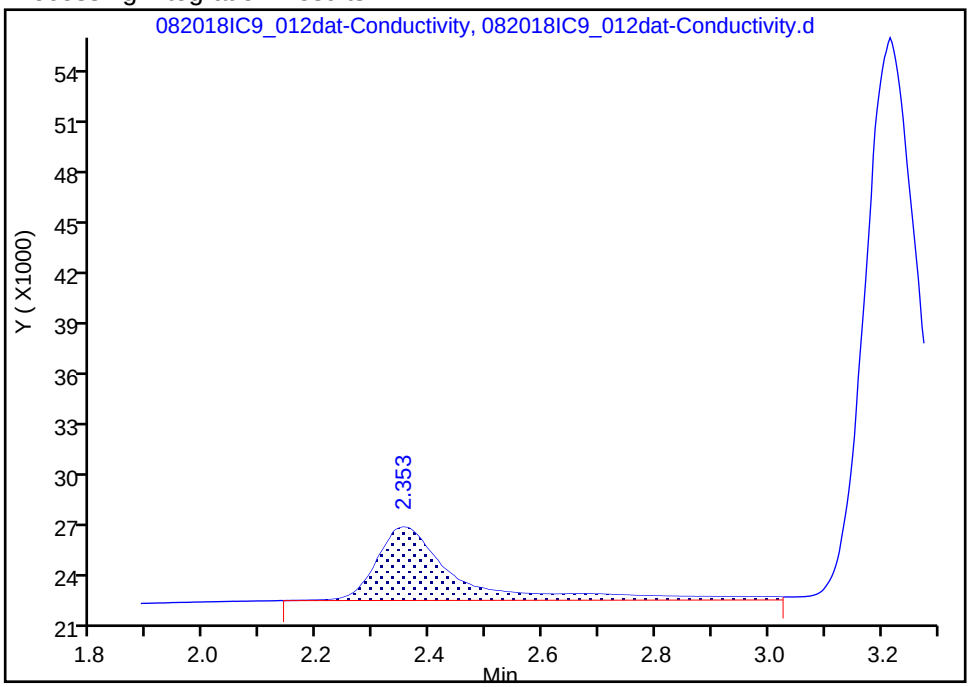
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:07:00	Instrument ID:	IC9		
Lims ID:	STD3				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

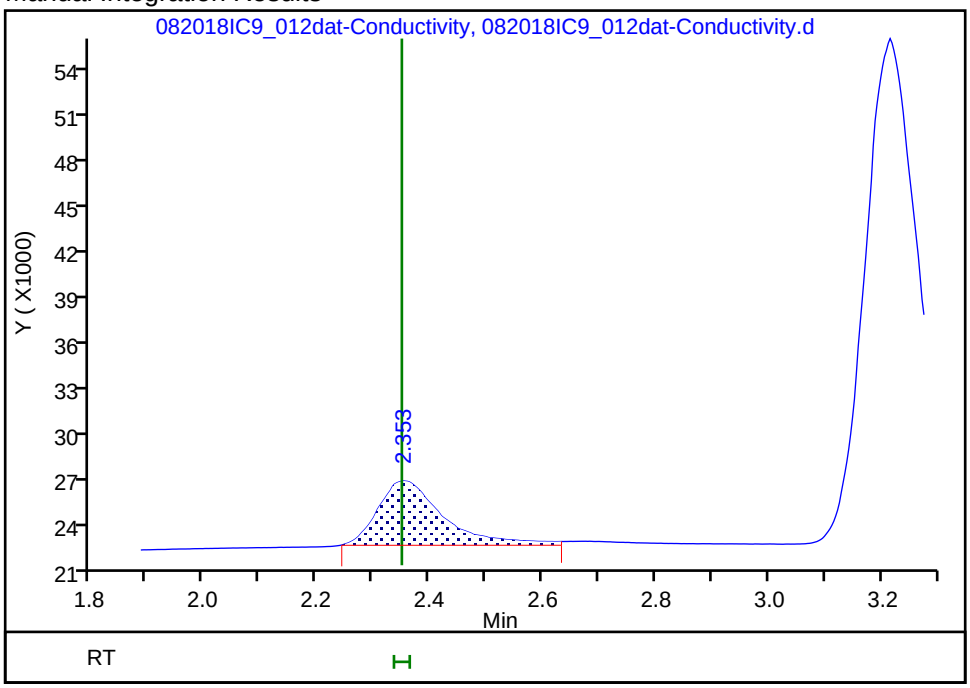
Processing Integration Results

RT: 2.35
Area: 43132
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 33949
Amount: 0.105941
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:50:35

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

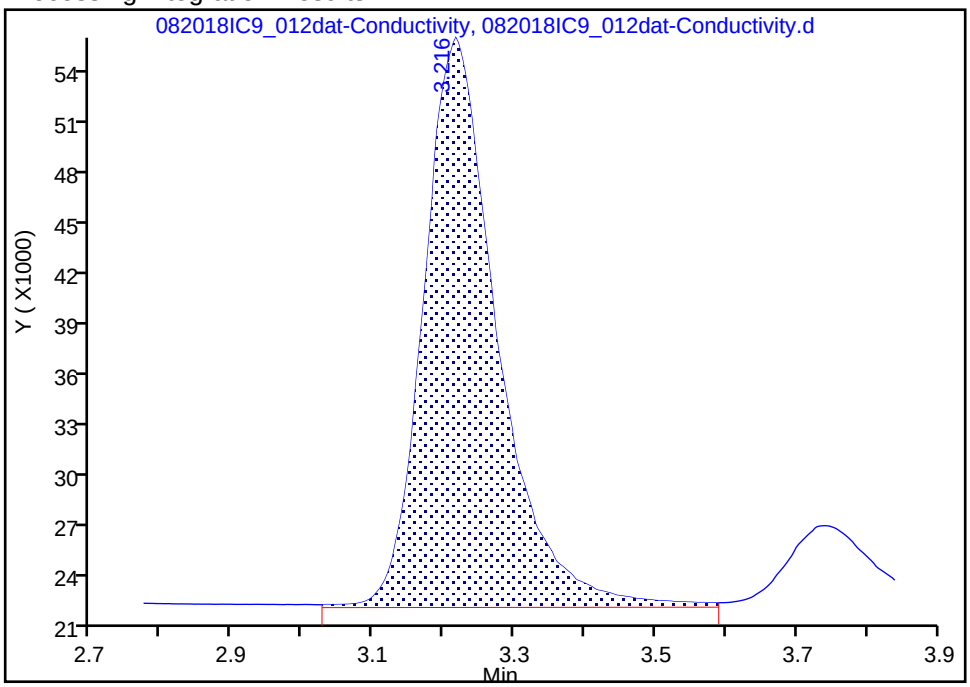
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:07:00	Instrument ID:	IC9		
Lims ID:	STD3				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

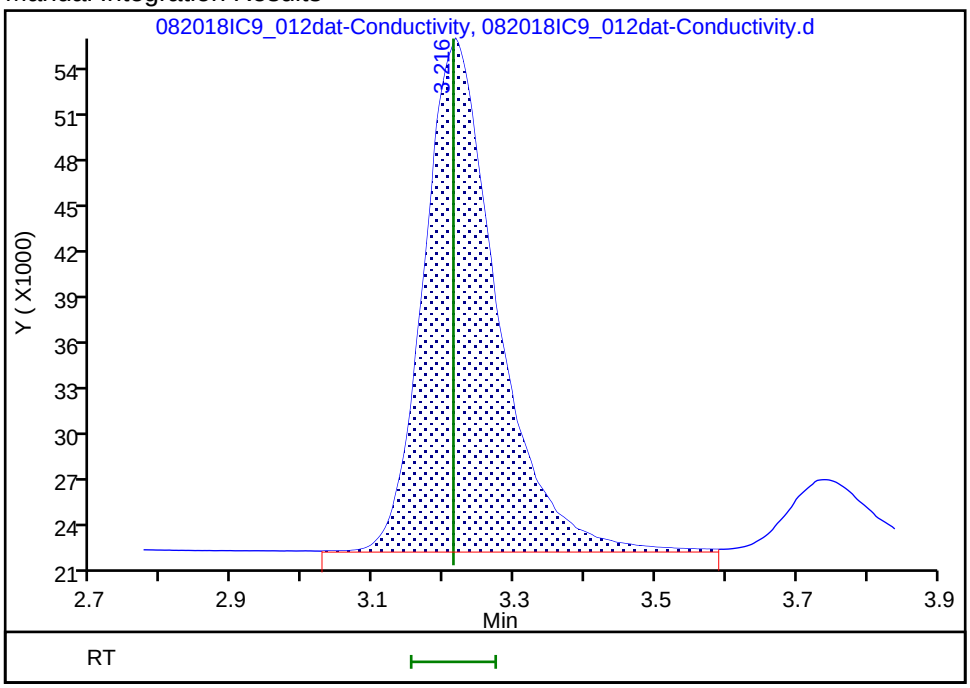
Processing Integration Results

RT: 3.22
Area: 243400
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.22
Area: 240240
Amount: 1.046734
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:50:28
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

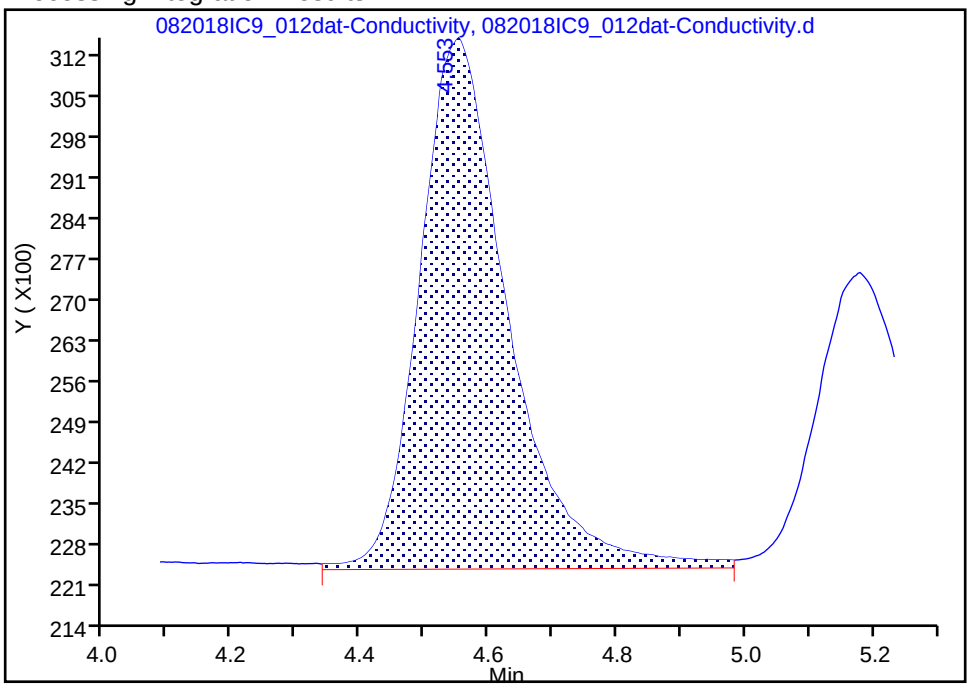
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_012dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:07:00	Instrument ID:	IC9		
Lims ID:	STD3				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

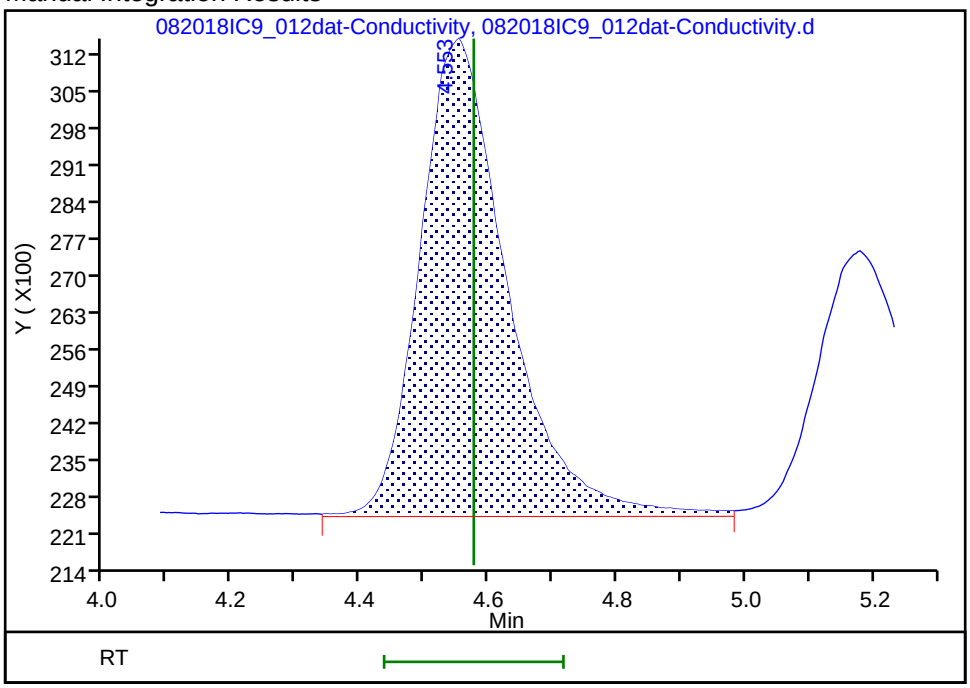
Processing Integration Results

RT: 4.55
Area: 87369
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.55
Area: 85787
Amount: 1.129226
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:50:28
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_013dat-Conductivity.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Aug-2018 10:18:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_013
Misc. Info.: 082018IC9_013
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:43 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:34:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.350	2.350	0.000	79545	0.2000	0.2065	
2 Chloride	3.206	3.213	-0.007	486371	2.00	1.93	
8 Nitrite as NO2	3.733	3.753	-0.020	84778	NC	NC	
7 Nitrite as N	3.733	3.753	-0.020	84778	NC	NC	
1 Bromide	4.540	4.576	-0.036	183573	2.00	1.93	
3 Nitrate as N	5.163	5.206	-0.043	99784	NC	NC	
9 Nitrate as NO3	5.163	5.206	-0.043	99784	NC	NC	
4 Sulfate	7.596	7.586	0.010	295269	2.00	1.86	
6 Sulfate as Sulfur	7.596	7.586	0.010	295269	0.6667	0.6186	
S 10 Nitrate Nitrite as N		0.000			0.4000	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

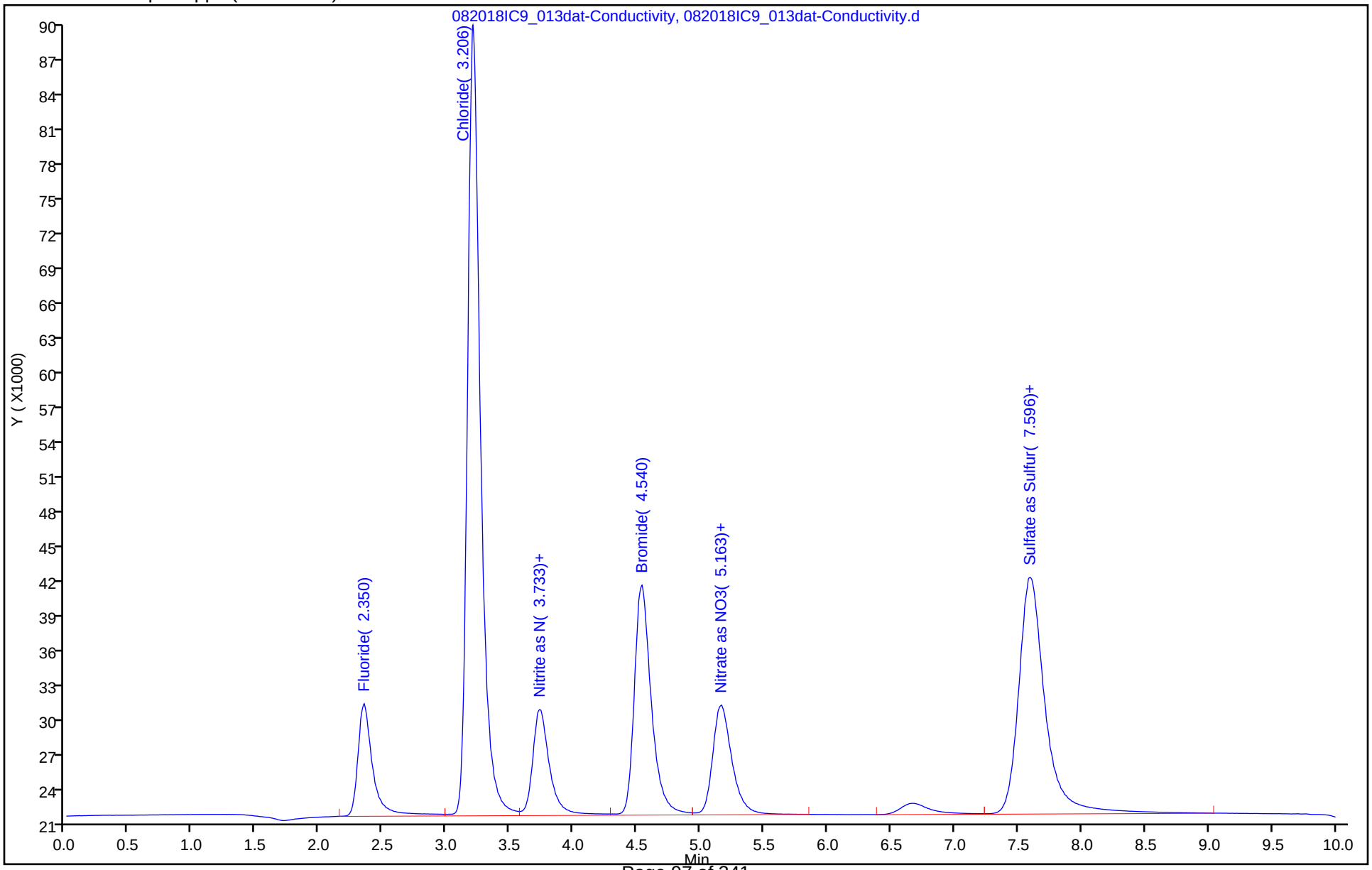
IC Primary_00012 Amount Added: 100.00 Units: uL

Report Date: 20-Aug-2018 12:39:43 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_013dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:18:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD4			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d
Lims ID: STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Aug-2018 10:30:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_014
Misc. Info.: 082018IC9_014
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:45 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:35:11

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.343	2.350	-0.007	198105	0.5000	0.4681	M
2 Chloride	3.203	3.213	-0.010	1307558	5.00	4.89	M
7 Nitrite as N	3.726	3.753	-0.027	258121	NC	NC	M
8 Nitrite as NO2	3.726	3.753	-0.027	258121	NC	NC	M
1 Bromide	4.516	4.576	-0.060	516348	5.00	4.67	M
9 Nitrate as NO3	5.130	5.206	-0.076	265766	NC	NC	M
3 Nitrate as N	5.130	5.206	-0.076	265766	NC	NC	M
6 Sulfate as Sulfur	7.600	7.586	0.014	897524	1.67	1.59	
4 Sulfate	7.600	7.586	0.014	897524	5.00	4.76	
S 10 Nitrate Nitrite as N		0.000			1.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

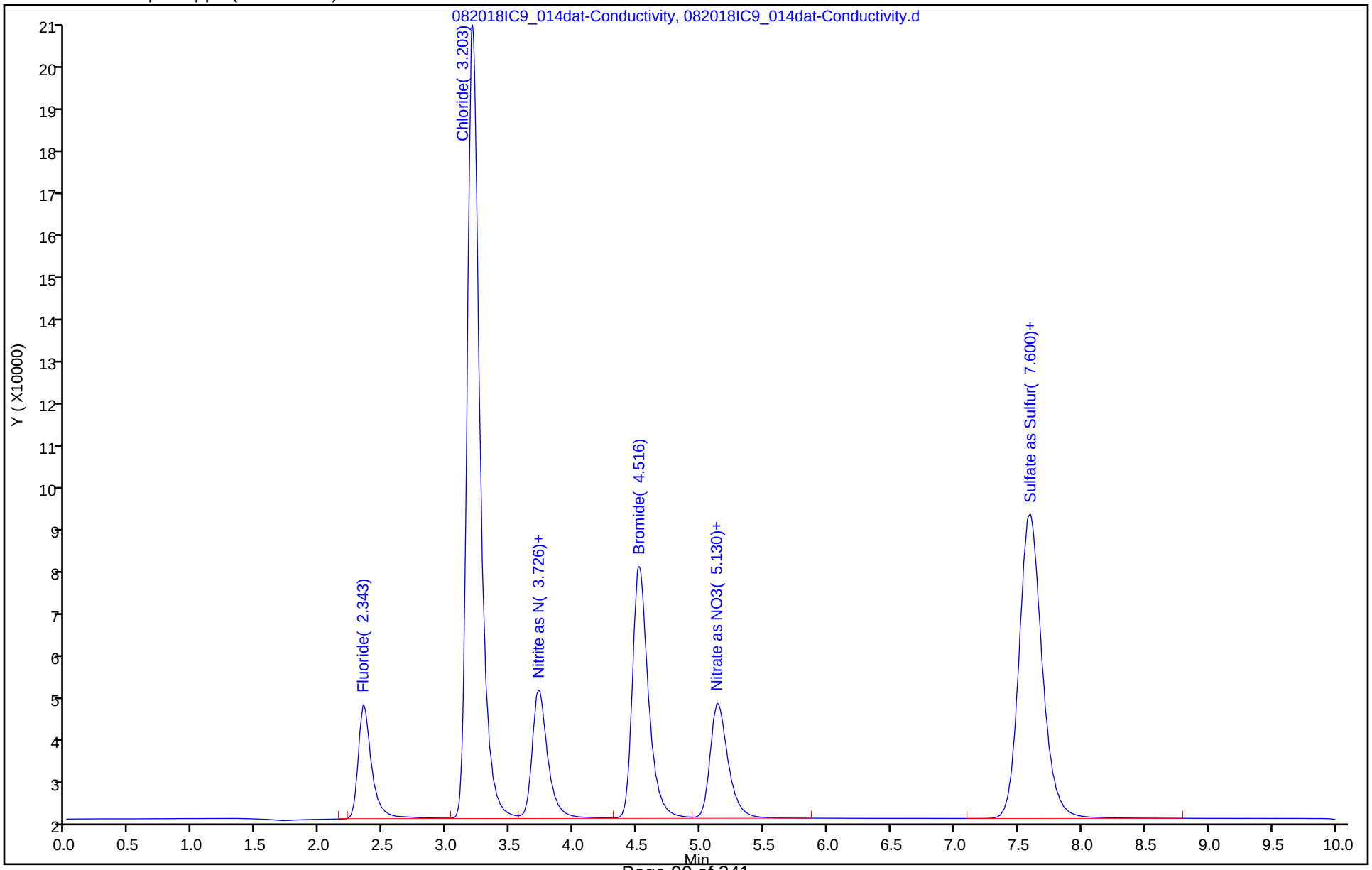
IC Primary_00012 Amount Added: 250.00 Units: uL

Report Date: 20-Aug-2018 12:39:45 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:30:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD5			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

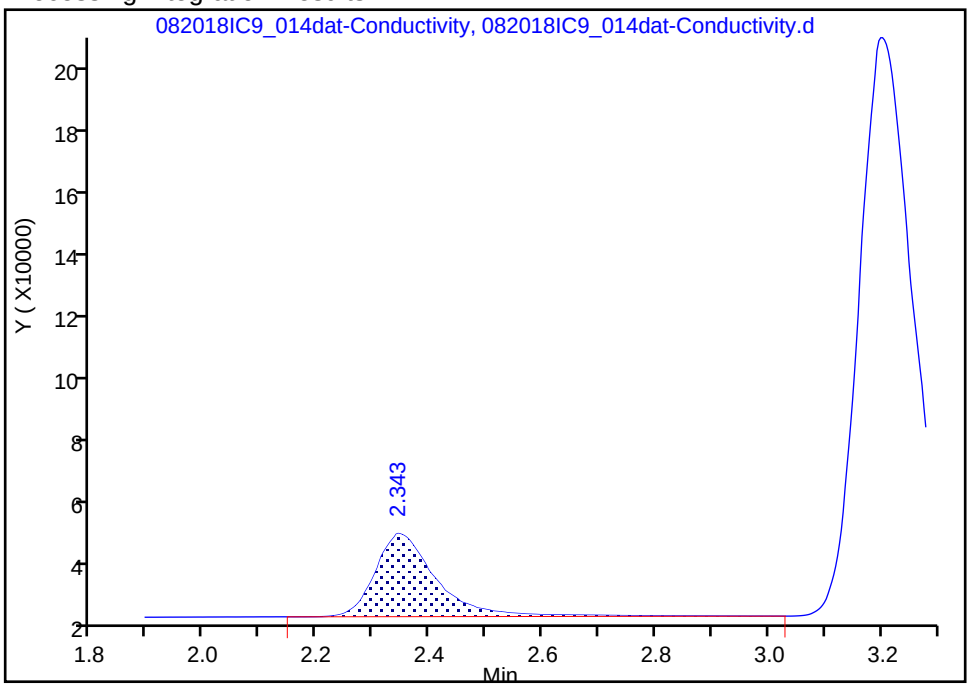
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:30:00	Instrument ID:	IC9		
Lims ID:	STD5				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

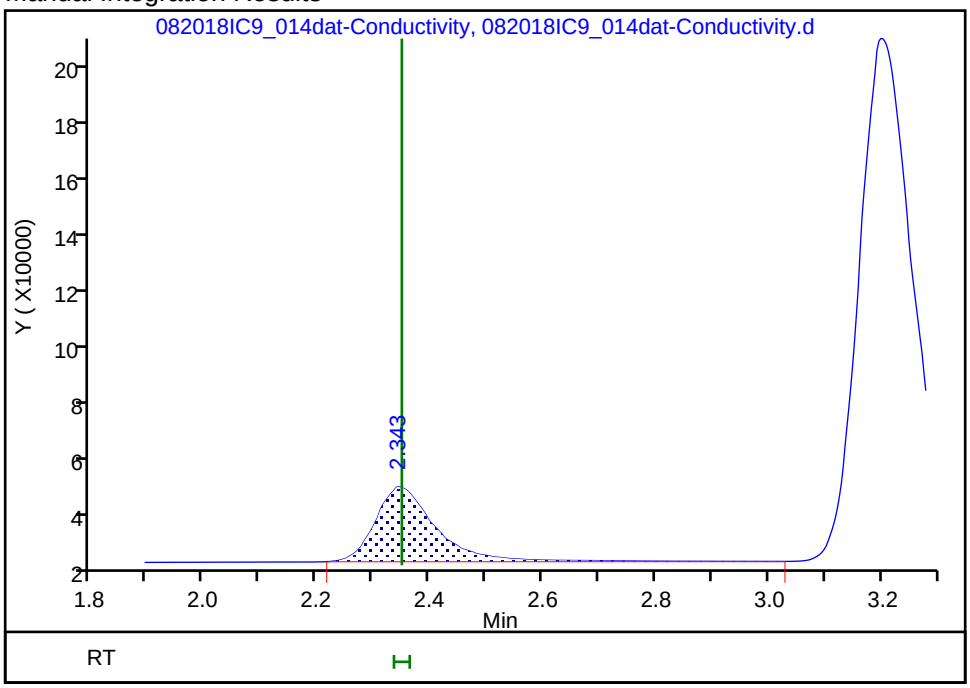
Processing Integration Results

RT: 2.34
Area: 197695
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 2.34
Area: 198105
Amount: 0.468085
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:52:05
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

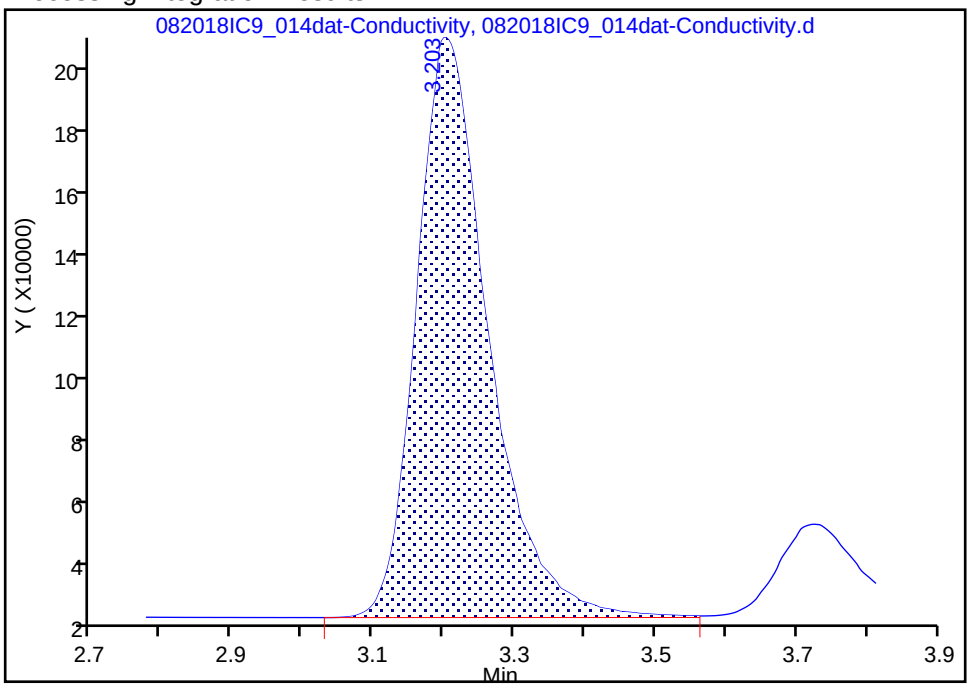
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:30:00	Instrument ID:	IC9		
Lims ID:	STD5				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

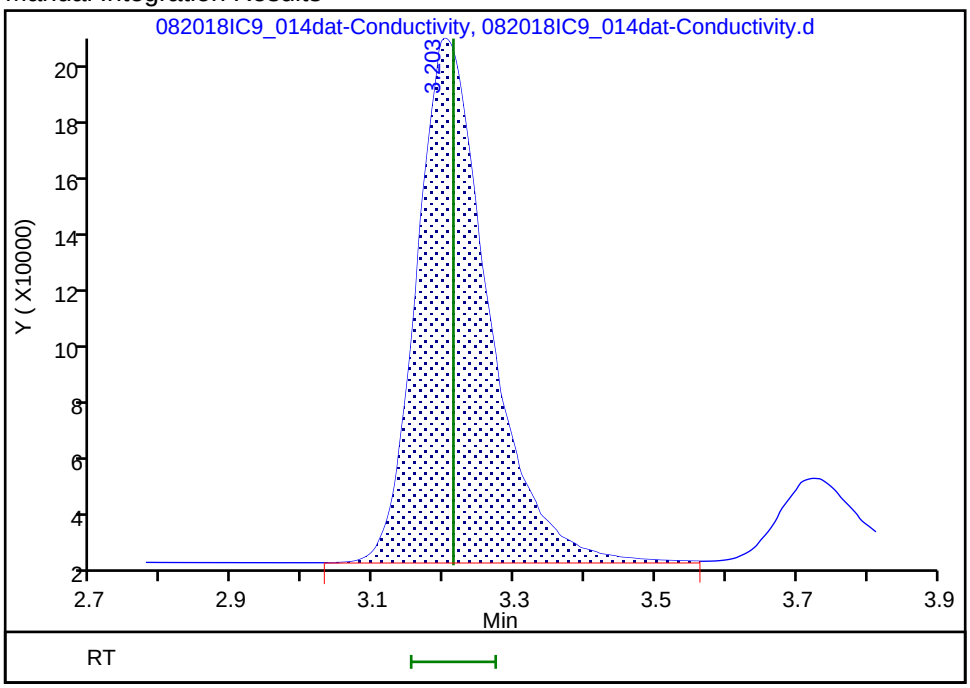
Processing Integration Results

RT: 3.20
Area: 1304182
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 1307558
Amount: 4.885218
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:51:57
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

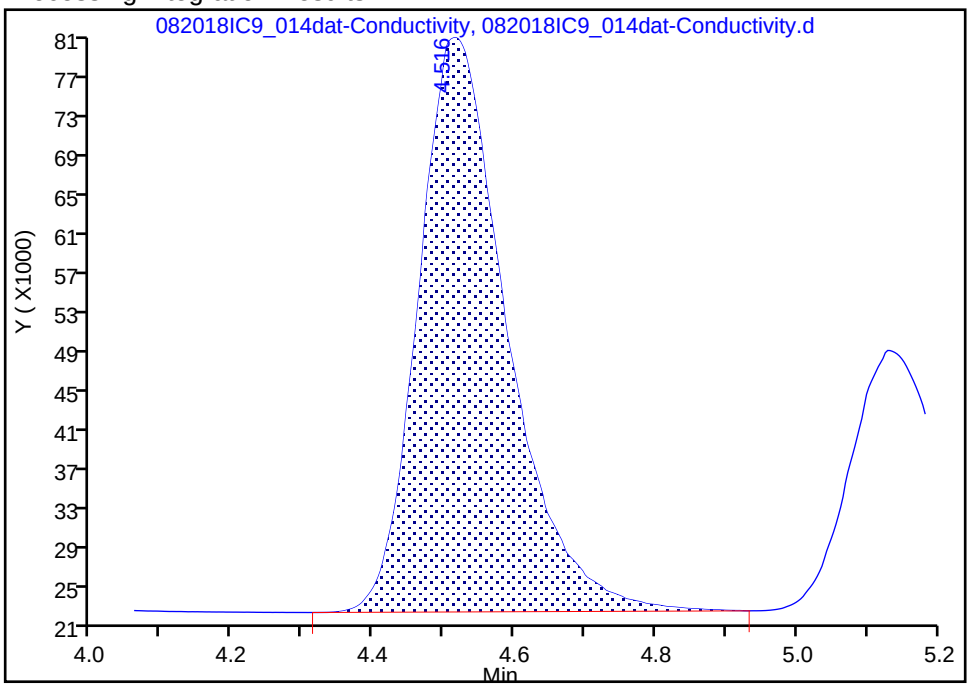
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_014dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:30:00	Instrument ID:	IC9		
Lims ID:	STD5				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

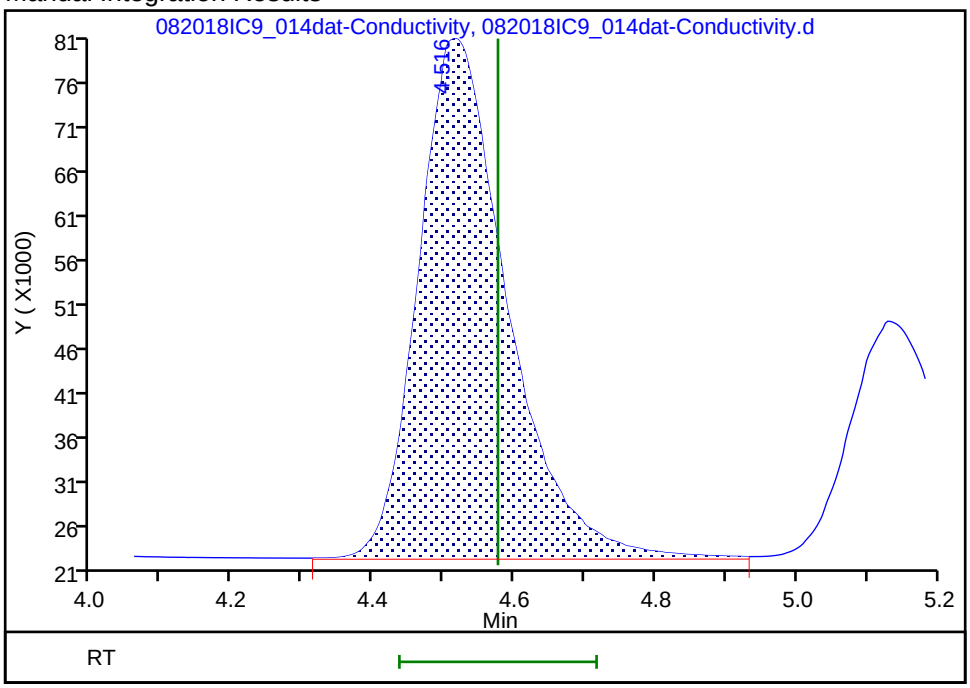
Processing Integration Results

RT: 4.52
Area: 508909
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.52
Area: 516348
Amount: 4.665900
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:51:57
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d
Lims ID: ICRT
Client ID:
Sample Type: ICRT Calib Level: 6
Inject. Date: 20-Aug-2018 10:42:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_015
Misc. Info.: 082018IC9_015
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:50 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:35:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.347	2.347	0.000	417128	1.00	0.9513	M
2 Chloride	3.200	3.200	0.000	2723767	10.0	9.98	M
8 Nitrite as NO2	3.720	3.720	0.000	561260	NC	NC	M
7 Nitrite as N	3.720	3.720	0.000	561260	NC	NC	M
1 Bromide	4.500	4.500	0.000	1108008	10.0	9.53	M
3 Nitrate as N	5.113	5.113	0.000	584159	NC	NC	M
9 Nitrate as NO3	5.113	5.113	0.000	584159	NC	NC	M
4 Sulfate	7.590	7.590	0.000	1910143	10.0	9.66	
6 Sulfate as Sulfur	7.590	7.590	0.000	1910143	3.33	3.22	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

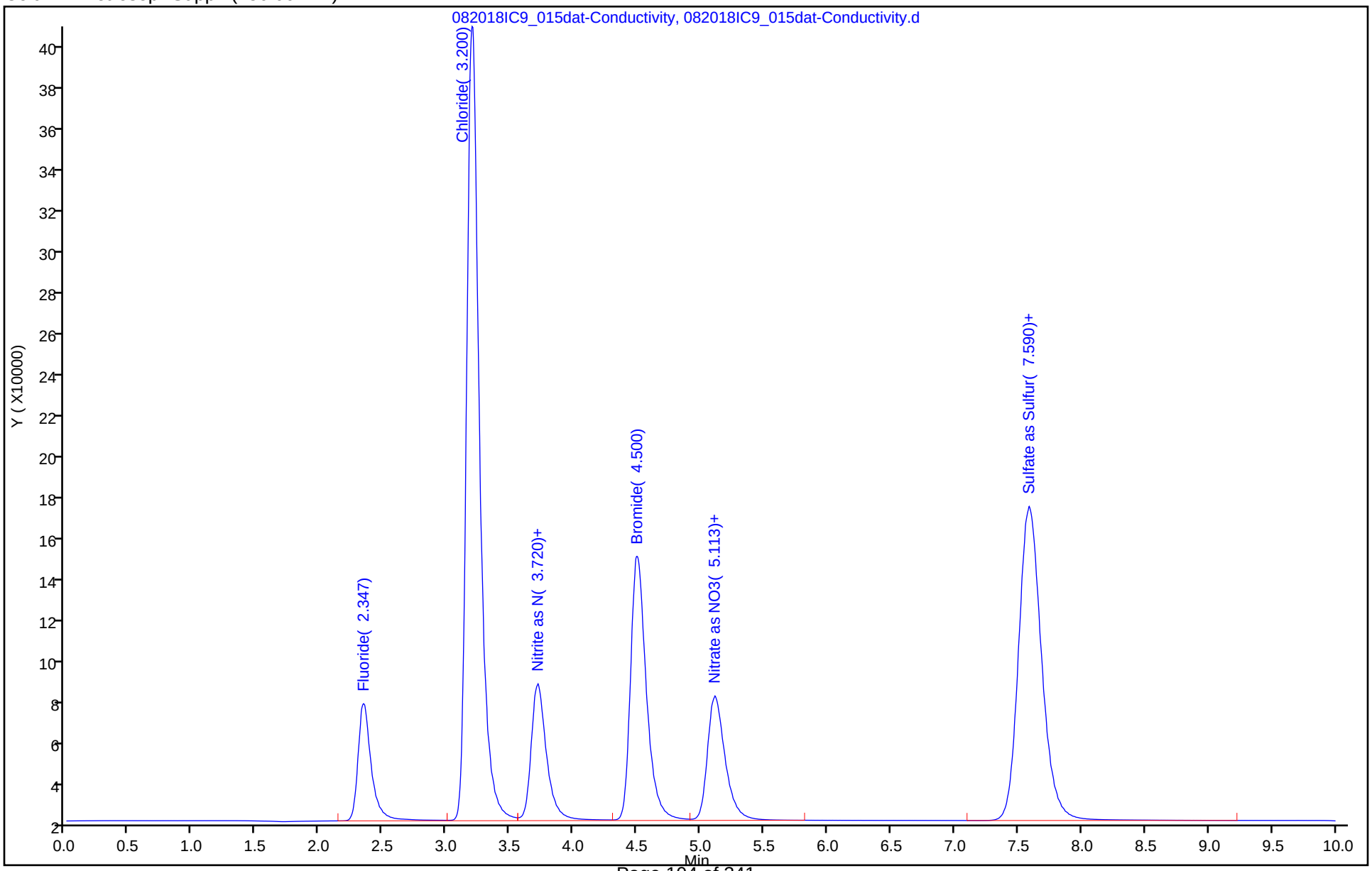
IC Primary_00012 Amount Added: 500.00 Units: uL

Report Date: 20-Aug-2018 12:39:50 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:42:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	ICRT			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

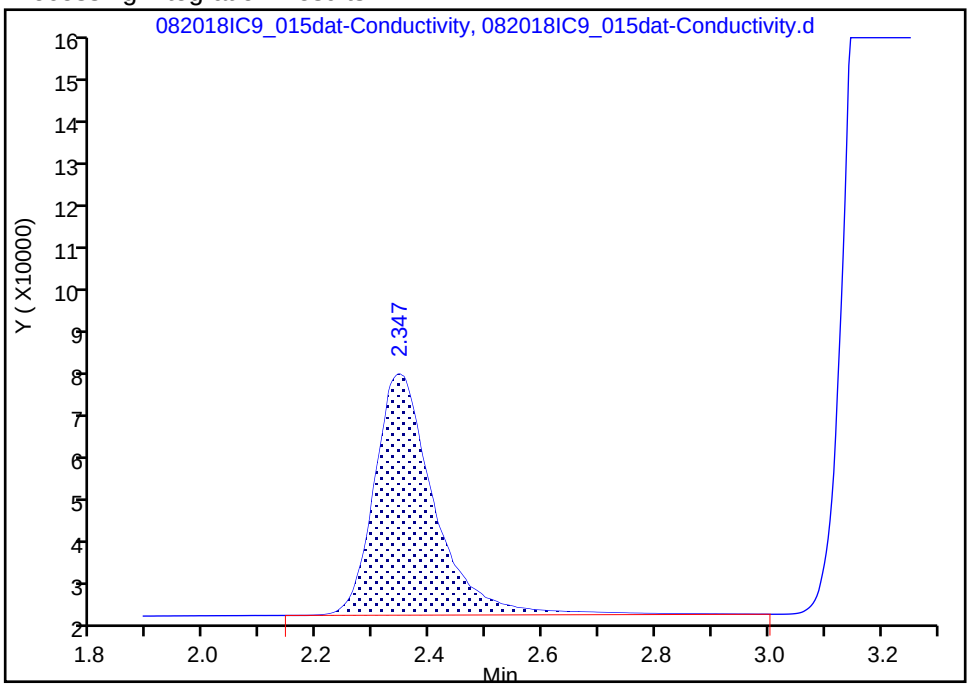
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:42:00	Instrument ID:	IC9		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

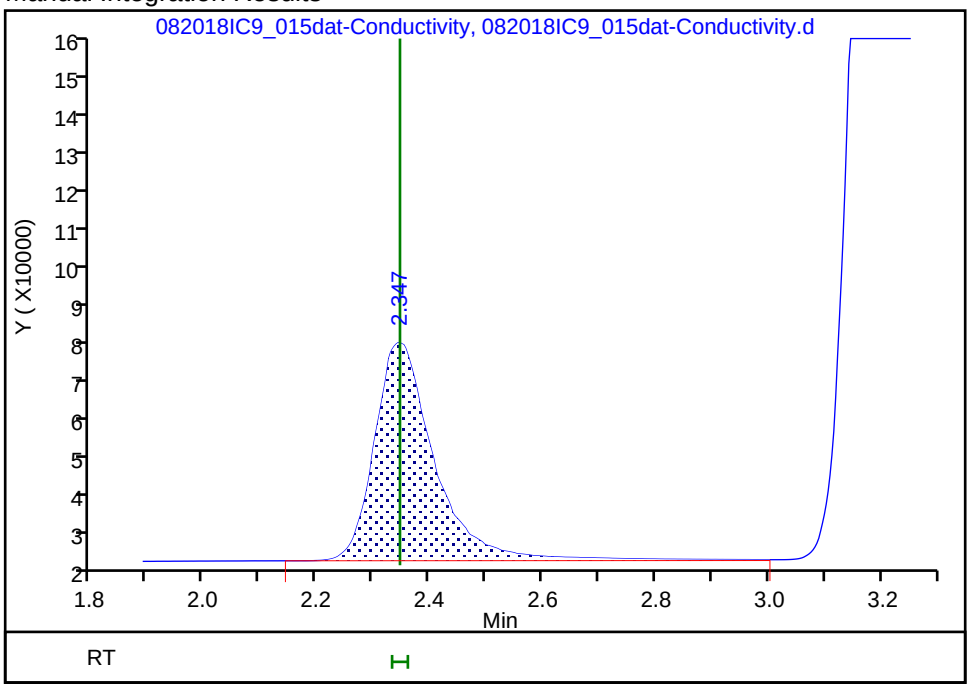
Processing Integration Results

RT: 2.35
Area: 411839
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 417128
Amount: 0.951269
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:35:28
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

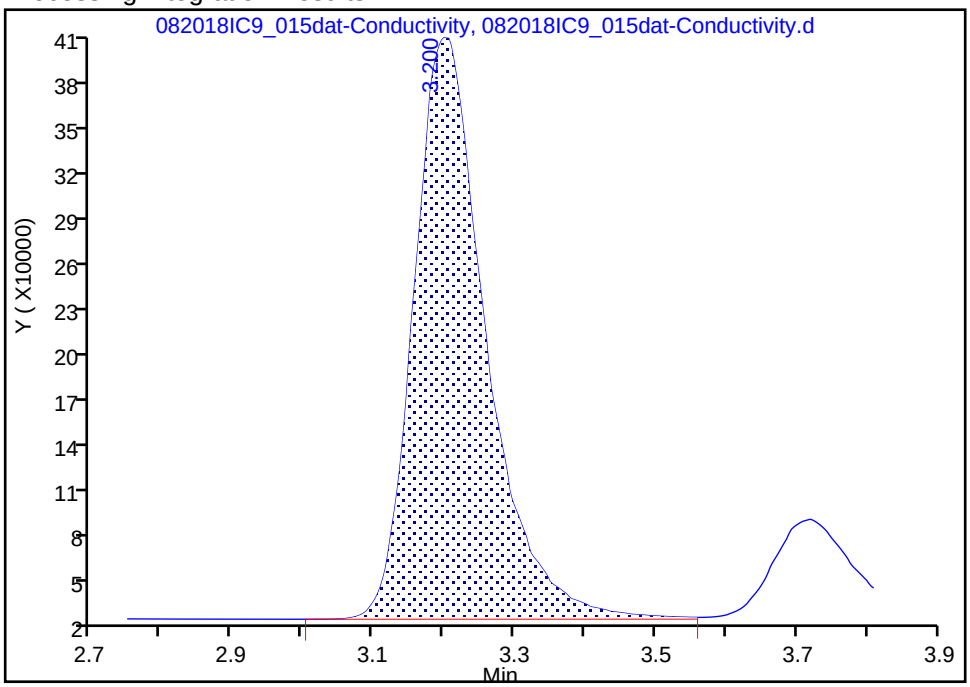
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:42:00	Instrument ID:	IC9		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

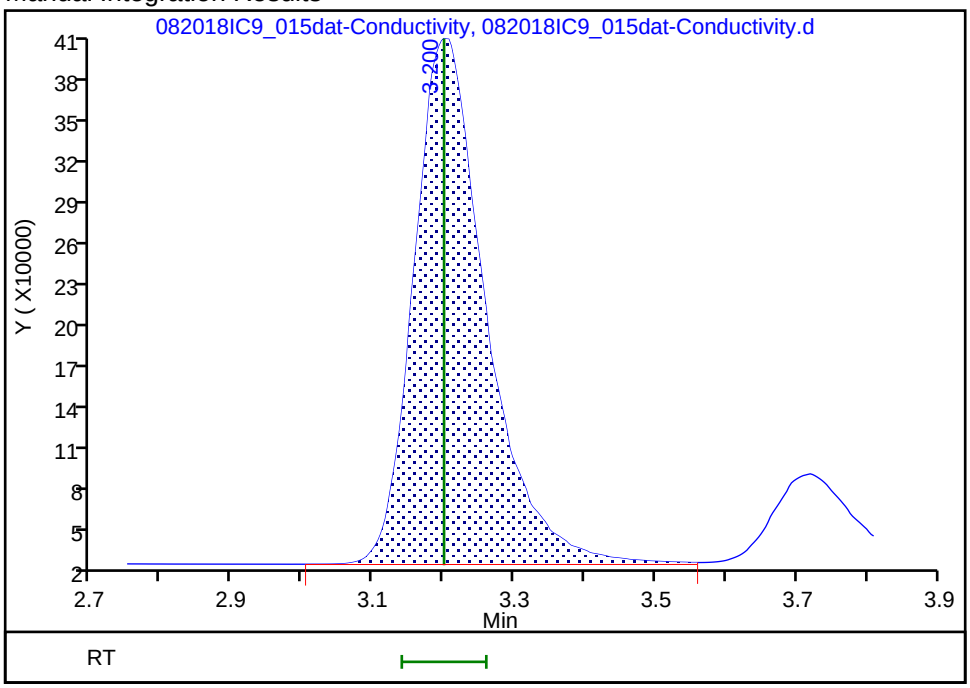
Processing Integration Results

RT: 3.20
Area: 2716286
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 2723767
Amount: 9.978448
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:35:28
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

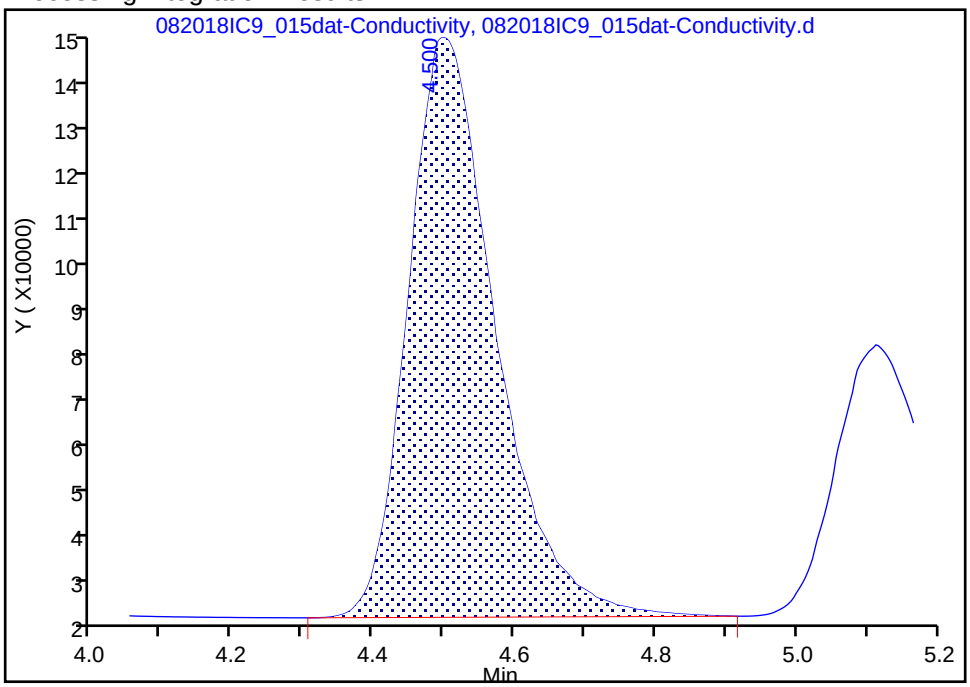
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_015dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:42:00	Instrument ID:	IC9		
Lims ID:	ICRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

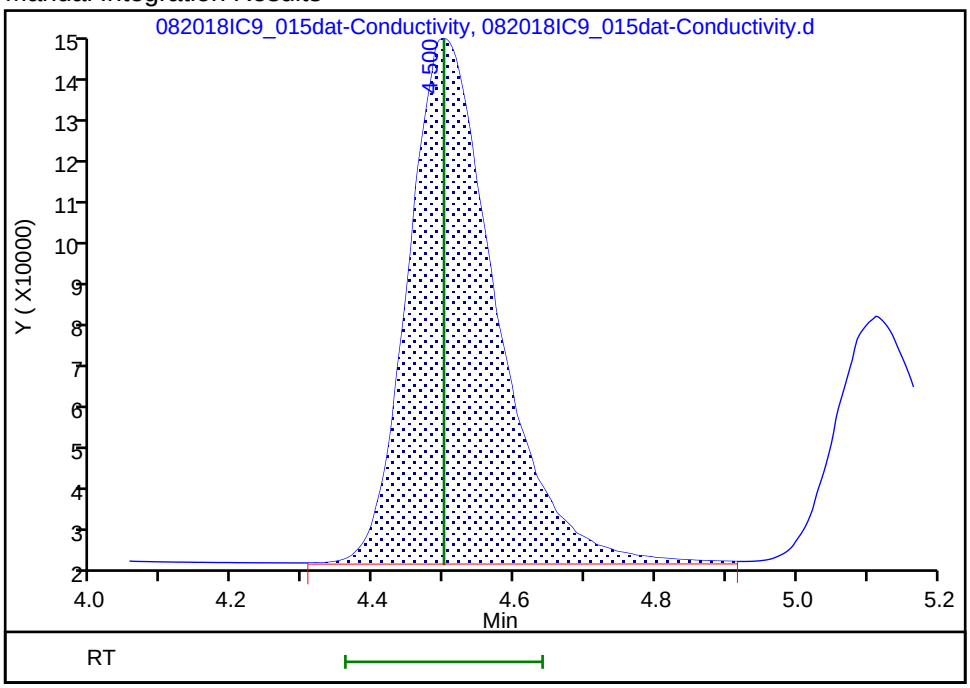
Processing Integration Results

RT: 4.50
Area: 1092015
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.50
Area: 1108008
Amount: 9.525859
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:35:28
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 20-Aug-2018 10:53:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_016
Misc. Info.: 082018IC9_016
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:54 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:35:56

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	5 Fluoride	2.347	2.347	0.000	895682	2.00	2.01	M
	2 Chloride	3.203	3.200	0.003	5591014	20.0	20.3	M
	7 Nitrite as N	3.710	3.720	-0.010	1217673	NC	NC	M
	8 Nitrite as NO2	3.710	3.720	-0.010	1217673	NC	NC	M
	1 Bromide	4.496	4.500	-0.004	2376106	20.0	19.9	M
	9 Nitrate as NO3	5.096	5.113	-0.017	1277112	NC	NC	M
	3 Nitrate as N	5.096	5.113	-0.017	1277112	NC	NC	M
	6 Sulfate as Sulfur	7.596	7.590	0.006	4019109	6.67	6.61	
	4 Sulfate	7.596	7.590	0.006	4019109	20.0	19.8	
S	10 Nitrate Nitrite as N		0.000			4.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

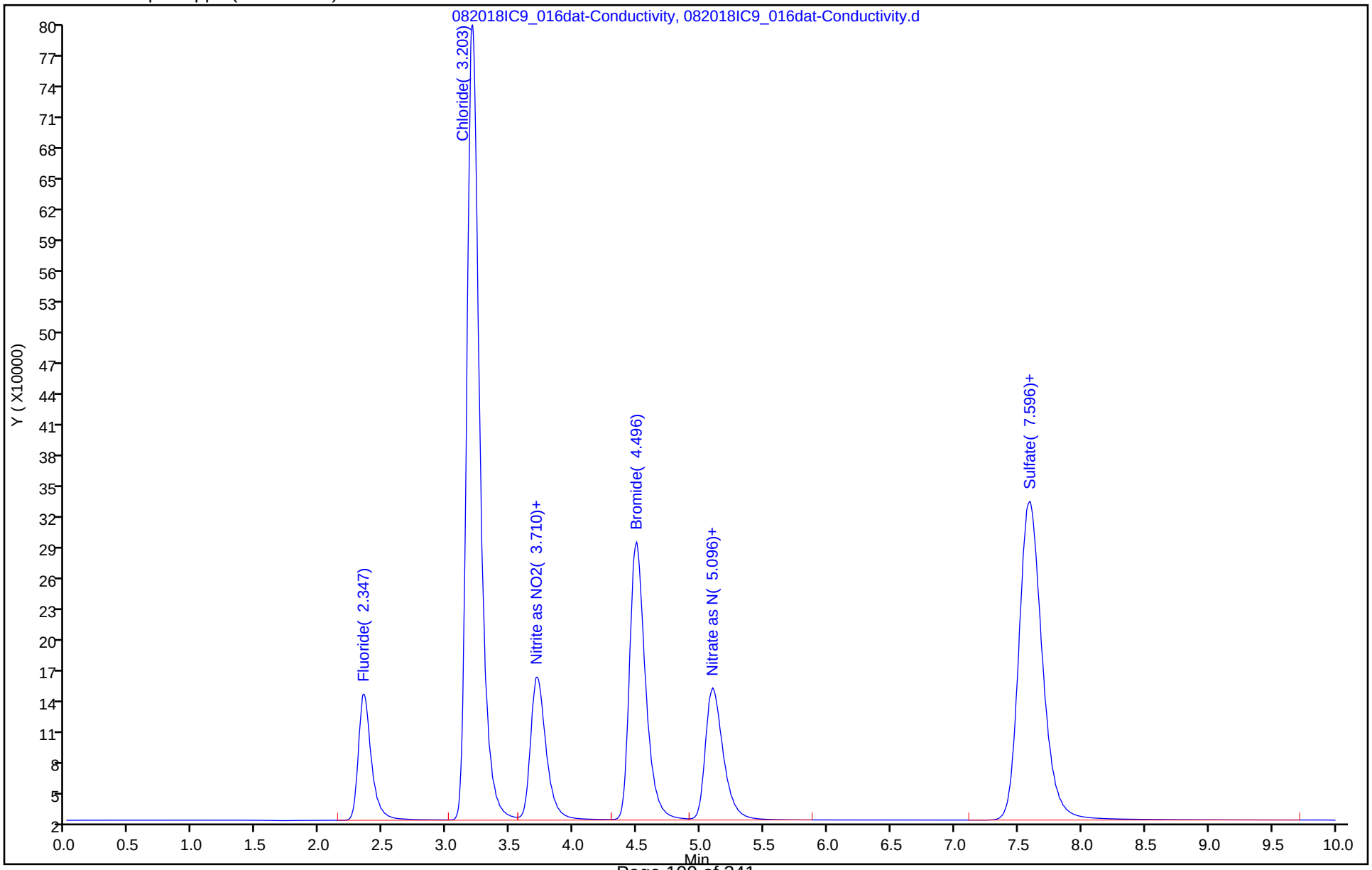
IC Primary_00012 Amount Added: 1000.00 Units: uL

Report Date: 20-Aug-2018 12:39:54 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:53:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD7			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

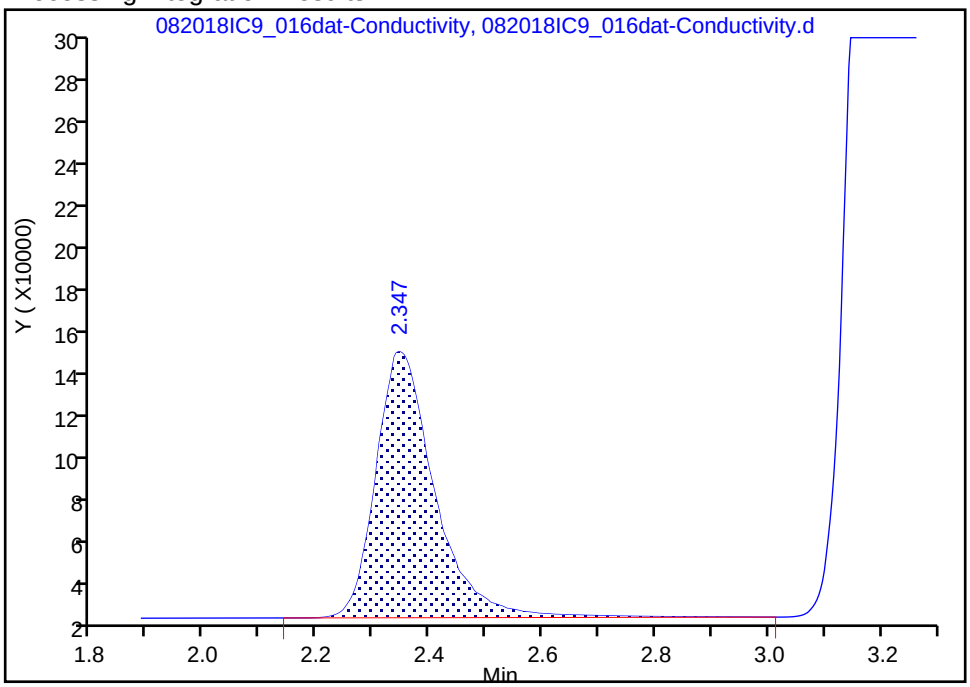
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:53:00	Instrument ID:	IC9		
Lims ID:	STD7				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

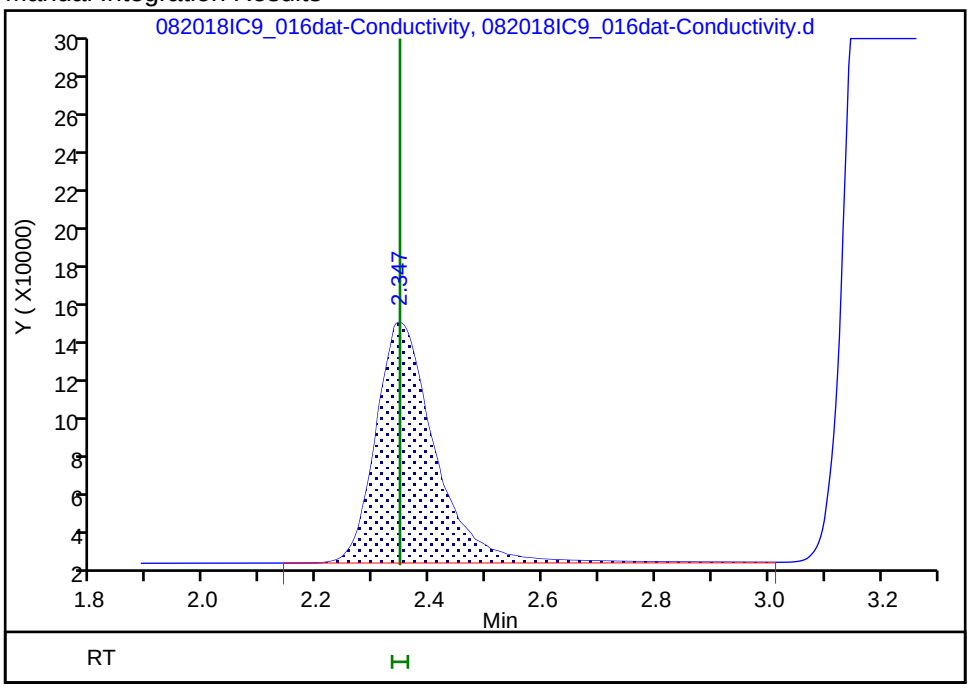
Processing Integration Results

RT: 2.35
Area: 888294
Amount: 2.021738
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 895682
Amount: 2.007003
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:35:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

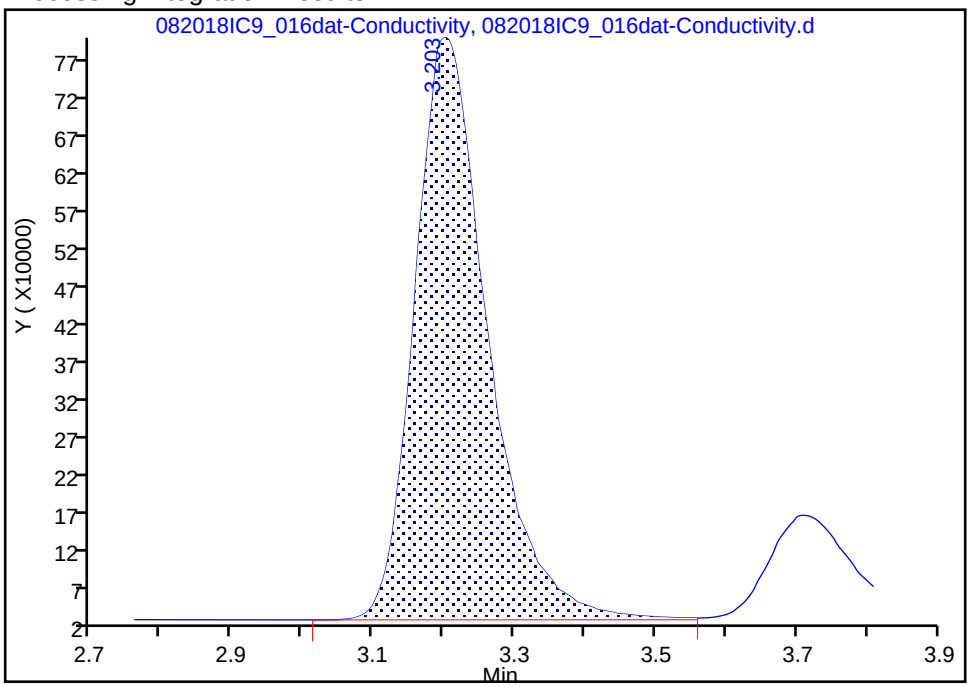
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:53:00	Instrument ID:	IC9		
Lims ID:	STD7				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

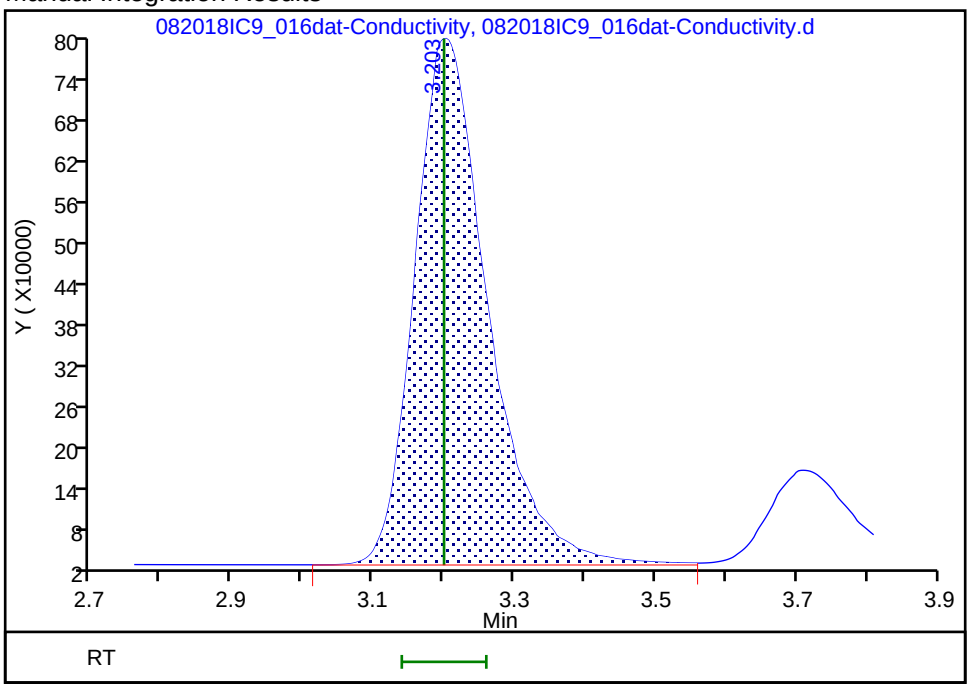
Processing Integration Results

RT: 3.20
Area: 5579518
Amount: 22.160742
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 5591014
Amount: 20.290165
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:35:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

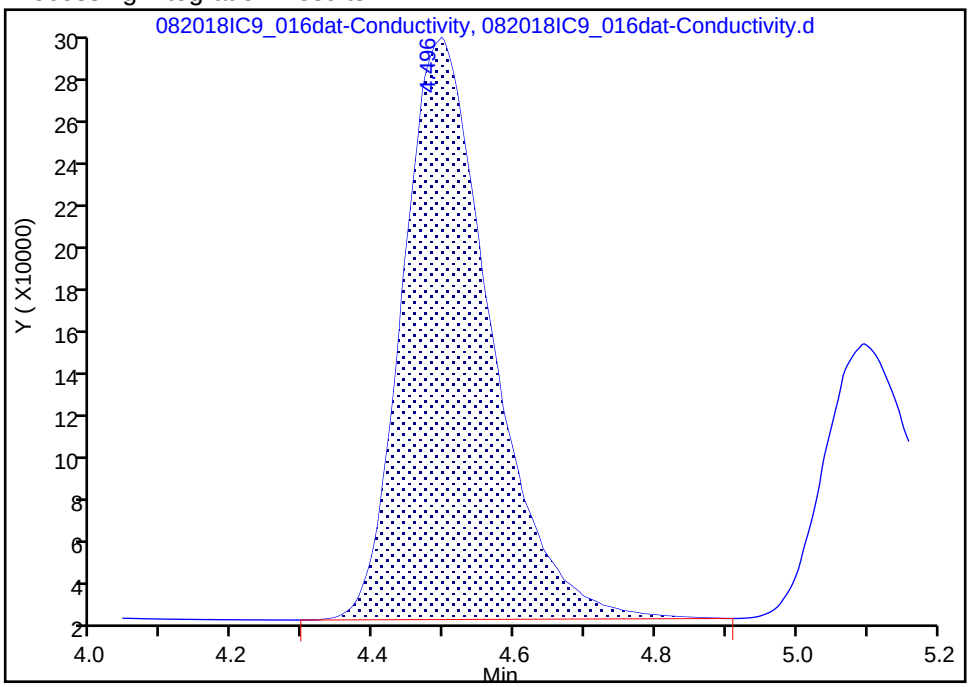
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_016dat-Conductivity.d				
Injection Date:	20-Aug-2018 10:53:00	Instrument ID:	IC9		
Lims ID:	STD7				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

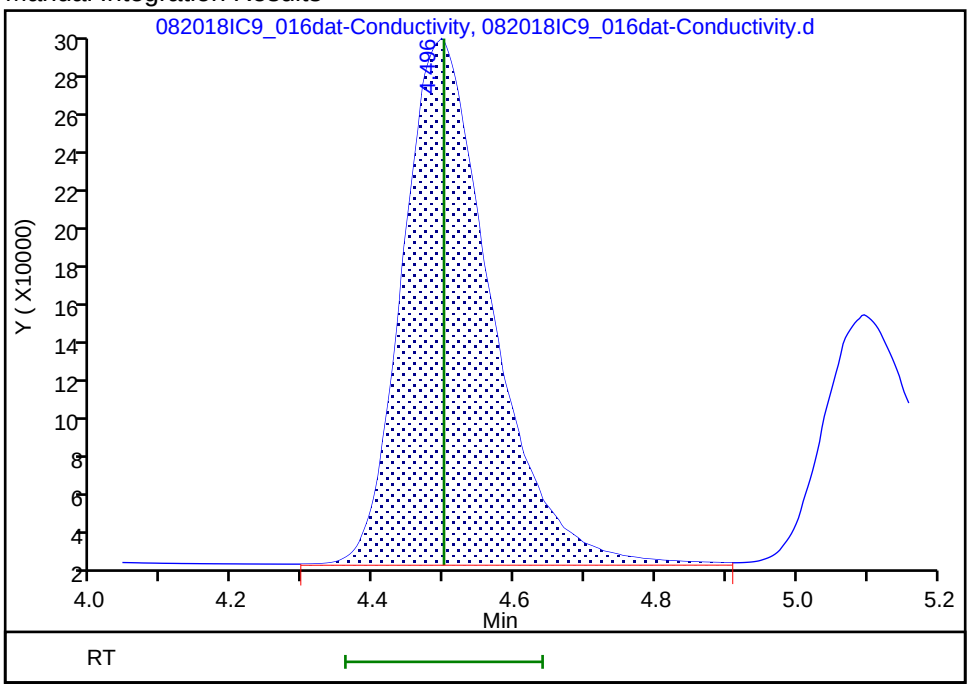
Processing Integration Results

RT: 4.50
Area: 2343209
Amount: 20.064484
Amount Units: ug/ml



Manual Integration Results

RT: 4.50
Area: 2376106
Amount: 19.942153
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:35:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d
Lims ID: STD8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Aug-2018 11:05:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_017
Misc. Info.: 082018IC9_017
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:39:57 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:36:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.347	0.010	1355049	3.00	3.02	M
2 Chloride	3.210	3.200	0.010	8331734	30.0	30.1	M
8 Nitrite as NO2	3.713	3.720	-0.007	1863127	NC	NC	M
7 Nitrite as N	3.713	3.720	-0.007	1863127	NC	NC	M
1 Bromide	4.490	4.500	-0.010	3623429	30.0	30.2	M
3 Nitrate as N	5.086	5.113	-0.027	1975844	NC	NC	M
9 Nitrate as NO3	5.086	5.113	-0.027	1975844	NC	NC	M
4 Sulfate	7.590	7.590	0.000	6159826	30.0	30.2	
6 Sulfate as Sulfur	7.590	7.590	0.000	6159826	10.0	10.1	
S 10 Nitrate Nitrite as N		0.000			6.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

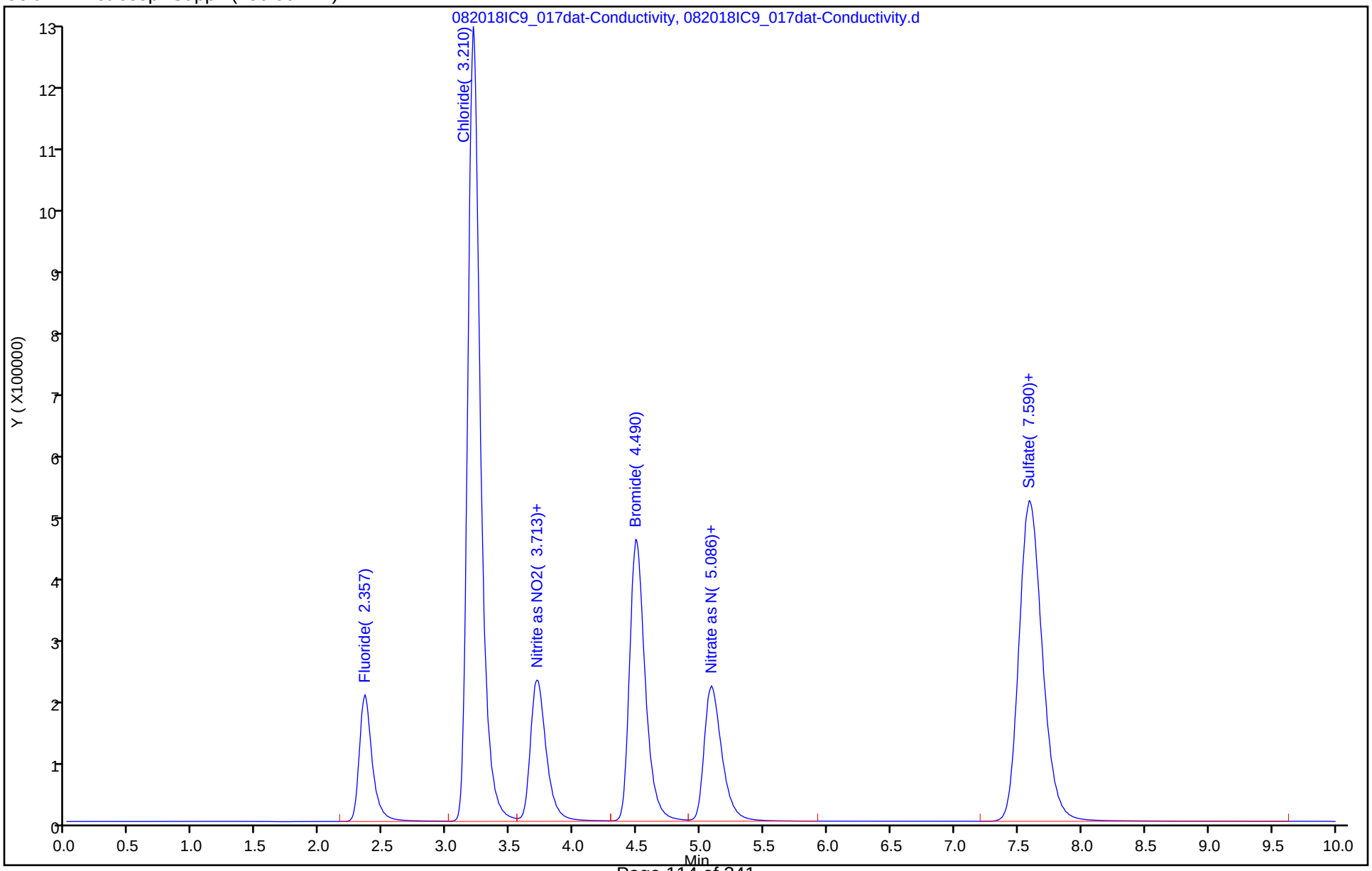
IC Primary_00012 Amount Added: 1500.00 Units: uL

Report Date: 20-Aug-2018 12:39:58 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:05:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD8			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

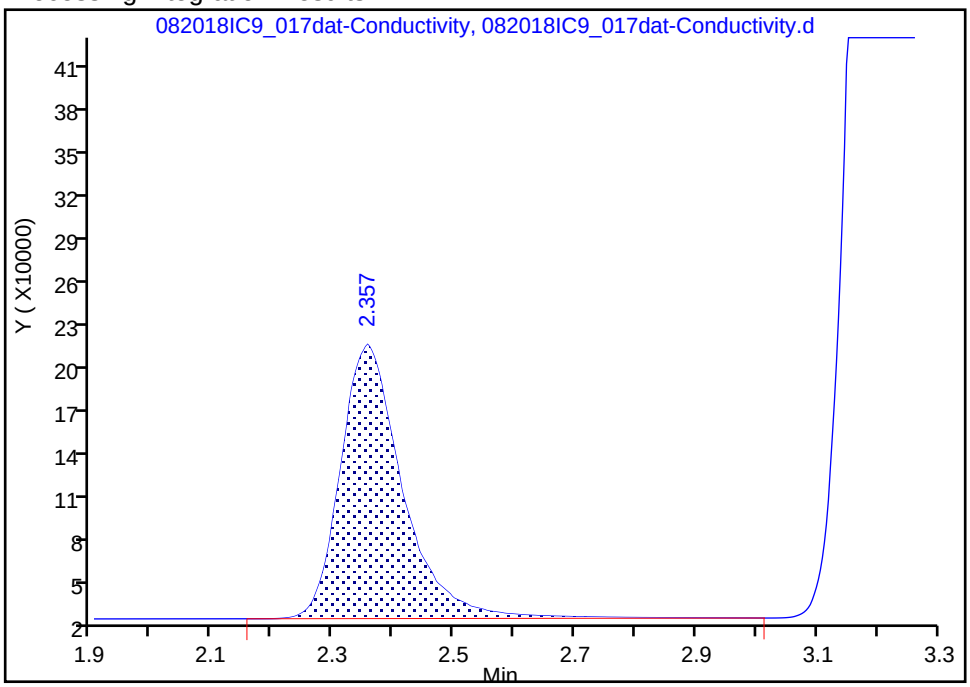
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:05:00	Instrument ID:	IC9		
Lims ID:	STD8				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

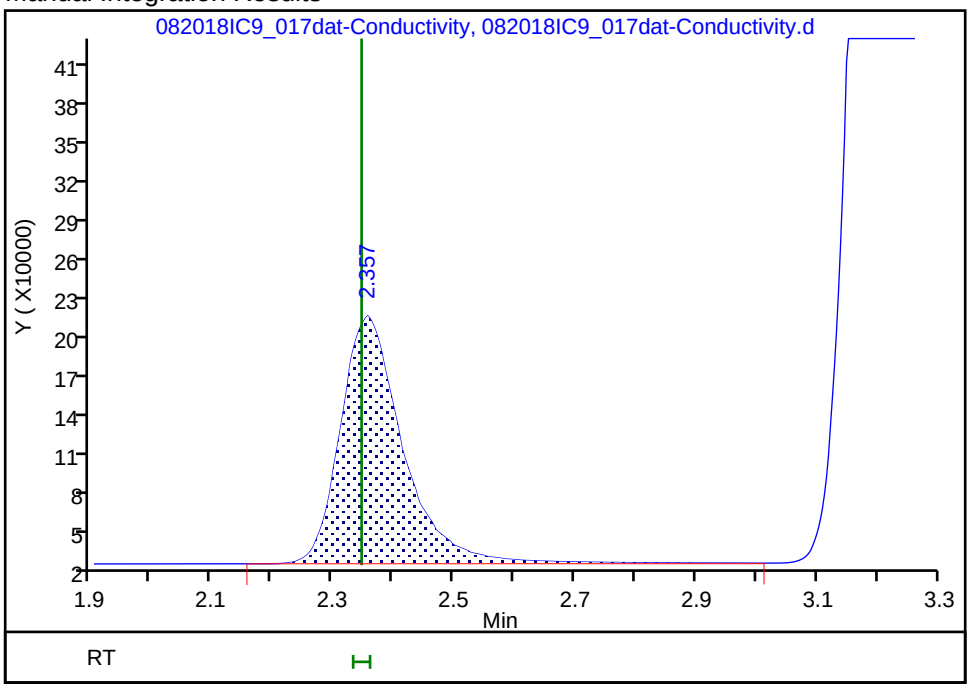
Processing Integration Results

RT: 2.36
Area: 1343947
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 1355049
Amount: 3.020408
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:36:14
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

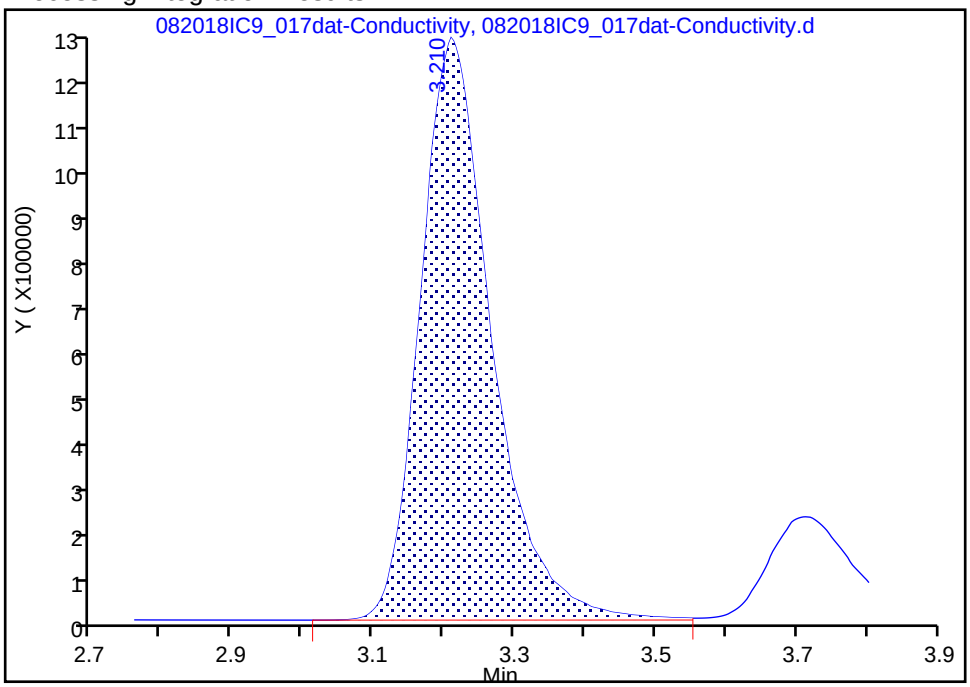
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:05:00	Instrument ID:	IC9		
Lims ID:	STD8				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

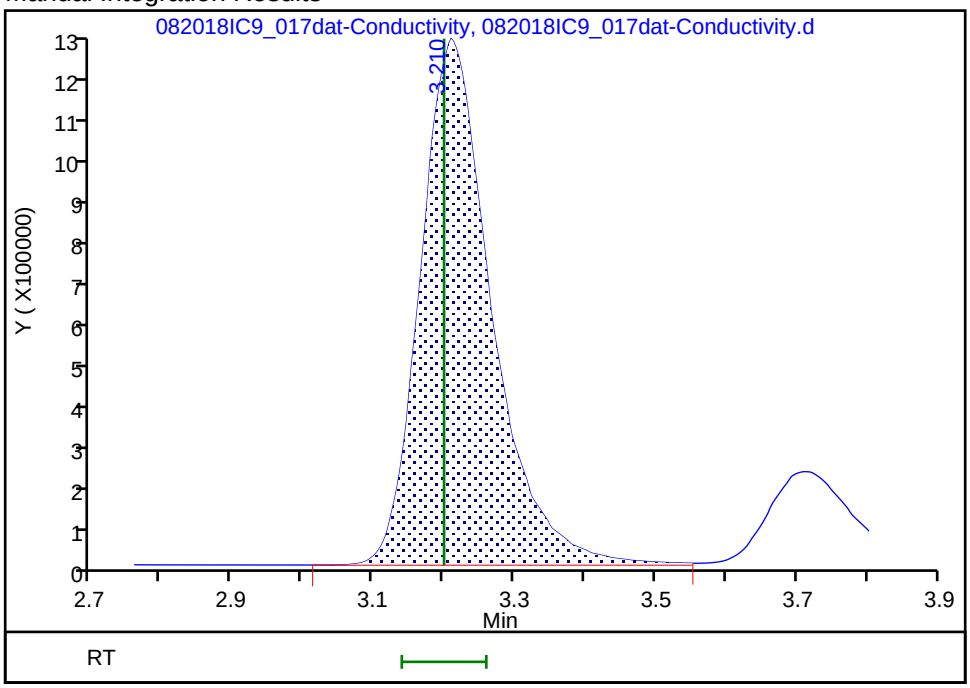
Processing Integration Results

RT: 3.21
Area: 8315632
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 3.21
Area: 8331734
Amount: 30.146843
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:36:14

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

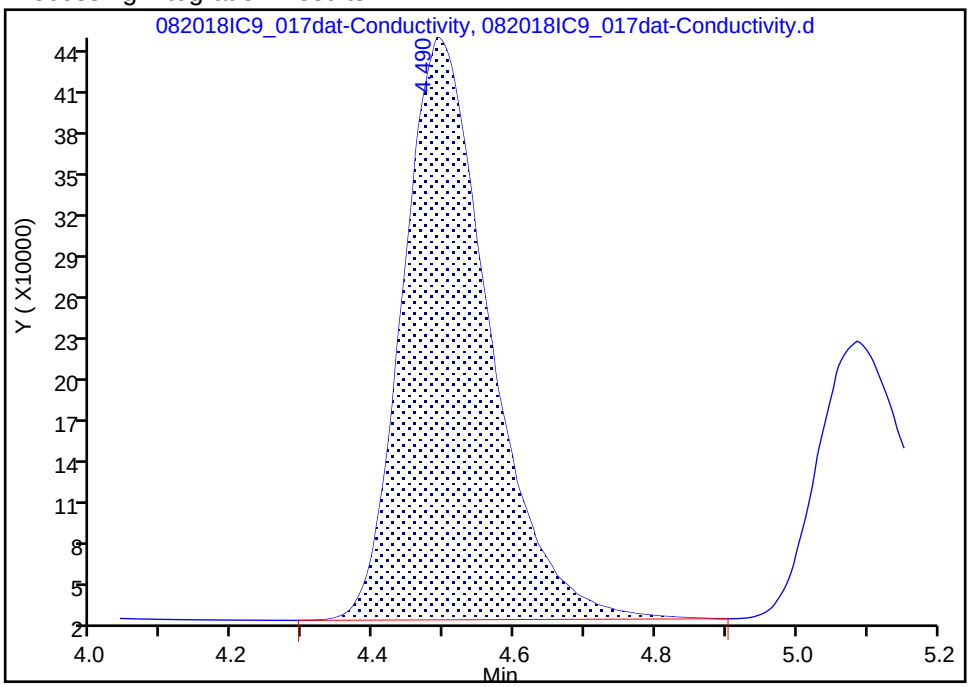
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_017dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:05:00	Instrument ID:	IC9		
Lims ID:	STD8				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

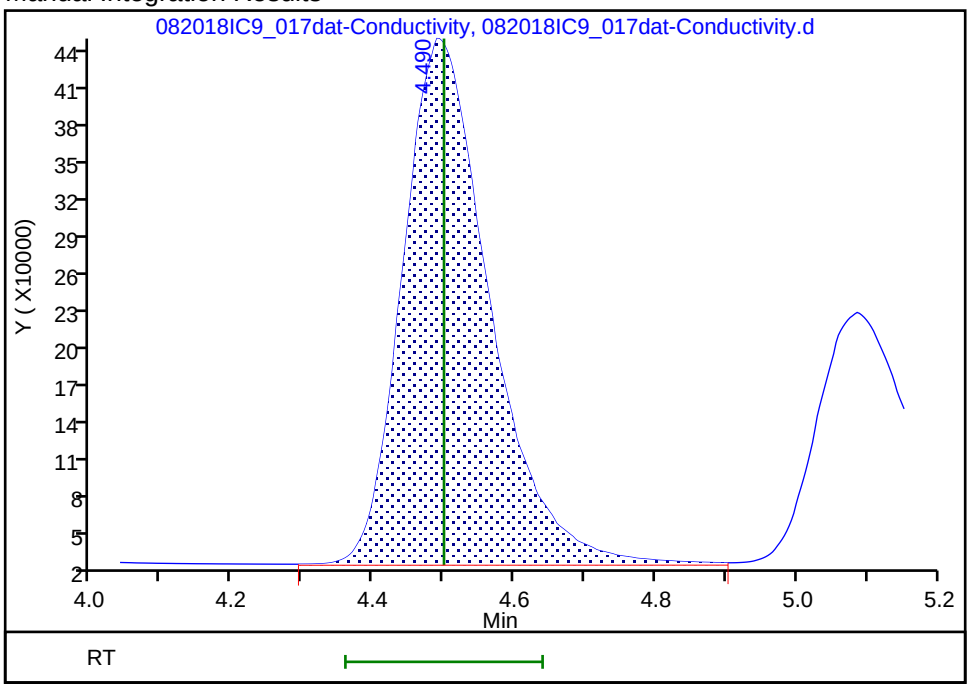
Processing Integration Results

RT: 4.49
Area: 3574114
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.49
Area: 3623429
Amount: 30.187799
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:36:14
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d
Lims ID: STD9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 20-Aug-2018 11:16:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_018
Misc. Info.: 082018IC9_018
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:40:02 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:36:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.347	2.347	0.000	1817566	4.00	4.04	M
2 Chloride	3.203	3.200	0.003	10993807	40.0	39.7	M
7 Nitrite as N	3.700	3.720	-0.020	2506173	NC	NC	M
8 Nitrite as NO2	3.700	3.720	-0.020	2506173	NC	NC	M
1 Bromide	4.480	4.500	-0.020	4893051	40.0	40.6	M
9 Nitrate as NO3	5.066	5.113	-0.047	2695925	NC	NC	M
3 Nitrate as N	5.066	5.113	-0.047	2695925	NC	NC	M
6 Sulfate as Sulfur	7.576	7.590	-0.014	8307131	13.3	13.5	
4 Sulfate	7.576	7.590	-0.014	8307131	40.0	40.6	
S 10 Nitrate Nitrite as N		0.000			8.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

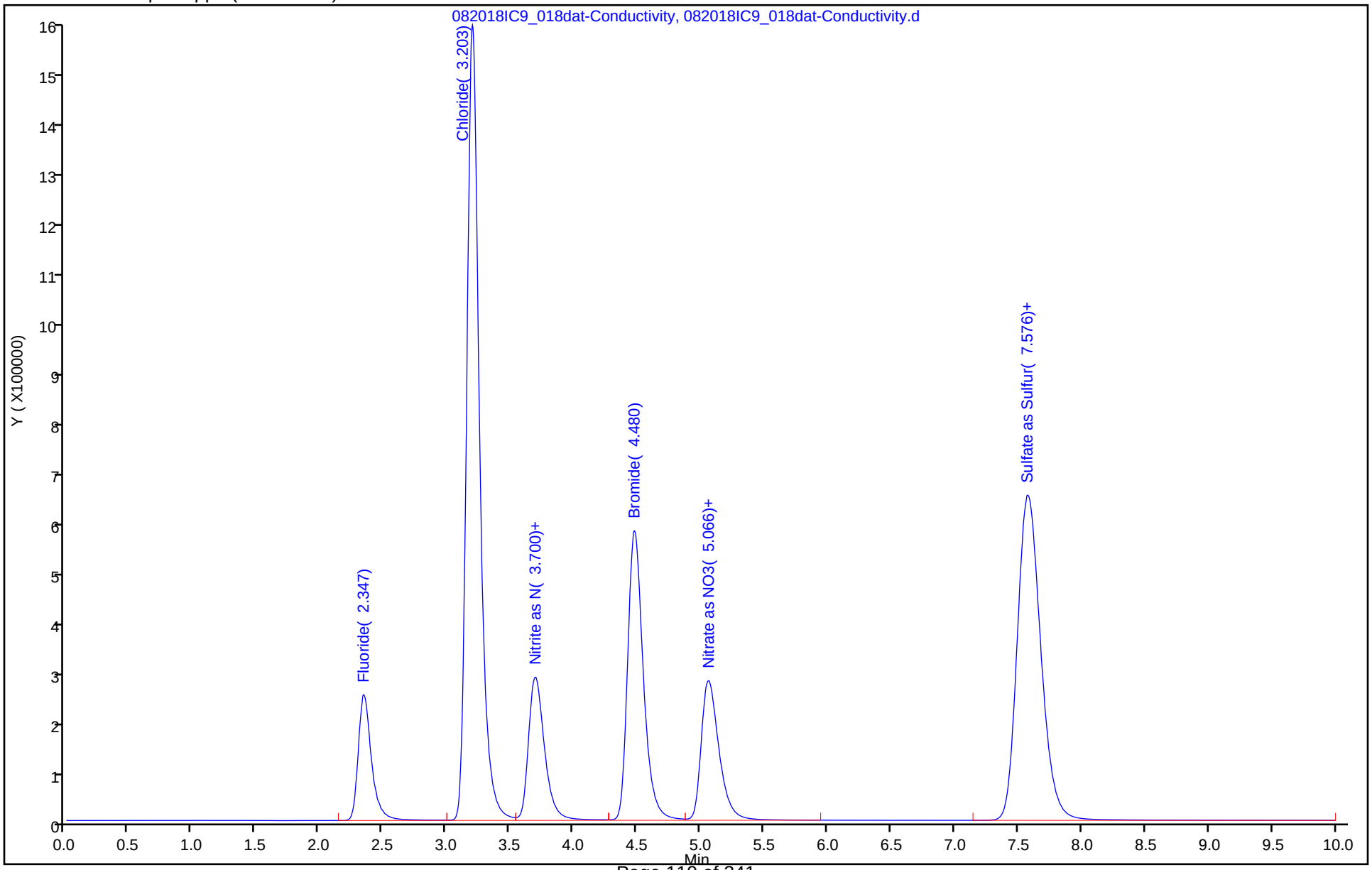
IC Primary_00012 Amount Added: 2000.00 Units: uL

Report Date: 20-Aug-2018 12:40:02 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:16:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	STD9			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

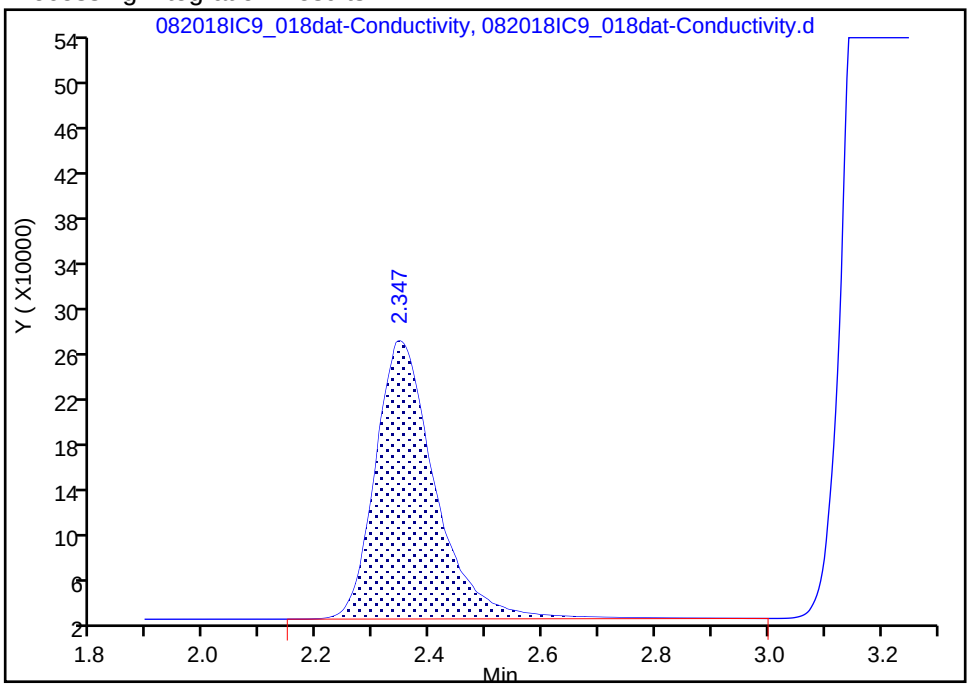
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:16:00	Instrument ID:	IC9		
Lims ID:	STD9				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

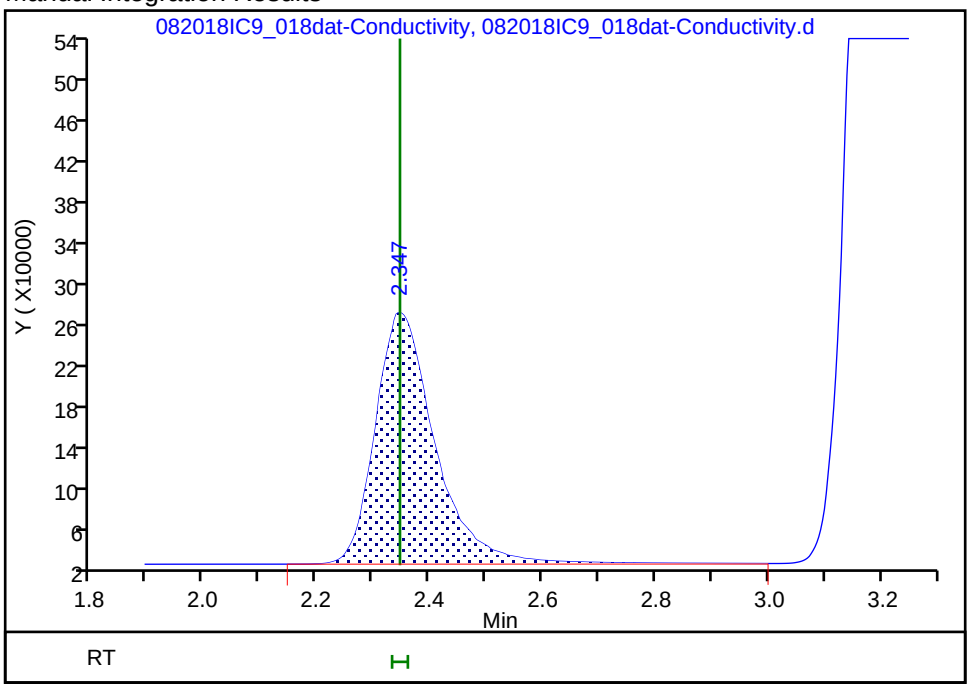
Processing Integration Results

RT: 2.35
Area: 1804204
Amount: 4.059305
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 1817566
Amount: 4.040763
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:36:38
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

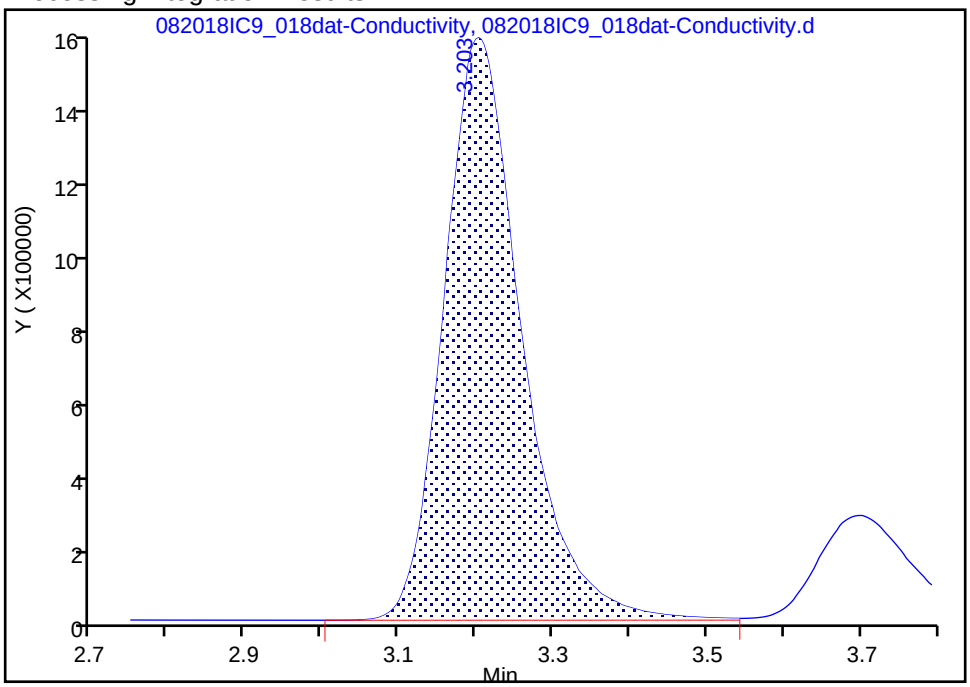
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:16:00	Instrument ID:	IC9		
Lims ID:	STD9				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

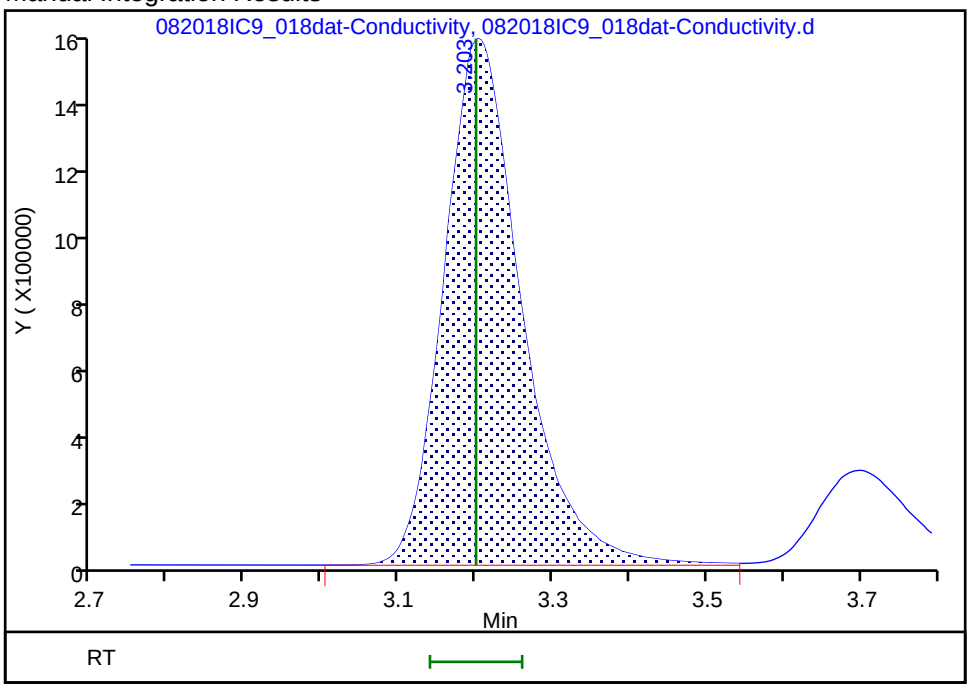
Processing Integration Results

RT: 3.20
Area: 10973558
Amount: 43.080523
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 10993807
Amount: 39.720677
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:36:38

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

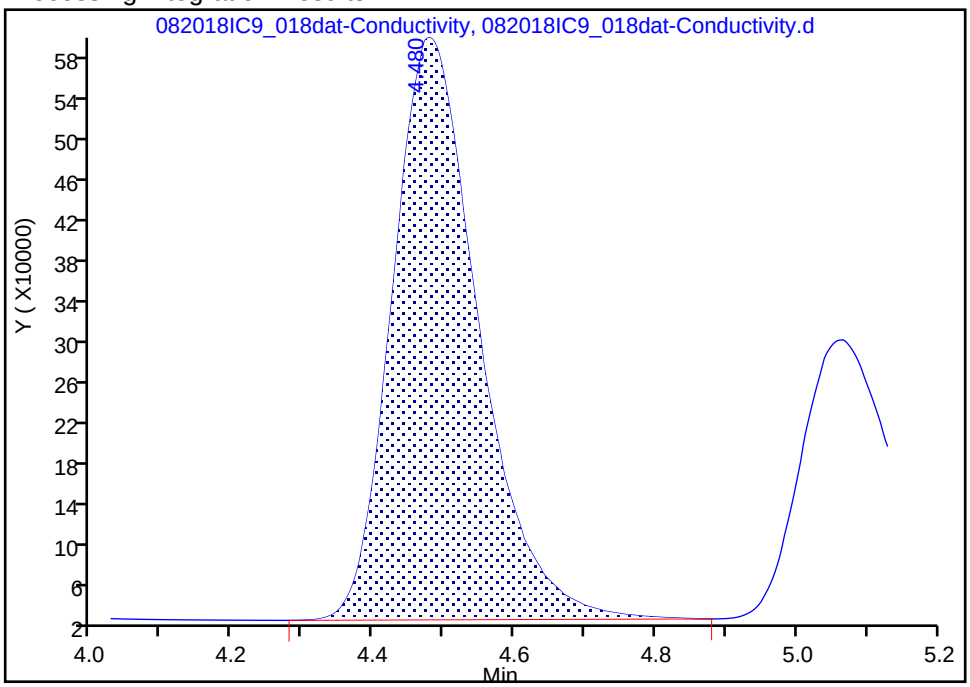
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:16:00	Instrument ID:	IC9		
Lims ID:	STD9				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

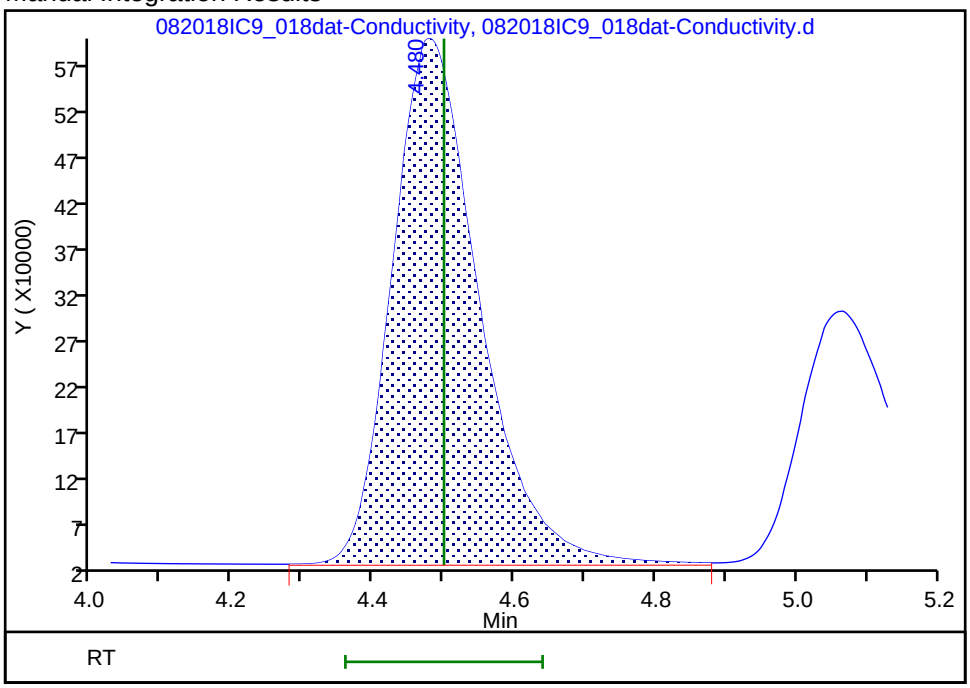
Processing Integration Results

RT: 4.48
Area: 4830325
Amount: 40.743561
Amount Units: ug/ml



Manual Integration Results

RT: 4.48
Area: 4893051
Amount: 40.616611
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:36:38

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICV 490-537313/10 Calibration Date: 08/20/2018 11:28

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 082018IC9_019dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		420887		0.961	1.00	-4.0	10.0
Chloride	Lin1		275802		10.1	10.0	1.0	10.0
Bromide	Lin1		112223		9.66	10.0	-3.6	10.0
Sulfate	Lin1		189312		9.59	10.0	-4.3	10.0
Sulfate as Sulfur	Lin1		569073		3.20	3.33	-4.1	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICV 490-537313/10 Calibration Date: 08/20/2018 11:28

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 082018IC9_019dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.35	2.33	2.36
Chloride	3.20	3.14	3.26
Bromide	4.49	4.36	4.64
Sulfate	7.61	7.33	7.85
Sulfate as Sulfur	7.61	6.59	8.59

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Aug-2018 11:28:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082018IC9_019
Misc. Info.: 082018IC9_019
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist:

Method: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 20-Aug-2018 12:40:02 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK020

First Level Reviewer: statenj Date: 20-Aug-2018 11:59:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.350	2.347	0.003	421308	1.00	0.9605	M
2 Chloride	3.203	3.200	0.003	2760783	10.0	10.1	M
8 Nitrite as NO2	3.716	3.720	-0.004	572313	NC	NC	M
7 Nitrite as N	3.716	3.720	-0.004	572313	NC	NC	M
1 Bromide	4.490	4.500	-0.010	1124479	10.0	9.66	M
3 Nitrate as N	5.100	5.113	-0.013	595981	NC	NC	M
9 Nitrate as NO3	5.100	5.113	-0.013	595981	NC	NC	M
4 Sulfate	7.613	7.590	0.023	1896909	10.0	9.59	
6 Sulfate as Sulfur	7.613	7.590	0.023	1896909	3.33	3.20	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

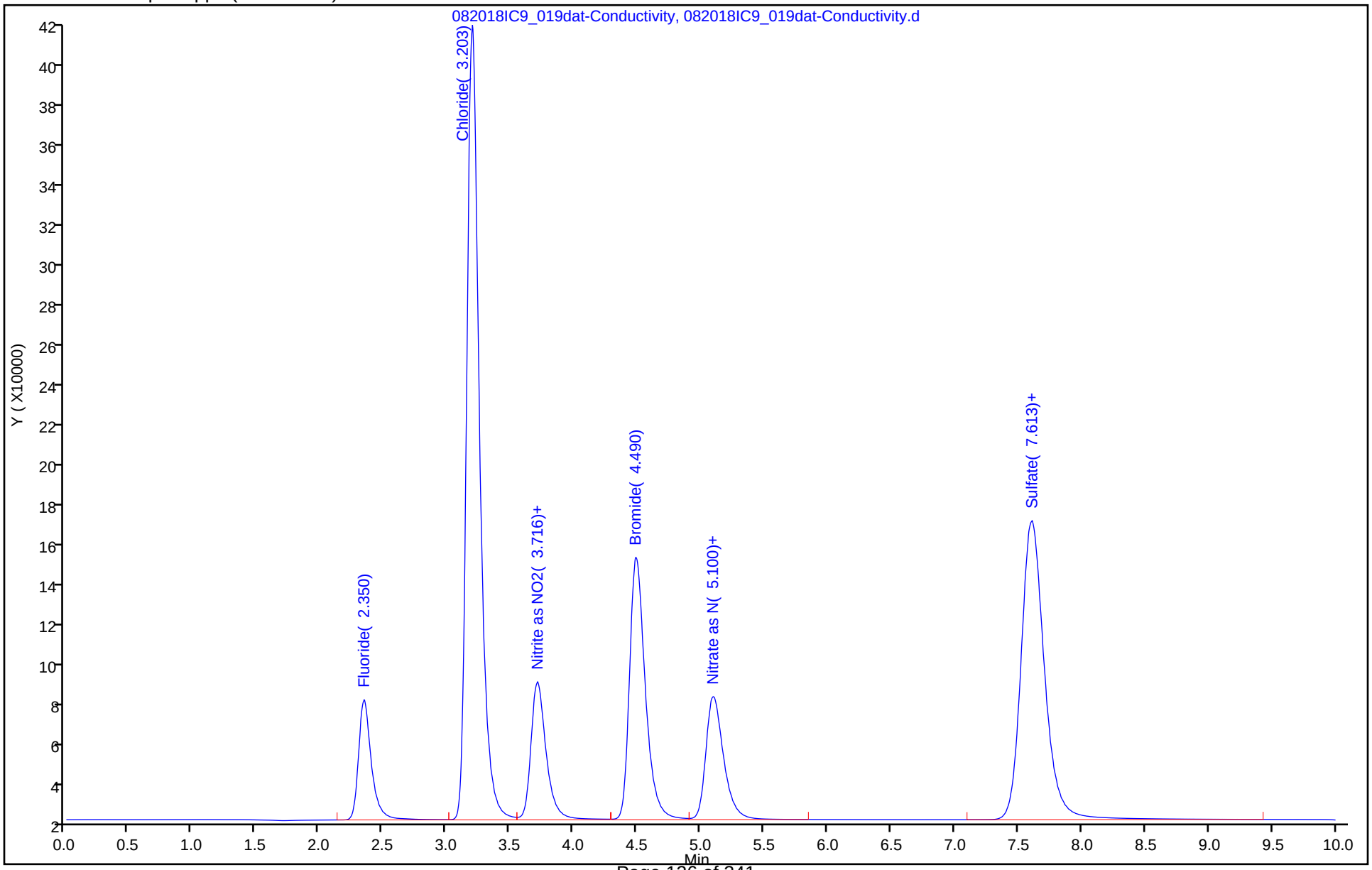
IC Secondary_00013 Amount Added: 500.00 Units: uL

Report Date: 20-Aug-2018 12:40:07 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:28:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

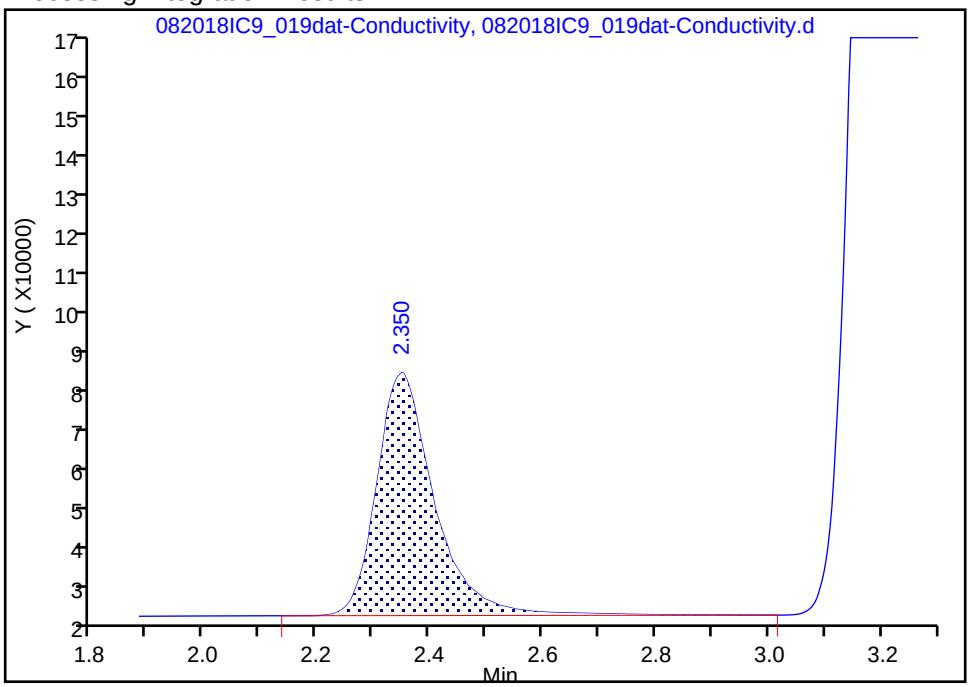
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:28:00	Instrument ID:	IC9		
Lims ID:	ICV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

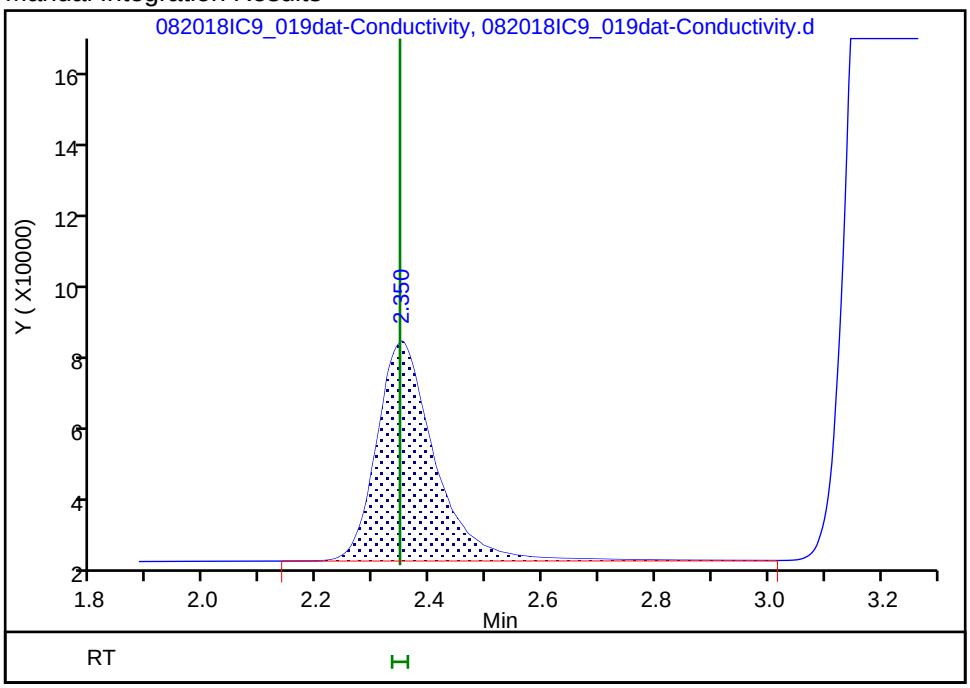
Processing Integration Results

RT: 2.35
Area: 418589
Amount: 0.954492
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 421308
Amount: 0.960491
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:59:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

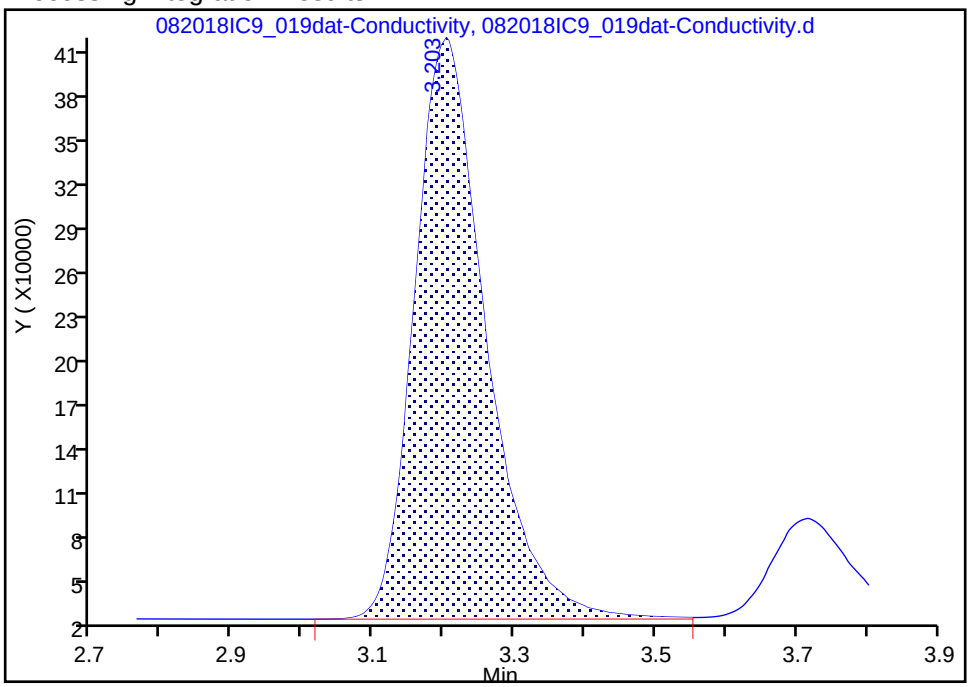
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:28:00	Instrument ID:	IC9		
Lims ID:	ICV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

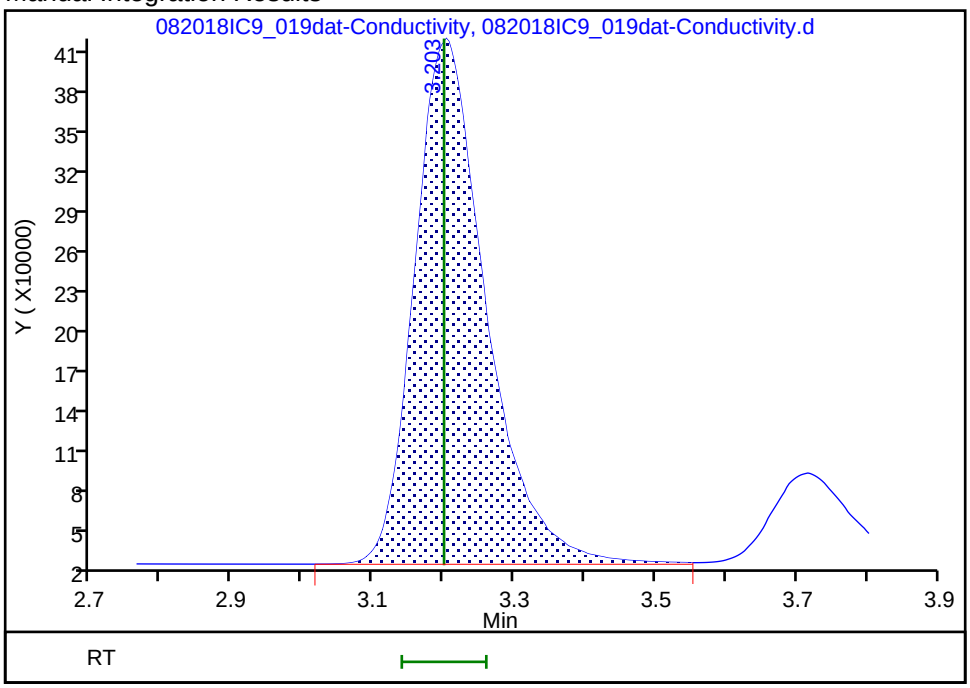
Processing Integration Results

RT: 3.20
Area: 2756533
Amount: 10.096287
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 2760783
Amount: 10.111571
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:59:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

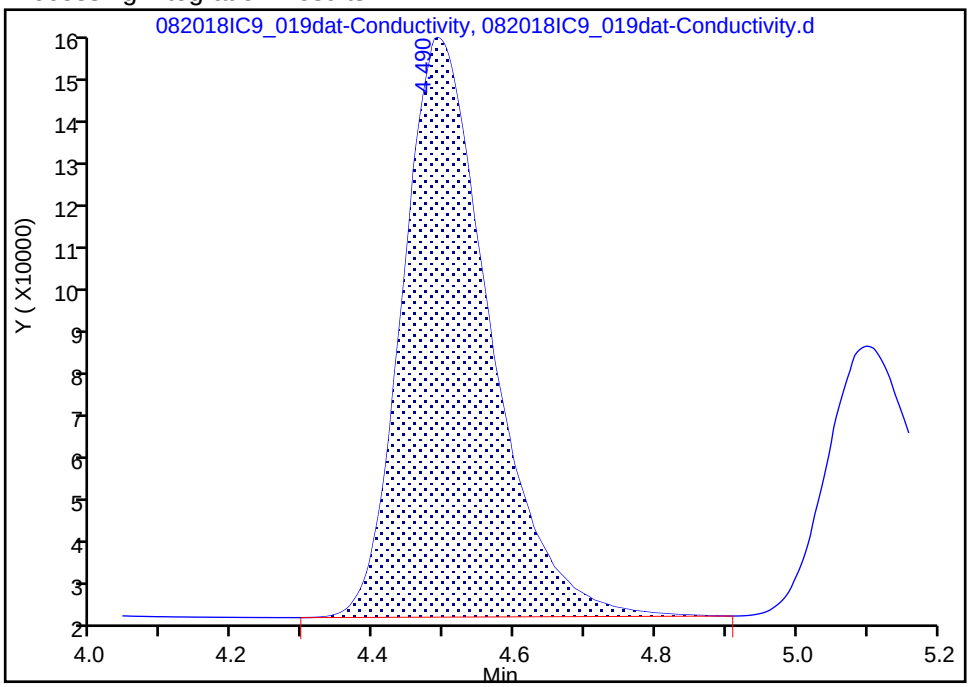
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_019dat-Conductivity.d				
Injection Date:	20-Aug-2018 11:28:00	Instrument ID:	IC9		
Lims ID:	ICV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

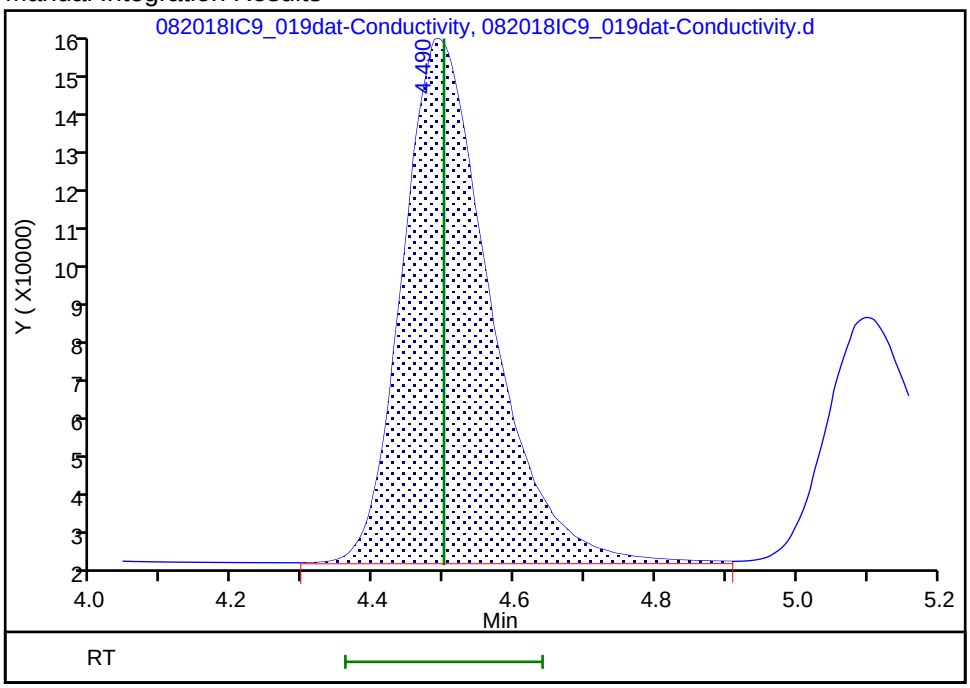
Processing Integration Results

RT: 4.49
Area: 1109263
Amount: 9.536168
Amount Units: ug/ml



Manual Integration Results

RT: 4.49
Area: 1124479
Amount: 9.661154
Amount Units: ug/ml



Reviewer: statenj, 20-Aug-2018 11:59:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCVRT 490-539643/1 Calibration Date: 08/29/2018 15:53

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 082918IC9_031dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		408910		0.933	1.00	-6.7	10.0
Chloride	Lin1		275944		10.1	10.0	1.1	10.0
Bromide	Lin1		110973		9.54	10.0	-4.6	10.0
Sulfate	Lin1		188181		9.52	10.0	-4.8	10.0
Sulfate as Sulfur	Lin1		564549		3.17	3.33	-4.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCVRT 490-539643/1 Calibration Date: 08/29/2018 15:53

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 082918IC9_031dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.34	2.37
Chloride	3.20	3.14	3.26
Bromide	4.45	4.31	4.59
Sulfate	7.70	7.44	7.96
Sulfate as Sulfur	7.70	6.70	8.70

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d
Lims ID: CCVRT
Client ID:
Sample Type: CCVRT
Inject. Date: 29-Aug-2018 15:53:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082918IC9_031
Misc. Info.: 082918IC9_031
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:52:12

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.357	0.000	408910	1.00	0.9331	M
2 Chloride	3.196	3.196	0.000	2759437	10.0	10.1	M
8 Nitrite as NO2	3.693	3.693	0.000	551048	NC	NC	M
7 Nitrite as N	3.693	3.693	0.000	551048	NC	NC	M
1 Bromide	4.446	4.446	0.000	1109727	10.0	9.54	M
3 Nitrate as N	5.030	5.030	0.000	585128	NC	NC	M
9 Nitrate as NO3	5.030	5.030	0.000	585128	NC	NC	M
4 Sulfate	7.696	7.696	0.000	1881811	10.0	9.52	
6 Sulfate as Sulfur	7.696	7.696	0.000	1881811	3.33	3.17	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

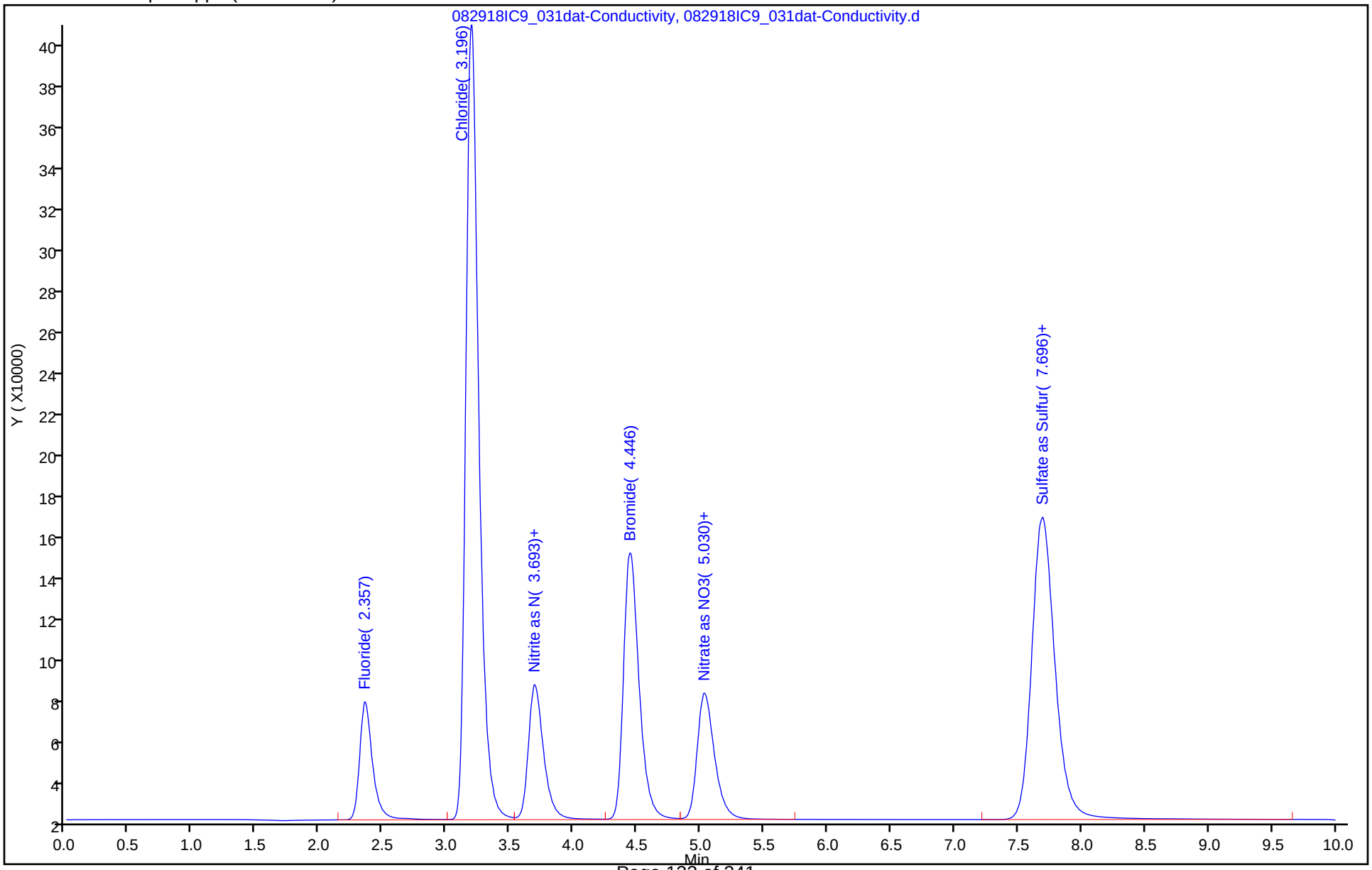
CCV 100_00022 Amount Added: 10.00 Units: mL

Report Date: 31-Aug-2018 09:52:13 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d				
Injection Date:	29-Aug-2018 15:53:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCVRT			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

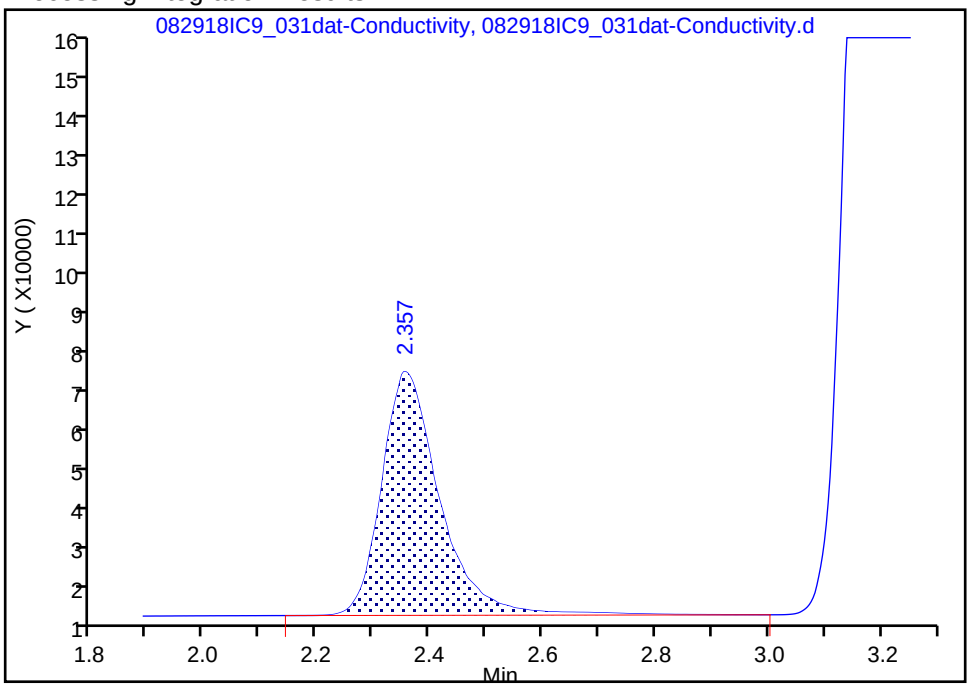
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d				
Injection Date:	29-Aug-2018 15:53:00	Instrument ID:	IC9		
Lims ID:	CCVRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

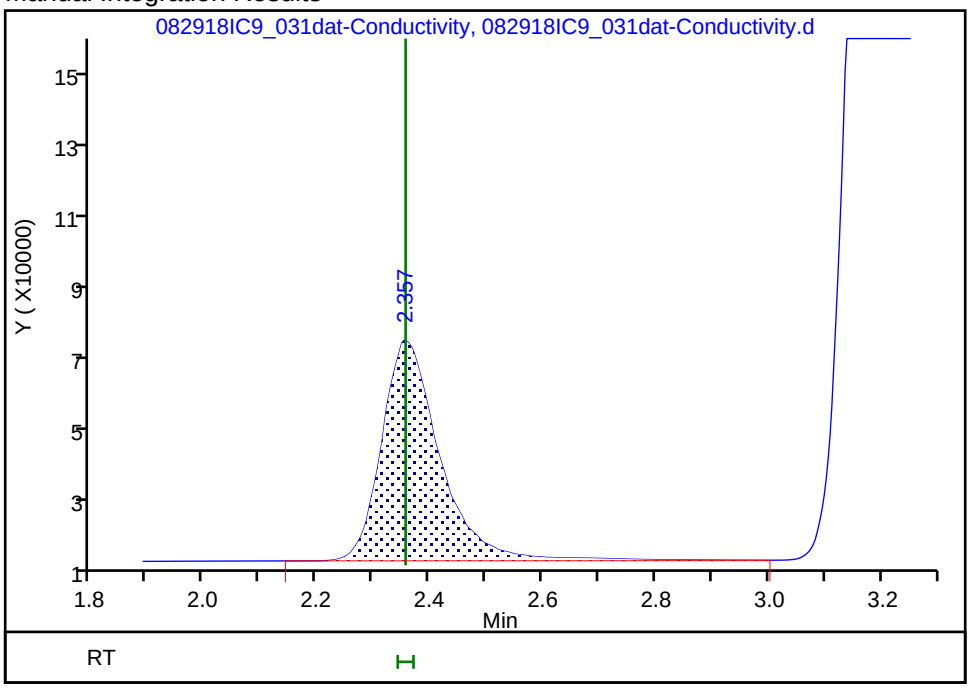
Processing Integration Results

RT: 2.36
Area: 405788
Amount: 0.926252
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 408910
Amount: 0.933140
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

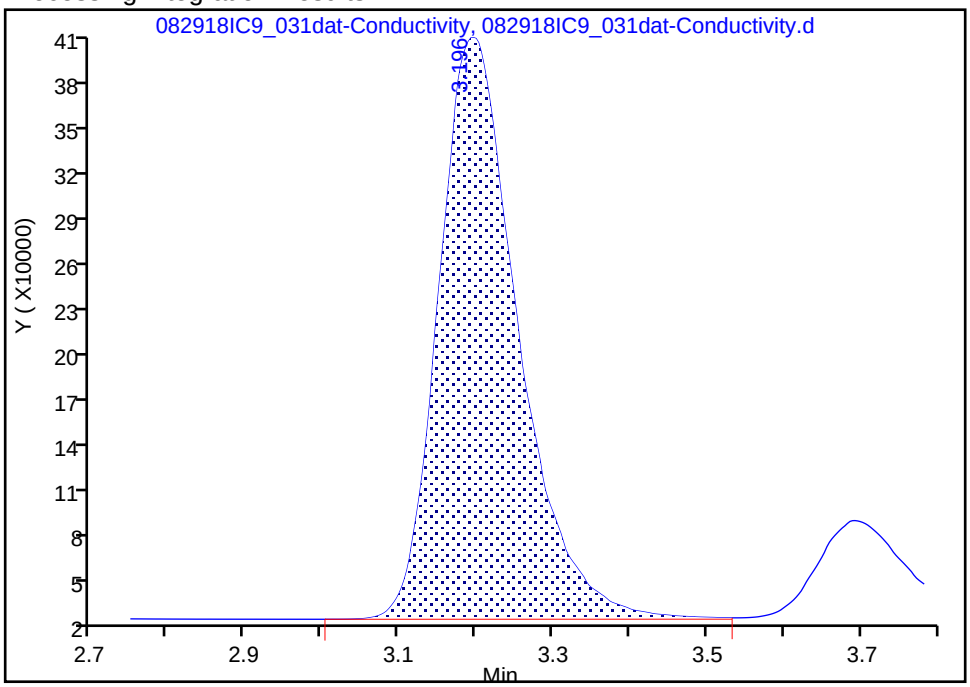
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d				
Injection Date:	29-Aug-2018 15:53:00	Instrument ID:	IC9		
Lims ID:	CCVRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

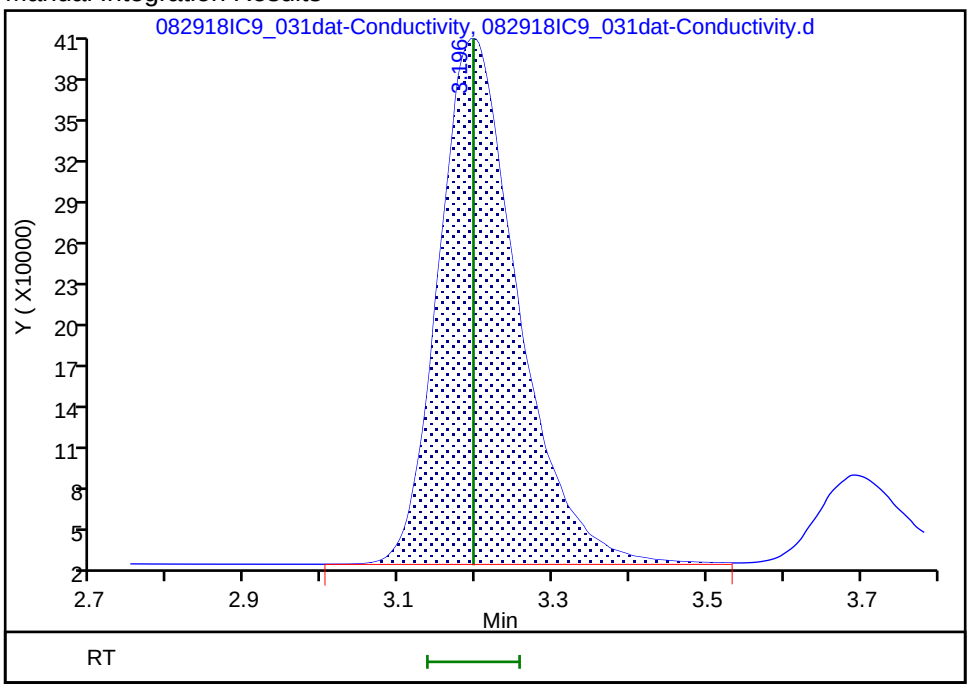
Processing Integration Results

RT: 3.20
Area: 2755002
Amount: 10.090781
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 2759437
Amount: 10.106731
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

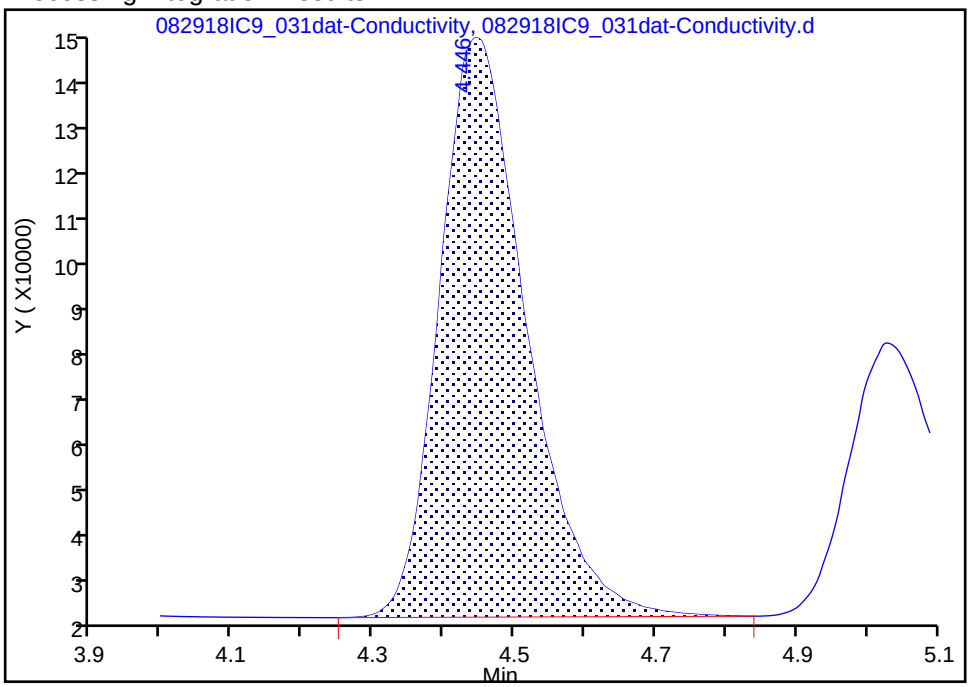
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_031dat-Conductivity.d				
Injection Date:	29-Aug-2018 15:53:00	Instrument ID:	IC9		
Lims ID:	CCVRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

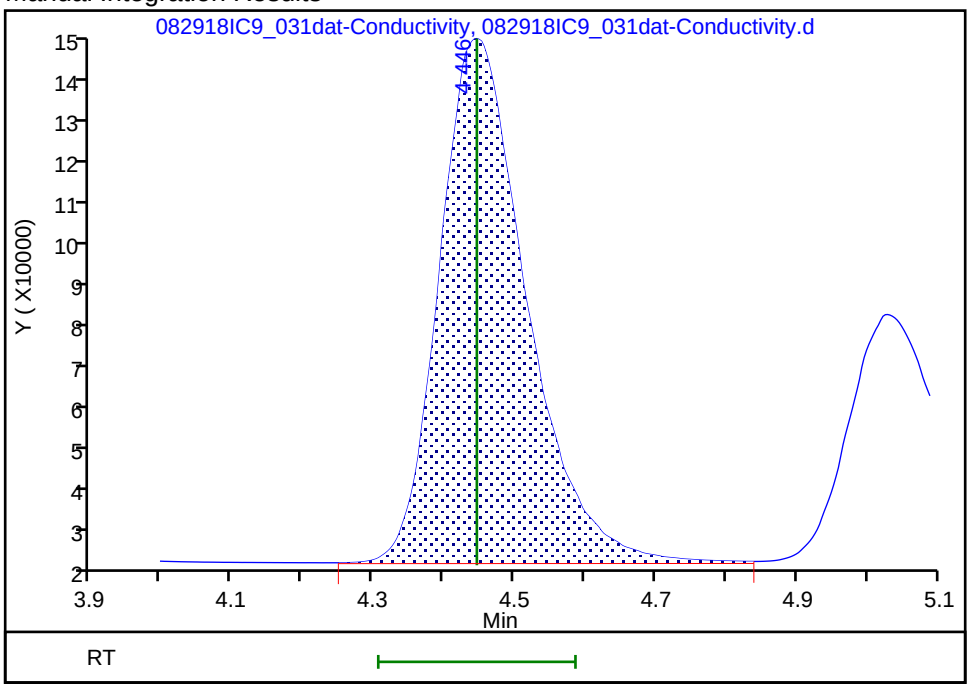
Processing Integration Results

RT: 4.45
Area: 1097285
Amount: 9.437780
Amount Units: ug/ml



Manual Integration Results

RT: 4.45
Area: 1109727
Amount: 9.539980
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:29:29
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCV 490-539643/11 Calibration Date: 08/29/2018 17:49

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 082918IC9_041dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		414251		0.945	1.00	-5.5	10.0
Chloride	Lin1		273838		10.0	10.0	0.3	10.0
Bromide	Lin1		111342		9.57	10.0	-4.3	10.0
Sulfate	Lin1		192014		9.70	10.0	-3.0	10.0
Sulfate as Sulfur	Lin1		576047		3.24	3.33	-3.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCV 490-539643/11 Calibration Date: 08/29/2018 17:49

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 082918IC9_041dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.34	2.37
Chloride	3.19	3.14	3.26
Bromide	4.44	4.31	4.59
Sulfate	7.70	7.44	7.96
Sulfate as Sulfur	7.70	6.70	8.70

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 29-Aug-2018 17:49:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082918IC9_041
Misc. Info.: 082918IC9_041
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9
Sublist: chrom-300_0624_9056IC9*sub1

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 31-Aug-2018 10:01:22 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 10:01:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.357	0.000	414251	1.00	0.9449	M
2 Chloride	3.190	3.196	-0.006	2738381	10.0	10.0	M
8 Nitrite as NO2	3.690	3.693	-0.003	556984	NC	NC	M
7 Nitrite as N	3.690	3.693	-0.003	556984	NC	NC	M
1 Bromide	4.436	4.446	-0.010	1113422	10.0	9.57	M
3 Nitrate as N	5.026	5.030	-0.004	587599	NC	NC	M
9 Nitrate as NO3	5.026	5.030	-0.004	587599	NC	NC	M
4 Sulfate	7.700	7.696	0.004	1920139	10.0	9.70	
6 Sulfate as Sulfur	7.700	7.696	0.004	1920139	3.33	3.23	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

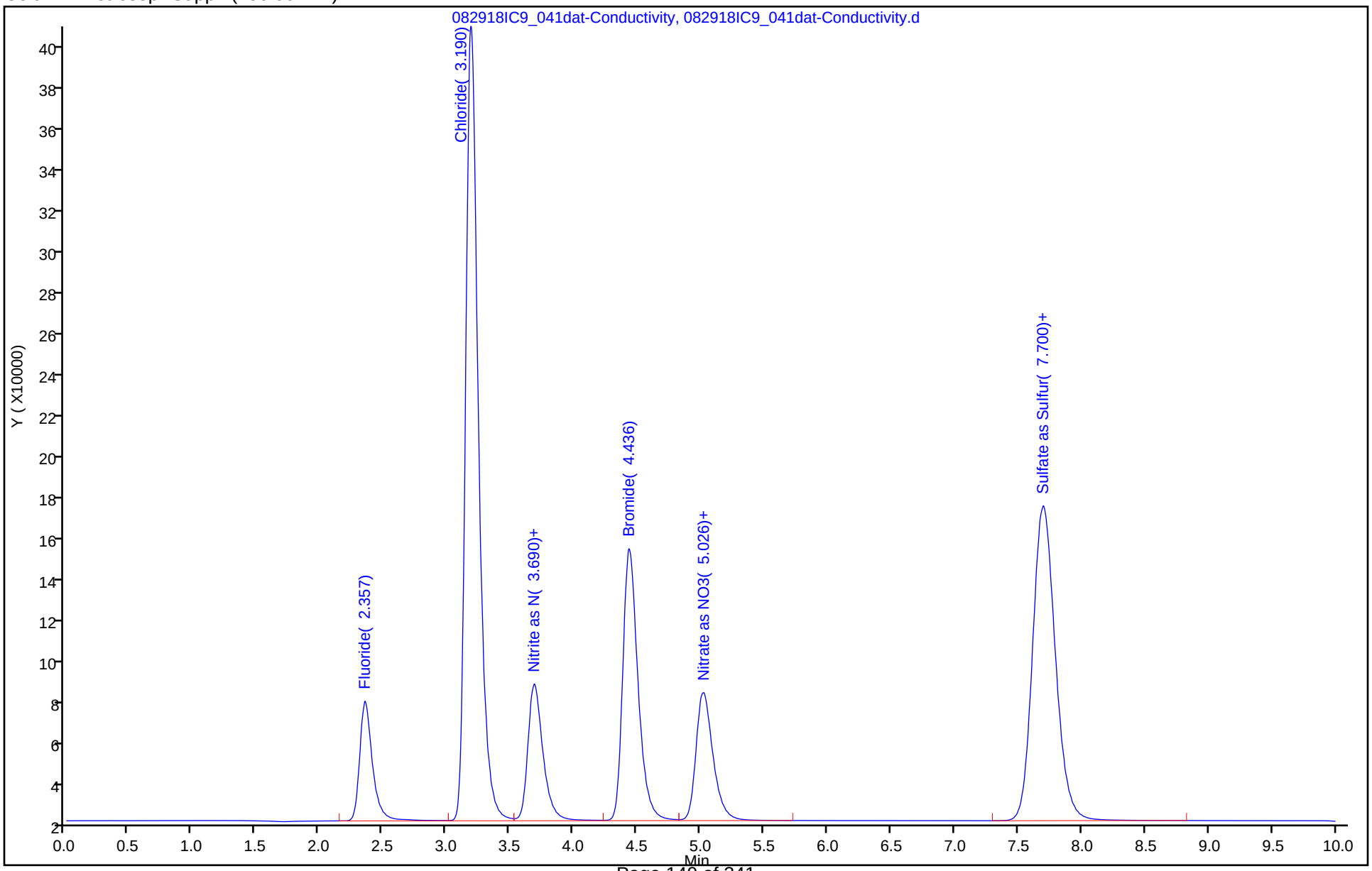
CCV 100_00022 Amount Added: 10.00 Units: mL

Report Date: 31-Aug-2018 10:01:23 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:49:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCV			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

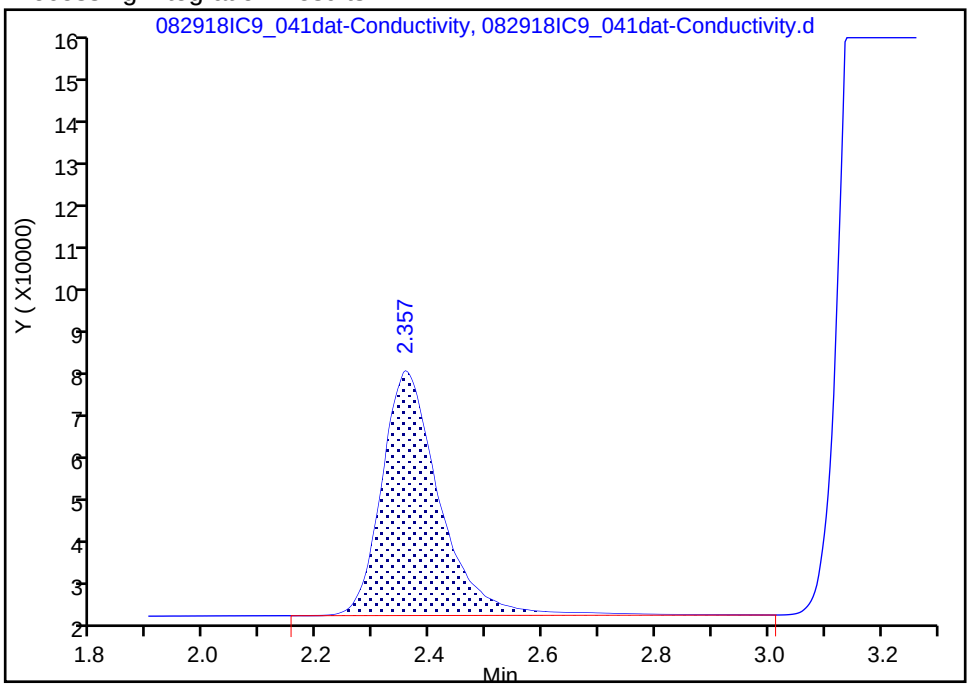
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:49:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

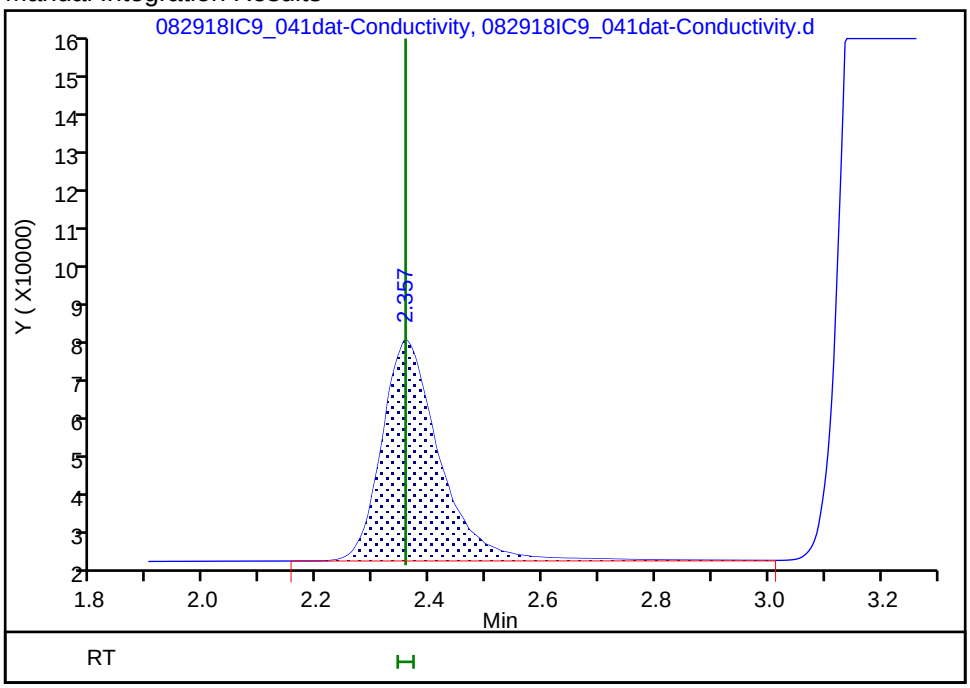
Processing Integration Results

RT: 2.36
Area: 411233
Amount: 0.938264
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 414251
Amount: 0.944922
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:31:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

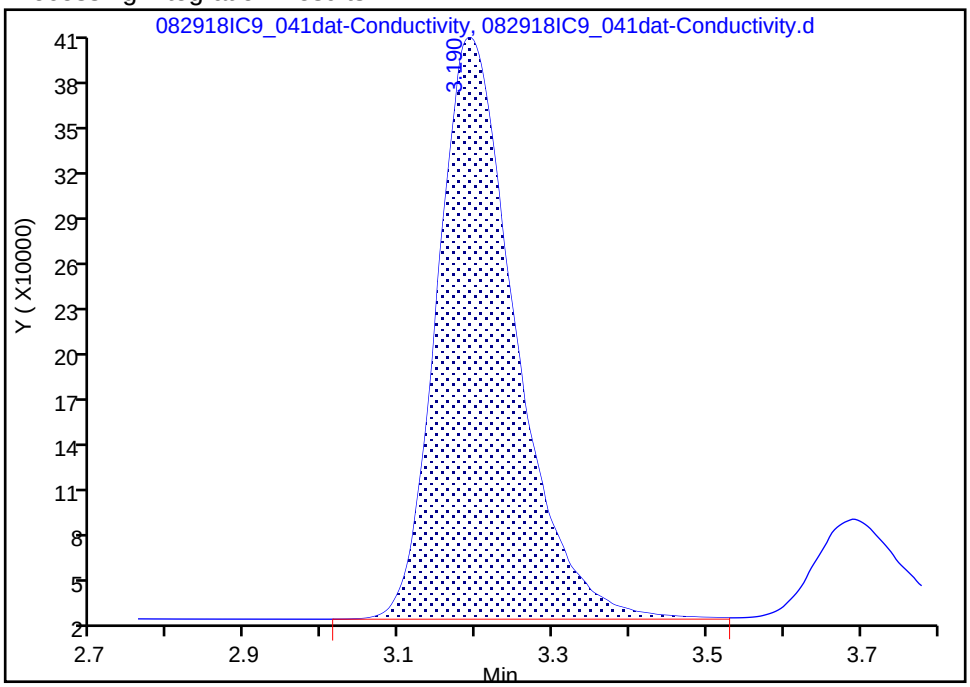
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:49:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

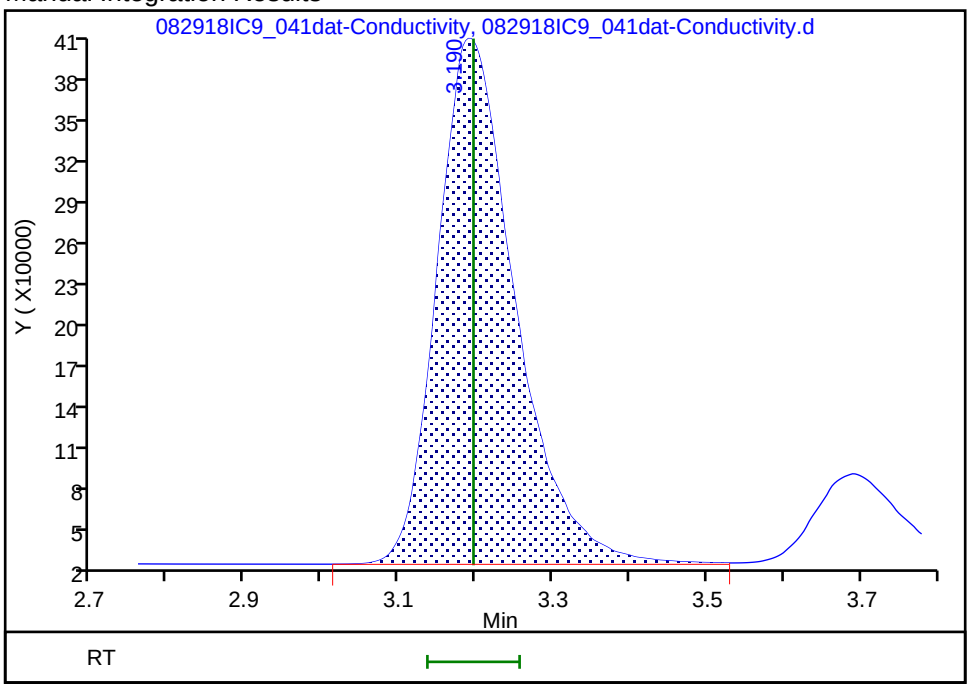
Processing Integration Results

RT: 3.19
Area: 2734290
Amount: 10.016292
Amount Units: ug/ml



Manual Integration Results

RT: 3.19
Area: 2738381
Amount: 10.031005
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:31:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

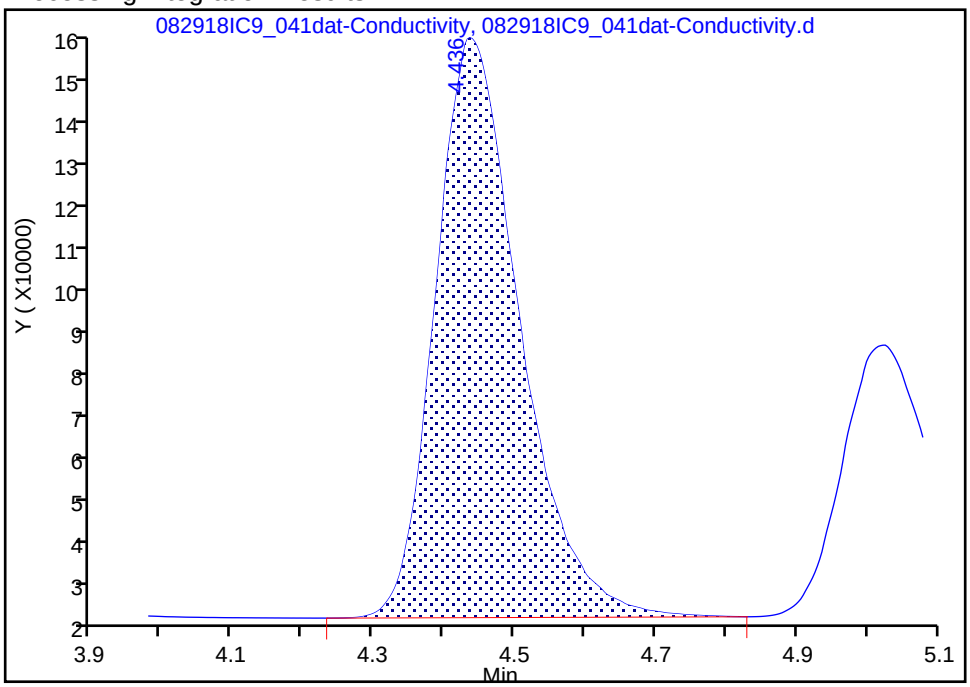
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_041dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:49:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

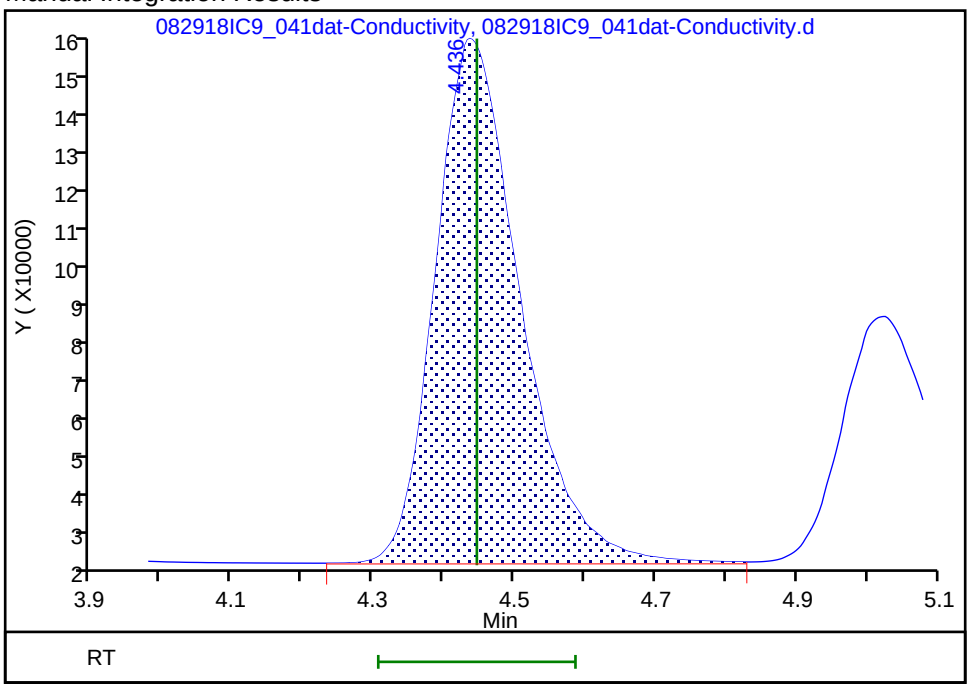
Processing Integration Results

RT: 4.44
Area: 1101717
Amount: 9.474185
Amount Units: ug/ml



Manual Integration Results

RT: 4.44
Area: 1113422
Amount: 9.570331
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:31:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCVRT 490-540592/2 Calibration Date: 09/04/2018 09:49

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 090418IC9_007dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		438568		0.999	1.00	-0.1	10.0
Chloride	Lin1		270824		9.92	10.0	-0.8	10.0
Bromide	Lin1		111156		9.56	10.0	-4.4	10.0
Sulfate	Lin1		199488		10.1	10.0	0.7	10.0
Sulfate as Sulfur	Lin1		598469		3.36	3.33	0.7	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCVRT 490-540592/2 Calibration Date: 09/04/2018 09:49

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 090418IC9_007dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.35	2.38
Chloride	3.21	3.15	3.27
Bromide	4.51	4.37	4.65
Sulfate	7.57	7.31	7.83
Sulfate as Sulfur	7.57	6.57	8.57

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_007dat-Conductivity.d				
Lims ID:	CCVRT				
Client ID:					
Sample Type:	CCVRT				
Inject. Date:	04-Sep-2018 09:49:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_007				
Misc. Info.:	090418IC9_007				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Sublist:	chrom-300_0624_9056IC9*sub1				
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:44	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:00:38

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	438568	1.00	1.00	M
2 Chloride	3.213	3.213	0.000	2708241	10.0	9.92	M
8 Nitrite as NO2	3.723	3.723	0.000	553782	NC	NC	M
7 Nitrite as N	3.723	3.723	0.000	553782	NC	NC	M
1 Bromide	4.510	4.510	0.000	1111558	10.0	9.56	M
9 Nitrate as NO3	5.113	5.113	0.000	582333	NC	NC	M
3 Nitrate as N	5.113	5.113	0.000	582333	NC	NC	M
4 Sulfate	7.573	7.573	0.000	1994878	10.0	10.1	
6 Sulfate as Sulfur	7.573	7.573	0.000	1994878	3.33	3.36	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

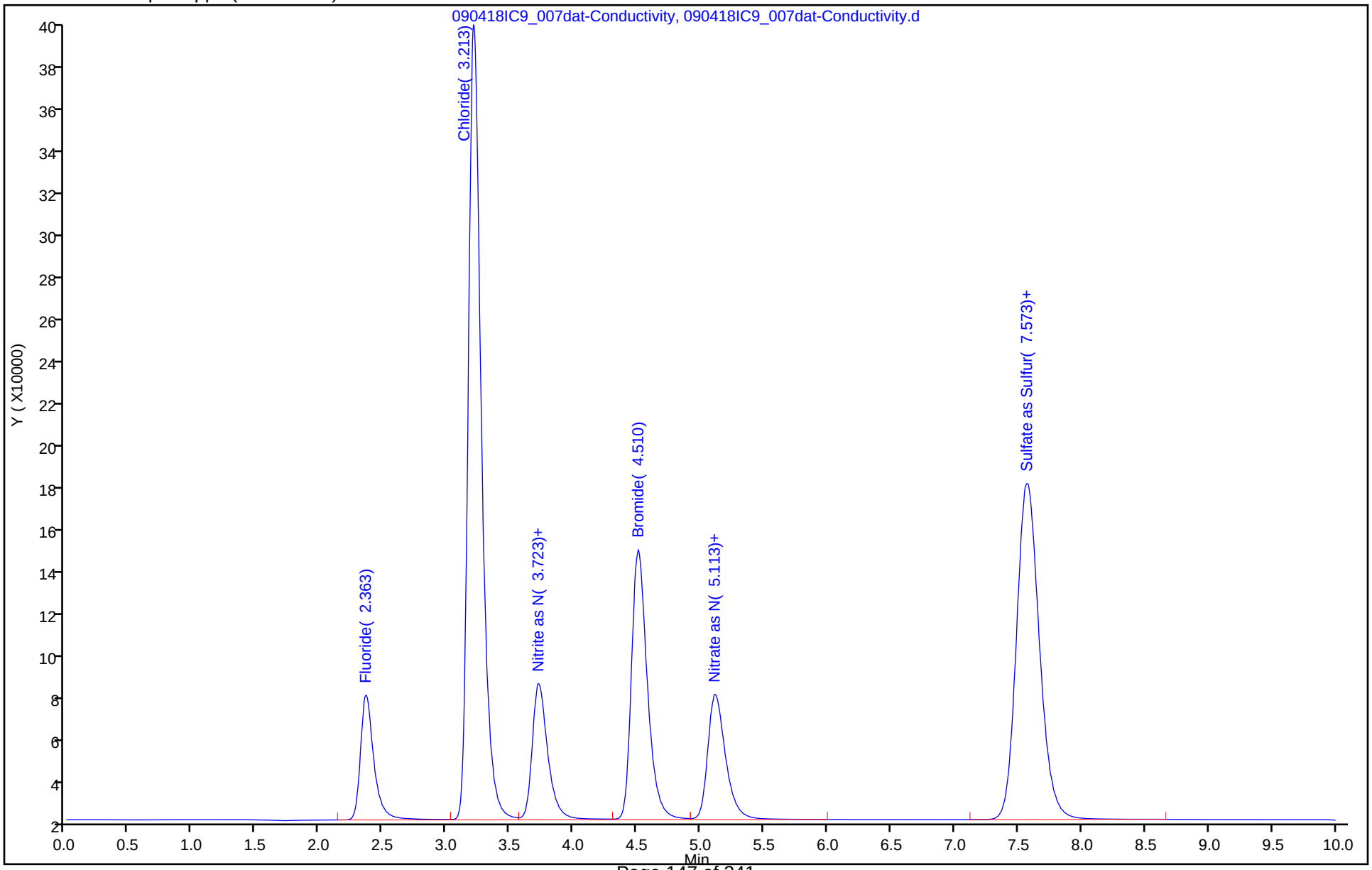
CCV 100_00022 Amount Added: 10.00 Units: mL

Report Date: 05-Sep-2018 07:06:45 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_007dat-Conductivity.d				
Injection Date:	04-Sep-2018 09:49:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCVRT			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

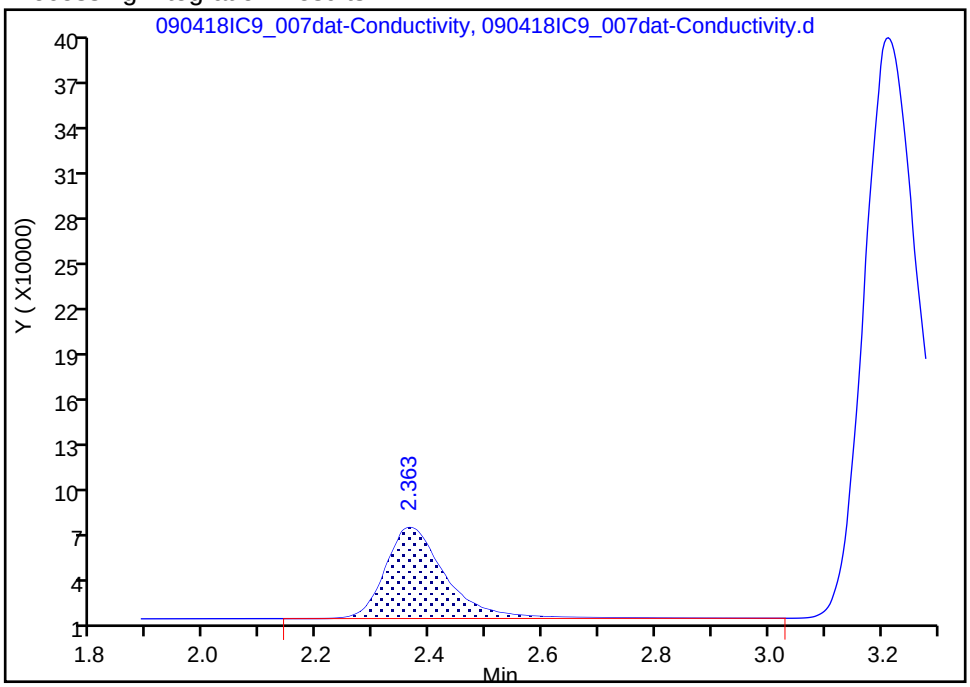
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_007dat-Conductivity.d				
Injection Date:	04-Sep-2018 09:49:00	Instrument ID:	IC9		
Lims ID:	CCVRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

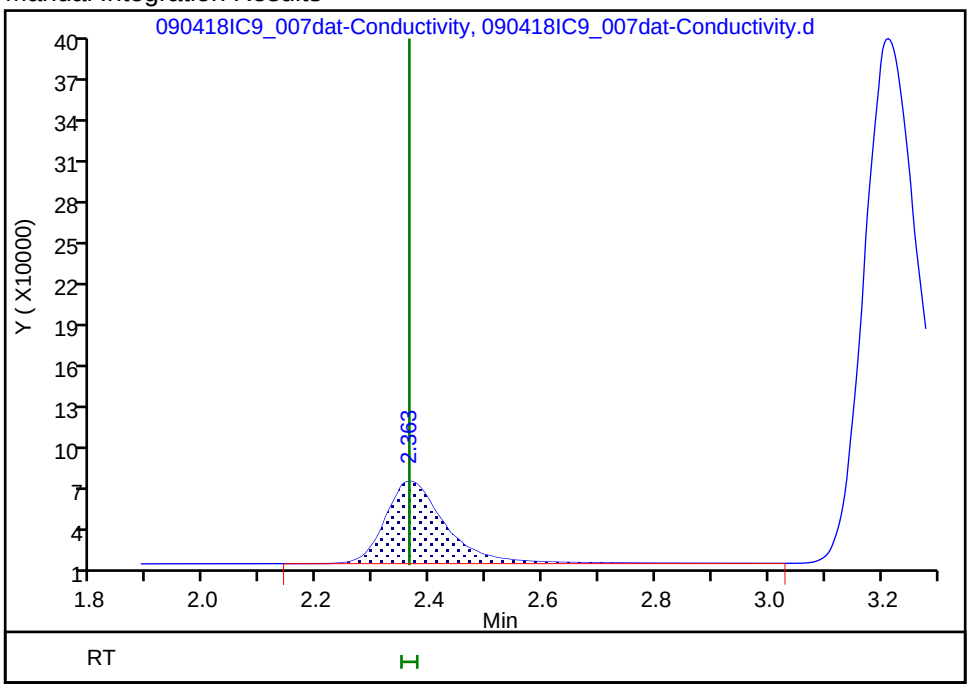
Processing Integration Results

RT: 2.36
Area: 434029
Amount: 0.988554
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 438568
Amount: 0.998568
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:00:27
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

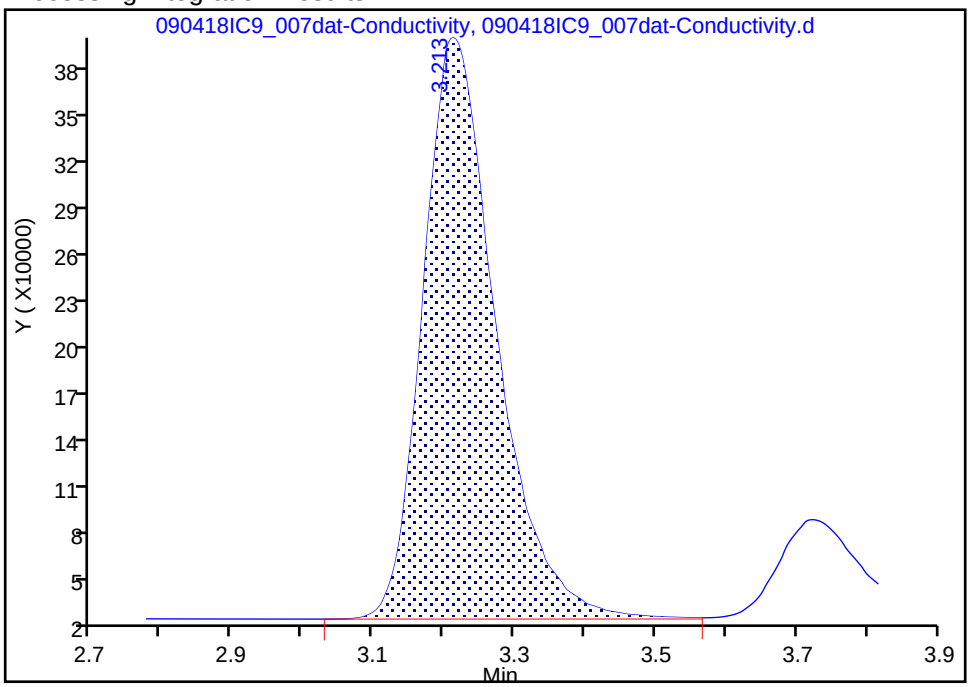
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_007dat-Conductivity.d				
Injection Date:	04-Sep-2018 09:49:00	Instrument ID:	IC9		
Lims ID:	CCVRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

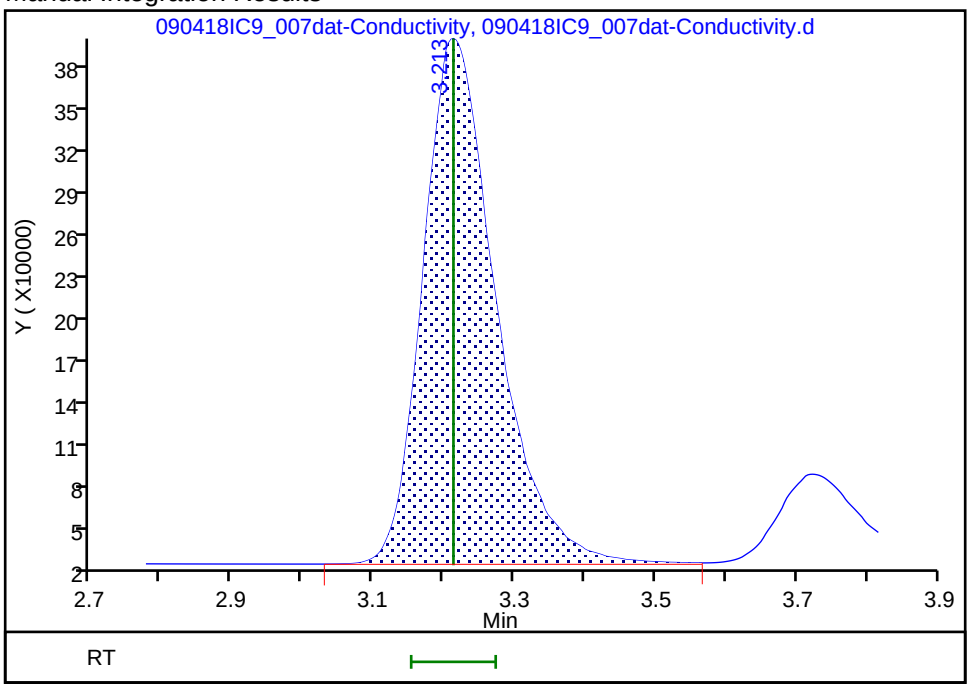
Processing Integration Results

RT: 3.21
Area: 2702075
Amount: 9.900435
Amount Units: ug/ml



Manual Integration Results

RT: 3.21
Area: 2708241
Amount: 9.922610
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:00:27
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

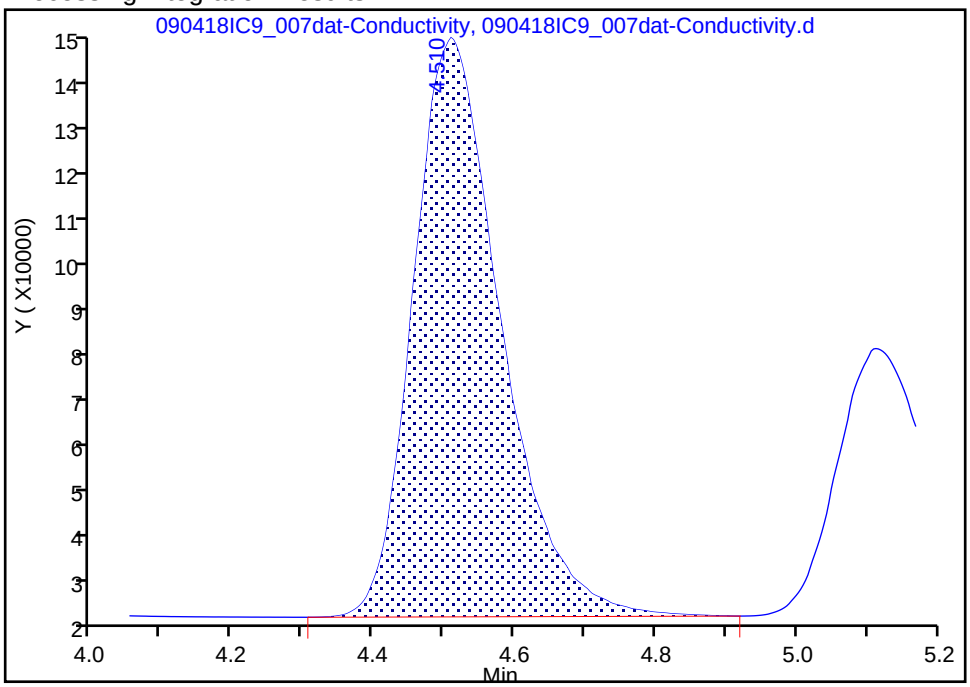
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_007dat-Conductivity.d				
Injection Date:	04-Sep-2018 09:49:00	Instrument ID:	IC9		
Lims ID:	CCVRT				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

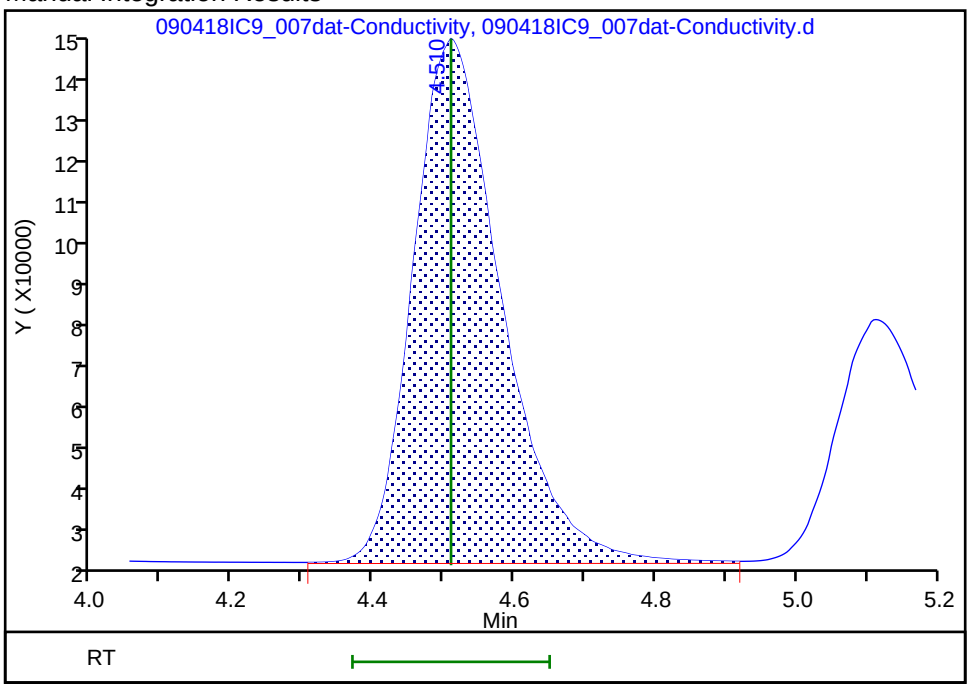
Processing Integration Results

RT: 4.51
Area: 1097741
Amount: 9.441525
Amount Units: ug/ml



Manual Integration Results

RT: 4.51
Area: 1111558
Amount: 9.555020
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:00:27
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCV 490-540592/19 Calibration Date: 09/04/2018 13:06

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 090418IC9_024dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		431235		0.982	1.00	-1.8	10.0
Chloride	Lin1		270502		9.91	10.0	-0.9	10.0
Bromide	Lin1		111614		9.59	10.0	-4.1	10.0
Sulfate	Lin1		196919		9.94	10.0	-0.6	10.0
Sulfate as Sulfur	Lin1		590764		3.31	3.33	-0.6	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCV 490-540592/19 Calibration Date: 09/04/2018 13:06

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 090418IC9_024dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.36	2.35	2.38
Chloride	3.19	3.15	3.27
Bromide	4.45	4.37	4.65
Sulfate	7.60	7.31	7.83
Sulfate as Sulfur	7.60	6.57	8.57

Form VII 9056A

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_024dat-Conductivity.d				
Lims ID:	CCV				
Client ID:					
Sample Type:	CCV				
Inject. Date:	04-Sep-2018 13:06:00	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_024				
Misc. Info.:	090418IC9_024				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Sublist:	chrom-300_0624_9056IC9*sub1				
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:04:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.363	-0.003	431235	1.00	0.9824	M
2 Chloride	3.193	3.213	-0.020	2705017	10.0	9.91	M
8 Nitrite as NO2	3.693	3.723	-0.030	554127	NC	NC	M
7 Nitrite as N	3.693	3.723	-0.030	554127	NC	NC	M
1 Bromide	4.450	4.510	-0.060	1116138	10.0	9.59	M
9 Nitrate as NO3	5.036	5.113	-0.077	583156	NC	NC	M
3 Nitrate as N	5.036	5.113	-0.077	583156	NC	NC	M
4 Sulfate	7.603	7.573	0.030	1969192	10.0	9.94	
6 Sulfate as Sulfur	7.603	7.573	0.030	1969192	3.33	3.31	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

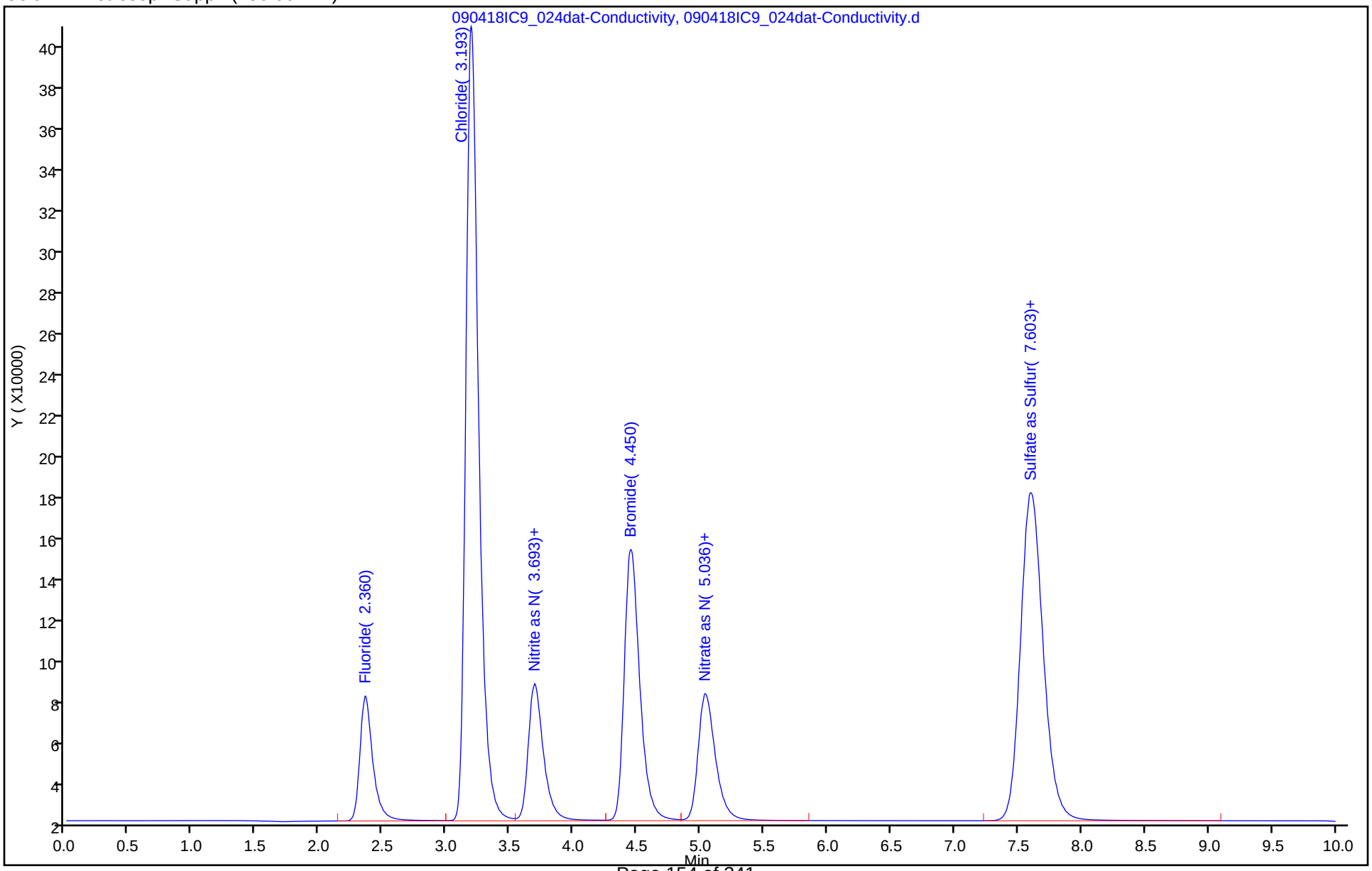
CCV 100_00022 Amount Added: 10.00 Units: mL

Report Date: 05-Sep-2018 07:06:55 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_024dat-Conductivity.d				
Injection Date:	04-Sep-2018 13:06:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCV			Worklist Smp#:	19
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

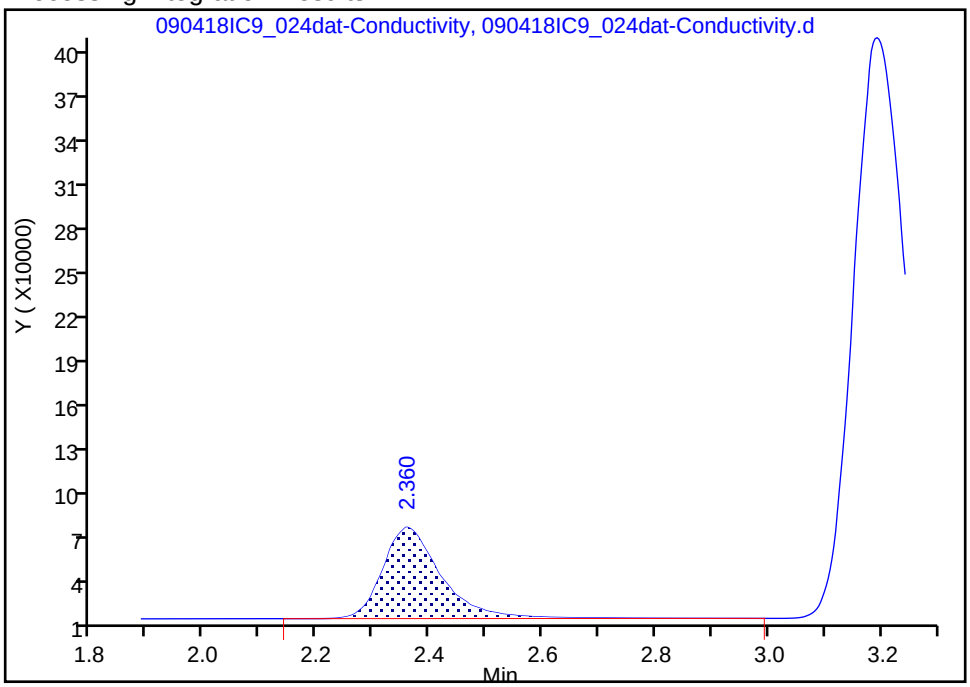
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_024dat-Conductivity.d				
Injection Date:	04-Sep-2018 13:06:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

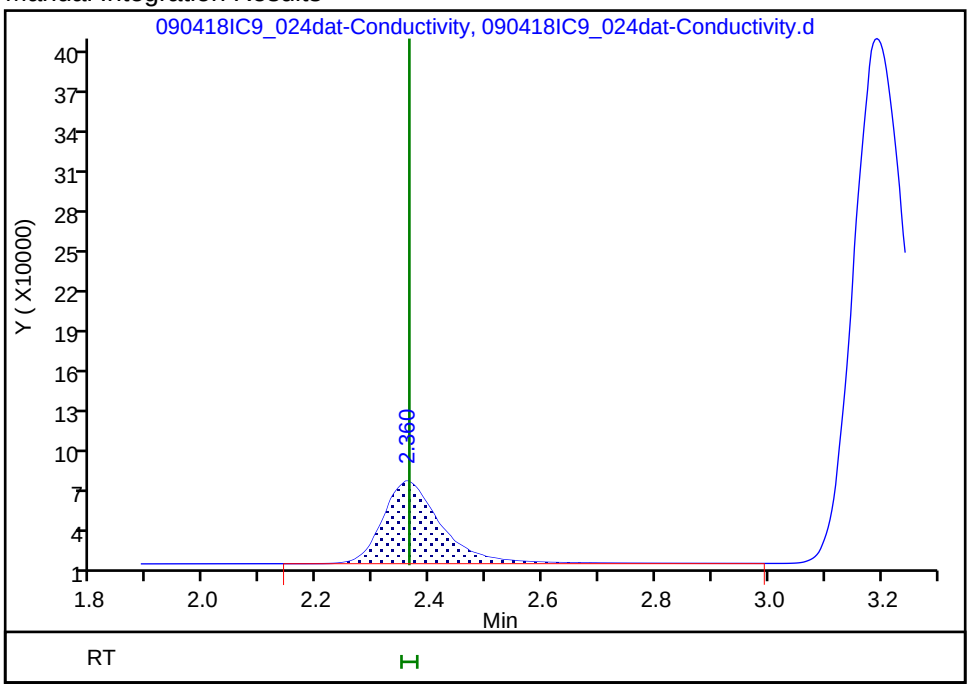
Processing Integration Results

RT: 2.36
Area: 427268
Amount: 0.973639
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 431235
Amount: 0.982391
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:04:18
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

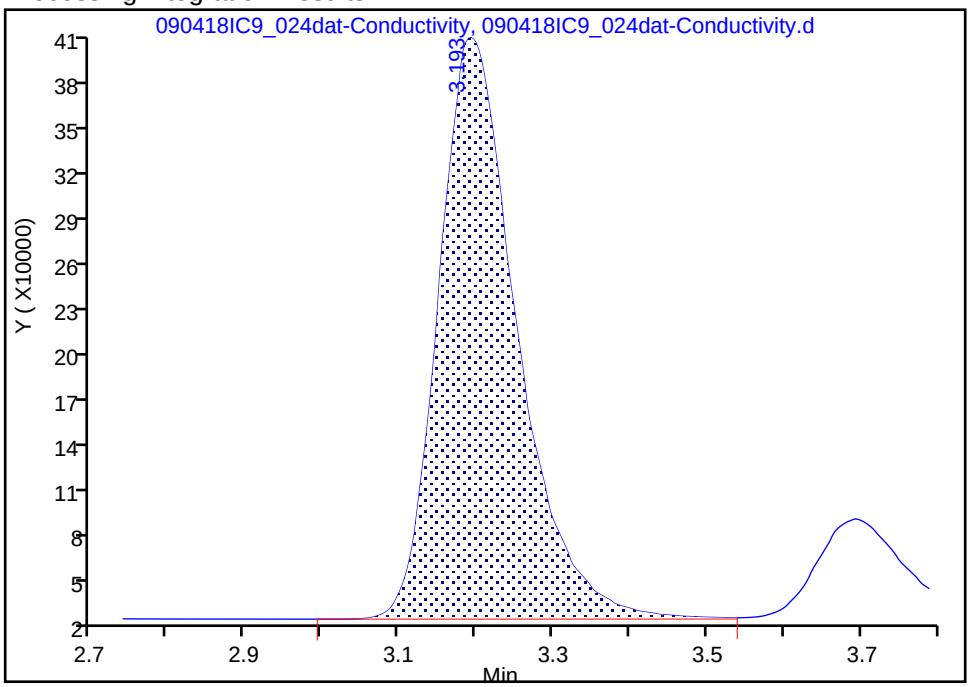
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_024dat-Conductivity.d				
Injection Date:	04-Sep-2018 13:06:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

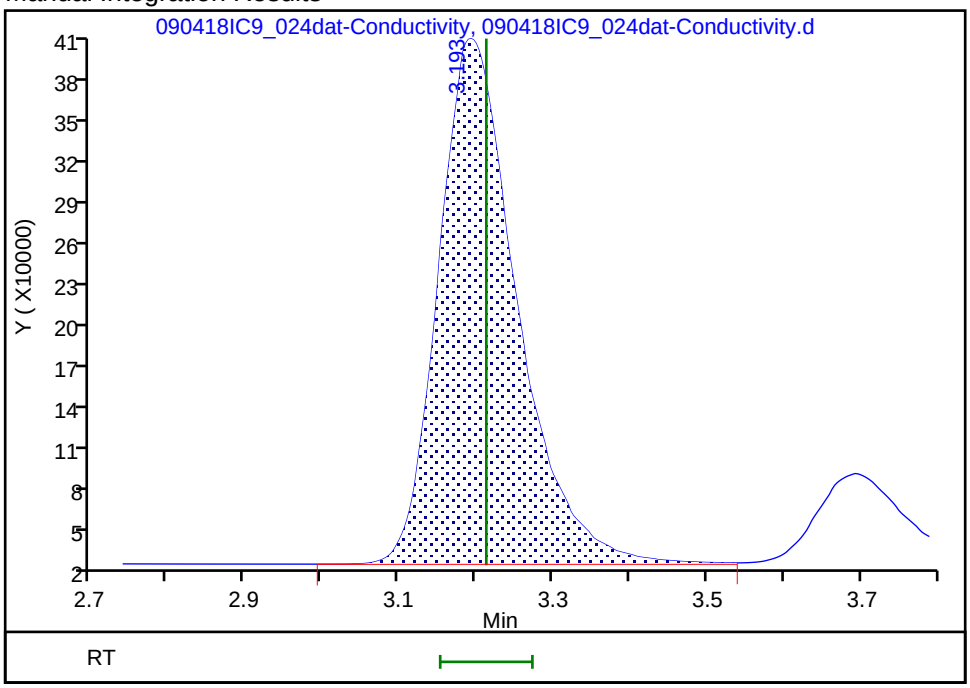
Processing Integration Results

RT: 3.19
Area: 2699392
Amount: 9.890786
Amount Units: ug/ml



Manual Integration Results

RT: 3.19
Area: 2705017
Amount: 9.911015
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:04:18
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

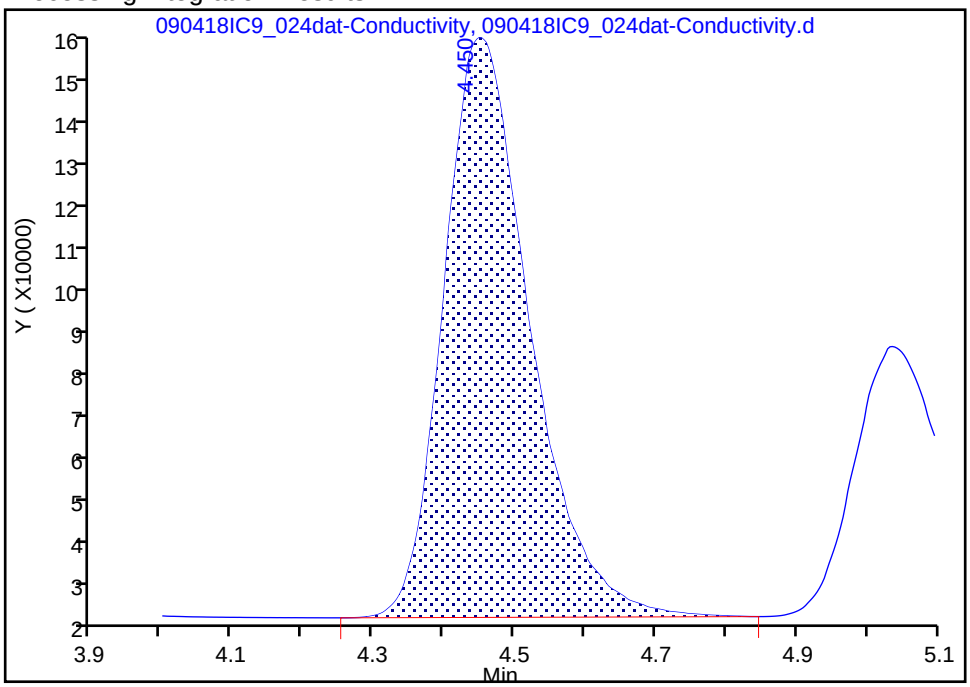
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_024dat-Conductivity.d				
Injection Date:	04-Sep-2018 13:06:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

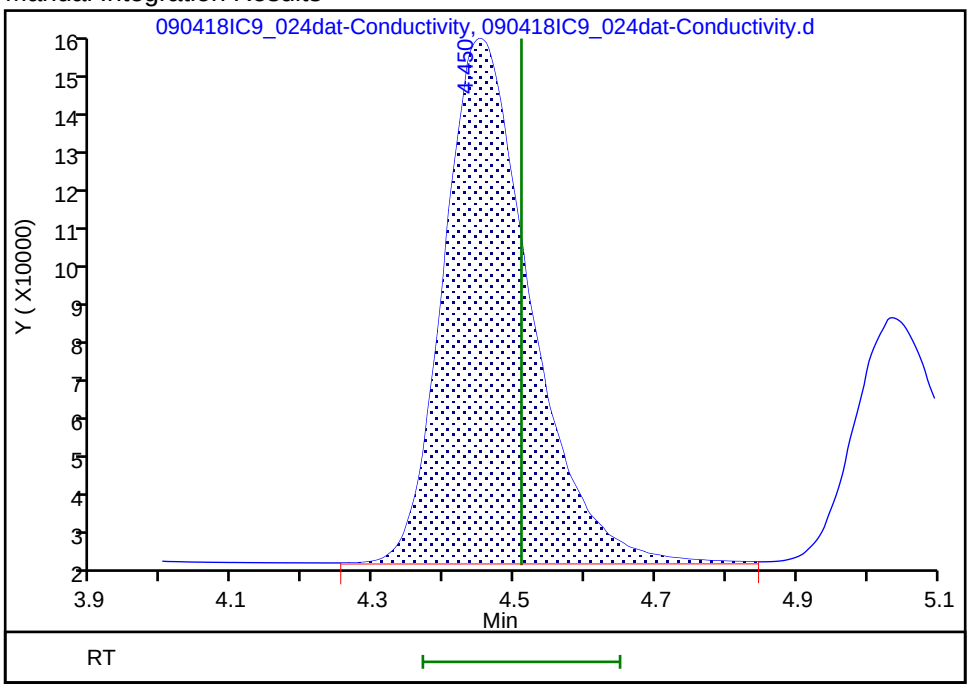
Processing Integration Results

RT: 4.45
Area: 1102522
Amount: 9.480797
Amount Units: ug/ml



Manual Integration Results

RT: 4.45
Area: 1116138
Amount: 9.592640
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:04:18

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCV 490-540592/31 Calibration Date: 09/04/2018 15:25

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 090418IC9_036dat-Conductivity.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		431340		0.983	1.00	-1.7	10.0
Chloride	Lin1		271751		9.96	10.0	-0.4	10.0
Bromide	Lin1		111957		9.62	10.0	-3.8	10.0
Sulfate	Lin1		194417		9.82	10.0	-1.8	10.0
Sulfate as Sulfur	Lin1		583258		3.27	3.33	-1.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: CCV 490-540592/31 Calibration Date: 09/04/2018 15:25

Instrument ID: IC9 Calib Start Date: 08/20/2018 09:44

GC Column: Metrohm ASupp4 ID: 4.00(mm) Calib End Date: 08/20/2018 11:16

Lab File ID: 090418IC9_036dat-Conductivity.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.37	2.35	2.38
Chloride	3.19	3.15	3.27
Bromide	4.43	4.37	4.65
Sulfate	7.63	7.31	7.83
Sulfate as Sulfur	7.63	6.57	8.57

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_036dat-Conductivity.d				
Lims ID:	CCV				
Client ID:					
Sample Type:	CCV				
Inject. Date:	04-Sep-2018 15:25:00	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_036				
Misc. Info.:	090418IC9_036				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Sublist:	chrom-300_0624_9056IC9*sub1				
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:05:54	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:05:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.367	2.363	0.004	431340	1.00	0.9826	M
2 Chloride	3.193	3.213	-0.020	2717512	10.0	9.96	M
8 Nitrite as NO2	3.683	3.723	-0.040	555381	NC	NC	M
7 Nitrite as N	3.683	3.723	-0.040	555381	NC	NC	M
1 Bromide	4.433	4.510	-0.077	1119569	10.0	9.62	M
9 Nitrate as NO3	5.013	5.113	-0.100	586843	NC	NC	M
3 Nitrate as N	5.013	5.113	-0.100	586843	NC	NC	M
4 Sulfate	7.626	7.573	0.053	1944173	10.0	9.82	
6 Sulfate as Sulfur	7.626	7.573	0.053	1944173	3.33	3.27	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

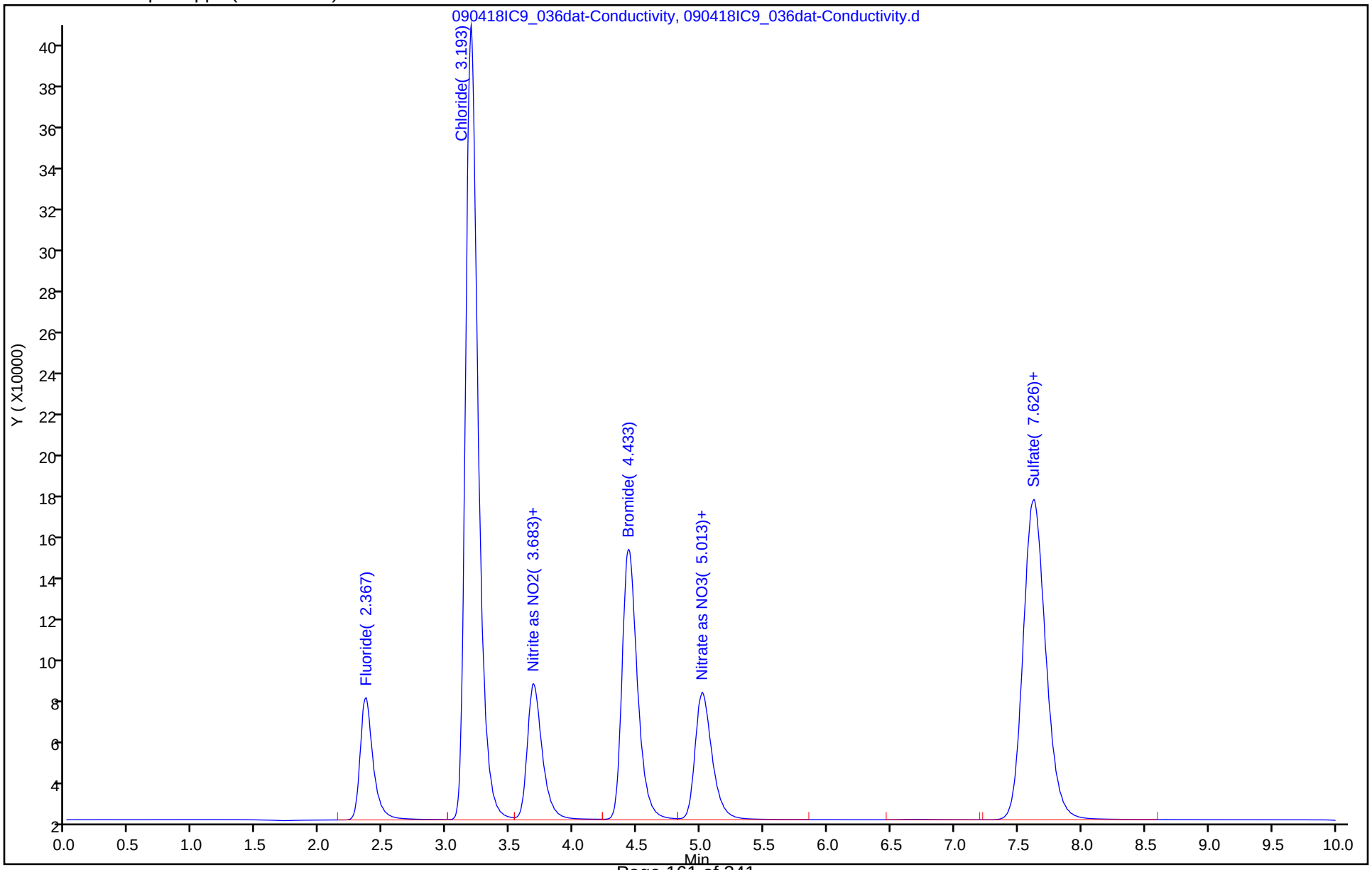
CCV 100_00022 Amount Added: 10.00 Units: mL

Report Date: 05-Sep-2018 07:05:55 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_036dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:25:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCV			Worklist Smp#:	31
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

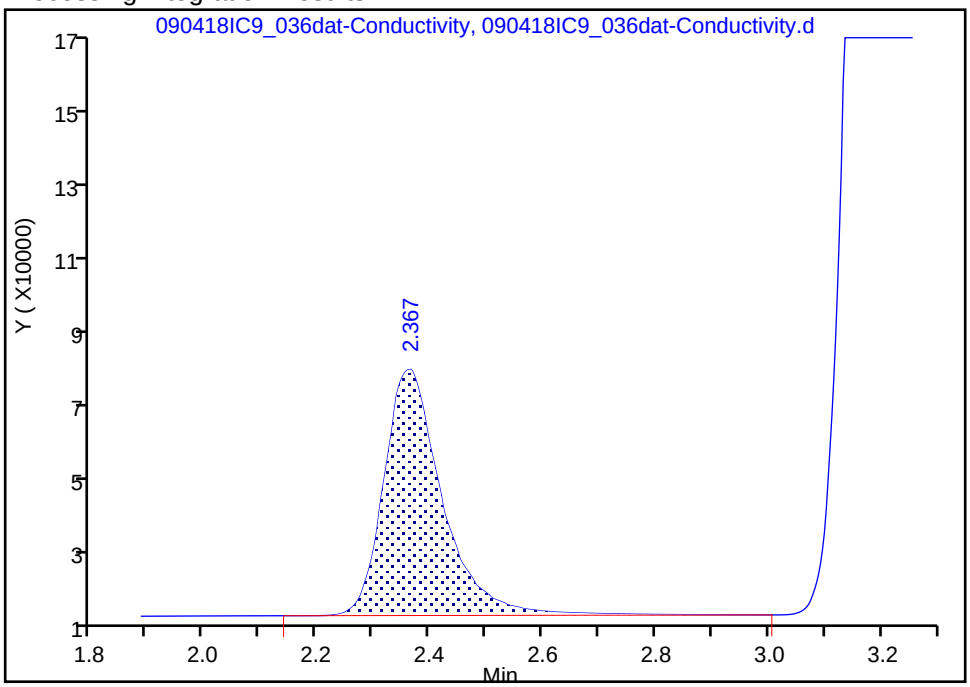
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_036dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:25:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

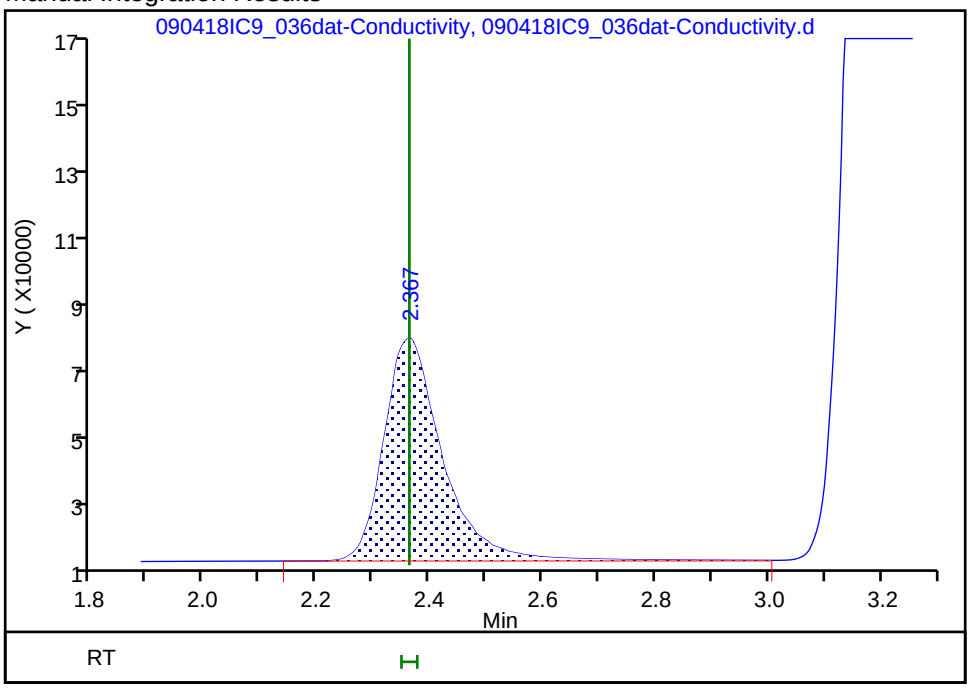
Processing Integration Results

RT: 2.37
Area: 427180
Amount: 0.973445
Amount Units: ug/ml



Manual Integration Results

RT: 2.37
Area: 431340
Amount: 0.982622
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:05:45
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

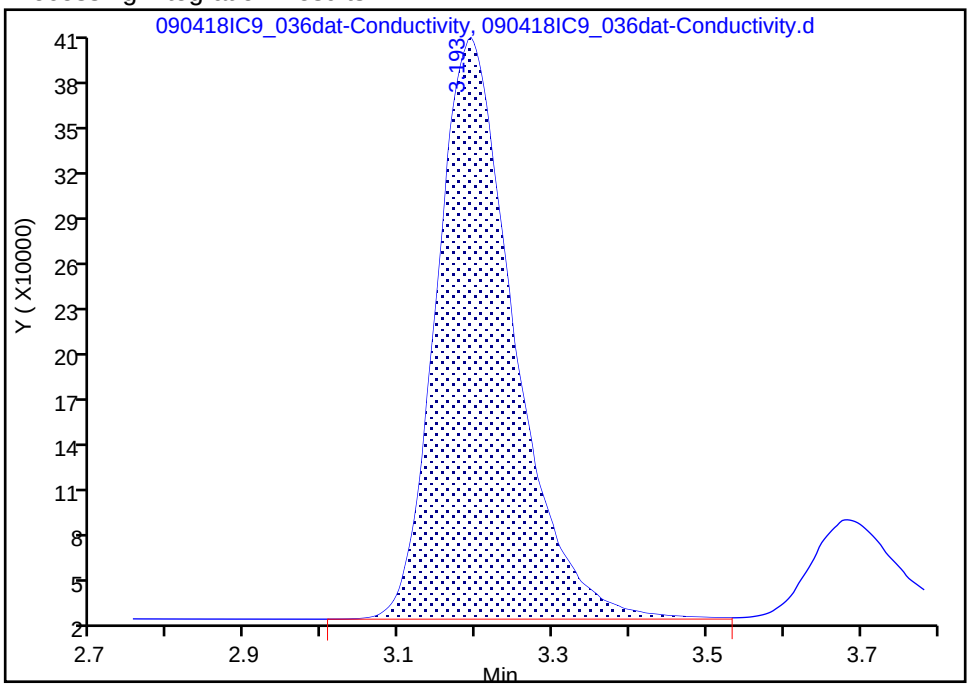
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_036dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:25:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

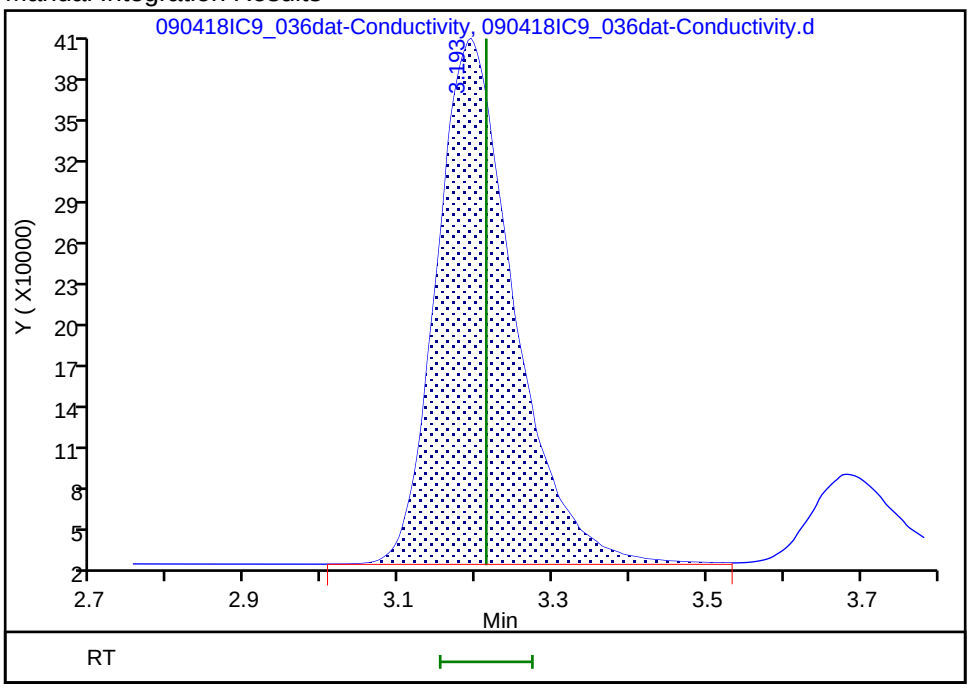
Processing Integration Results

RT: 3.19
Area: 2711951
Amount: 9.935953
Amount Units: ug/ml



Manual Integration Results

RT: 3.19
Area: 2717512
Amount: 9.955952
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:05:45
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

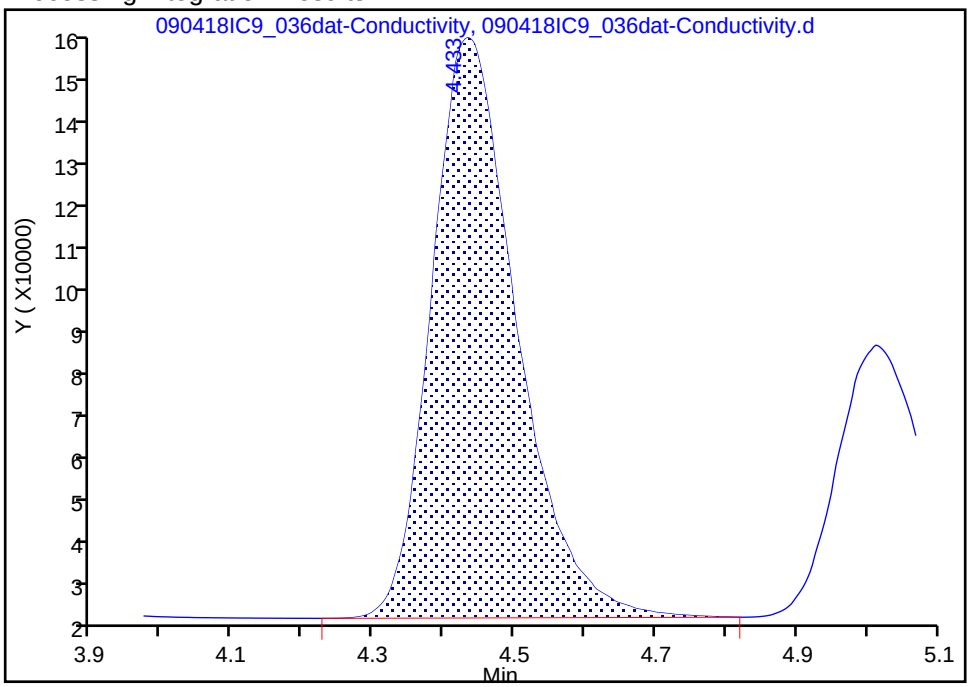
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_036dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:25:00	Instrument ID:	IC9		
Lims ID:	CCV				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

1 Bromide, CAS: 24959-67-9

Signal: 1

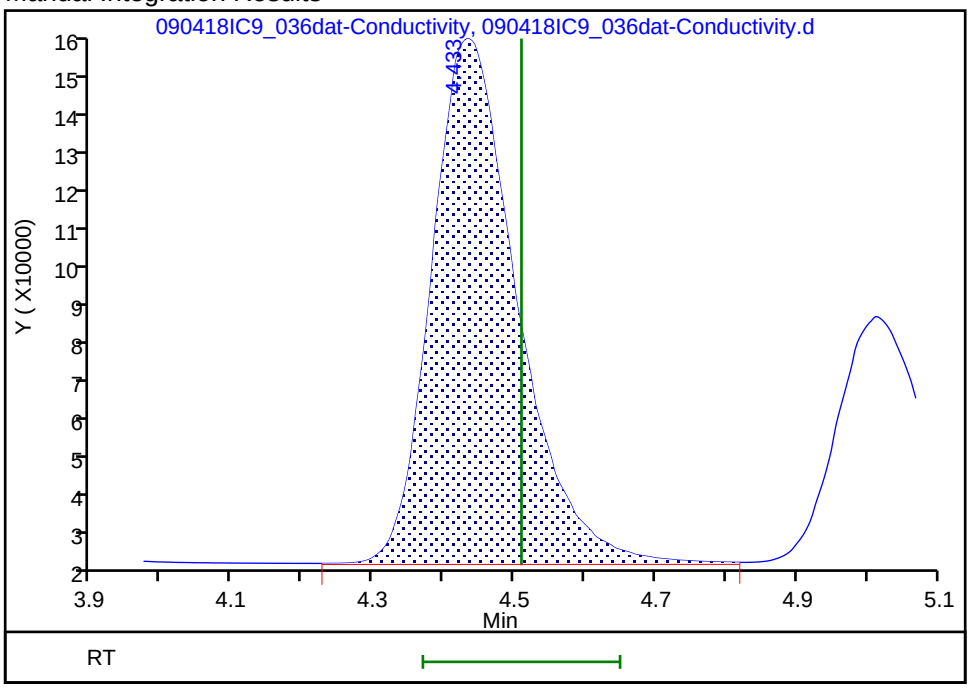
Processing Integration Results

RT: 4.43
Area: 1106184
Amount: 9.510877
Amount Units: ug/ml



Manual Integration Results

RT: 4.43
Area: 1119569
Amount: 9.620823
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:05:45
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 490-539643/3
Matrix: Water
Lab File ID: 082918IC9_033dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 16:17
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.3023	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4435	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_033dat-Conductivity.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	29-Aug-2018 16:17:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	082918IC9_033				
Misc. Info.:	082918IC9_033				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	31-Aug-2018 09:52:12	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK026				
First Level Reviewer: wanguns		Date:	31-Aug-2018 09:54:51		

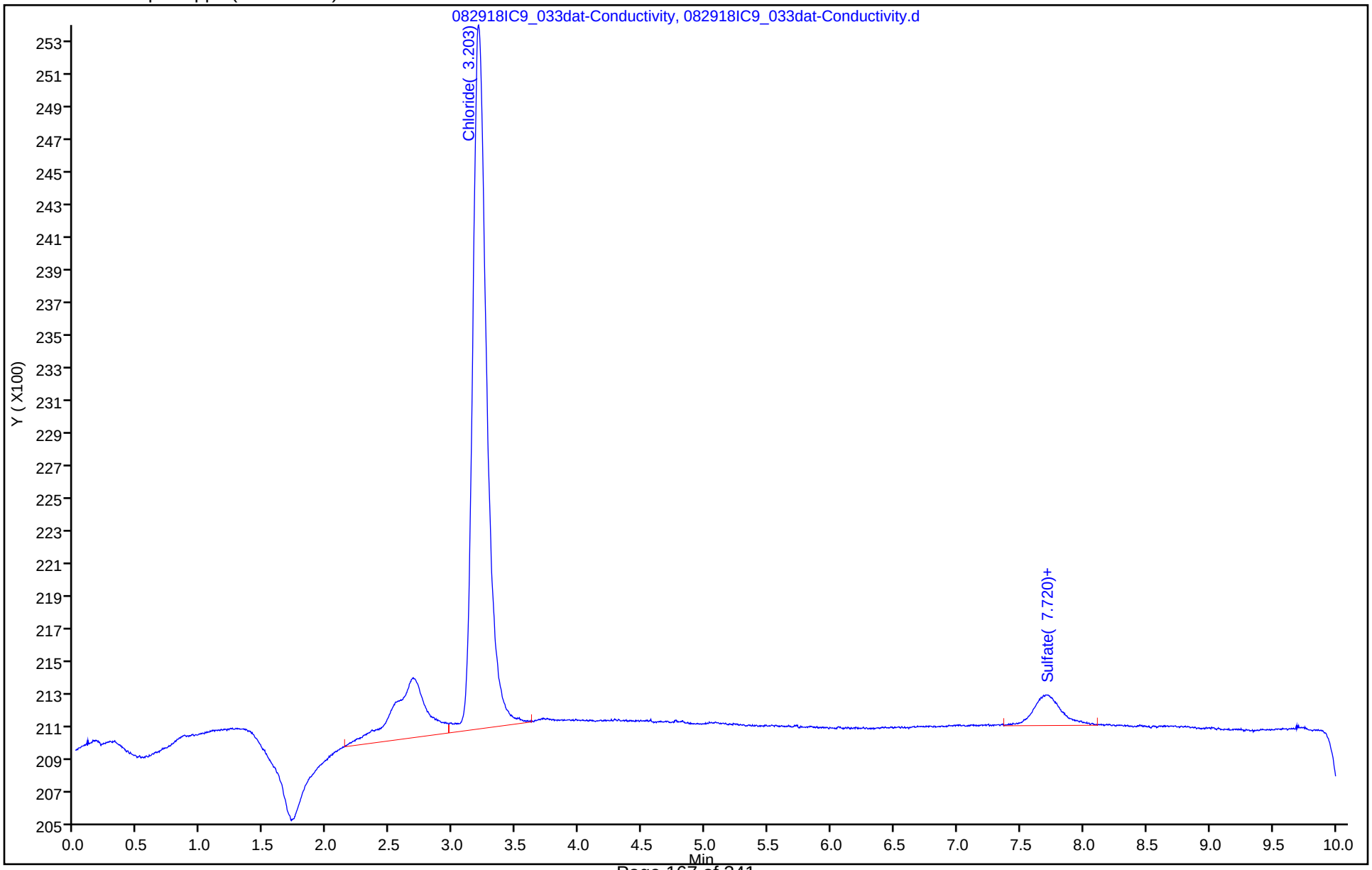
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.357				ND	
2 Chloride	3.203	3.196	0.007	33234		0.3023	
8 Nitrite as NO2		3.693				ND	
7 Nitrite as N		3.693				ND	
1 Bromide		4.446				ND	
3 Nitrate as N		5.030				ND	
9 Nitrate as NO3		5.030				ND	
4 Sulfate	7.720	7.696	0.024	2847		0.4435	
6 Sulfate as Sulfur	7.720	7.696	0.024	2847		0.1478	
S 10 Nitrate Nitrite as N		0.000				ND	

Report Date: 31-Aug-2018 09:54:52 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_033dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:17:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	MB			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 490-540377/1-A
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_009dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 10:12
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	ND		9.92	6.95
16984-48-8	Fluoride	ND		0.992	0.794
14808-79-8	Sulfate	ND		9.92	5.95

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_009dat-Conductivity.d				
Lims ID:	MB 490-540377/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	04-Sep-2018 10:12:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_009				
Misc. Info.:	090418IC9_009				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:44	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.363				ND	
2 Chloride	3.206	3.213	-0.007	12947		0.2293	
8 Nitrite as NO2		3.723				ND	
7 Nitrite as N		3.723				ND	
1 Bromide		4.510				ND	
9 Nitrate as NO3	5.153	5.113	0.040	2061		NC	
3 Nitrate as N	5.153	5.113	0.040	2061		NC	
4 Sulfate	7.580	7.573	0.007	6246		0.4599	
6 Sulfate as Sulfur	7.580	7.573	0.007	6246		0.1533	
S 10 Nitrate Nitrite as N		0.000				ND	

QC Flag Legend

Processing Flags

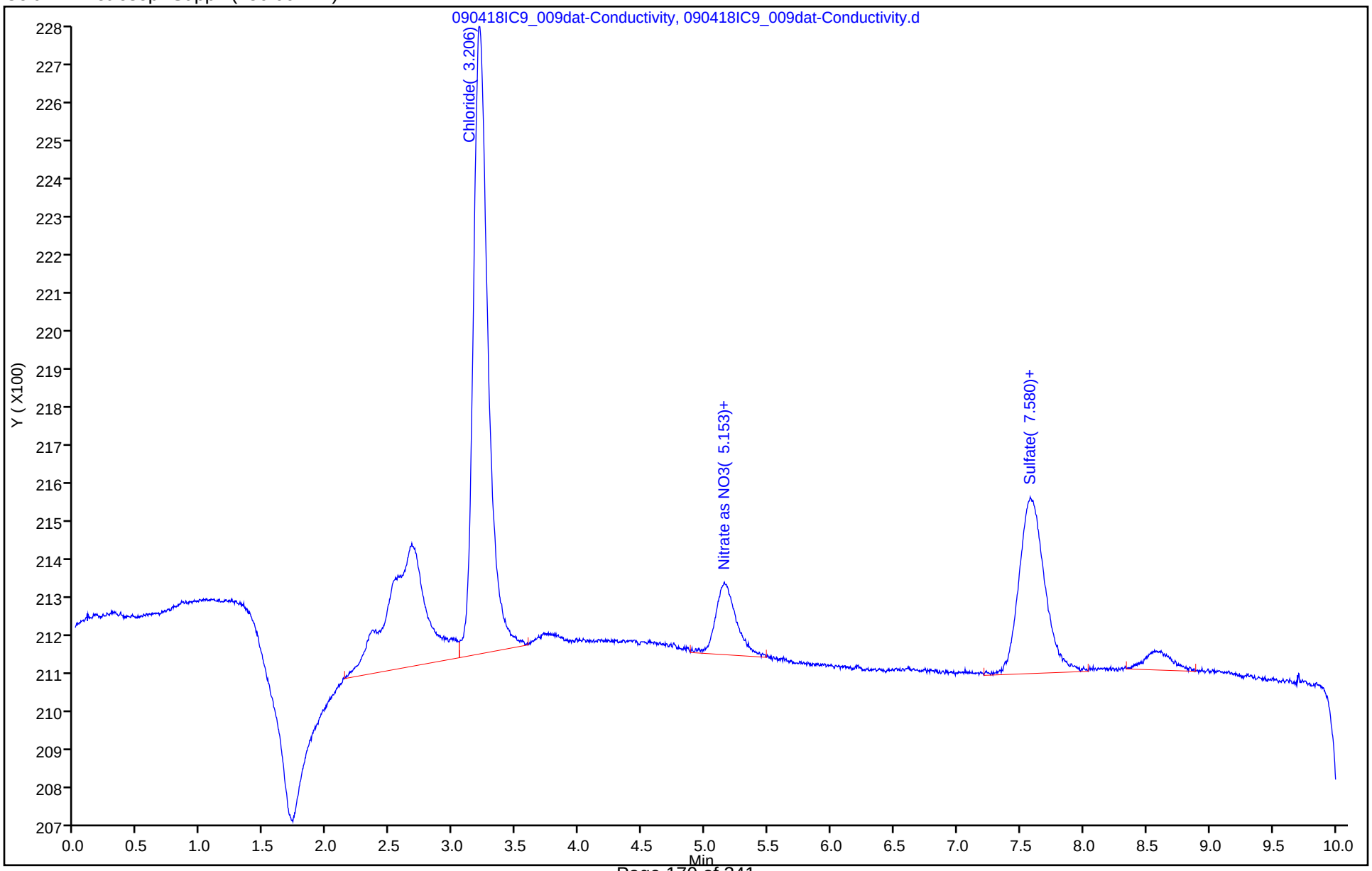
NC - Not Calibrated

Report Date: 05-Sep-2018 07:06:46 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_009dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:12:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	MB 490-540377/1-A			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 490-539643/2
Matrix: Water
Lab File ID: 082918IC9_032dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 16:05
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2925	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4426	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_032dat-Conductivity.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	29-Aug-2018 16:05:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	082918IC9_032				
Misc. Info.:	082918IC9_032				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	31-Aug-2018 09:52:12	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK026				

First Level Reviewer: wanguns Date: 31-Aug-2018 09:53:40

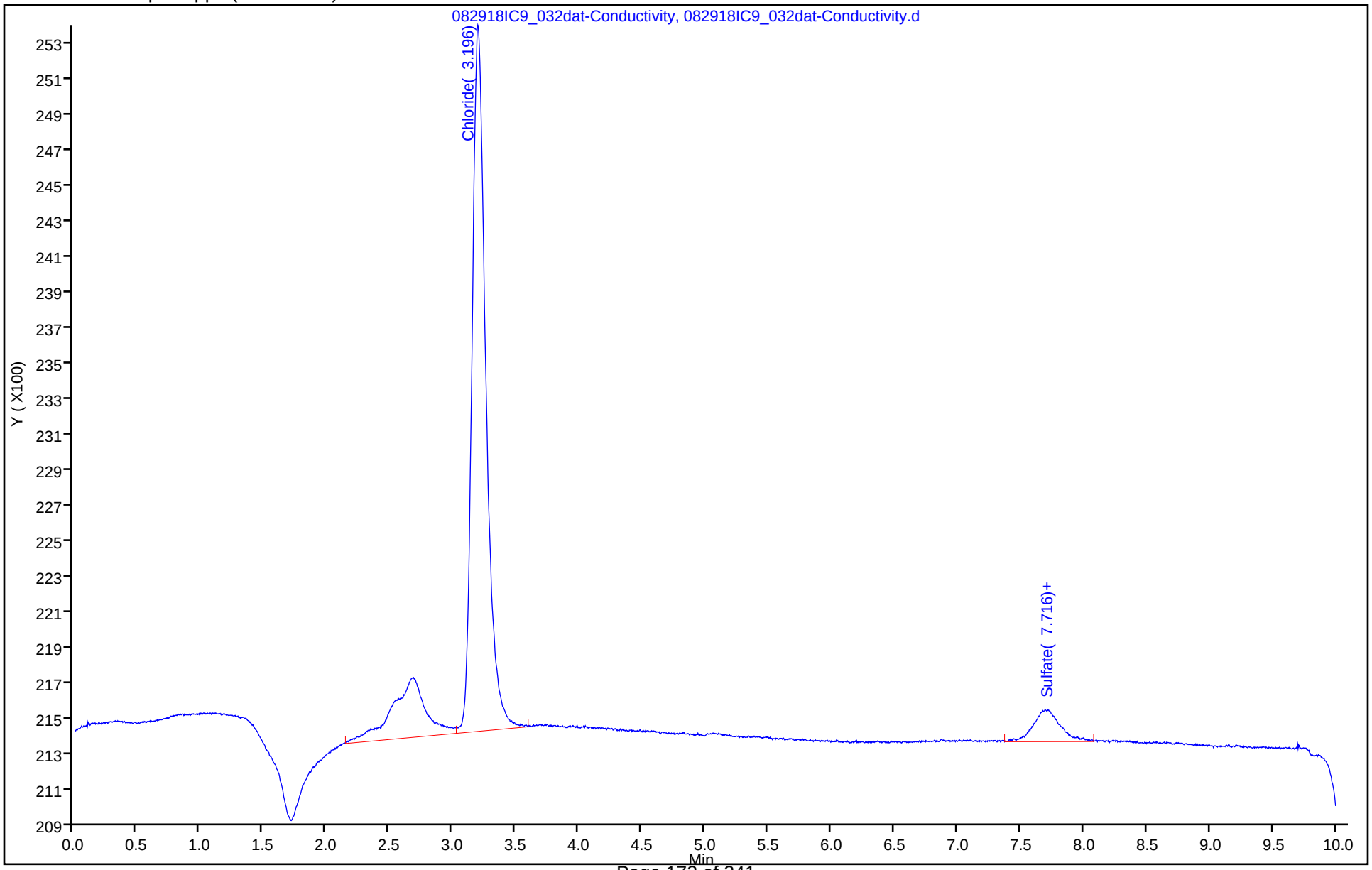
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.357				ND	
2 Chloride	3.196	3.196	0.000	30515		0.2925	
8 Nitrite as NO2		3.693				ND	
7 Nitrite as N		3.693				ND	
1 Bromide		4.446				ND	
3 Nitrate as N		5.030				ND	
9 Nitrate as NO3		5.030				ND	
4 Sulfate	7.716	7.696	0.020	2676		0.4426	
6 Sulfate as Sulfur	7.716	7.696	0.020	2676		0.1475	
S 10 Nitrate Nitrite as N		0.000				ND	

Report Date: 31-Aug-2018 09:53:41 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_032dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:05:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 490-539643/12
Matrix: Water
Lab File ID: 082918IC9_042dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 18:01
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.3160	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4433	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_042dat-Conductivity.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	29-Aug-2018 18:01:00	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	082918IC9_042				
Misc. Info.:	082918IC9_042				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	31-Aug-2018 10:01:22	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK026				
First Level Reviewer: wanguns		Date:	31-Aug-2018 10:02:30		

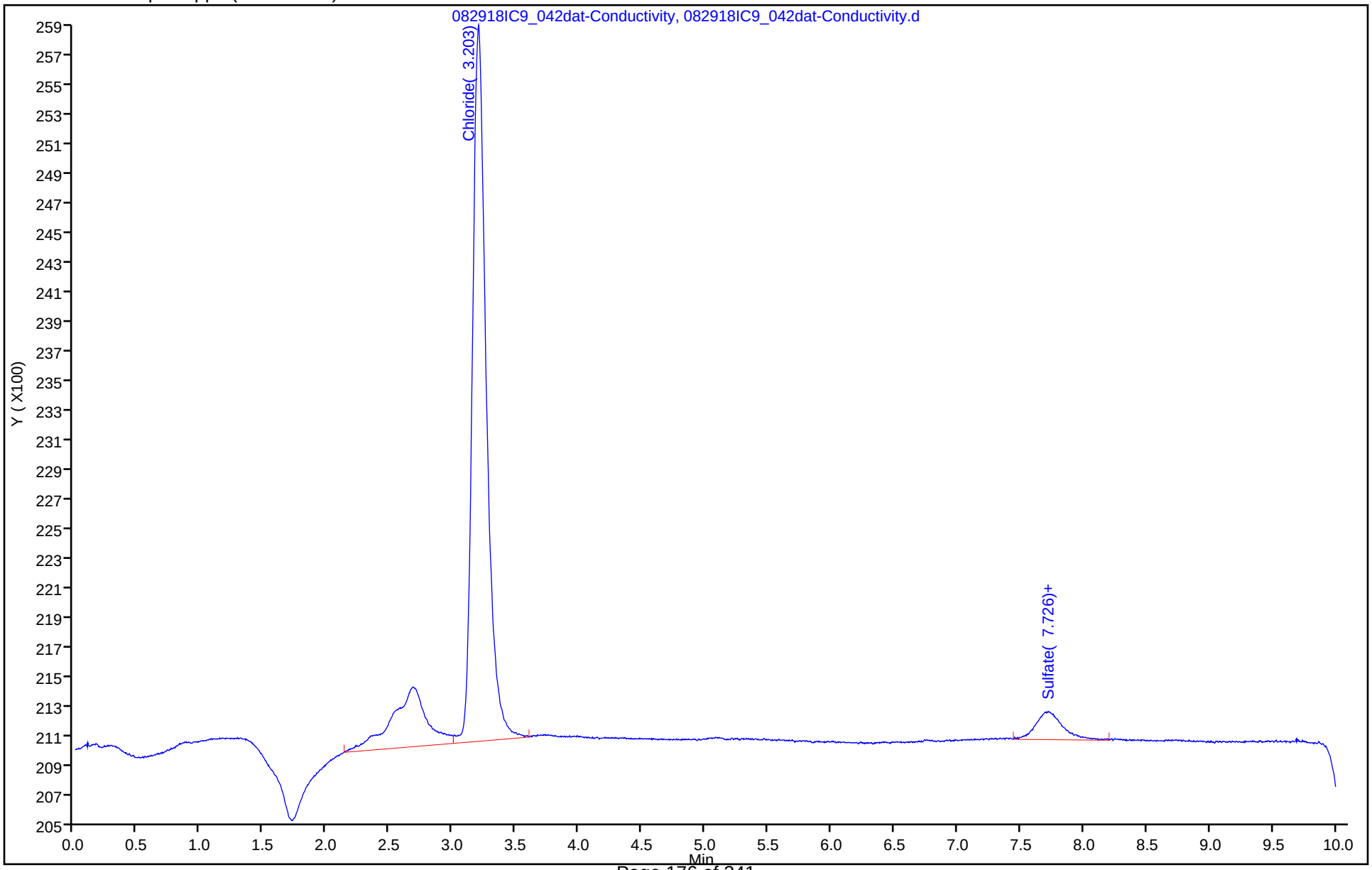
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.357				ND	
2 Chloride	3.203	3.196	0.007	37050		0.3160	
8 Nitrite as NO2		3.693				ND	
7 Nitrite as N		3.693				ND	
1 Bromide		4.446				ND	
3 Nitrate as N		5.030				ND	
9 Nitrate as NO3		5.030				ND	
4 Sulfate	7.726	7.696	0.030	2814		0.4433	
6 Sulfate as Sulfur	7.726	7.696	0.030	2814		0.1478	
S 10 Nitrate Nitrite as N		0.000				ND	

Report Date: 31-Aug-2018 10:02:31 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_042dat-Conductivity.d				
Injection Date:	29-Aug-2018 18:01:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCB			Worklist Smp#:	12
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 490-540592/3
Matrix: Solid
Lab File ID: 090418IC9_008dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 10:00
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2334	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4603	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_008dat-Conductivity.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-Sep-2018 10:00:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_008				
Misc. Info.:	090418IC9_008				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:44	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

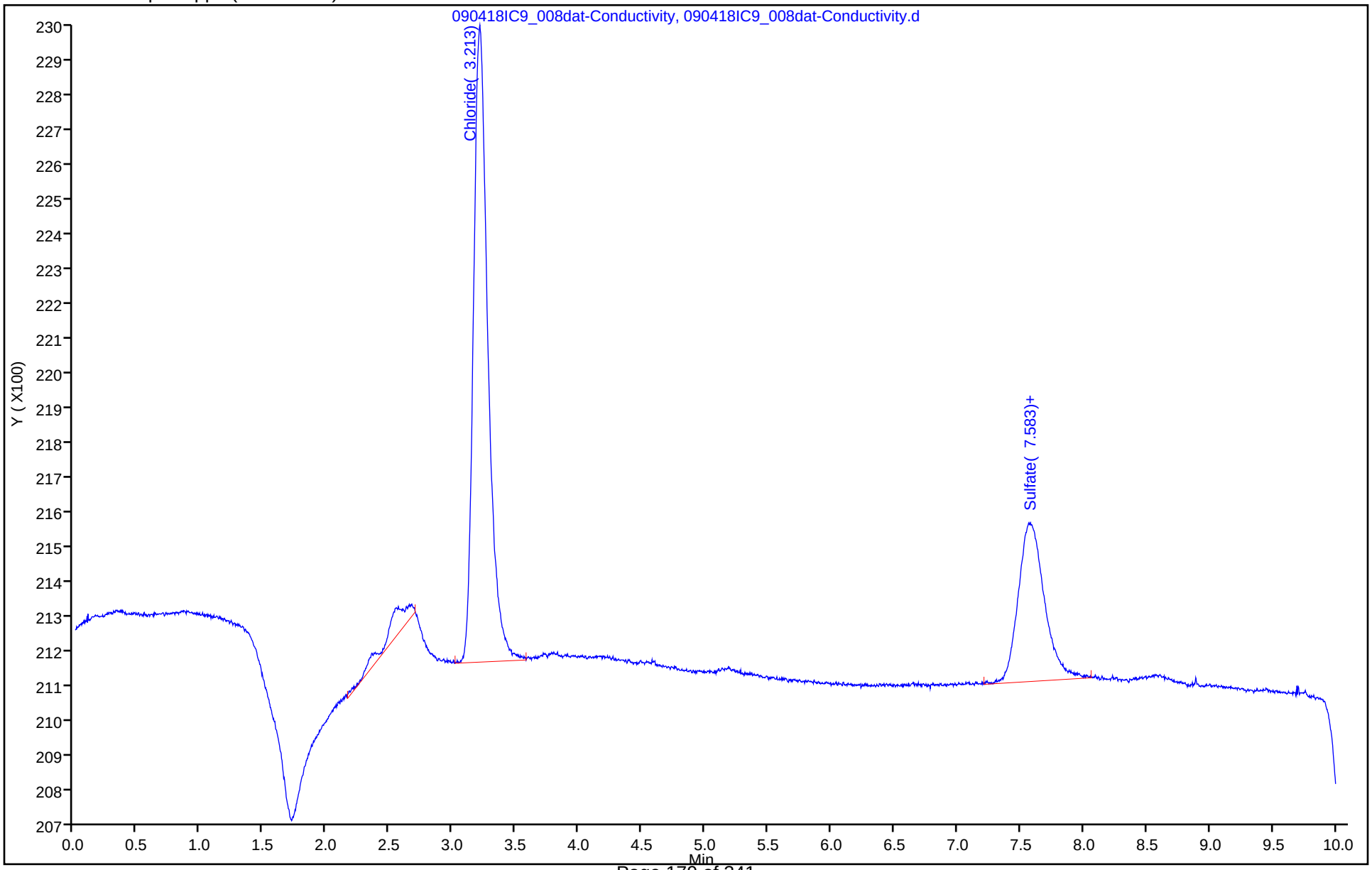
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.363				ND	
2 Chloride	3.213	3.213	0.000	14093		0.2334	
8 Nitrite as NO2		3.723				ND	
7 Nitrite as N		3.723				ND	
1 Bromide		4.510				ND	
9 Nitrate as NO3		5.113				ND	
3 Nitrate as N		5.113				ND	
4 Sulfate	7.583	7.573	0.010	6338		0.4603	
6 Sulfate as Sulfur	7.583	7.573	0.010	6338		0.1534	
S 10 Nitrate Nitrite as N		0.000				ND	

Report Date: 05-Sep-2018 07:06:45 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_008dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:00:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCB			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 490-540592/20
Matrix: Solid
Lab File ID: 090418IC9_025dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 13:17
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2374	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4545	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_025dat-Conductivity.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-Sep-2018 13:17:00	ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_025				
Misc. Info.:	090418IC9_025				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:55	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

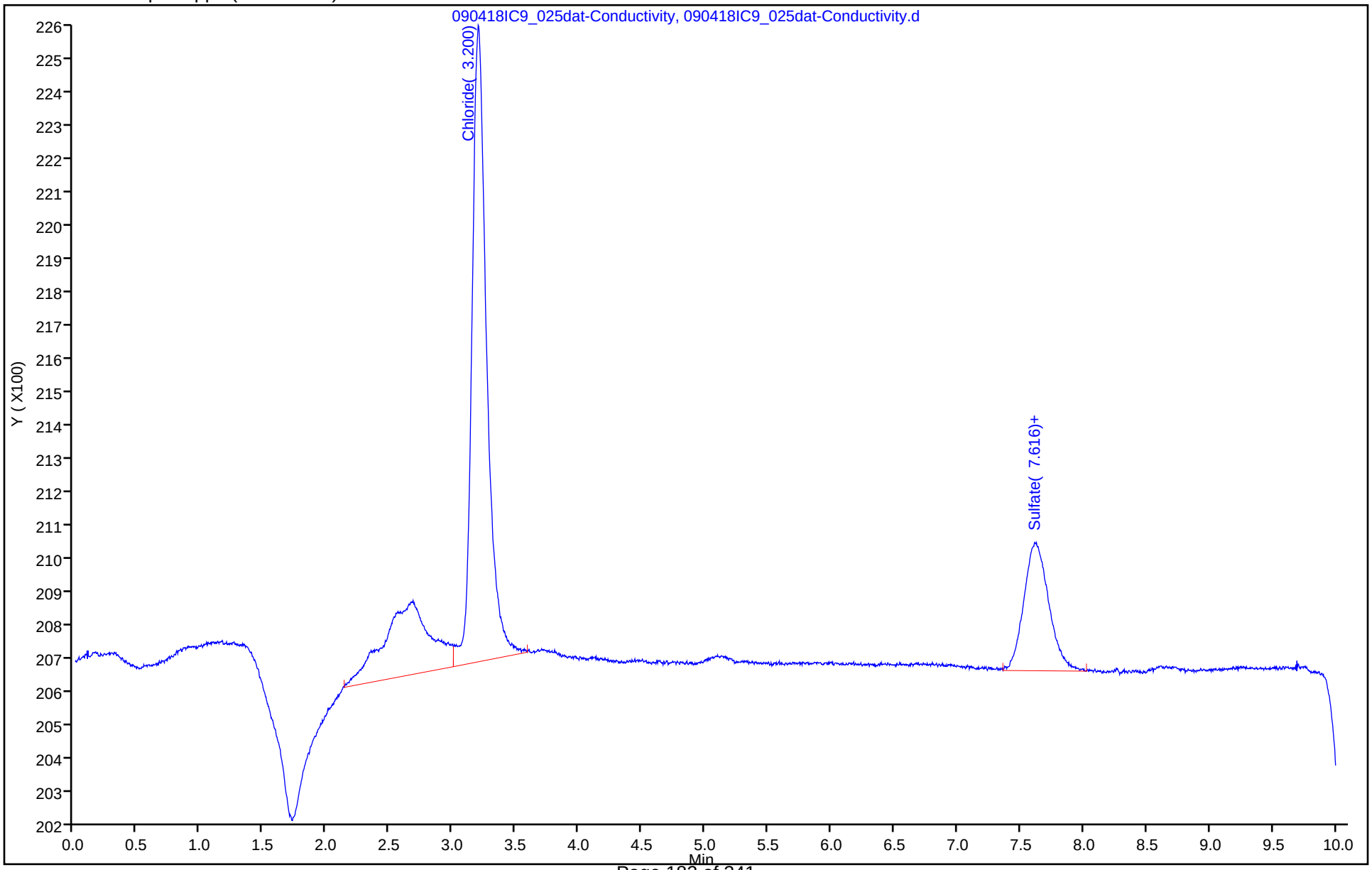
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride		2.363				ND	
2 Chloride	3.200	3.213	-0.013	15212		0.2374	
8 Nitrite as NO2		3.723				ND	
7 Nitrite as N		3.723				ND	
1 Bromide		4.510				ND	
9 Nitrate as NO3		5.113				ND	
3 Nitrate as N		5.113				ND	
4 Sulfate	7.616	7.573	0.043	5137		0.4545	
6 Sulfate as Sulfur	7.616	7.573	0.043	5137		0.1515	
S 10 Nitrate Nitrite as N		0.000				ND	

Report Date: 05-Sep-2018 07:06:56 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_025dat-Conductivity.d				
Injection Date:	04-Sep-2018 13:17:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCB			Worklist Smp#:	20
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 490-540592/32
Matrix: Solid
Lab File ID: 090418IC9_037dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 15:37
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.2136	J	1.00	0.200
16984-48-8	Fluoride	ND		0.100	0.0100
14808-79-8	Sulfate	0.4558	J	1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_037dat-Conductivity.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-Sep-2018 15:37:00	ALS Bottle#:	0	Worklist Smp#:	32
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_037				
Misc. Info.:	090418IC9_037				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:05:54	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:05:59

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	5 Fluoride		2.363				ND	
	2 Chloride	3.196	3.213	-0.017	8574		0.2136	
	8 Nitrite as NO2		3.723				ND	
	7 Nitrite as N		3.723				ND	
	1 Bromide		4.510				ND	
	9 Nitrate as NO3	5.066	5.113	-0.047	509		NC	
	3 Nitrate as N	5.066	5.113	-0.047	509		NC	
	4 Sulfate	7.650	7.573	0.077	5404		0.4558	
	6 Sulfate as Sulfur	7.650	7.573	0.077	5404		0.1519	
S	10 Nitrate Nitrite as N		0.000				ND	

QC Flag Legend

Processing Flags

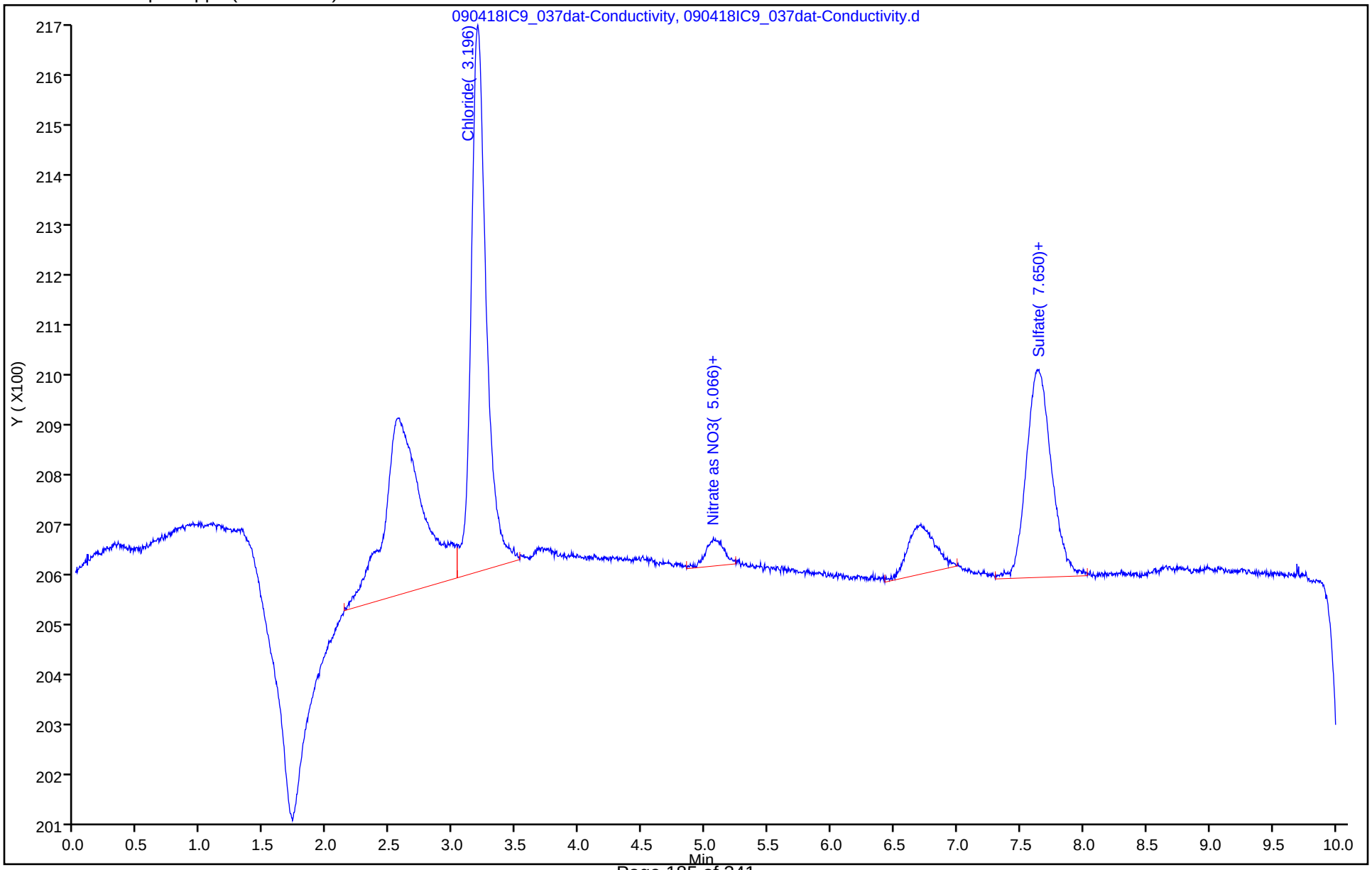
NC - Not Calibrated

Report Date: 05-Sep-2018 07:05:59 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_037dat-Conductivity.d				
Injection Date:	04-Sep-2018 15:37:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	CCB			Worklist Smp#:	32
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 490-539643/4
Matrix: Water
Lab File ID: 082918IC9_034dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 16:28
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	10.02		1.00	0.200
16984-48-8	Fluoride	0.9281		0.100	0.0100
14808-79-8	Sulfate	9.545		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-Aug-2018 16:28:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082918IC9_034
Misc. Info.: 082918IC9_034
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:55:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.360	2.357	0.003	406643	1.00	0.9281	M
2 Chloride	3.196	3.196	0.000	2735444	10.0	10.0	M
8 Nitrite as NO2	3.696	3.693	0.003	538918	NC	NC	M
7 Nitrite as N	3.696	3.693	0.003	538918	NC	NC	M
1 Bromide	4.443	4.446	-0.003	1117037	10.0	9.60	M
3 Nitrate as N	5.033	5.030	0.003	583562	NC	NC	M
9 Nitrate as NO3	5.033	5.030	0.003	583562	NC	NC	M
4 Sulfate	7.703	7.696	0.007	1887100	10.0	9.54	
6 Sulfate as Sulfur	7.703	7.696	0.007	1887100	3.33	3.18	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

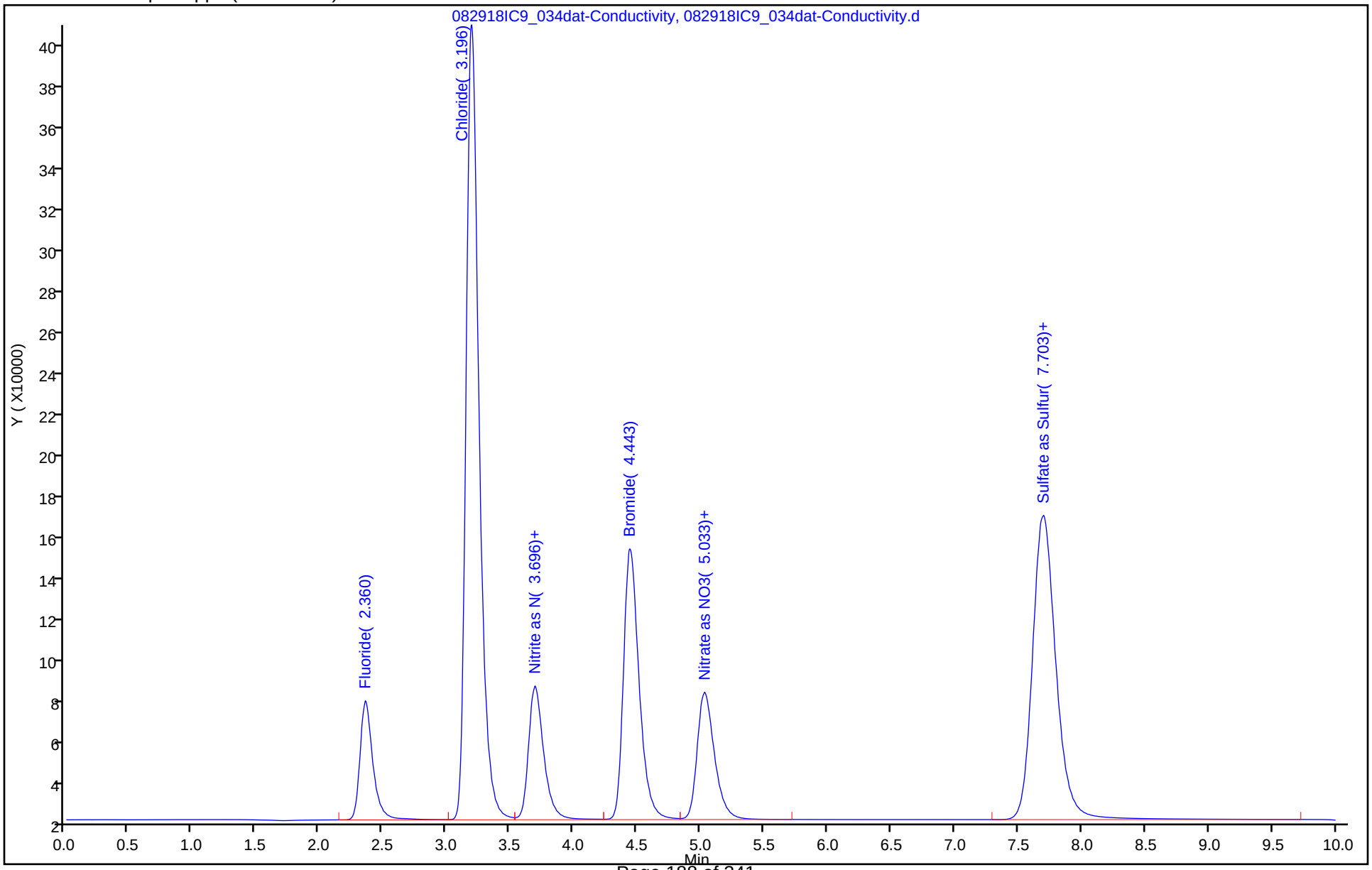
LCS 100_00028 Amount Added: 10.00 Units: mL

Report Date: 31-Aug-2018 09:55:46 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:28:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

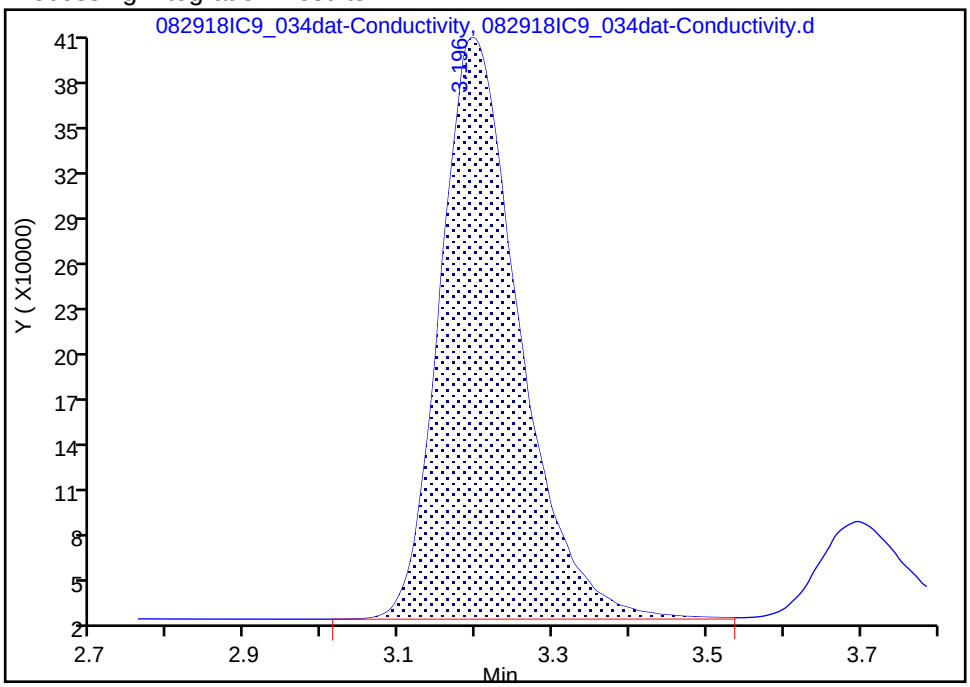
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:28:00	Instrument ID:	IC9		
Lims ID:	LCS				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

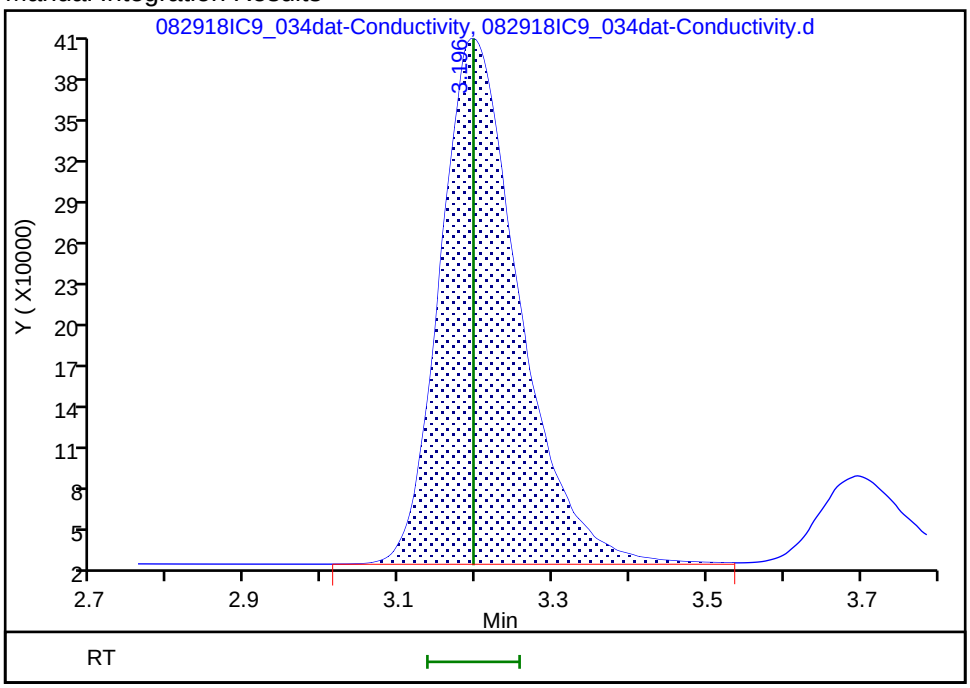
Processing Integration Results

RT: 3.20
Area: 2732147
Amount: 10.008585
Amount Units: ug/ml



Manual Integration Results

RT: 3.20
Area: 2735444
Amount: 10.020443
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:29:52
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

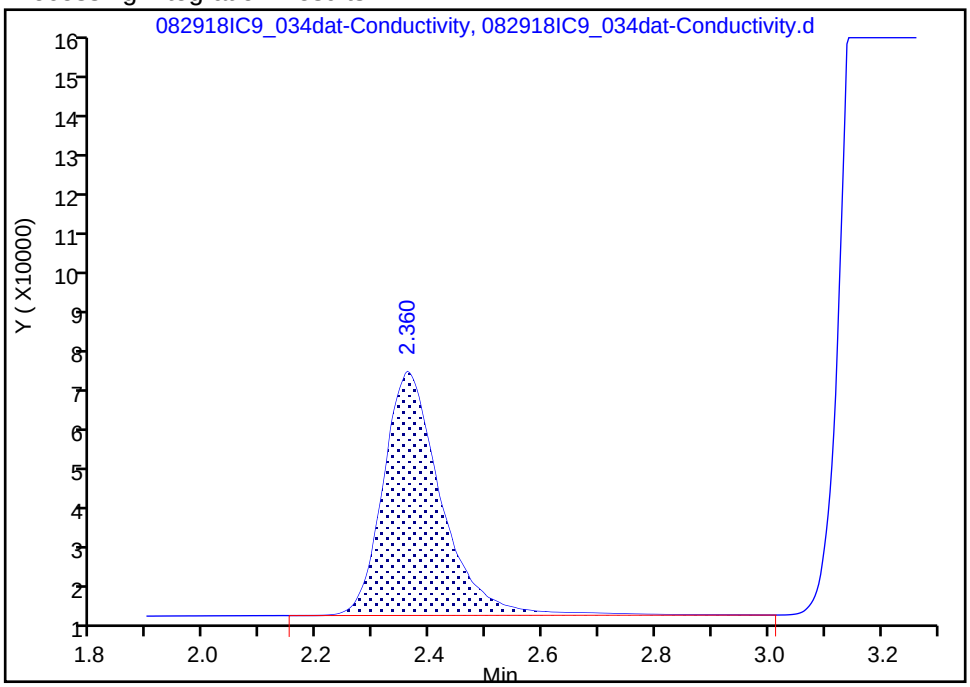
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_034dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:28:00	Instrument ID:	IC9		
Lims ID:	LCS				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

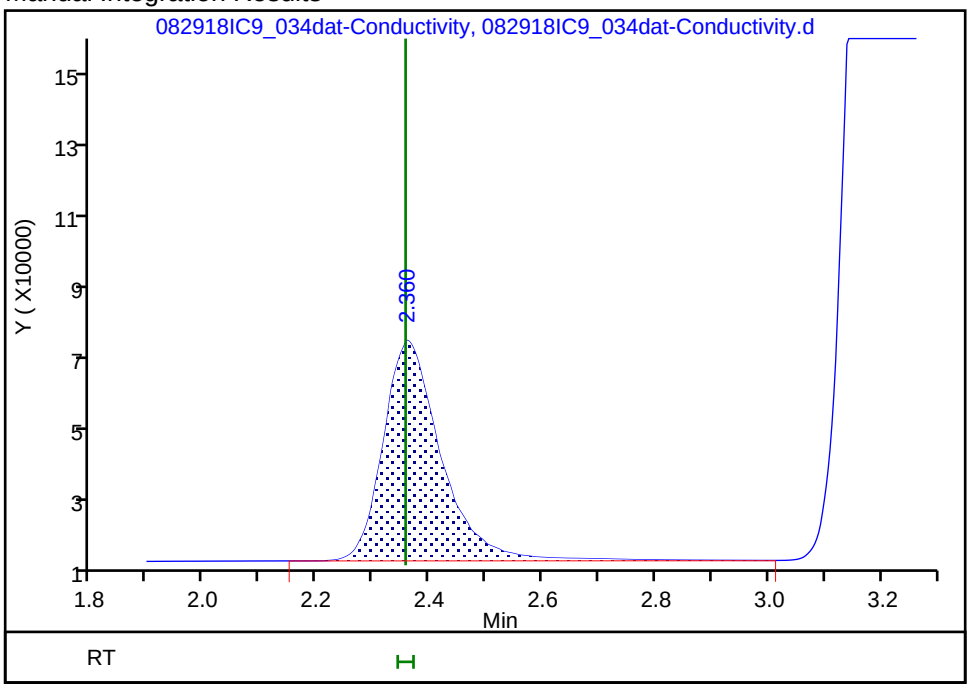
Processing Integration Results

RT: 2.36
Area: 404442
Amount: 0.923283
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 406643
Amount: 0.928138
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:29:52
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 490-540377/2-A
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_010dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 10:24
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	97.62		9.95	6.96
16984-48-8	Fluoride	9.789		0.995	0.796
14808-79-8	Sulfate	98.28		9.95	5.97

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_010dat-Conductivity.d
Lims ID: LCS 490-540377/2-A
Client ID:
Sample Type: LCS
Inject. Date: 04-Sep-2018 10:24:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 090418IC9_010
Misc. Info.: 090418IC9_010
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9

Method: \\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 05-Sep-2018 07:06:44 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK010

First Level Reviewer: statenj Date: 05-Sep-2018 07:01:04

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.363	2.363	0.000	431952	1.00	0.9840	M
2 Chloride	3.213	3.213	0.000	2677569	10.0	9.81	M
8 Nitrite as NO2	3.720	3.723	-0.003	546276	NC	NC	M
7 Nitrite as N	3.720	3.723	-0.003	546276	NC	NC	M
1 Bromide	4.500	4.510	-0.010	1090380	10.0	9.38	M
9 Nitrate as NO3	5.100	5.113	-0.013	573097	NC	NC	M
3 Nitrate as N	5.100	5.113	-0.013	573097	NC	NC	M
4 Sulfate	7.576	7.573	0.003	1956301	10.0	9.88	
6 Sulfate as Sulfur	7.576	7.573	0.003	1956301	3.33	3.29	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

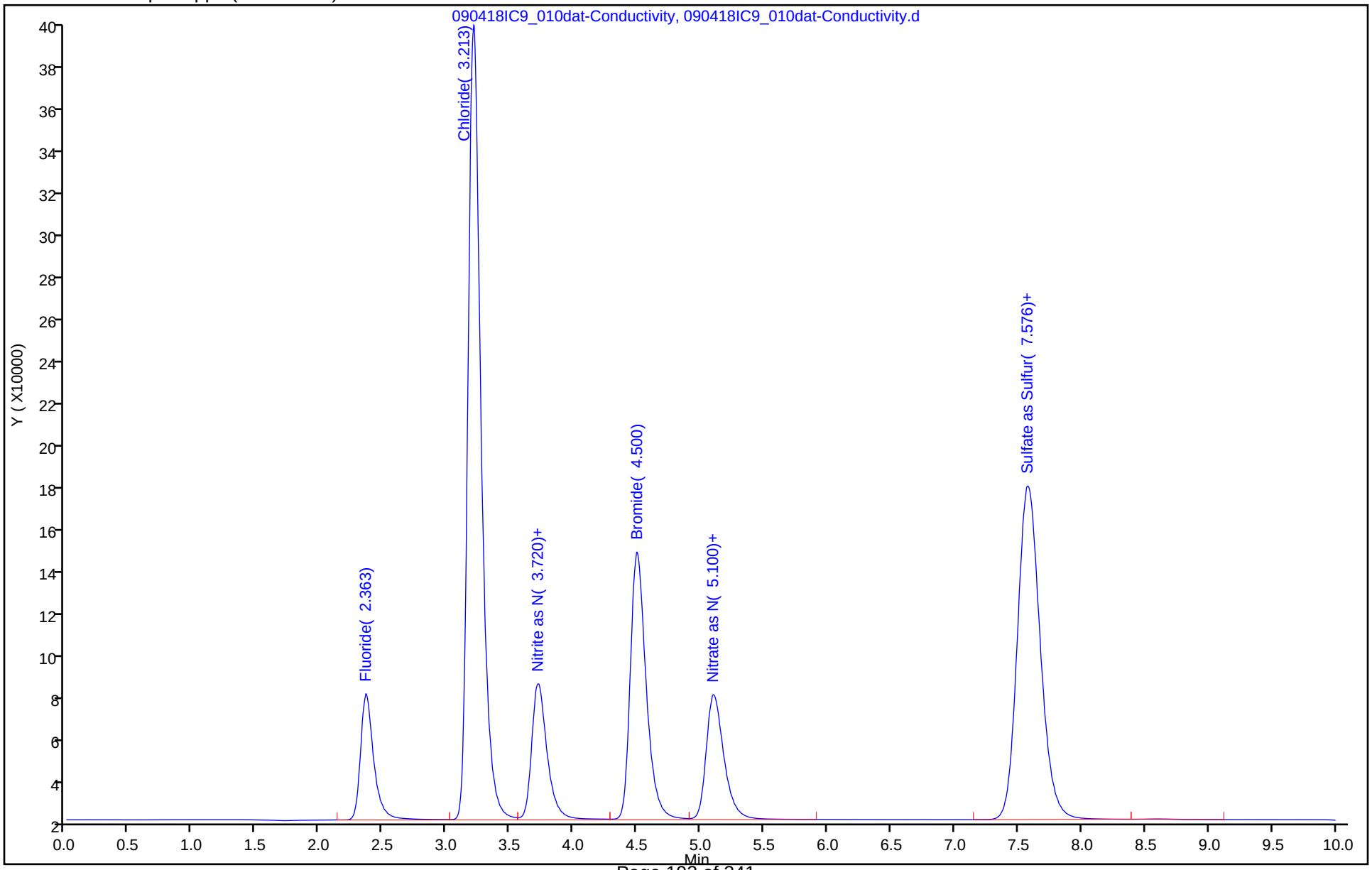
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 05-Sep-2018 07:06:47 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_010dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:24:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	LCS 490-540377/2-A			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

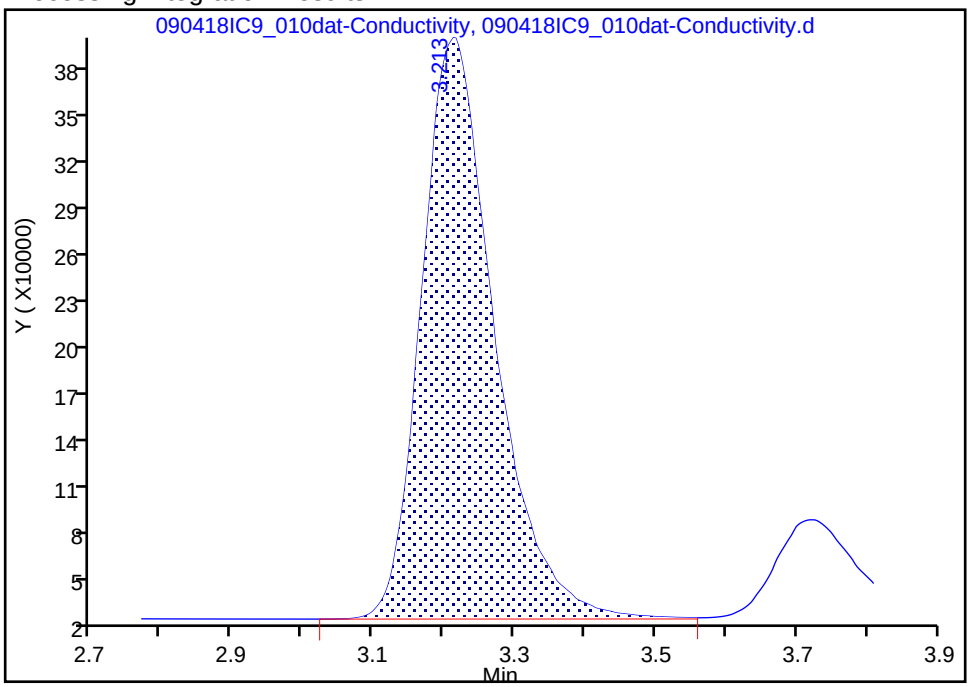
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_010dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:24:00	Instrument ID:	IC9		
Lims ID:	LCS 490-540377/2-A				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

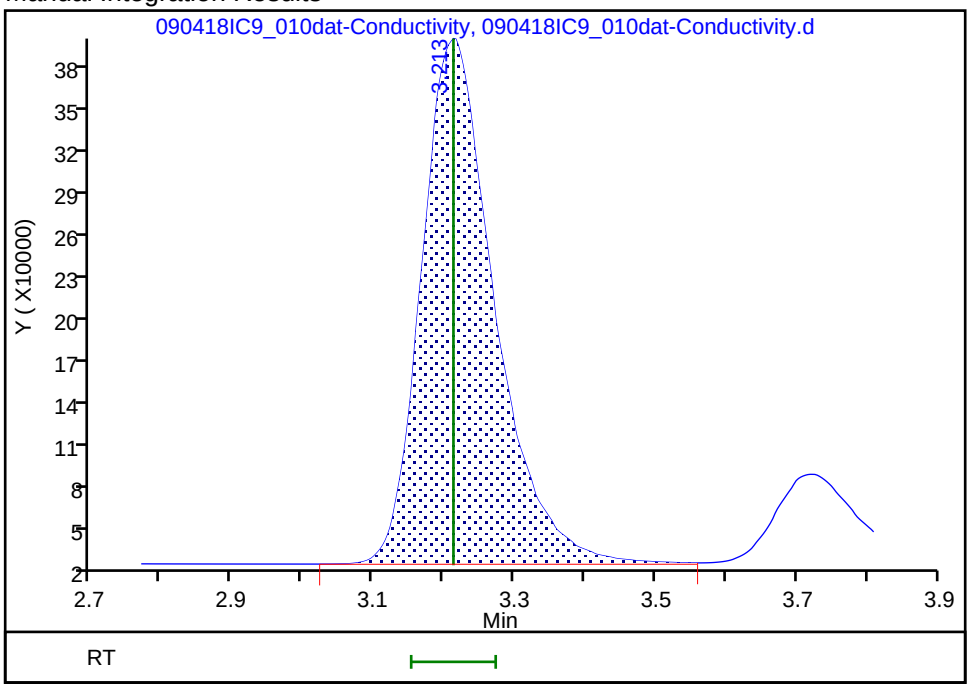
Processing Integration Results

RT: 3.21
Area: 2672530
Amount: 9.794180
Amount Units: ug/ml



Manual Integration Results

RT: 3.21
Area: 2677569
Amount: 9.812302
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:01:01
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

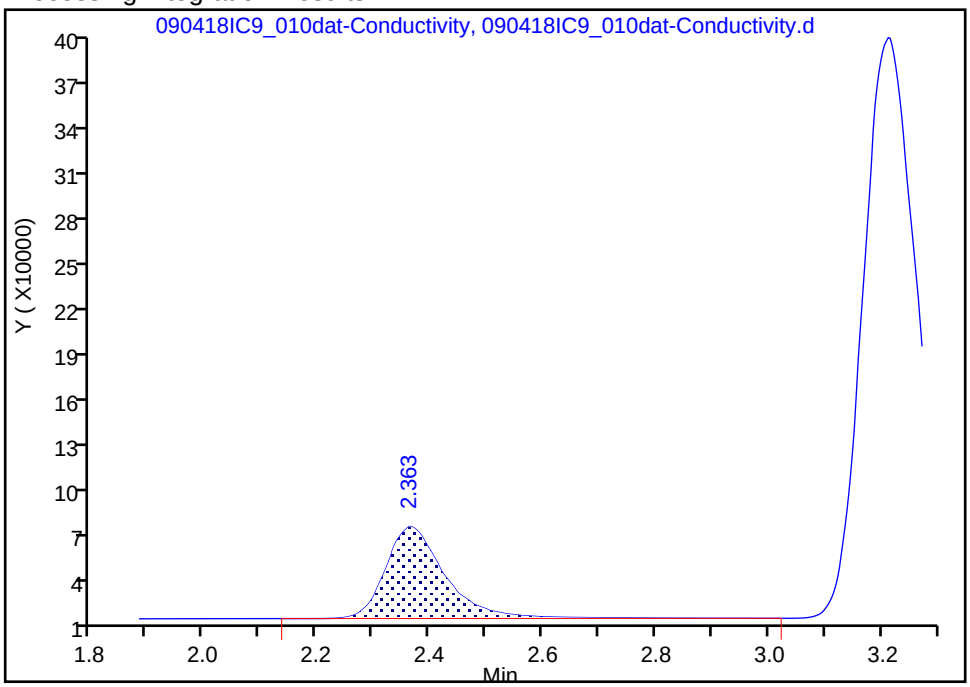
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_010dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:24:00	Instrument ID:	IC9		
Lims ID:	LCS 490-540377/2-A				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

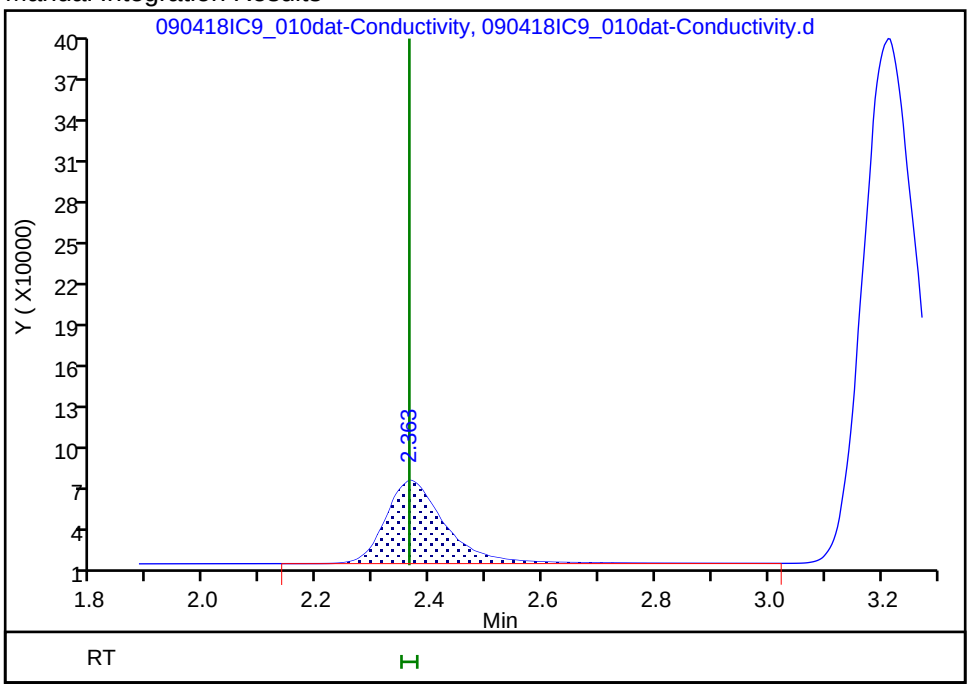
Processing Integration Results

RT: 2.36
Area: 428388
Amount: 0.976110
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 431952
Amount: 0.983972
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:01:01
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 490-539643/5
Matrix: Water
Lab File ID: 082918IC9_035dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 16:40
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	9.940		1.00	0.200
16984-48-8	Fluoride	0.9472		0.100	0.0100
14808-79-8	Sulfate	9.748		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 29-Aug-2018 16:40:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082918IC9_035
Misc. Info.: 082918IC9_035
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 31-Aug-2018 09:52:12 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:56:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.357	0.000	415305	1.00	0.9472	M
2 Chloride	3.193	3.196	-0.003	2713050	10.0	9.94	M
8 Nitrite as NO2	3.690	3.693	-0.003	542272	NC	NC	M
7 Nitrite as N	3.690	3.693	-0.003	542272	NC	NC	M
1 Bromide	4.440	4.446	-0.006	1120050	10.0	9.62	M
3 Nitrate as N	5.023	5.030	-0.007	588455	NC	NC	M
9 Nitrate as NO3	5.023	5.030	-0.007	588455	NC	NC	M
4 Sulfate	7.696	7.696	0.000	1929125	10.0	9.75	
6 Sulfate as Sulfur	7.696	7.696	0.000	1929125	3.33	3.25	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

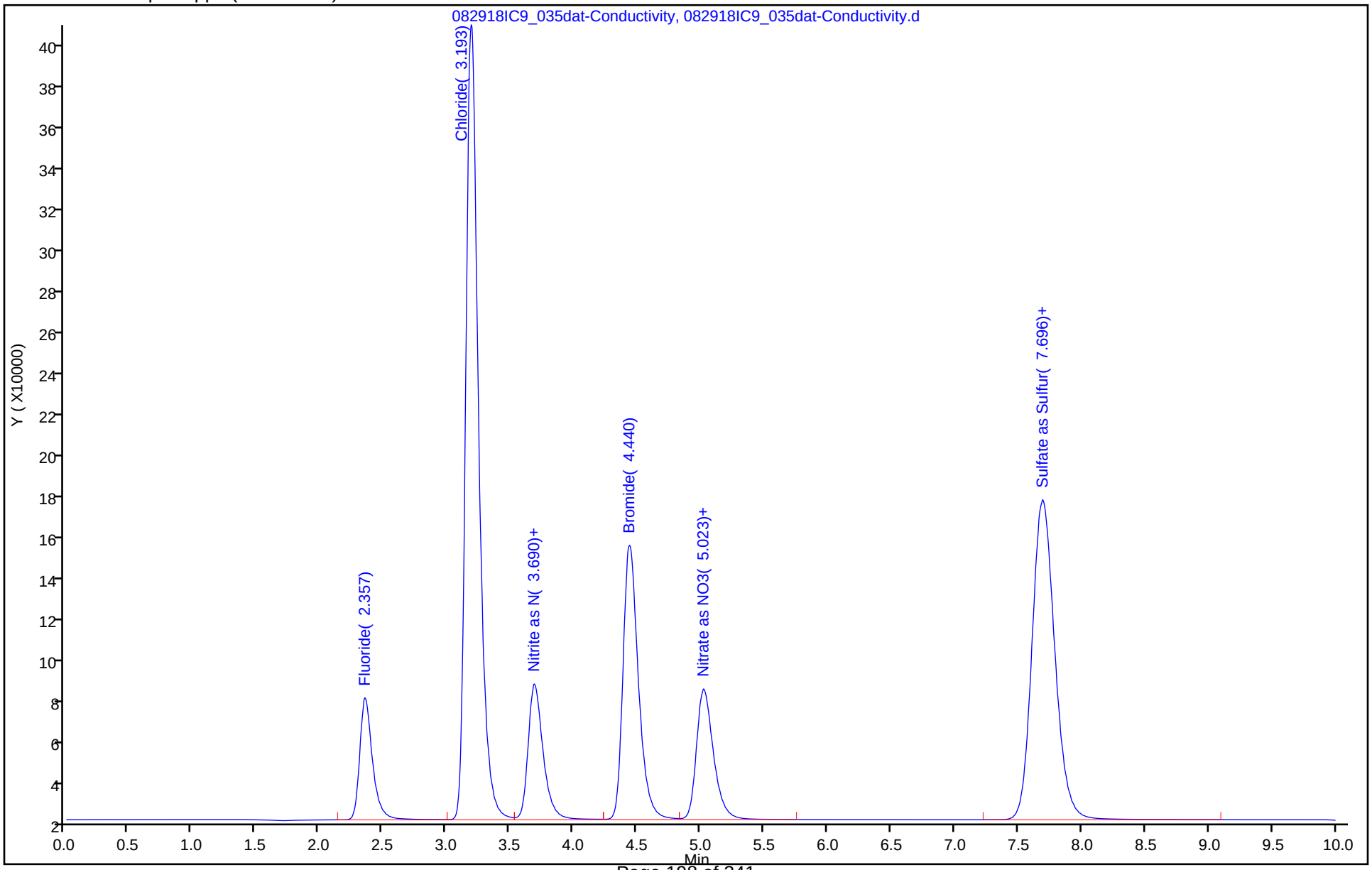
LCS 100_00028 Amount Added: 10.00 Units: mL

Report Date: 31-Aug-2018 09:56:36 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:40:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

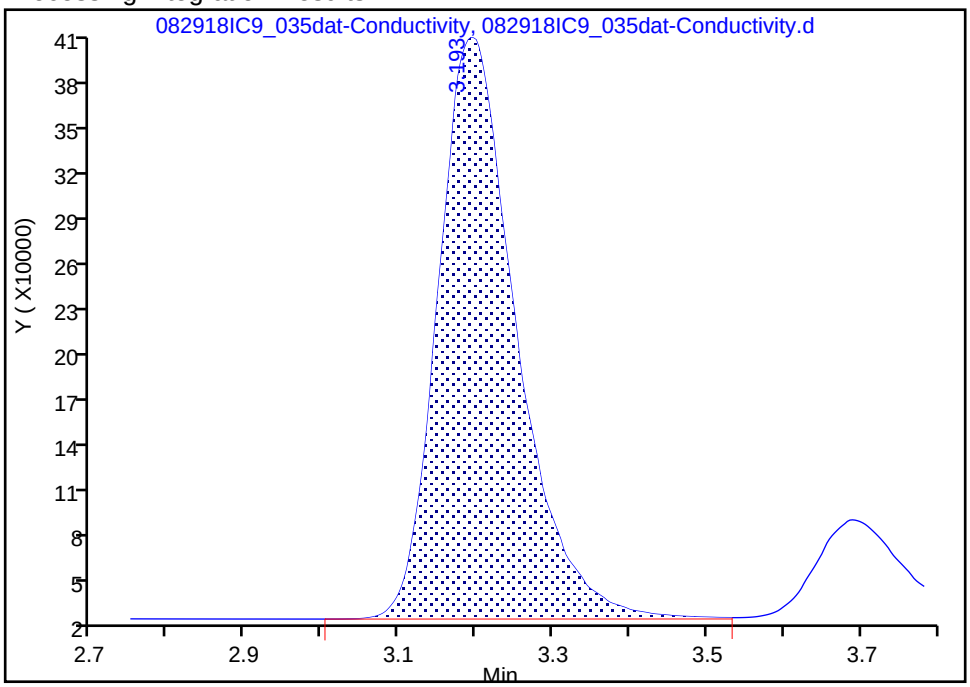
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:40:00	Instrument ID:	IC9		
Lims ID:	LCSD				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

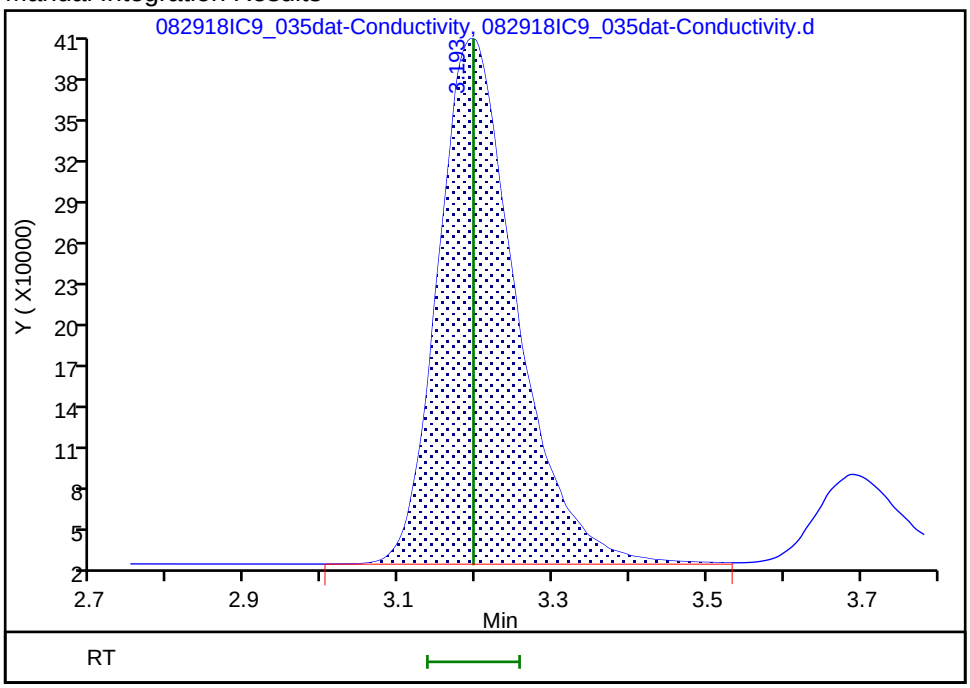
Processing Integration Results

RT: 3.19
Area: 2709615
Amount: 9.927552
Amount Units: ug/ml



Manual Integration Results

RT: 3.19
Area: 2713050
Amount: 9.939905
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:30:32
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

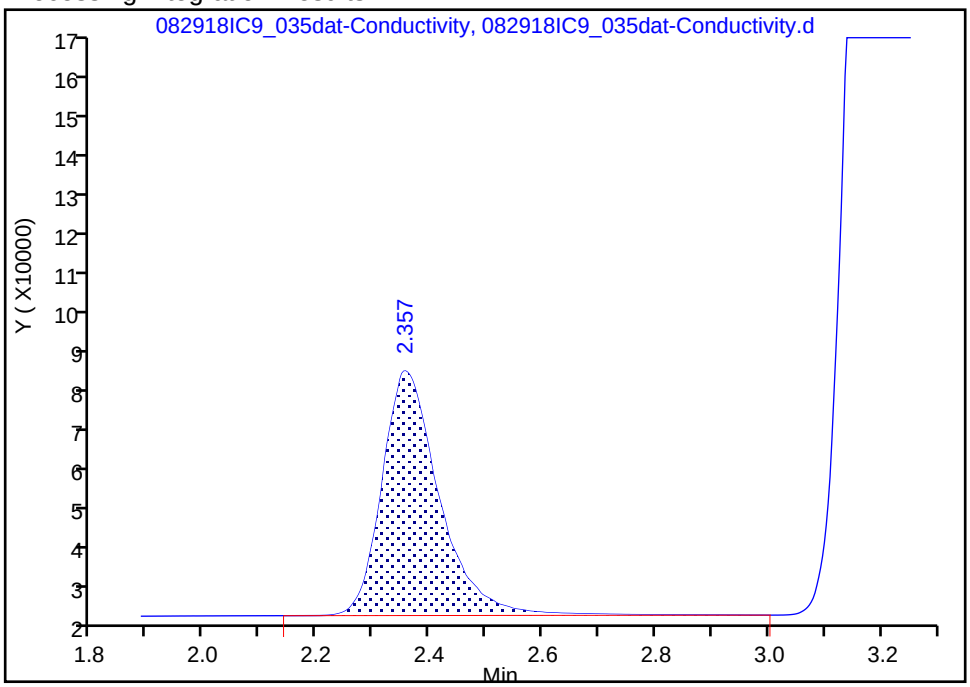
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_035dat-Conductivity.d				
Injection Date:	29-Aug-2018 16:40:00	Instrument ID:	IC9		
Lims ID:	LCSD				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

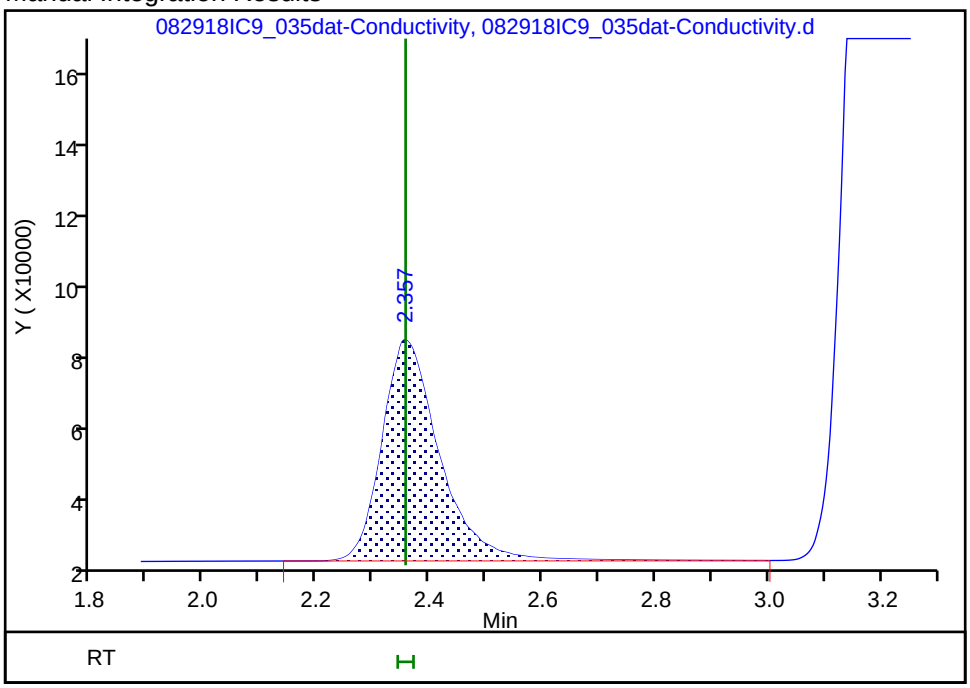
Processing Integration Results

RT: 2.36
Area: 413156
Amount: 0.942507
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 415305
Amount: 0.947248
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:30:32
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 490-540377/3-A
Matrix: Solid (Soluble)
Lab File ID: 090418IC9_011dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 10:35
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	97.51		9.97	6.98
16984-48-8	Fluoride	9.919		0.997	0.797
14808-79-8	Sulfate	95.61		9.97	5.98

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_011dat-Conductivity.d				
Lims ID:	LCSD 490-540377/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	04-Sep-2018 10:35:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_011				
Misc. Info.:	090418IC9_011				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:44	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:01:30

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	5 Fluoride	2.357	2.363	-0.006	436985	1.00	1.00	M
	2 Chloride	3.206	3.213	-0.007	2669014	10.0	9.78	M
	8 Nitrite as NO2	3.716	3.723	-0.007	544844	NC	NC	M
	7 Nitrite as N	3.716	3.723	-0.007	544844	NC	NC	M
	1 Bromide	4.490	4.510	-0.020	1085352	10.0	9.34	M
	9 Nitrate as NO3	5.090	5.113	-0.023	574614	NC	NC	M
	3 Nitrate as N	5.090	5.113	-0.023	574614	NC	NC	M
	4 Sulfate	7.576	7.573	0.003	1896631	10.0	9.59	
	6 Sulfate as Sulfur	7.576	7.573	0.003	1896631	3.33	3.20	
S	10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

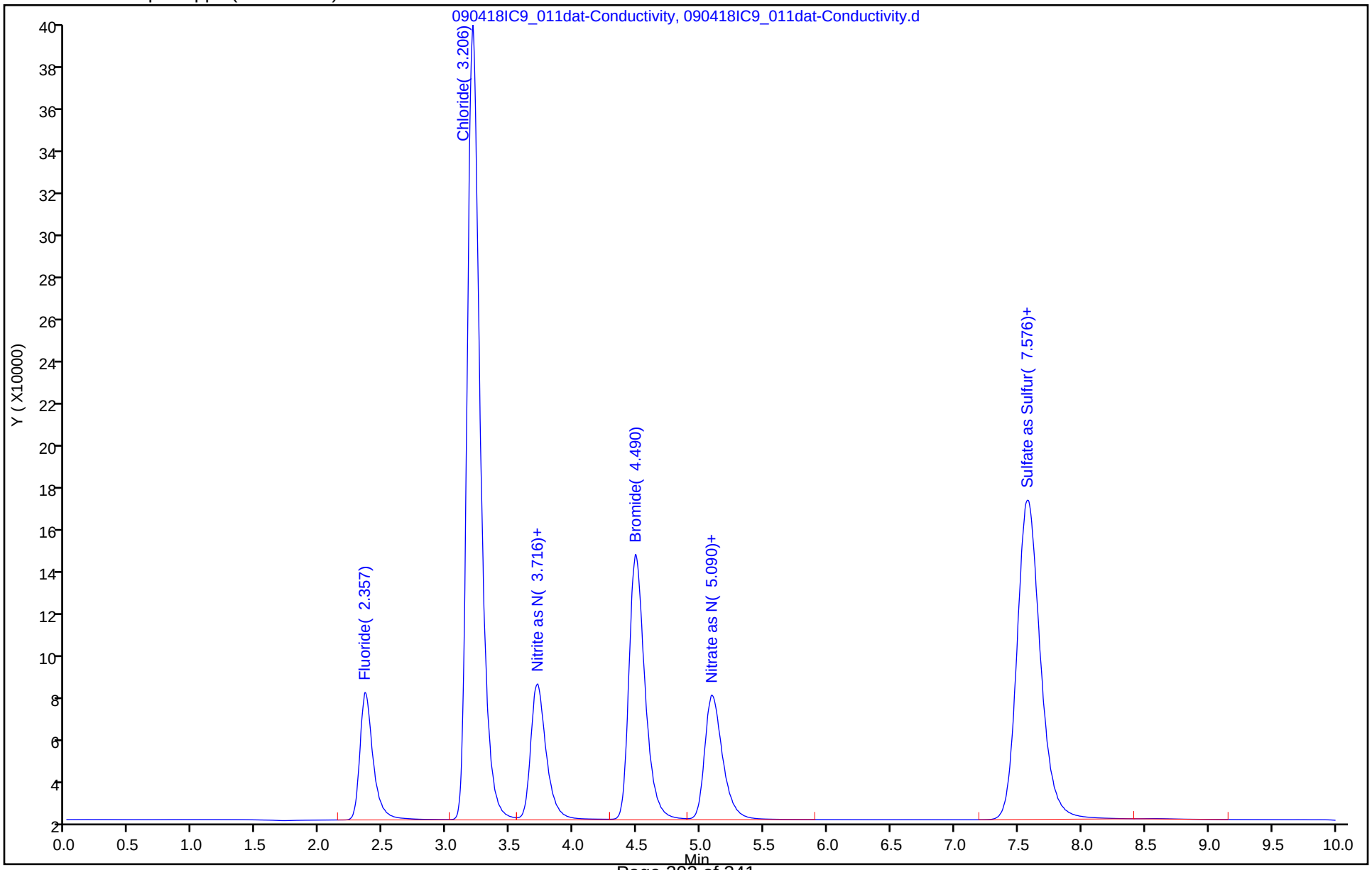
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 05-Sep-2018 07:06:47 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_011dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:35:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	LCSD 490-540377/3-A			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

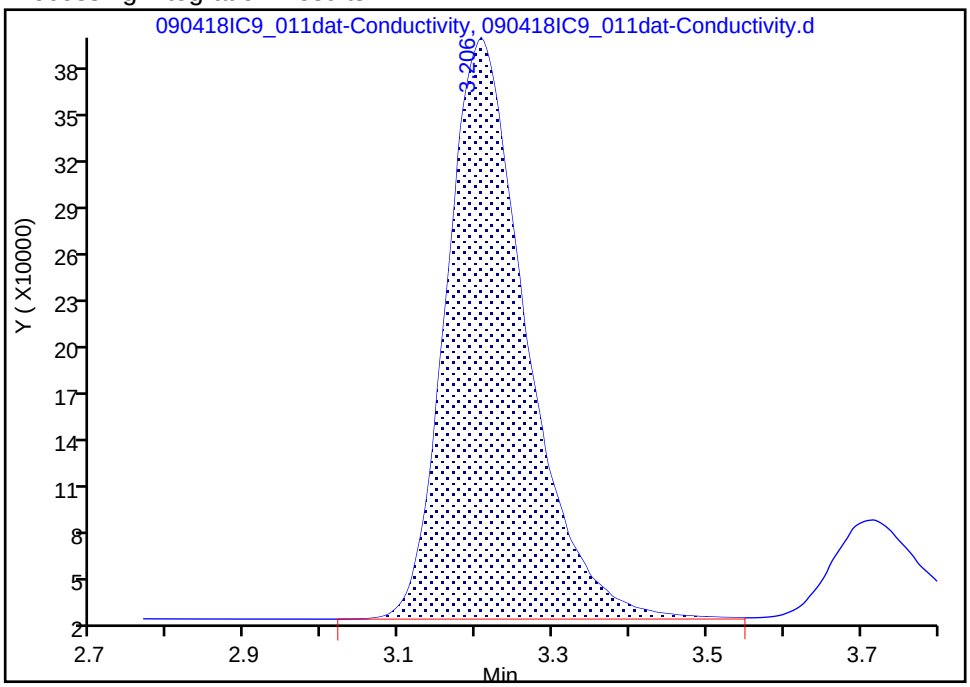
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_011dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:35:00	Instrument ID:	IC9		
Lims ID:	LCSD 490-540377/3-A				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

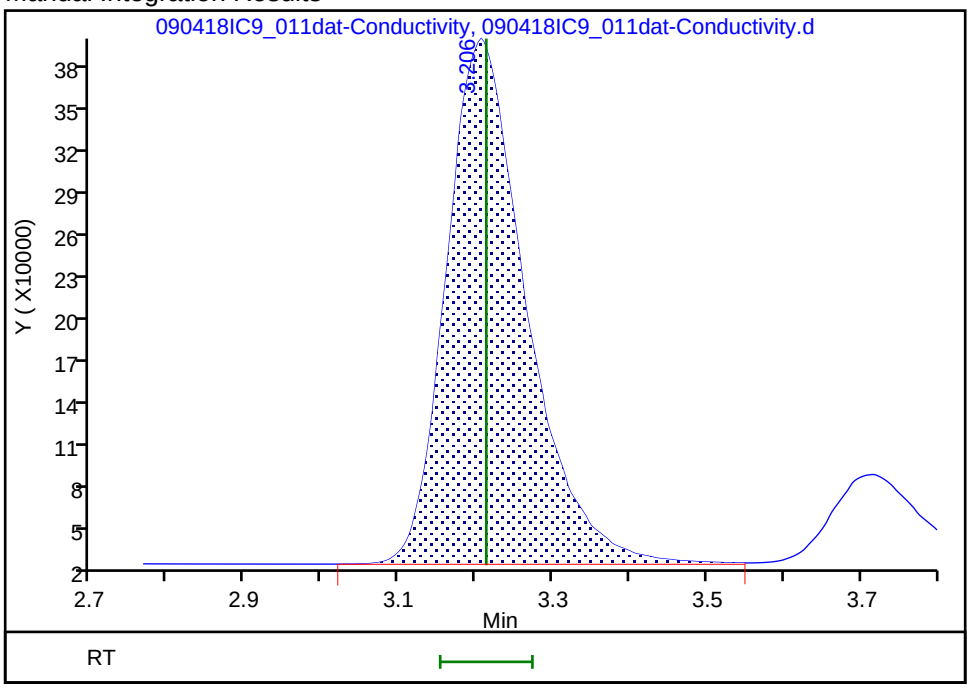
Processing Integration Results

RT: 3.21
Area: 2663942
Amount: 9.763294
Amount Units: ug/ml



Manual Integration Results

RT: 3.21
Area: 2669014
Amount: 9.781535
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:01:27
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

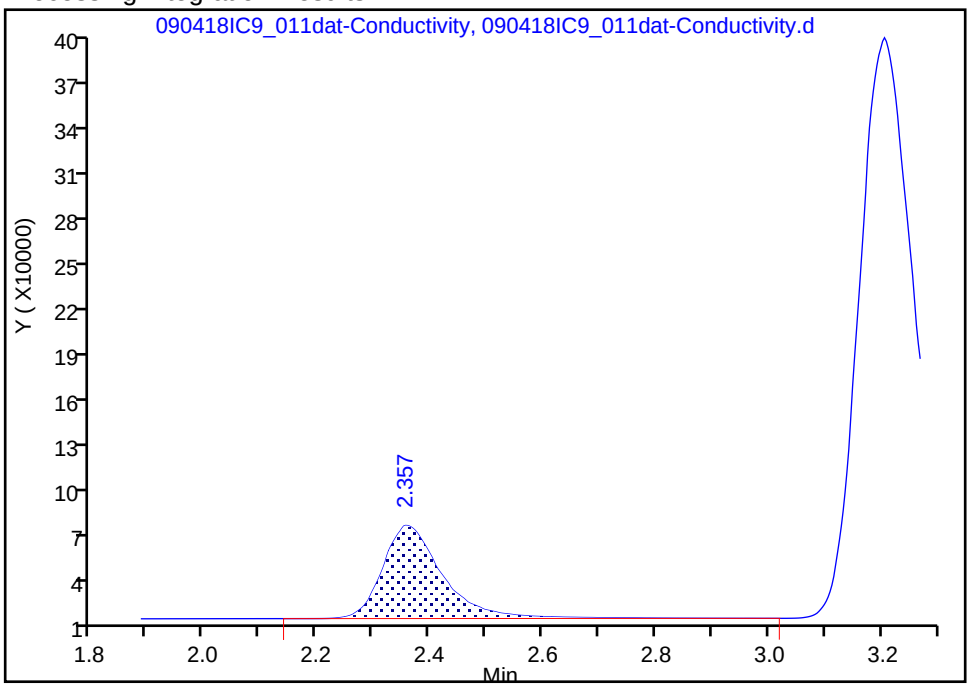
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_011dat-Conductivity.d				
Injection Date:	04-Sep-2018 10:35:00	Instrument ID:	IC9		
Lims ID:	LCSD 490-540377/3-A				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

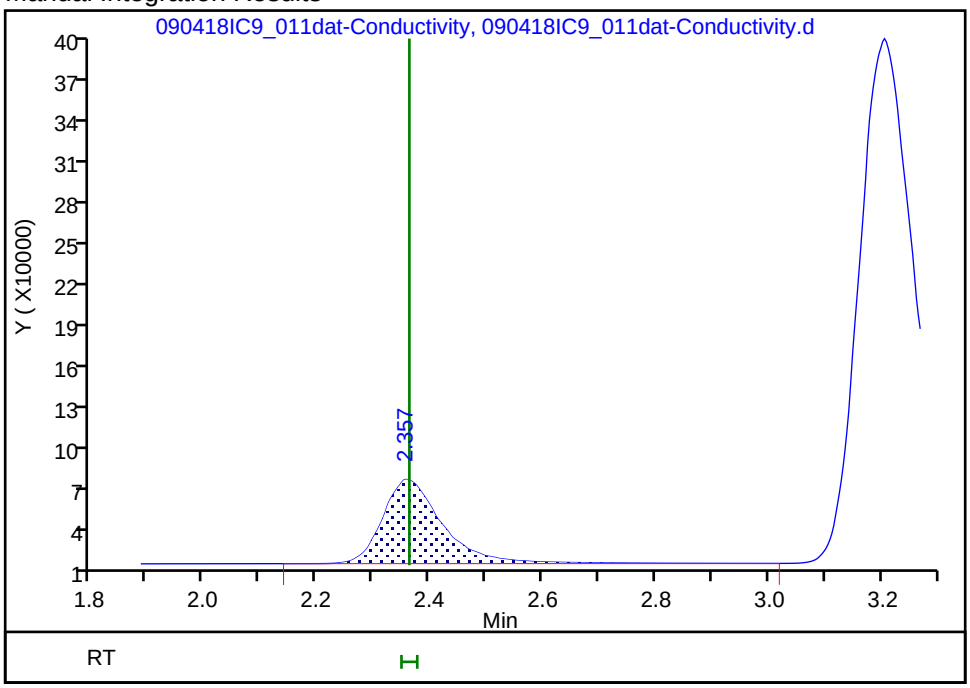
Processing Integration Results

RT: 2.36
Area: 433289
Amount: 0.986922
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 436985
Amount: 0.995076
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:01:27
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: MRL 490-540592/1
Matrix: Solid
Lab File ID: 090418IC9_006dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/04/2018 09:37
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.9886	J	1.00	0.200
16984-48-8	Fluoride	0.1130		0.100	0.0100
14808-79-8	Sulfate	1.218		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_006dat-Conductivity.d				
Lims ID:	RLV				
Client ID:					
Sample Type:	Client				
Inject. Date:	04-Sep-2018 09:37:00	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_006				
Misc. Info.:	090418IC9_006				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:27	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:00:14

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 Fluoride	2.353	2.363	-0.010	37155	0.1130	M
	2 Chloride	3.206	3.213	-0.007	224064	0.9886	
	8 Nitrite as NO2	3.723	3.723	0.000	43231	NC	
	7 Nitrite as N	3.723	3.723	0.000	43231	NC	
	1 Bromide	4.523	4.510	0.013	84461	1.12	
	9 Nitrate as NO3	5.140	5.113	0.027	46850	NC	
	3 Nitrate as N	5.140	5.113	0.027	46850	NC	
	4 Sulfate	7.570	7.573	-0.003	163135	1.22	
	6 Sulfate as Sulfur	7.570	7.573	-0.003	163135	0.4059	
S	10 Nitrate Nitrite as N		0.000			ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

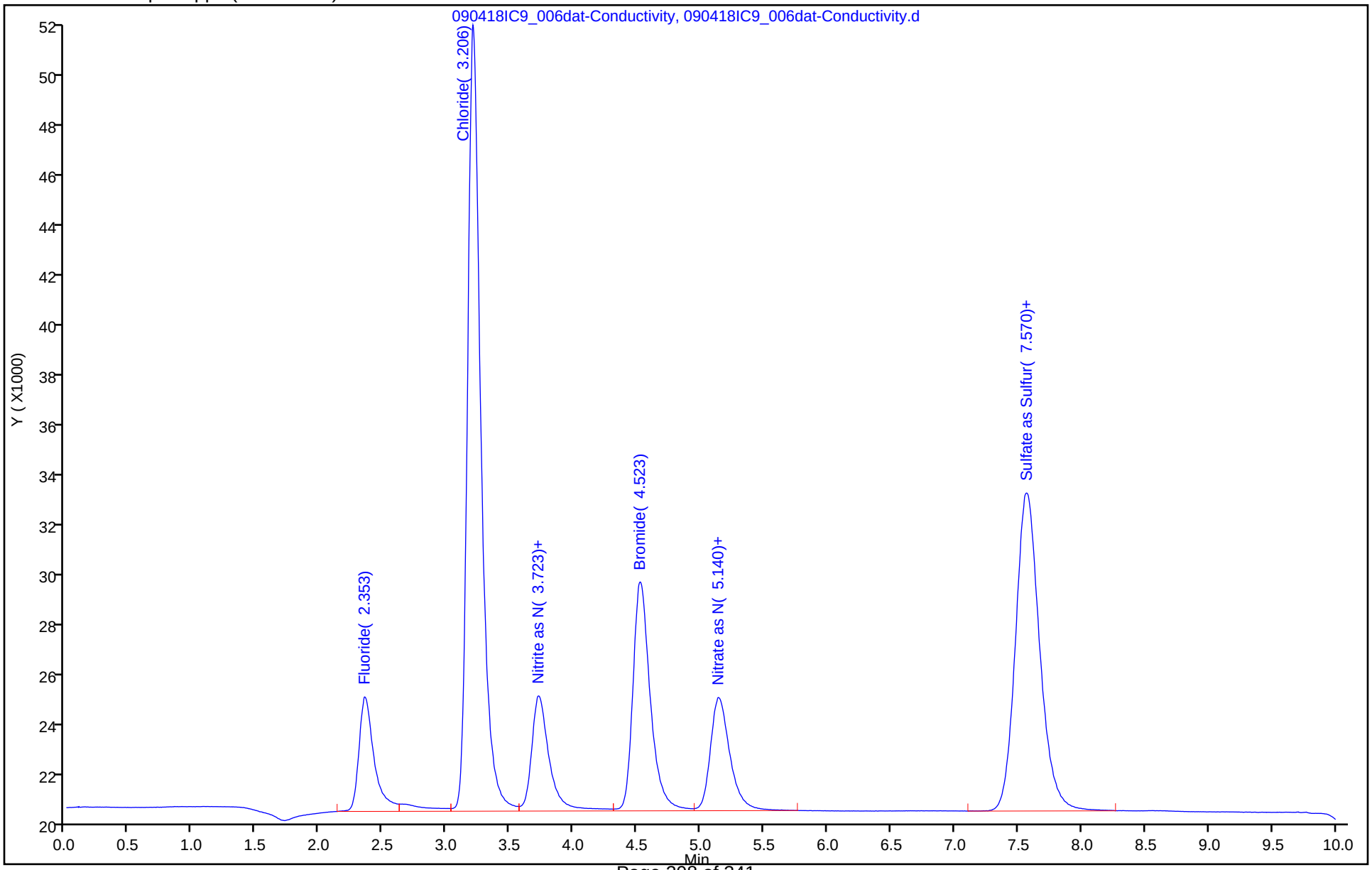
IC Secondary_00013 Amount Added: 50.00 Units: uL

Report Date: 05-Sep-2018 07:06:44 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_006dat-Conductivity.d				
Injection Date:	04-Sep-2018 09:37:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	RLV	Lab Sample ID:	Client 490-540592/1-A	Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

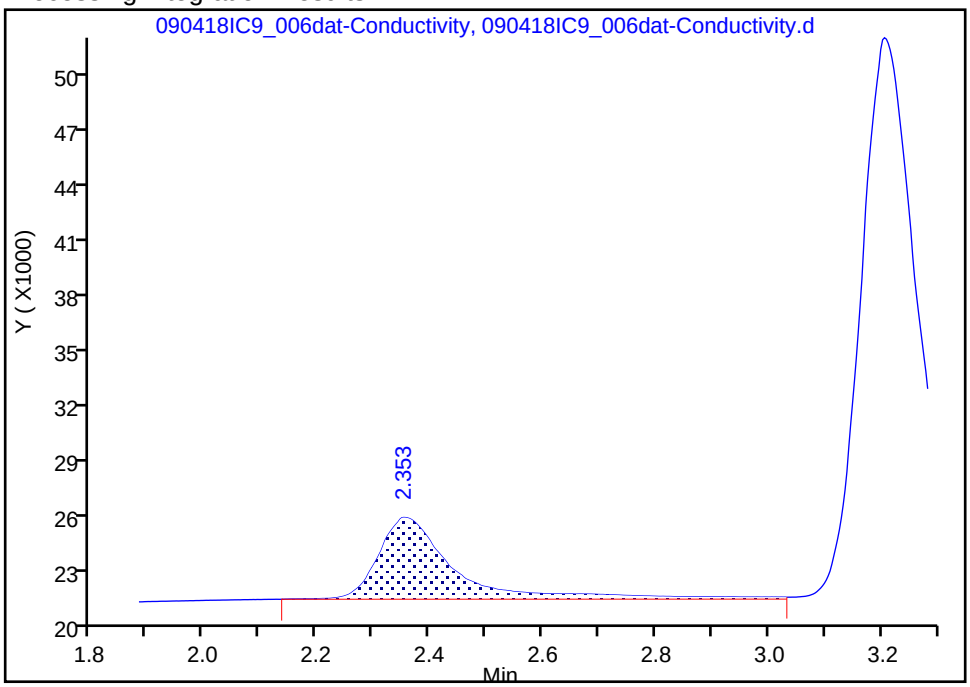
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_006dat-Conductivity.d				
Injection Date:	04-Sep-2018 09:37:00	Instrument ID:	IC9		
Lims ID:	RLV	Lab Sample ID:	Client 490-540592/1-A		
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

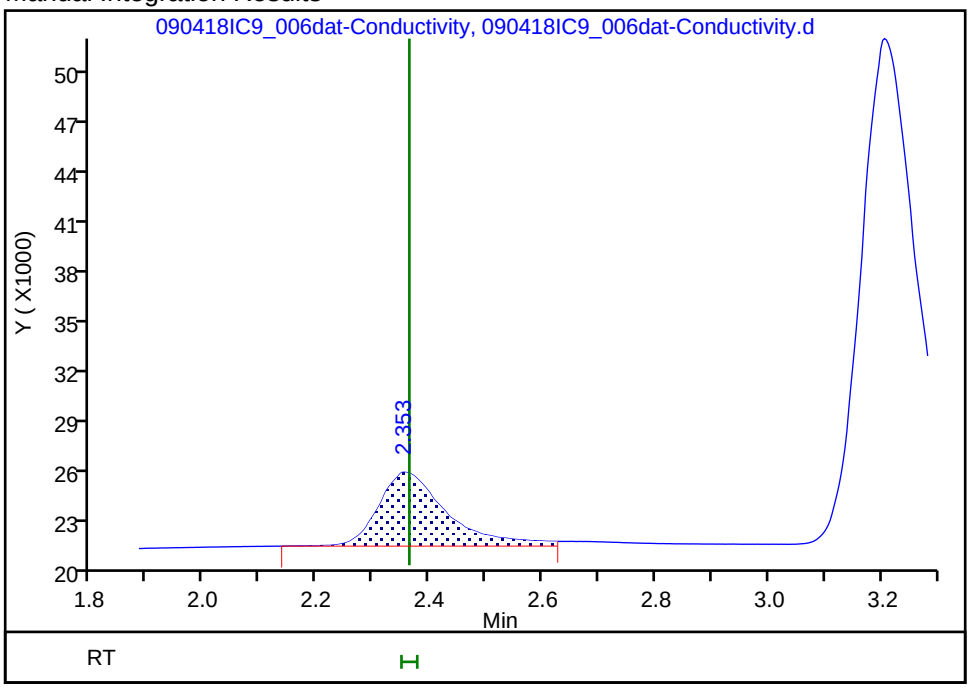
Processing Integration Results

RT: 2.35
Area: 41223
Amount: 0.121989
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 37155
Amount: 0.113014
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 06:59:53

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID:
Lab Sample ID: MRL 490-540592/33
Matrix: Solid
Lab File ID: 090418IC9_094dat-Conductivity.
Analysis Method: 9056A
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 09/05/2018 02:38
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 540592
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	0.9937	J	1.00	0.200
16984-48-8	Fluoride	0.1130		0.100	0.0100
14808-79-8	Sulfate	1.162		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_094dat-Conductivity.d				
Lims ID:	RLV				
Client ID:					
Sample Type:	Client				
Inject. Date:	05-Sep-2018 02:38:00	ALS Bottle#:	0	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	090418IC9_094				
Misc. Info.:	090418IC9_094				
Operator ID:	Staten, Joe (TAI\St	Instrument ID:	IC9		
Method:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\300_0624_9056IC9.m				
Limit Group:	IC 9056_300_SM4110B_28 Day ICAL				
Last Update:	05-Sep-2018 07:06:27	Calib Date:	20-Aug-2018 11:16:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d				
Column 1 :	MetrosepASupp4 (250.00 mm)		Det: IC 021012IC9.025dat-Conductivity		
Process Host:	XAWRK010				

First Level Reviewer: statenj Date: 05-Sep-2018 07:06:27

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 Fluoride	2.357	2.363	-0.006	37148	0.1130	M
	2 Chloride	3.206	3.213	-0.007	225480	0.99	
	8 Nitrite as NO2	3.710	3.723	-0.013	42837	NC	
	7 Nitrite as N	3.710	3.723	-0.013	42837	NC	
	1 Bromide	4.486	4.510	-0.024	84959	1.12	
	9 Nitrate as NO3	5.086	5.113	-0.027	47692	NC	
	3 Nitrate as N	5.086	5.113	-0.027	47692	NC	
	4 Sulfate	7.623	7.573	0.050	151598	1.16	
	6 Sulfate as Sulfur	7.623	7.573	0.050	151598	0.3873	
S	10 Nitrate Nitrite as N		0.000			ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

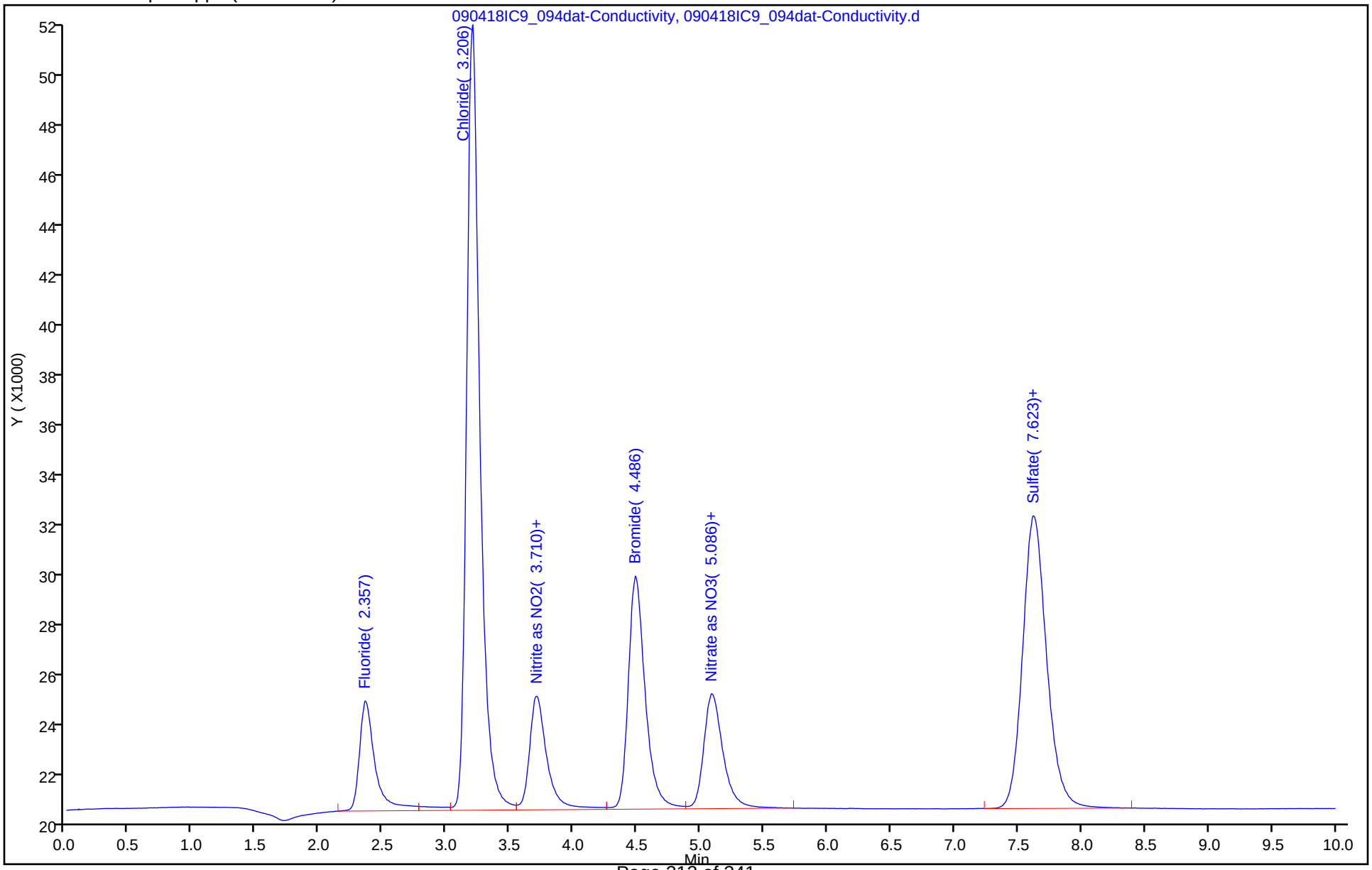
IC Secondary_00013 Amount Added: 50.00 Units: uL

Report Date: 05-Sep-2018 07:06:27 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_094dat-Conductivity.d				
Injection Date:	05-Sep-2018 02:38:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	RLV	Lab Sample ID:	Client 490-540592/33-A	Worklist Smp#:	33
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

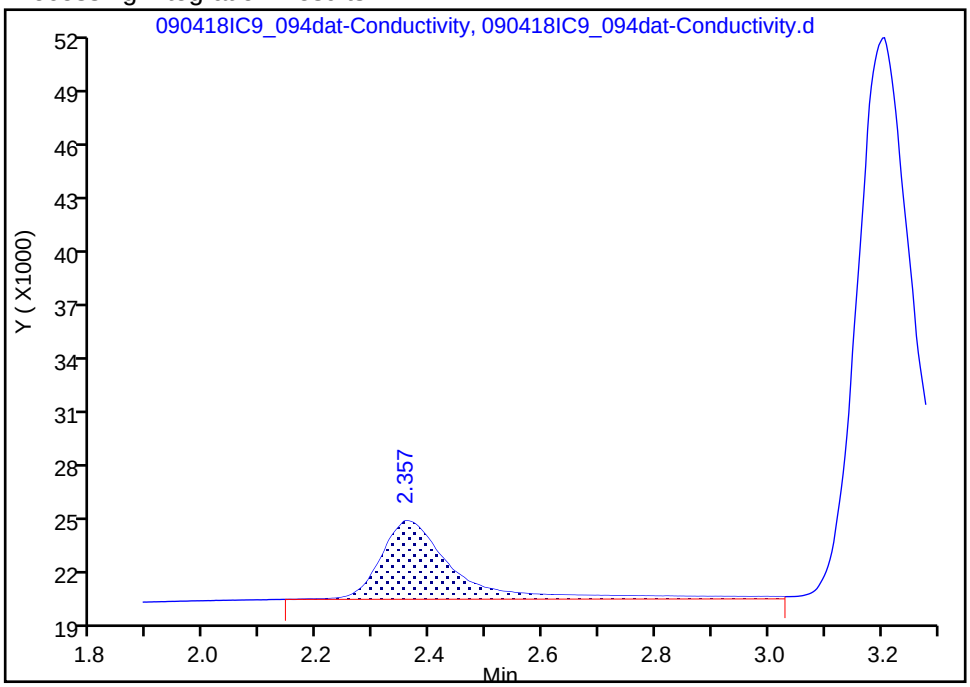
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180905-111556.b\090418IC9_094dat-Conductivity.d				
Injection Date:	05-Sep-2018 02:38:00	Instrument ID:	IC9		
Lims ID:	RLV	Lab Sample ID:	Client 490-540592/33-A		
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	33
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

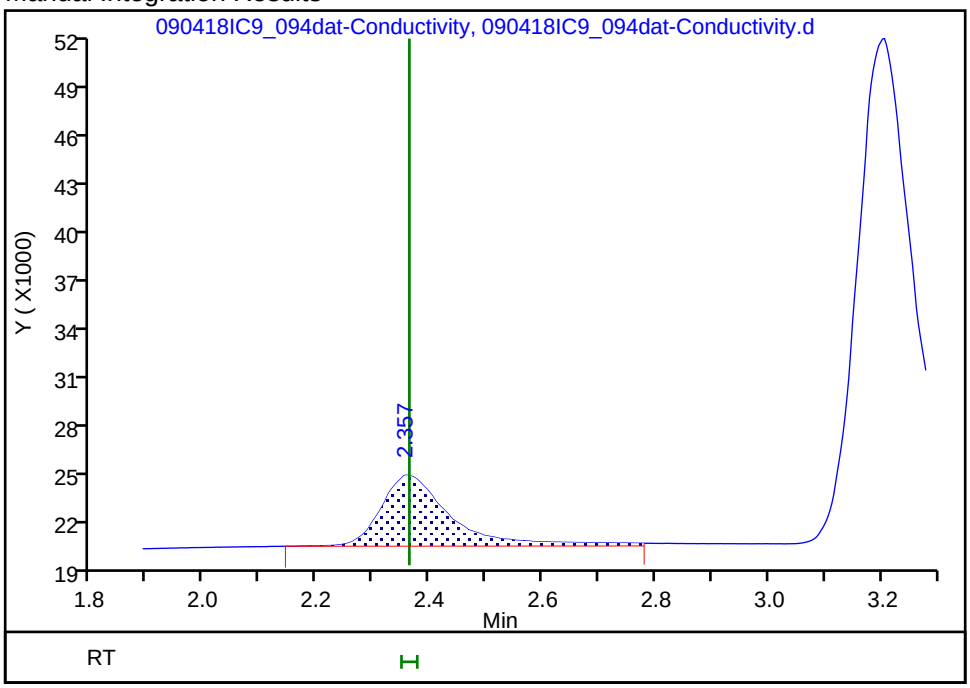
Processing Integration Results

RT: 2.36
Area: 39190
Amount: 0.117504
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 37148
Amount: 0.112999
Amount Units: ug/ml



Reviewer: statenj, 05-Sep-2018 07:06:15

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-FB05-20180827 MS
Lab Sample ID: 490-158137-1 MS
Matrix: Water
Lab File ID: 082918IC9_037dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 12:31
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 17:03
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	10.13		1.00	0.200
16984-48-8	Fluoride	0.9375		0.100	0.0100
14808-79-8	Sulfate	9.540		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_037dat-Conductivity.d
Lims ID: 490-158137-B-1 MS
Client ID:
Sample Type: MS
Inject. Date: 29-Aug-2018 17:03:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082918IC9_037
Misc. Info.: 082918IC9_037
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 31-Aug-2018 09:57:52 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:58:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.357	2.357	0.000	410893	1.00	0.9375	M
2 Chloride	3.190	3.196	-0.006	2766996	10.0	10.1	M
8 Nitrite as NO2	3.693	3.693	0.000	560438	NC	NC	M
7 Nitrite as N	3.693	3.693	0.000	560438	NC	NC	M
1 Bromide	4.436	4.446	-0.010	1119296	10.0	9.62	M
3 Nitrate as N	5.026	5.030	-0.004	578724	NC	NC	M
9 Nitrate as NO3	5.026	5.030	-0.004	578724	NC	NC	M
4 Sulfate	7.700	7.696	0.004	1886085	10.0	9.54	
6 Sulfate as Sulfur	7.700	7.696	0.004	1886085	3.33	3.18	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

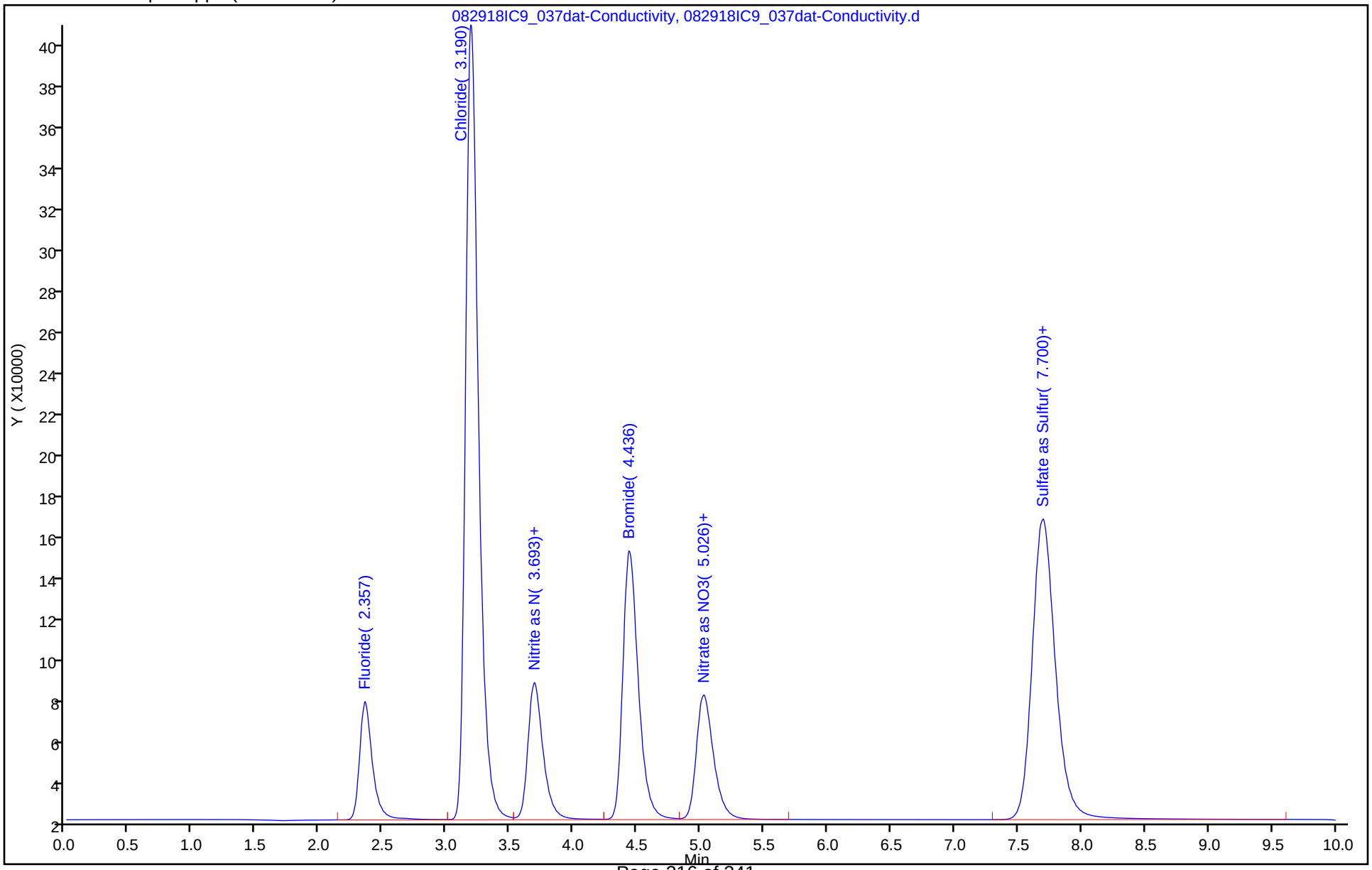
IC Secondary_00013 Amount Added: 100.00 Units: uL

Report Date: 31-Aug-2018 09:58:56 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_037dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:03:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-B-1 MS			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

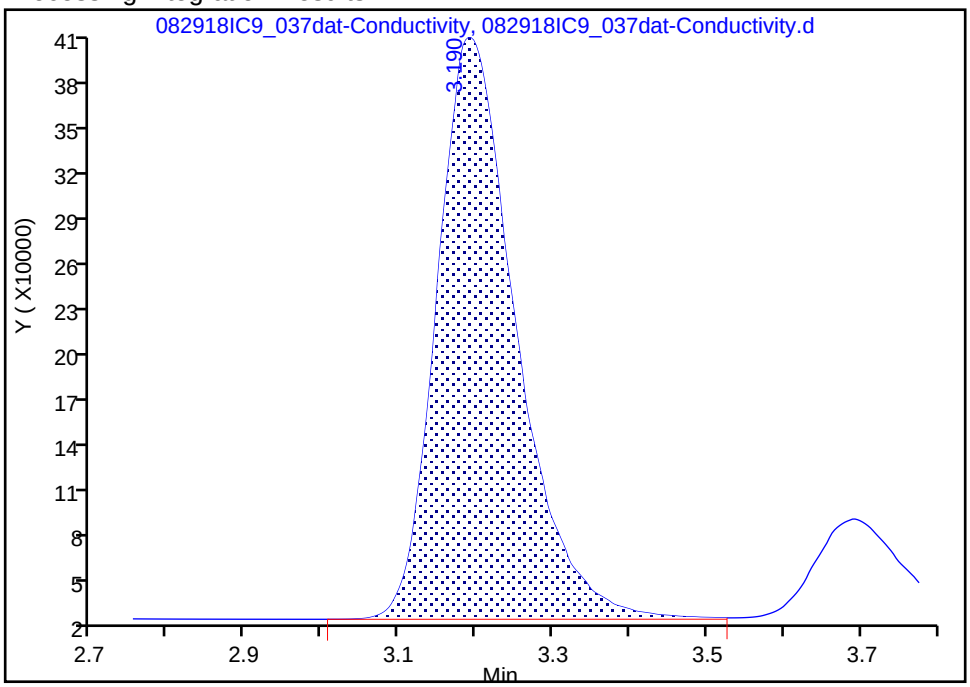
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_037dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:03:00	Instrument ID:	IC9		
Lims ID:	490-158137-B-1 MS				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

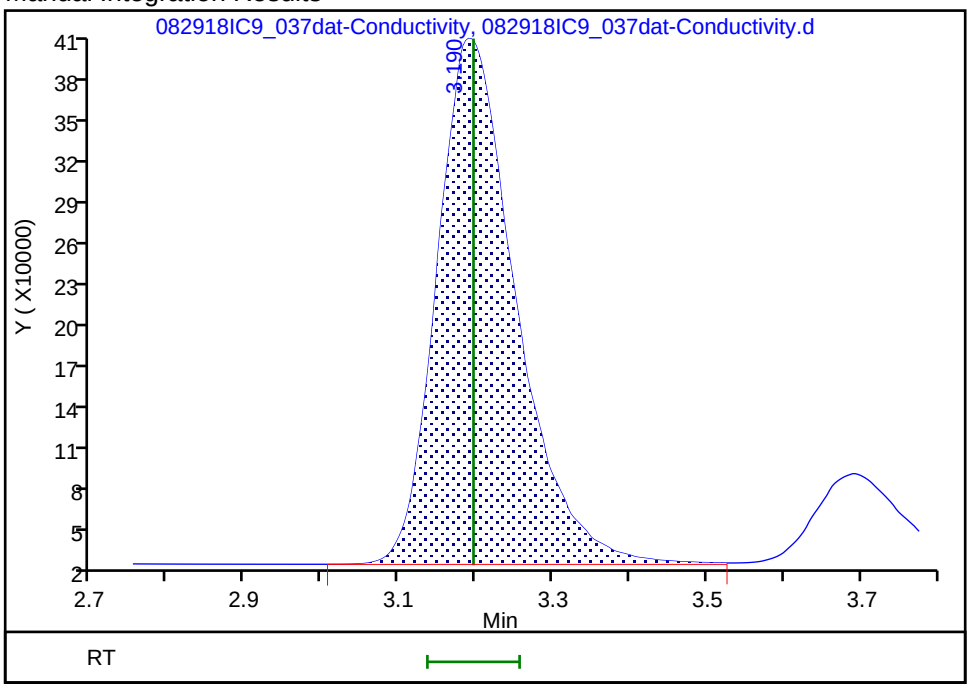
Processing Integration Results

RT: 3.19
Area: 2763486
Amount: 10.121292
Amount Units: ug/ml



Manual Integration Results

RT: 3.19
Area: 2766996
Amount: 10.133916
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:30:58
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

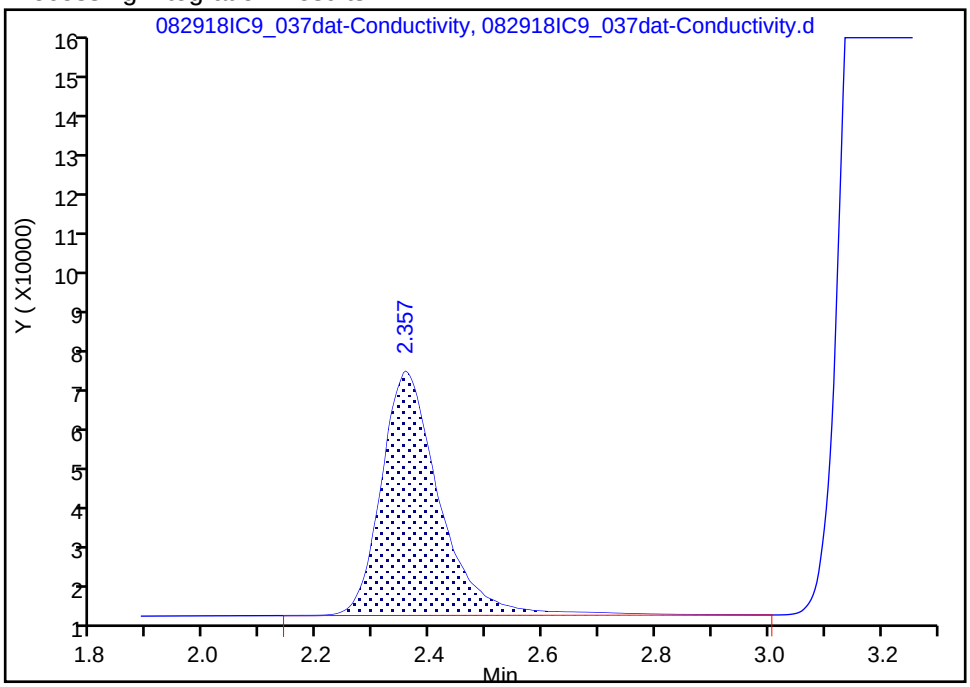
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_037dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:03:00	Instrument ID:	IC9		
Lims ID:	490-158137-B-1 MS				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

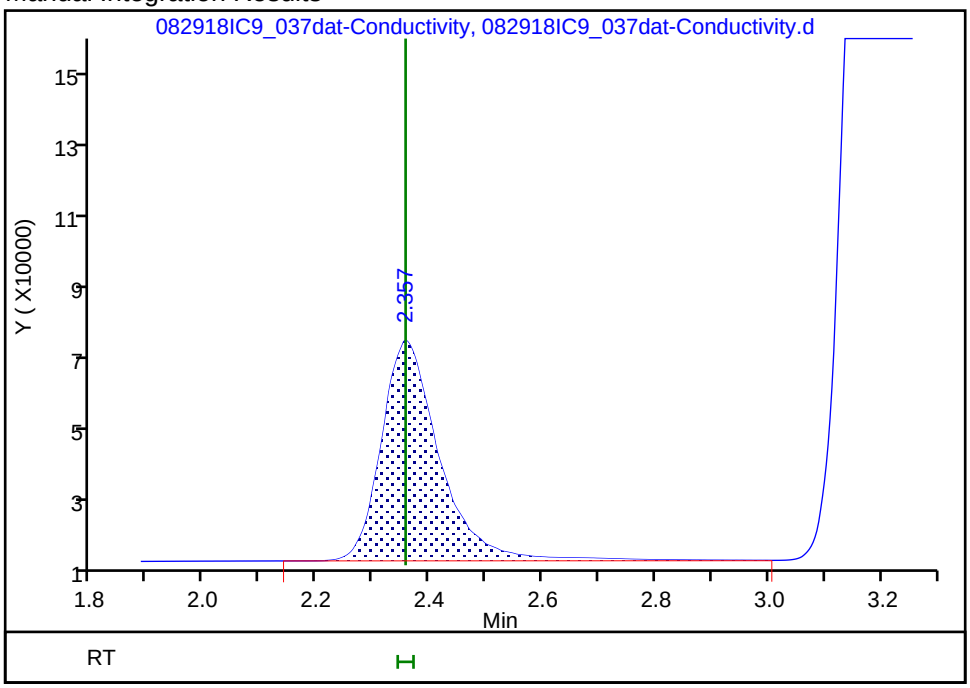
Processing Integration Results

RT: 2.36
Area: 408735
Amount: 0.932754
Amount Units: ug/ml



Manual Integration Results

RT: 2.36
Area: 410893
Amount: 0.937514
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:30:58
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG No.:
Client Sample ID: CUF-BS-FB05-20180827 MSD
Lab Sample ID: 490-158137-1 MSD
Matrix: Water
Lab File ID: 082918IC9_038dat-Conductivity.
Analysis Method: 9056A
Date Collected: 08/27/2018 12:31
Extraction Method:
Date Extracted:
Sample wt/vol: 10(mL)
Date Analyzed: 08/29/2018 17:14
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Metrohm ASupp4 ID: 4(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 539643
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	11.29		1.00	0.200
16984-48-8	Fluoride	1.071		0.100	0.0100
14808-79-8	Sulfate	10.97		1.00	0.0300

TestAmerica Nashville
Target Compound Quantitation Report

Data File: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_038dat-Conductivity.d
Lims ID: 490-158137-B-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 29-Aug-2018 17:14:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 082918IC9_038
Misc. Info.: 082918IC9_038
Operator ID: Staten, Joe (TAI\St Instrument ID: IC9

Method: \\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\300_0624_9056IC9.m
Limit Group: IC 9056_300_SM4110B_28 Day ICAL
Last Update: 31-Aug-2018 09:57:52 Calib Date: 20-Aug-2018 11:16:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Nashville\ChromData\IC9\20180820-110982.b\082018IC9_018dat-Conductivity.d

Column 1 : MetrosepASupp4 (250.00 mm) Det: IC 021012IC9.025dat-Conductivity
Process Host: XAWRK026

First Level Reviewer: wanguns Date: 31-Aug-2018 09:59:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 Fluoride	2.353	2.357	-0.004	471195	1.00	1.07	M
2 Chloride	3.193	3.196	-0.003	3088307	10.0	11.3	M
8 Nitrite as NO2	3.683	3.693	-0.010	640295	NC	NC	M
7 Nitrite as N	3.683	3.693	-0.010	640295	NC	NC	M
1 Bromide	4.436	4.446	-0.010	1273594	10.0	10.9	M
3 Nitrate as N	5.016	5.030	-0.014	664056	NC	NC	M
9 Nitrate as NO3	5.016	5.030	-0.014	664056	NC	NC	M
4 Sulfate	7.690	7.696	-0.006	2182454	10.0	11.0	
6 Sulfate as Sulfur	7.690	7.696	-0.006	2182454	3.33	3.66	
S 10 Nitrate Nitrite as N		0.000			2.00	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

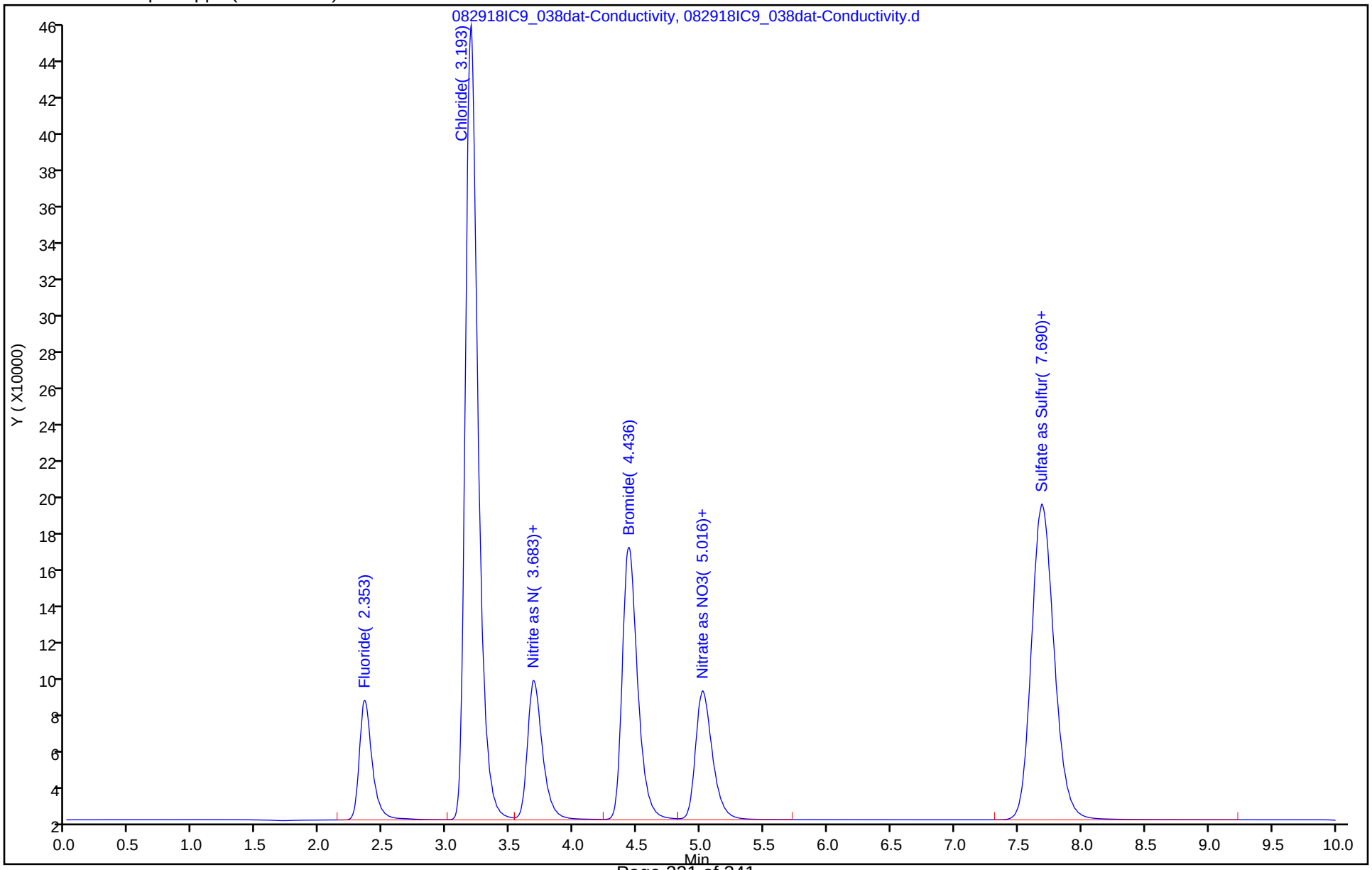
IC Secondary_00013 Amount Added: 100.00 Units: uL

Report Date: 31-Aug-2018 09:59:07 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Nashville

Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_038dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:14:00	Instrument ID:	IC9	Operator ID:	Staten, Joe (TAI\St
Lims ID:	490-158137-B-1 MSD			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		

Column: MetrosepASupp4 (250.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Nashville

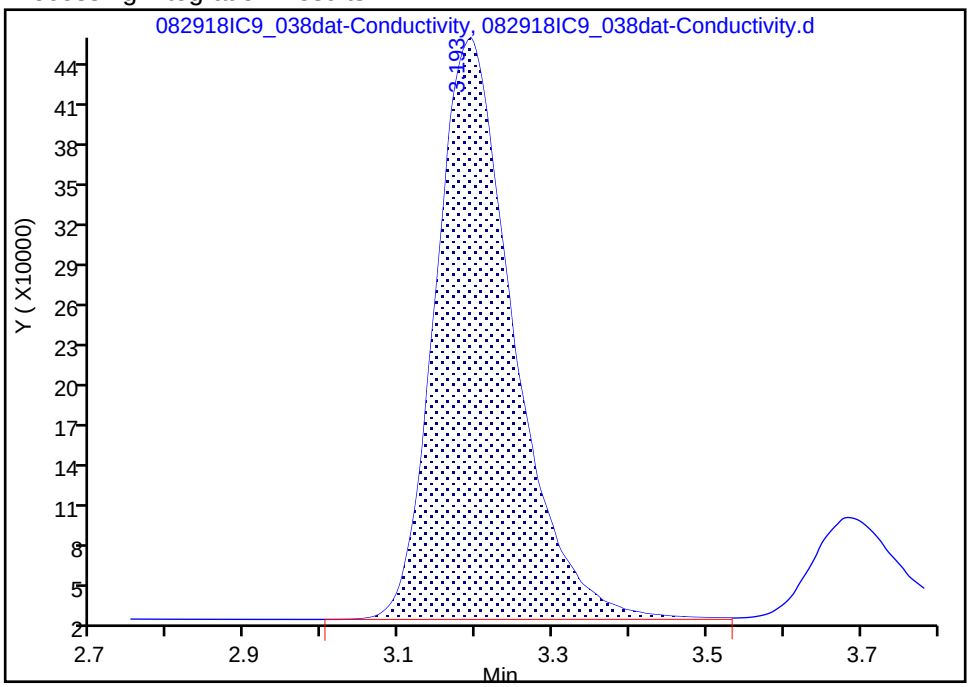
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_038dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:14:00	Instrument ID:	IC9		
Lims ID:	490-158137-B-1 MSD				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

2 Chloride, CAS: 16887-00-6

Signal: 1

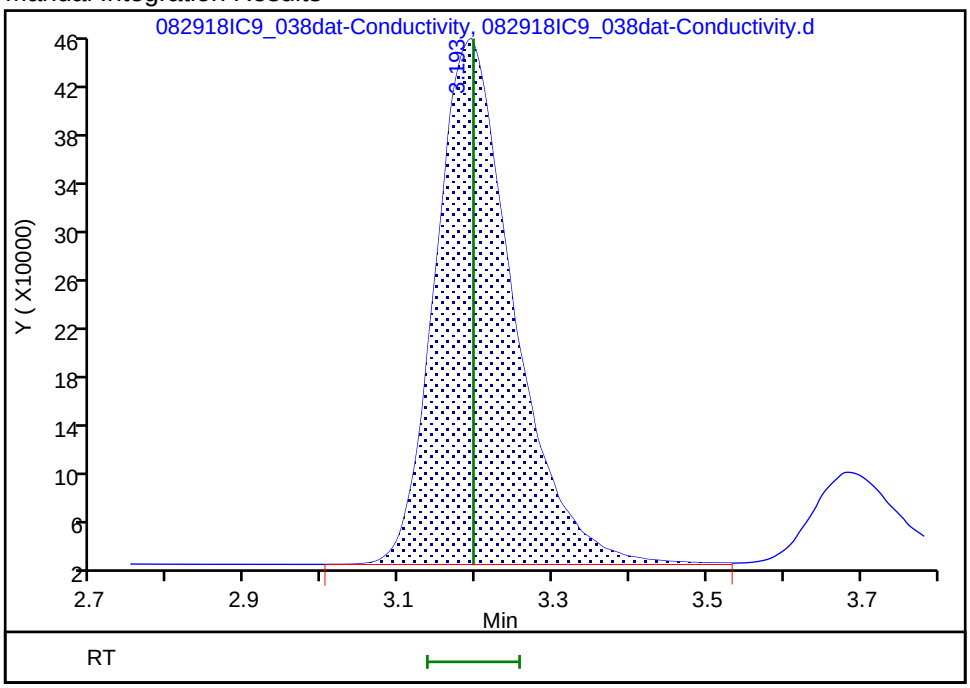
Processing Integration Results

RT: 3.19
Area: 3084062
Amount: 11.274206
Amount Units: ug/ml



Manual Integration Results

RT: 3.19
Area: 3088307
Amount: 11.289473
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:31:20
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Nashville

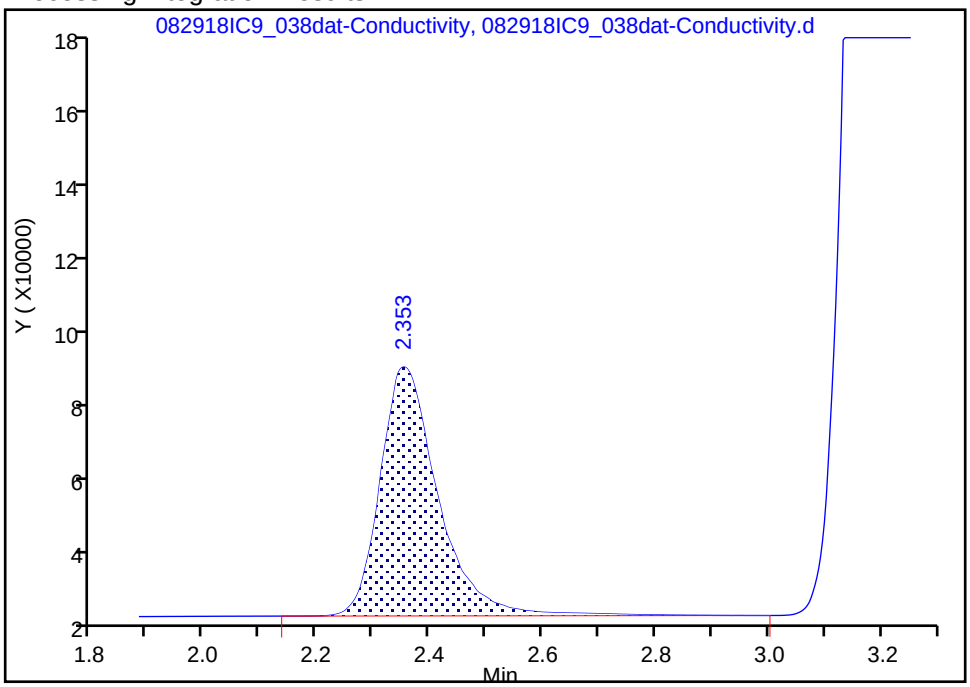
Data File:	\\ChromNA\Nashville\ChromData\IC9\20180830-111386.b\082918IC9_038dat-Conductivity.d				
Injection Date:	29-Aug-2018 17:14:00	Instrument ID:	IC9		
Lims ID:	490-158137-B-1 MSD				
Client ID:					
Operator ID:	Staten, Joe (TAI\St	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	300_0624_9056IC9	Limit Group:	IC 9056_300_SM4110B_28 Day ICAL		
Column:	MetrosepASupp4 (250.00 mm)	Detector	IC 021012IC9.025dat-Conductivity		

5 Fluoride, CAS: 16984-48-8

Signal: 1

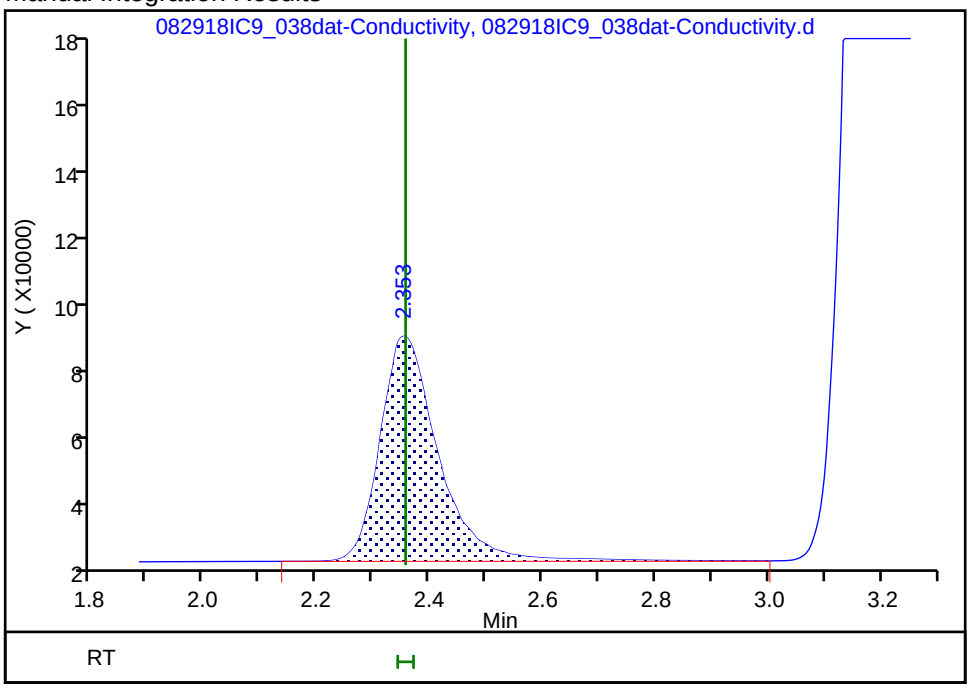
Processing Integration Results

RT: 2.35
Area: 468465
Amount: 1.064523
Amount Units: ug/ml



Manual Integration Results

RT: 2.35
Area: 471195
Amount: 1.070546
Amount Units: ug/ml



Reviewer: statenj, 30-Aug-2018 08:31:20
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Start Date: 08/20/2018 09:44

Analysis Batch Number: 537313 End Date: 08/20/2018 11:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 490-537313/1 IC		08/20/2018 09:44	1	082018IC9_010dat-Conductivity.d	Metrohm ASupp4 4(mm)
STD2 490-537313/2 IC		08/20/2018 09:55	1	082018IC9_011dat-Conductivity.d	Metrohm ASupp4 4(mm)
STD3 490-537313/3 IC		08/20/2018 10:07	1	082018IC9_012dat-Conductivity.d	Metrohm ASupp4 4(mm)
STD4 490-537313/4 IC		08/20/2018 10:18	1	082018IC9_013dat-Conductivity.d	Metrohm ASupp4 4(mm)
STD5 490-537313/5 IC		08/20/2018 10:30	1	082018IC9_014dat-Conductivity.d	Metrohm ASupp4 4(mm)
ICRT 490-537313/6		08/20/2018 10:42	1	082018IC9_015dat-Conductivity.d	Metrohm ASupp4 4(mm)
STD7 490-537313/7 IC		08/20/2018 10:53	1	082018IC9_016dat-Conductivity.d	Metrohm ASupp4 4(mm)
STD8 490-537313/8 IC		08/20/2018 11:05	1	082018IC9_017dat-Conductivity.d	Metrohm ASupp4 4(mm)
STD9 490-537313/9 IC		08/20/2018 11:16	1	082018IC9_018dat-Conductivity.d	Metrohm ASupp4 4(mm)
ICV 490-537313/10		08/20/2018 11:28	1	082018IC9_019dat-Conductivity.d	Metrohm ASupp4 4(mm)
ICB 490-537313/11		08/20/2018 11:40	1		Metrohm ASupp4 4(mm)

9056A

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Start Date: 08/29/2018 15:53

Analysis Batch Number: 539643 End Date: 08/29/2018 18:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 490-539643/1		08/29/2018 15:53	1	082918IC9_031dat-Conductivity.d	Metrohm ASupp4 4(mm)
CCB 490-539643/2		08/29/2018 16:05	1	082918IC9_032dat-Conductivity.d	Metrohm ASupp4 4(mm)
MB 490-539643/3		08/29/2018 16:17	1	082918IC9_033dat-Conductivity.d	Metrohm ASupp4 4(mm)
LCS 490-539643/4		08/29/2018 16:28	1	082918IC9_034dat-Conductivity.d	Metrohm ASupp4 4(mm)
LCSD 490-539643/5		08/29/2018 16:40	1	082918IC9_035dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-1		08/29/2018 16:51	1	082918IC9_036dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-1 MS		08/29/2018 17:03	1	082918IC9_037dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-1 MSD		08/29/2018 17:14	1	082918IC9_038dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-8		08/29/2018 17:26	1	082918IC9_039dat-Conductivity.d	Metrohm ASupp4 4(mm)
ZZZZZ		08/29/2018 17:38	1		Metrohm ASupp4 4(mm)
CCV 490-539643/11		08/29/2018 17:49	1	082918IC9_041dat-Conductivity.d	Metrohm ASupp4 4(mm)
CCB 490-539643/12		08/29/2018 18:01	1	082918IC9_042dat-Conductivity.d	Metrohm ASupp4 4(mm)

9056A

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Start Date: 09/04/2018 09:37

Analysis Batch Number: 540592 End Date: 09/05/2018 02:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
MRL 490-540592/1		09/04/2018 09:37	1	090418IC9_006dat-Conductivity.d	Metrohm ASupp4 4(mm)
CCVRT 490-540592/2		09/04/2018 09:49	1	090418IC9_007dat-Conductivity.d	Metrohm ASupp4 4(mm)
CCB 490-540592/3		09/04/2018 10:00	1	090418IC9_008dat-Conductivity.d	Metrohm ASupp4 4(mm)
MB 490-540377/1-A		09/04/2018 10:12	1	090418IC9_009dat-Conductivity.d	Metrohm ASupp4 4(mm)
LCS 490-540377/2-A		09/04/2018 10:24	1	090418IC9_010dat-Conductivity.d	Metrohm ASupp4 4(mm)
LCSD 490-540377/3-A		09/04/2018 10:35	1	090418IC9_011dat-Conductivity.d	Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 10:47	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 10:58	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 11:10	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 11:22	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 11:33	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 11:45	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 11:56	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 12:08	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 12:19	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 12:31	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 12:43	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 12:54	1		Metrohm ASupp4 4(mm)
CCV 490-540592/19		09/04/2018 13:06	1	090418IC9_024dat-Conductivity.d	Metrohm ASupp4 4(mm)
CCB 490-540592/20		09/04/2018 13:17	1	090418IC9_025dat-Conductivity.d	Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 13:29	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 13:41	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 13:52	1		Metrohm ASupp4 4(mm)
ZZZZZ		09/04/2018 14:04	1		Metrohm ASupp4 4(mm)
490-158137-2		09/04/2018 14:15	1	090418IC9_030dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-3		09/04/2018 14:27	1	090418IC9_031dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-4		09/04/2018 14:39	1	090418IC9_032dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-5		09/04/2018 14:50	1	090418IC9_033dat-Conductivity.d	Metrohm ASupp4 4(mm)
490-158137-6		09/04/2018 15:02	1	090418IC9_034dat-Conductivity.d	Metrohm ASupp4 4(mm)

9056A

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: IC9 Start Date: 09/04/2018 09:37

Analysis Batch Number: 540592 End Date: 09/05/2018 02:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
490-158137-7		09/04/2018 15:13	1	090418IC9_035dat-Conductivity.d	Metrohm ASupp4 4(mm)
CCV 490-540592/31		09/04/2018 15:25	1	090418IC9_036dat-Conductivity.d	Metrohm ASupp4 4(mm)
CCB 490-540592/32		09/04/2018 15:37	1	090418IC9_037dat-Conductivity.d	Metrohm ASupp4 4(mm)
MRL 490-540592/33		09/05/2018 02:38	1	090418IC9_094dat-Conductivity.d	Metrohm ASupp4 4(mm)

9056A

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 539643 Batch Start Date: 08/29/18 15:53 Batch Analyst: Wang-un, Sunan

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CCV 100 00022	IC Secondary 00013	LCS 100 00028		
CCVRT 490-539643/1		9056A		10 mL	10 mL				
CCB 490-539643/2		9056A		10 mL					
MB 490-539643/3		9056A		10 mL					
LCS 490-539643/4		9056A		10 mL			10 mL		
LCSD 490-539643/5		9056A		10 mL			10 mL		
490-158137-B-1	CUF-BS-FB05-2018 0827	9056A	T	10 mL					
490-158137-B-1 MS	CUF-BS-FB05-2018 0827	9056A	T	10 mL		100 uL			
490-158137-B-1 MSD	CUF-BS-FB05-2018 0827	9056A	T	10 mL		100 uL			
490-158137-B-8	CUF-BS-EB02-2018 0827	9056A	T	10 mL					
CCV 490-539643/11		9056A		10 mL	10 mL				
CCB 490-539643/12		9056A		10 mL					

Batch Notes	
Eluent 1 ID	Eluent Instr_00025
Filter ID	IC Filters_00088
Regeneration Solution ID	IC Regenerant_00012

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.

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 540377 Batch Start Date: 09/04/18 07:07 Batch Analyst: Staten, Joe

Batch Method: DI Leach Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC Secondary 00013			
MB 490-540377/1		DI Leach, 9056A		3.0228 g	30 mL				
LCS 490-540377/2		DI Leach, 9056A		3.0155 g	30 mL	0.3 mL			
LCSD 490-540377/3		DI Leach, 9056A		3.0095 g	30 mL	0.3 mL			
490-158137-A-2	CUF-BS-BG01-0.0/ 0.5-20180827	DI Leach, 9056A	S	3.0243 g	30 mL				
490-158137-A-3	CUF-BS-BG01-1.0/ 3.0-20180827	DI Leach, 9056A	S	3.0322 g	30 mL				
490-158137-A-4	CUF-BS-BG01-6.5/ 8.5-20180827	DI Leach, 9056A	S	2.9926 g	30 mL				
490-158137-A-5	CUF-BS-BG01-11.5 /13.5-20180827	DI Leach, 9056A	S	2.9788 g	30 mL				
490-158137-A-6	CUF-BS-BG01-16.5 /18.5-20180827	DI Leach, 9056A	S	3.0066 g	30 mL				
490-158137-A-7	CUF-BS-BG01-21.5 /23.5-20180827	DI Leach, 9056A	S	2.9785 g	30 mL				

Batch Notes	
Balance ID	MS204S-B207693115
Blank Matrix ID	3918417
Filter ID	IC Filters_00088
Tumble End Time	09/04/2018 09:06
Tumble Start Time	09/04/2018 08:56

Basis	Basis Description
S	Soluble

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.

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 540592 Batch Start Date: 09/04/18 09:37 Batch Analyst: Staten, Joe

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CCV 100 00022	IC Secondary 00013			
MRL 490-540592/1		9056A		10 mL		50 uL			
CCVRT 490-540592/2		9056A		10 mL	10 mL				
CCB 490-540592/3		9056A		10 mL					
MB 490-540377/1-A		9056A		10 mL					
LCS 490-540377/2-A		9056A		10 mL					
LCSD 490-540377/3-A		9056A		10 mL					
CCV 490-540592/19		9056A		10 mL	10 mL				
CCB 490-540592/20		9056A		10 mL					
490-158137-A-2-B	CUF-BS-BG01-0.0/0.5-20180827	9056A	S	10 mL					
490-158137-A-3-B	CUF-BS-BG01-1.0/3.0-20180827	9056A	S	10 mL					
490-158137-A-4-B	CUF-BS-BG01-6.5/8.5-20180827	9056A	S	10 mL					
490-158137-A-5-B	CUF-BS-BG01-11.5/13.5-20180827	9056A	S	10 mL					
490-158137-A-6-B	CUF-BS-BG01-16.5/18.5-20180827	9056A	S	10 mL					
490-158137-A-7-B	CUF-BS-BG01-21.5/23.5-20180827	9056A	S	10 mL					
CCV 490-540592/31		9056A		10 mL	10 mL				
CCB 490-540592/32		9056A		10 mL					
MRL 490-540592/33		9056A		10 mL		50 uL			

Batch Notes	
Eluent 1 ID	Eluent Instr_00025
Filter ID	IC Filters_00088
Regeneration Solution ID	IC Regenerant_00012

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.

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 540592 Batch Start Date: 09/04/18 09:37 Batch Analyst: Staten, Joe

Batch Method: 9056A Batch End Date:

Basis	Basis Description
S	Soluble

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

COVER PAGE
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG No.:

Project: CUF_BS_20180827_1A

Client Sample ID	Lab Sample ID
CUF-BS-FB05-20180827	490-158137-1
CUF-BS-BG01-0.0/0.5-20180827	490-158137-2
CUF-BS-BG01-1.0/3.0-20180827	490-158137-3
CUF-BS-BG01-6.5/8.5-20180827	490-158137-4
CUF-BS-BG01-11.5/13.5-20180827	490-158137-5
CUF-BS-BG01-16.5/18.5-20180827	490-158137-6
CUF-BS-BG01-21.5/23.5-20180827	490-158137-7
CUF-BS-EB02-20180827	490-158137-8

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-FB05-20180827

Lab Sample ID: 490-158137-1

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Water

Date Sampled: 08/27/2018 12:31

Reporting Basis: WET

Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	ND	0.000200	0.000100	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827

Lab Sample ID: 490-158137-2

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/27/2018 13:12

Reporting Basis: DRY

Date Received: 08/27/2018 19:00

% Solids: 80.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0634	0.121	0.0363	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827

Lab Sample ID: 490-158137-3

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/27/2018 13:59

Reporting Basis: DRY

Date Received: 08/27/2018 19:00

% Solids: 84.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0927	0.113	0.0340	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827

Lab Sample ID: 490-158137-4

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/27/2018 14:19

Reporting Basis: DRY

Date Received: 08/27/2018 19:00

% Solids: 81.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.213	0.118	0.0353	mg/Kg			1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827

Lab Sample ID: 490-158137-5

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/27/2018 14:45

Reporting Basis: DRY

Date Received: 08/27/2018 19:00

% Solids: 79.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0764	0.127	0.0381	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-BG01-16.5/18.5-20180827

Lab Sample ID: 490-158137-6

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/27/2018 15:05

Reporting Basis: DRY

Date Received: 08/27/2018 19:00

% Solids: 78.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.0989	0.125	0.0374	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827

Lab Sample ID: 490-158137-7

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Solid

Date Sampled: 08/27/2018 15:25

Reporting Basis: DRY

Date Received: 08/27/2018 19:00

% Solids: 75.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.163	0.129	0.0388	mg/Kg			1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CUF-BS-EB02-20180827

Lab Sample ID: 490-158137-8

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG ID.:

Matrix: Water

Date Sampled: 08/27/2018 15:55

Reporting Basis: WET

Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	ND	0.000200	0.000100	mg/L			1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICV Source: MET_CALSTD_00331 Concentration Units: ug/L

CCV Source: MET_CALSTD_00328

Analyte	ICV 490-540387/8 08/31/2018 13:30				CCV 490-540387/115 08/31/2018 20:40				CCV 490-540387/127 08/31/2018 21:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.490		2.50	100	1.987		2.00	99	2.020		2.00	101

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICV Source: MET_CALSTD_00331 Concentration Units: ug/L

CCV Source: MET_CALSTD_00328

Analyte	CCV 490-540387/139 08/31/2018 21:42											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.016		2.00	101								

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICV Source: MET_CALSTD_00336 Concentration Units: ug/L

CCV Source: MET_CALSTD_00339

Analyte	ICV 490-541520/8 09/08/2018 14:48				CCV 490-541520/11 09/08/2018 14:57				CCV 490-541520/23 09/08/2018 15:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.574		2.50	103	1.986		2.00	99	1.985		2.00	99

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICV Source: MET_CALSTD_00336 Concentration Units: ug/L

CCV Source: MET_CALSTD_00339

Analyte	CCV 490-541520/35 09/08/2018 16:02											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	1.993		2.00	100								

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Method: 7470A Instrument ID: LE5

Lab Sample ID: CRA 490-540387/10 Concentration Units: ug/L

CRQL Check Standard Source: MET_CALSTD_00329

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.2063		103	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Method: 7471B Instrument ID: LE5

Lab Sample ID: CRA 490-541520/10 Concentration Units: ug/L

CRQL Check Standard Source: MET_CALSTD_00337

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.400	0.3957		99	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 490-540387/9 08/31/2018 13:32		CCB 490-540387/116 08/31/2018 20:43		CCB 490-540387/128 08/31/2018 21:14		CCB 490-540387/140 08/31/2018 21:45	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.200	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 490-541520/9 09/08/2018 14:51		CCB 490-541520/12 09/08/2018 14:59		CCB 490-541520/24 09/08/2018 15:32		CCB 490-541520/36 09/08/2018 16:05	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.200	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 490-539512/1-A

Instrument Code: LE5 Batch No.: 540387

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7470A

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 490-541313/1-A

Instrument Code: LE5 Batch No.: 541520

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471B

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSA 490-542160/18 Instrument ID: ICPMS3

Lab File ID: 037ICSA.d ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0002**	
Arsenic		**0.0001**	
Barium		**0.0001**	
Beryllium		**0.0001**	
Cadmium		**0.0002**	
Calcium	**100**	**100.0**	**100**
Chromium		**0.0003**	
Cobalt		**0.0000**	
Lead		**0.0001**	
Lithium		**0.0003**	
Molybdenum	**2.00**	**1.90**	**95**
Nickel		**0.0004**	
Selenium		**0.0001**	
Silver		**0.0001**	
Thallium		**0.0000**	
Vanadium		**0.0001**	
Zinc		**0.0011**	
Aluminum	*100*	*99.1*	*99*
B		*0.0072*	
Copper		*-0.0014*	
Iron	*100*	*91.3*	*91*
Magnesium	*100*	*100*	*100*
Manganese		*0.0012*	
Potassium	*100*	*95.9*	*96*
Sodium	*100*	*95.3*	*95*
Strontium		*0.0012*	
Tin		*0.0001*	
Titanium	*2.00*	*1.92*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSAB 490-542160/19 Instrument ID: ICPMS3

Lab File ID: 038ICSB.d ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**0.0200**	**0.0211**	**105**
Arsenic	**0.0200**	**0.0199**	**100**
Barium	**0.0200**	**0.0194**	**97**
Beryllium	**0.0200**	**0.0205**	**103**
Cadmium	**0.0200**	**0.0199**	**99**
Calcium	**100**	**98.9**	**99**
Chromium	**0.0200**	**0.0201**	**100**
Cobalt	**0.0200**	**0.0199**	**99**
Lead	**0.0200**	**0.0194**	**97**
Lithium		**0.0005**	
Molybdenum	**2.00**	**1.90**	**95**
Nickel	**0.0200**	**0.0197**	**98**
Selenium	**0.0200**	**0.0195**	**98**
Silver	**0.0200**	**0.0199**	**99**
Thallium	**0.0200**	**0.0194**	**97**
Vanadium	**0.0200**	**0.0198**	**99**
Zinc	**0.0200**	**0.0206**	**103**
Aluminum	*100*	*99.9*	*100*
B		*0.0057*	
Copper	*0.0200*	*0.0178*	*89*
Iron	*100*	*91.5*	*92*
Magnesium	*100*	*100*	*100*
Manganese	*0.0200*	*0.0211*	*105*
Potassium	*100*	*96.5*	*97*
Sodium	*100*	*92.6*	*93*
Strontium		*0.0014*	
Tin	*0.0200*	*0.0202*	*101*
Titanium	*2.00*	*1.87*	*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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSA 490-542742/23 Instrument ID: ICPMS3

Lab File ID: 024ICSA.d ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Boron		**0.0077**	
Chromium		**0.0002**	
Copper		**0.0000**	
Nickel		**0.0008**	
Aluminum	*100*	*92.8*	*93*
Antimony		*0.0001*	
Arsenic		*0.0001*	
Barium		*0.0000*	
Beryllium		*0.0000*	
Cadmium		*0.0002*	
Calcium	*100*	*105*	*105*
Cobalt		*0.0000*	
Iron	*100*	*90.5*	*91*
Lead		*0.0001*	
Li		*0.0002*	
Magnesium	*100*	*94.4*	*94*
Manganese		*0.0004*	
Molybdenum	*2.00*	*2.02*	*101*
Potassium	*100*	*90.8*	*91*
Selenium		*0.0001*	
Silver		*0.0000*	
Sodium	*100*	*92.8*	*93*
Strontium		*0.0011*	
Thallium		*0.0001*	
Tin		*0.0001*	
Titanium	*2.00*	*1.86*	*93*
Vanadium		*0.0000*	
Zinc		*0.0011*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSAB 490-542742/24 Instrument ID: ICPMS3

Lab File ID: 025ICSB.d ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Boron		**0.0080**	
Chromium	**0.0200**	**0.0191**	**95**
Copper	**0.0200**	**0.0193**	**97**
Nickel	**0.0200**	**0.0193**	**96**
Aluminum	*100*	*94.3*	*94*
Antimony	*0.0200*	*0.0212*	*106*
Arsenic	*0.0200*	*0.0205*	*103*
Barium	*0.0200*	*0.0198*	*99*
Beryllium	*0.0200*	*0.0212*	*106*
Cadmium	*0.0200*	*0.0200*	*100*
Calcium	*100*	*107*	*107*
Cobalt	*0.0200*	*0.0190*	*95*
Iron	*100*	*91.9*	*92*
Lead	*0.0200*	*0.0195*	*97*
Li		*0.0008*	
Magnesium	*100*	*93.8*	*94*
Manganese	*0.0200*	*0.0219*	*110*
Molybdenum	*2.00*	*2.02*	*101*
Potassium	*100*	*91.5*	*92*
Selenium	*0.0200*	*0.0194*	*97*
Silver	*0.0200*	*0.0201*	*101*
Sodium	*100*	*92.7*	*93*
Strontium		*0.0011*	
Thallium	*0.0200*	*0.0186*	*93*
Tin	*0.0200*	*0.0205*	*103*
Titanium	*2.00*	*1.90*	*95*
Vanadium	*0.0200*	*0.0191*	*95*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSA 490-543144/18 Instrument ID: ICPMS3

Lab File ID: 019ICSA.d ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Chromium		**0.0003**	
Copper		**0.0002**	
Nickel		**0.0004**	
Vanadium		**0.0000**	
Aluminum	*100*	*95.0*	*95*
Antimony		*0.0001*	
Arsenic		*0.0001*	
B		*0.0074*	
Barium		*0.0001*	
Beryllium		*0.0000*	
Cadmium		*0.0002*	
Calcium	*100*	*101*	*101*
Cobalt		*-0.0002*	
Iron	*100*	*96.3*	*96*
Lead		*0.0001*	
Li		*0.0004*	
Magnesium	*100*	*96.0*	*96*
Manganese		*0.0004*	
Molybdenum	*2.00*	*2.05*	*103*
Potassium	*100*	*93.3*	*93*
Selenium		*0.0001*	
Silver		*0.0001*	
Sodium	*100*	*94.0*	*94*
Strontium		*0.0009*	
Thallium		*0.0000*	
Tin		*0.0001*	
Titanium	*2.00*	*1.93*	*97*
Zinc		*0.0006*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSAB 490-543144/19 Instrument ID: ICPMS3

Lab File ID: 020ICSB.d ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Chromium	**0.0200**	**0.0196**	**98**
Copper	**0.0200**	**0.0192**	**96**
Nickel	**0.0200**	**0.0193**	**97**
Vanadium	**0.0200**	**0.0197**	**99**
Aluminum	*100*	*95.0*	*95*
Antimony	*0.0200*	*0.0219*	*109*
Arsenic	*0.0200*	*0.0206*	*103*
B		*0.0050*	
Barium	*0.0200*	*0.0205*	*103*
Beryllium	*0.0200*	*0.0196*	*98*
Cadmium	*0.0200*	*0.0203*	*101*
Calcium	*100*	*99.8*	*100*
Cobalt	*0.0200*	*0.0189*	*94*
Iron	*100*	*94.8*	*95*
Lead	*0.0200*	*0.0197*	*98*
Li		*0.0017*	
Magnesium	*100*	*95.7*	*96*
Manganese	*0.0200*	*0.0197*	*98*
Molybdenum	*2.00*	*2.10*	*105*
Potassium	*100*	*94.2*	*94*
Selenium	*0.0200*	*0.0198*	*99*
Silver	*0.0200*	*0.0208*	*104*
Sodium	*100*	*94.3*	*94*
Strontium		*0.0009*	
Thallium	*0.0200*	*0.0195*	*97*
Tin	*0.0200*	*0.0207*	*103*
Titanium	*2.00*	*1.93*	*96*
Zinc	*0.0200*	*0.0190*	*95*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSA 490-544894/18 Instrument ID: ICPMS3

Lab File ID: 018ICSA.d ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**0.0001**	
Copper		**0.0000**	
Selenium		**0.0001**	
Aluminum	*100*	*99.3*	*99*
Antimony		*0.0001*	
B		*0.0063*	
Barium		*0.0008*	
Beryllium		*0.0000*	
Cadmium		*0.0002*	
Calcium	*100*	*97.7*	*98*
Chromium		*0.0003*	
Cobalt		*0.0000*	
Iron	*100*	*89.9*	*90*
Lead		*0.0001*	
Li		*0.0004*	
Magnesium	*100*	*99.1*	*99*
Manganese		*0.0032*	
Molybdenum	*2.00*	*2.02*	*101*
Nickel		*0.0012*	
Potassium	*100*	*96.0*	*96*
Silver		*0.0000*	
Sodium	*100*	*97.3*	*97*
Strontium		*0.0010*	
Thallium		*0.0000*	
Tin		*0.0001*	
Titanium	*2.00*	*1.93*	*96*
Vanadium		*0.0001*	
Zinc		*0.0046*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSAB 490-544894/19 Instrument ID: ICPMS3

Lab File ID: 019ICSB.d ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**0.0200**	**0.0205**	**102**
Copper	**0.0200**	**0.0193**	**96**
Selenium	**0.0200**	**0.0192**	**96**
Aluminum	*100*	*99.5*	*100*
Antimony	*0.0200*	*0.0215*	*107*
B		*0.0042*	
Barium	*0.0200*	*0.0211*	*106*
Beryllium	*0.0200*	*0.0190*	*95*
Cadmium	*0.0200*	*0.0204*	*102*
Calcium	*100*	*97.5*	*97*
Chromium	*0.0200*	*0.0201*	*100*
Cobalt	*0.0200*	*0.0198*	*99*
Iron	*100*	*90.2*	*90*
Lead	*0.0200*	*0.0200*	*100*
Li		*0.0004*	
Magnesium	*100*	*98.3*	*98*
Manganese	*0.0200*	*0.0203*	*101*
Molybdenum	*2.00*	*1.98*	*99*
Nickel	*0.0200*	*0.0204*	*102*
Potassium	*100*	*94.3*	*94*
Silver	*0.0200*	*0.0191*	*95*
Sodium	*100*	*96.3*	*96*
Strontium		*0.0010*	
Thallium	*0.0200*	*0.0197*	*98*
Tin	*0.0200*	*0.0203*	*101*
Titanium	*2.00*	*1.91*	*96*
Vanadium	*0.0200*	*0.0200*	*100*
Zinc	*0.0200*	*0.0200*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSA 490-544082/16 Instrument ID: ICPMS4

Lab File ID: 016ICSA.d ICS Source: MET_ICSA_00093

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**0.0001**	
Boron		**0.0057**	
Copper		**0.0001**	
Selenium		**0.0000**	
Aluminum	*100*	*95.0*	*95*
Antimony		*0.0001*	
Barium		*0.0002*	
Beryllium		*0.0000*	
Cadmium		*0.0002*	
Calcium	*100*	*97.9*	*98*
Chromium		*0.0002*	
Cobalt		*0.0000*	
Iron	*100*	*93.3*	*93*
Lead		*0.0001*	
Li		*0.0006*	
Magnesium	*100*	*99.5*	*100*
Manganese		*0.0001*	
Molybdenum	*2.00*	*1.99*	*99*
Nickel		*0.0003*	
Potassium	*100*	*97.0*	*97*
Silver		*0.0001*	
Sodium	*100*	*99.8*	*100*
Strontium		*0.0008*	
Thallium		*0.0000*	
Tin		*0.0000*	
Titanium	*2.00*	*1.96*	*98*
Vanadium		*0.0001*	
Zinc		*-0.0014*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Lab Sample ID: ICSAB 490-544082/17 Instrument ID: ICPMS4

Lab File ID: 017ICSB.d ICS Source: MET_ICSAB_00123

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**0.0200**	**0.0206**	**103**
Boron		**0.0009**	
Copper	**0.0200**	**0.0200**	**100**
Selenium	**0.0200**	**0.0193**	**97**
Aluminum	*100*	*92.7*	*93*
Antimony	*0.0200*	*0.0212*	*106*
Barium	*0.0200*	*0.0207*	*103*
Beryllium	*0.0200*	*0.0191*	*96*
Cadmium	*0.0200*	*0.0204*	*102*
Calcium	*100*	*95.7*	*96*
Chromium	*0.0200*	*0.0197*	*98*
Cobalt	*0.0200*	*0.0194*	*97*
Iron	*100*	*92.4*	*92*
Lead	*0.0200*	*0.0199*	*100*
Li		*0.0007*	
Magnesium	*100*	*96.7*	*97*
Manganese	*0.0200*	*0.0188*	*94*
Molybdenum	*2.00*	*1.98*	*99*
Nickel	*0.0200*	*0.0198*	*99*
Potassium	*100*	*92.6*	*93*
Silver	*0.0200*	*0.0214*	*107*
Sodium	*100*	*97.6*	*98*
Strontium		*0.0009*	
Thallium	*0.0200*	*0.0198*	*99*
Tin	*0.0200*	*0.0209*	*105*
Titanium	*2.00*	*1.89*	*95*
Vanadium	*0.0200*	*0.0201*	*101*
Zinc	*0.0200*	*0.0193*	*97*

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: CUF-BS-FB05-20180827 MS

Lab ID: 490-158137-1 MS

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG No.:

Matrix: Water

Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.001046		ND		0.00100	105	75-125		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: CUF-BS-BG01-0.0/0.5-20180827 MS Lab ID: 490-158137-2 MS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 80.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.2577		0.0634	J	0.199	98	80-120		7471B

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: CUF-BS-FB05-20180827 MSD

Lab ID: 490-158137-1 MSD

Lab Name: TestAmerica Nashville

Job No.: 490-158137-1

SDG No.:

Matrix: Water

Concentration Units: mg/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.001053		0.00100	105	75-125	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: CUF-BS-BG01-0.0/0.5-20180827 MSD Lab ID: 490-158137-2 MSD

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 80.8

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.2624		0.202	99	80-120	2	20		7471B

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: CUF-BS-FB05-20180827 PDS Lab ID: 490-158137-1 PDS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Water Concentration Units: mg/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.001305		ND		0.00100	131	80-120	W	7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: CUF-BS-BG01-0.0/0.5-20180827 PDS Lab ID: 490-158137-2 PDS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.2956		0.0634	J	0.202	115	80-120		7471B

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 490-539512/2-A

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

Sample Matrix: Water LCS Source: MET_SPKSTD_00274

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00100	0.001070		107	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 490-541313/2-A

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

Sample Matrix: Solid LCS Source: MET_SPKSTD_00281

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.166	0.1566		94	80	120		7471B

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: 490-158137-1

SDG No:

Lab Name: TestAmerica Nashville Job No: 490-158137-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Mercury	ND		ND		NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 490-158137-2

SDG No:

Lab Name: TestAmerica Nashville Job No: 490-158137-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Mercury	0.0634	J	ND		NC		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Water Instrument ID: LE5

Method: 7470A MDL Date: 10/14/2015 15:29

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury		0.0002	0.0001

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Water Instrument ID: LE5

Method: 7470A XMDL Date: 10/14/2015 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.1

FORM IX - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Solid Instrument ID: LE5

Method: 7471B MDL Date: 01/15/2012 13:32

Prep Method: 7471B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.1	0.03

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Solid Instrument ID: LE5

Method: 7471B XMDL Date: 10/14/2015 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.1

FORM IX - IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Nashville Job No: 490-158137-1

SDG No.:

Instrument ID: LE5 Date: 07/24/2014 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury		5.0	7470A
Mercury		5.0	7471B

FORM XI - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 490-539512/1-A	08/29/2018 14:15	539512		30	30
LCS 490-539512/2-A	08/29/2018 14:15	539512		30	30
490-158137-1	08/29/2018 14:15	539512		30	30
490-158137-1 MS	08/29/2018 14:15	539512		30	30
490-158137-1 MSD	08/29/2018 14:15	539512		30	30
490-158137-8	08/29/2018 14:15	539512		30	30

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 490-541313/1-A	09/07/2018 15:33	541313	0.605		100
LCS 490-541313/2-A	09/07/2018 15:33	541313	0.601		100
490-158137-2	09/07/2018 15:33	541313	0.614		100
490-158137-2 MS	09/07/2018 15:33	541313	0.623		100
490-158137-2 MSD	09/07/2018 15:33	541313	0.613		100
490-158137-3	09/07/2018 15:33	541313	0.625		100
490-158137-4	09/07/2018 15:33	541313	0.622		100
490-158137-5	09/07/2018 15:33	541313	0.596		100
490-158137-6	09/07/2018 15:33	541313	0.615		100
490-158137-7	09/07/2018 15:33	541313	0.612		100

FORM XII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: LE5 Analysis Method: 7470A

Start Date: 08/31/2018 13:11 End Date: 08/31/2018 23:10

Lab Sample Id	D/F	Type	Time	Analytes																							
				Hg																							
ZZZZZZ			13:11																								
ZZZZZZ			13:14																								
ZZZZZZ			13:16																								
ZZZZZZ			13:19																								
ZZZZZZ			13:22																								
ZZZZZZ			13:24																								
ZZZZZZ			13:27																								
ICV 490-540387/8	1		13:30	X																							
ICB 490-540387/9	1		13:32	X																							
CRA 490-540387/10	1		13:35	X																							
CCV 490-540387/11			15:28																								
CCB 490-540387/12			15:30																								
ZZZZZZ			15:33																								
ZZZZZZ			15:35																								
ZZZZZZ			15:38																								
ZZZZZZ			15:41																								
ZZZZZZ			15:43																								
ZZZZZZ			15:46																								
ZZZZZZ			15:48																								
ZZZZZZ			15:51																								
ZZZZZZ			15:53																								
ZZZZZZ			15:56																								
CCV 490-540387/23			15:59																								
CCB 490-540387/24			16:01																								
ZZZZZZ			16:04																								
ZZZZZZ			16:06																								
ZZZZZZ			16:09																								
ZZZZZZ			16:12																								
ZZZZZZ			16:14																								
ZZZZZZ			16:17																								
ZZZZZZ			16:19																								
ZZZZZZ			16:22																								
ZZZZZZ			16:24																								
ZZZZZZ			16:27																								
CCV 490-540387/35			16:30																								
CCB 490-540387/36			16:32																								
ZZZZZZ			16:35																								
ZZZZZZ			16:37																								
ZZZZZZ			16:40																								
ZZZZZZ			16:43																								
ZZZZZZ			16:45																								
ZZZZZZ			16:48																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: LE5 Analysis Method: 7470A

Start Date: 08/31/2018 13:11 End Date: 08/31/2018 23:10

Lab Sample Id	D/F	Type	Time	Analytes																							
				Hg																							
CCV 490-540387/43			17:34																								
CCB 490-540387/44			17:36																								
ZZZZZZ			17:39																								
ZZZZZZ			17:42																								
ZZZZZZ			17:44																								
ZZZZZZ			17:47																								
ZZZZZZ			17:49																								
ZZZZZZ			17:52																								
ZZZZZZ			17:54																								
ZZZZZZ			17:57																								
ZZZZZZ			18:00																								
ZZZZZZ			18:02																								
CCV 490-540387/55			18:05																								
CCB 490-540387/56			18:07																								
ZZZZZZ			18:10																								
ZZZZZZ			18:13																								
ZZZZZZ			18:15																								
ZZZZZZ			18:18																								
ZZZZZZ			18:20																								
ZZZZZZ			18:23																								
ZZZZZZ			18:25																								
ZZZZZZ			18:28																								
ZZZZZZ			18:31																								
ZZZZZZ			18:33																								
CCV 490-540387/67			18:36																								
CCB 490-540387/68			18:38																								
ZZZZZZ			18:41																								
ZZZZZZ			18:44																								
ZZZZZZ			18:46																								
ZZZZZZ			18:49																								
ZZZZZZ			18:51																								
ZZZZZZ			18:54																								
ZZZZZZ			18:57																								
ZZZZZZ			18:59																								
ZZZZZZ			19:02																								
ZZZZZZ			19:04																								
CCV 490-540387/79			19:07																								
CCB 490-540387/80			19:09																								
ZZZZZZ			19:12																								
ZZZZZZ			19:15																								
ZZZZZZ			19:17																								
ZZZZZZ			19:20																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: LE5 Analysis Method: 7470A

Start Date: 08/31/2018 13:11 End Date: 08/31/2018 23:10

Lab Sample Id	D/F	Type	Time	Analytes																							
				Hg																							
ZZZZZZ			19:22																								
ZZZZZZ			19:25																								
ZZZZZZ			19:28																								
ZZZZZZ			19:30																								
ZZZZZZ			19:33																								
ZZZZZZ			19:35																								
CCV 490-540387/91			19:38																								
CCB 490-540387/92			19:40																								
ZZZZZZ			19:43																								
ZZZZZZ			19:46																								
ZZZZZZ			19:48																								
ZZZZZZ			19:51																								
ZZZZZZ			19:53																								
ZZZZZZ			19:56																								
ZZZZZZ			19:59																								
ZZZZZZ			20:01																								
ZZZZZZ			20:04																								
ZZZZZZ			20:06																								
CCV 490-540387/103			20:09																								
CCB 490-540387/104			20:12																								
ZZZZZZ			20:14																								
ZZZZZZ			20:17																								
ZZZZZZ			20:19																								
ZZZZZZ			20:22																								
ZZZZZZ			20:24																								
ZZZZZZ			20:27																								
ZZZZZZ			20:30																								
ZZZZZZ			20:32																								
ZZZZZZ			20:35																								
ZZZZZZ			20:37																								
CCV 490-540387/115	1		20:40	X																							
CCB 490-540387/116	1		20:43	X																							
ZZZZZZ			20:45																								
ZZZZZZ			20:48																								
ZZZZZZ			20:50																								
ZZZZZZ			20:53																								
ZZZZZZ			20:56																								
MB 490-539512/1-A	1	T	20:58	X																							
LCS 490-539512/2-A	1	T	21:01	X																							
490-158137-1	1	T	21:03	X																							
490-158137-1 SD	5	T	21:06	X																							
490-158137-1 PDS	1	T	21:08	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: LE5 Analysis Method: 7470A

Start Date: 08/31/2018 13:11 End Date: 08/31/2018 23:10

Lab Sample Id	D/F	Type	Time	Analytes																							
				Hg																							
CCV 490-540387/127	1		21:11	X																							
CCB 490-540387/128	1		21:14	X																							
490-158137-1 MS	1	T	21:16	X																							
490-158137-1 MSD	1	T	21:19	X																							
490-158137-8	1	T	21:21	X																							
ZZZZZZ			21:24																								
ZZZZZZ			21:27																								
ZZZZZZ			21:29																								
ZZZZZZ			21:32																								
ZZZZZZ			21:34																								
ZZZZZZ			21:37																								
ZZZZZZ			21:40																								
CCV 490-540387/139	1		21:42	X																							
CCB 490-540387/140	1		21:45	X																							
ZZZZZZ			21:47																								
ZZZZZZ			21:50																								
ZZZZZZ			21:52																								
ZZZZZZ			21:55																								
ZZZZZZ			21:58																								
ZZZZZZ			22:00																								
ZZZZZZ			22:03																								
ZZZZZZ			22:05																								
ZZZZZZ			22:08																								
ZZZZZZ			22:11																								
CCV 490-540387/151			22:13																								
CCB 490-540387/152			22:16																								
ZZZZZZ			22:18																								
ZZZZZZ			22:21																								
ZZZZZZ			22:24																								
ZZZZZZ			22:26																								
ZZZZZZ			22:29																								
ZZZZZZ			22:31																								
ZZZZZZ			22:34																								
ZZZZZZ			22:37																								
ZZZZZZ			22:39																								
ZZZZZZ			22:42																								
CCV 490-540387/163			22:44																								
CCB 490-540387/164			22:47																								
ZZZZZZ			22:50																								
ZZZZZZ			22:52																								
ZZZZZZ			22:55																								
ZZZZZZ			22:57																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: LE5 Analysis Method: 7470A

Start Date: 08/31/2018 13:11 End Date: 08/31/2018 23:10

Lab Sample Id	D/F	Type	Time	Analytes																							
				Hg																							
ZZZZZZ			23:00																								
ZZZZZZ			23:02																								
ZZZZZZ			23:05																								
CCV 490-540387/172			23:08																								
CCB 490-540387/173			23:10																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: LE5 Analysis Method: 7471B

Start Date: 09/08/2018 14:29 End Date: 09/08/2018 17:31

Lab Sample Id	D/F	Type	Time	Analytes																							
				Hg																							
ZZZZZZ			14:29																								
ZZZZZZ			14:32																								
ZZZZZZ			14:34																								
ZZZZZZ			14:37																								
ZZZZZZ			14:40																								
ZZZZZZ			14:43																								
ZZZZZZ			14:46																								
ICV 490-541520/8	1		14:48	X																							
ICB 490-541520/9	1		14:51	X																							
CRA 490-541520/10	1		14:54	X																							
CCV 490-541520/11	1		14:57	X																							
CCB 490-541520/12	1		14:59	X																							
MB 490-541313/1-A	1	T	15:02	X																							
LCS 490-541313/2-A	1	T	15:05	X																							
490-158137-2	1	T	15:08	X																							
490-158137-2 SD	5	T	15:10	X																							
490-158137-2 PDS	1	T	15:13	X																							
490-158137-2 MS	1	T	15:16	X																							
490-158137-2 MSD	1	T	15:18	X																							
490-158137-3	1	T	15:21	X																							
490-158137-4	1	T	15:24	X																							
490-158137-5	1	T	15:27	X																							
CCV 490-541520/23	1		15:29	X																							
CCB 490-541520/24	1		15:32	X																							
490-158137-6	1	T	15:35	X																							
490-158137-7	1	T	15:38	X																							
ZZZZZZ			15:41																								
ZZZZZZ			15:43																								
ZZZZZZ			15:46																								
ZZZZZZ			15:49																								
ZZZZZZ			15:51																								
ZZZZZZ			15:54																								
ZZZZZZ			15:57																								
ZZZZZZ			16:00																								
CCV 490-541520/35	1		16:02	X																							
CCB 490-541520/36	1		16:05	X																							
ZZZZZZ			16:08																								
ZZZZZZ			16:11																								
ZZZZZZ			16:13																								
ZZZZZZ			16:16																								
ZZZZZZ			16:19																								
ZZZZZZ			16:22																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: LE5 Analysis Method: 7471B

Start Date: 09/08/2018 14:29 End Date: 09/08/2018 17:31

Lab Sample Id	D/F	Type	Time	Analytes																							
				Hg																							
ZZZZZZ			16:25																								
ZZZZZZ			16:27																								
ZZZZZZ			16:30																								
ZZZZZZ			16:33																								
CCV 490-541520/47			16:35																								
CCB 490-541520/48			16:38																								
ZZZZZZ			16:41																								
ZZZZZZ			16:44																								
ZZZZZZ			16:46																								
ZZZZZZ			16:49																								
ZZZZZZ			16:52																								
ZZZZZZ			16:55																								
ZZZZZZ			16:58																								
ZZZZZZ			17:00																								
ZZZZZZ			17:03																								
ZZZZZZ			17:06																								
CCV 490-541520/59			17:09																								
CCB 490-541520/60			17:11																								
ZZZZZZ			17:14																								
ZZZZZZ			17:17																								
ZZZZZZ			17:20																								
ZZZZZZ			17:22																								
ZZZZZZ			17:25																								
CCV 490-541520/66			17:28																								
CCB 490-541520/67			17:31																								

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/11/2018 End Date: 09/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-542160/16	15:05	94		96		89		85			
ICB 490-542160/17	15:08	109		112		98		97		115	
ICSA 490-542160/18	15:11	102		104		97		97		133	
ICSAB 490-542160/19	15:14	101		103		98		98		146	
CCV 490-542160/23	15:26	103		108		97		94			
CCB 490-542160/24	15:30	106		104		98		97		110	
CCV 490-542160/39	16:22	108		113		104		104			
CCB 490-542160/40	16:25	113		118		104		99		120	
MB 490-541010/1-A	16:29	92		93		87		87			
LCS 490-541010/2-A	16:32	89		94		87		90			
490-158137-8	16:51	92		93		86		84			
490-158137-1	16:55	92		94		84		86			
CCV 490-542160/51	17:01	109		117		102		104			
CCB 490-542160/52	17:04	112		113		102		100		113	
CCV 490-542160/69	17:57	110		115		104		103			
CCB 490-542160/70	18:00	113		115		105		105		119	
MB 490-539211/1-A	18:09	102		103		92		94		119	
LCS 490-539211/2-A	18:12	96		102		93		91			
490-158137-2	18:15	115		119		107		106			
490-158137-2 SD	18:18	111		114		103		104		125	
490-158137-2 PDS	18:21	106		115		102		104			
490-158137-2 MS	18:25	107		113		103		102			
490-158137-2 MSD	18:28	103		113		100		99		126	
490-158137-3	18:31	102		124		117		118		121	
CCV 490-542160/81	18:34	105		114		101		99			
CCB 490-542160/82	18:37	110		115		100		97		116	
490-158137-4	18:40	109		134		124		125		127	
490-158137-5	18:43	108		140		129		129		125	
490-158137-6	18:46	109		131		120		120			
490-158137-7	18:49	107		135		124		125		125	
CCV 490-542160/93	19:11	107		112		102		102			
CCB 490-542160/94	19:14	110		111		100		97		115	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/11/2018 End Date: 09/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-542160/16	15:05	86		89		88		86			
ICB 490-542160/17	15:08	98		99		98		99			
ICSA 490-542160/18	15:11	94		97		97		91			
ICSAB 490-542160/19	15:14	95		98		99		92			
CCV 490-542160/23	15:26	95		97		97		93			
CCB 490-542160/24	15:30	97		99		99		99			
CCV 490-542160/39	16:22	105		104		104		100			
CCB 490-542160/40	16:25	101		101		100		101			
MB 490-541010/1-A	16:29	88		90		90		90			
LCS 490-541010/2-A	16:32	89		92		92		89			
490-158137-8	16:51	84		88		89		89			
490-158137-1	16:55	85		89		88		88			
CCV 490-542160/51	17:01	101		104		103		99			
CCB 490-542160/52	17:04	101		100		100		102			
CCV 490-542160/69	17:57	103		105		105		101			
CCB 490-542160/70	18:00	104		103		103		103			
MB 490-539211/1-A	18:09	95		96		96		95			
LCS 490-539211/2-A	18:12	93		95		95		91			
490-158137-2	18:15	101		104		104		101			
490-158137-2 SD	18:18	101		104		103		102			
490-158137-2 PDS	18:21	98		102		101		97			
490-158137-2 MS	18:25	97		101		100		97			
490-158137-2 MSD	18:28	95		100		99		97			
490-158137-3	18:31	98		100		100		97			
CCV 490-542160/81	18:34	99		101		101		98			
CCB 490-542160/82	18:37	101		102		101		101			
490-158137-4	18:40	101		103		103		101			
490-158137-5	18:43	100		104		103		100			
490-158137-6	18:46	102		107		105		101			
490-158137-7	18:49	99		103		103		98			
CCV 490-542160/93	19:11	101		103		102		98			
CCB 490-542160/94	19:14	97		97		97		98			

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/11/2018 End Date: 09/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element Ge/3	Q	Element Y-89/2	Q	Element Y-89/3	Q	Element Rh-103	Q
ICV 490-542160/16	15:05			94		90		86		86	
ICB 490-542160/17	15:08	98		95		98		99		98	
ICSA 490-542160/18	15:11	101		80		97		97		91	
ICSAB 490-542160/19	15:14	110		86		97		100		92	
CCV 490-542160/23	15:26			92		98		96		94	
CCB 490-542160/24	15:30	101		95		99		99		99	
CCV 490-542160/39	16:22			122		104		105		103	
CCB 490-542160/40	16:25	96		87		104		101		101	
MB 490-541010/1-A	16:29	103		112		88		87		89	
LCS 490-541010/2-A	16:32			114		90		90		89	
490-158137-8	16:51	108		104		87		85		87	
490-158137-1	16:55	96		96		86		85		87	
CCV 490-542160/51	17:01			106		102		103		101	
CCB 490-542160/52	17:04	93		88		102		100		102	
CCV 490-542160/69	17:57			121		105		105		103	
CCB 490-542160/70	18:00	102		100		103		103		104	
MB 490-539211/1-A	18:09	97		96		92		95		95	
LCS 490-539211/2-A	18:12			83		94		94		92	
490-158137-2	18:15	97								100	
490-158137-2 SD	18:18	109		108		112		111		102	
490-158137-2 PDS	18:21									97	
490-158137-2 MS	18:25	108								96	
490-158137-2 MSD	18:28	104								96	
490-158137-3	18:31	113				123		121		97	
CCV 490-542160/81	18:34			105		103		100		100	
CCB 490-542160/82	18:37	103		104		101		101		100	
490-158137-4	18:40	102						129		101	
490-158137-5	18:43	107								101	
490-158137-6	18:46	104								101	
490-158137-7	18:49	105								98	
CCV 490-542160/93	19:11			97		103		101		101	
CCB 490-542160/94	19:14	95		83		101		98		98	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-542742/20	04:56	89		93		92		88			
ICB 490-542742/21	04:59	98		99		98		94		99	
ICSA 490-542742/23	05:05	91		93		96		95		119	
ICSAB 490-542742/24	05:08	86		88		95		95		127	
CCV 490-542742/28	05:20	97		98		99		99			
CCB 490-542742/29	05:23	99		97		97		98		101	
CCV 490-542742/52	06:35	101		101		103		103			
CCB 490-542742/53	06:38	95		92		101		99		94	
MB 490-541010/1-A	07:00	103		104		104		104		108	
LCS 490-541010/2-A	07:03	89		91		91		90			
CCV 490-542742/64	07:12	104		108		106		104			
CCB 490-542742/65	07:15	103		101		101		101		100	
490-158137-8	07:28	87		91		89		88		124	
490-158137-1	07:31	89		90		90		91		125	
CCV 490-542742/76	07:49	104		106		104		100			
CCB 490-542742/77	07:52	104		101		101		100		103	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-542742/20	04:56	88		92		93		89			
ICB 490-542742/21	04:59	96		98		98		99			
ICSA 490-542742/23	05:05	91		96		97		92			
ICSAB 490-542742/24	05:08	92		97		98		92			
CCV 490-542742/28	05:20	100		102		103		99			
CCB 490-542742/29	05:23	99		100		101		100			
CCV 490-542742/52	06:35	102		105		106		101			
CCB 490-542742/53	06:38	101		102		103		102			
MB 490-541010/1-A	07:00	103		104		105		104			
LCS 490-541010/2-A	07:03	89		93		93		89			
CCV 490-542742/64	07:12	102		105		105		101			
CCB 490-542742/65	07:15	102		103		103		102			
490-158137-8	07:28	90		94		94		94			
490-158137-1	07:31	90		95		95		94			
CCV 490-542742/76	07:49	100		103		104		100			
CCB 490-542742/77	07:52	102		104		103		104			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element Ge/3	Q	Element Y-89/2	Q	Element Y-89/3	Q	Element Rh-103	Q
ICV 490-542742/20	04:56			124		92		89		90	
ICB 490-542742/21	04:59	93		96		99		97		98	
ICSA 490-542742/23	05:05	96		98		97		95		90	
ICSAB 490-542742/24	05:08	107		113		96		96		90	
CCV 490-542742/28	05:20			114		100		102		100	
CCB 490-542742/29	05:23	101		107		99		97		100	
CCV 490-542742/52	06:35			130		104		104		103	
CCB 490-542742/53	06:38	95		106		101		101		101	
MB 490-541010/1-A	07:00	103		111		105		103		104	
LCS 490-541010/2-A	07:03			112		93		91		91	
CCV 490-542742/64	07:12			117		106		103		102	
CCB 490-542742/65	07:15	98		107		102		102		102	
490-158137-8	07:28	112		127		92		91		93	
490-158137-1	07:31	113		121		92		92		94	
CCV 490-542742/76	07:49			105		105		102		101	
CCB 490-542742/77	07:52	96		117		102		103		102	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-543144/16	12:20	81		91		92		94			
ICB 490-543144/17	12:23	99		99		100		101		99	
ICSA 490-543144/18	12:27	87		93		96		101		117	
ICSAB 490-543144/19	12:30	90		94		99		102		132	
CCV 490-543144/23	12:42	95		100		102		105			
CCB 490-543144/24	12:45	98		101		102		104		103	
CCV 490-543144/125	17:59	113		104		115		114			
CCB 490-543144/126	18:03	117		105		112		116		113	
MB 490-539211/1-A	18:15	113		103		106		111		110	
LCS 490-539211/2-A	18:18	98		90		94		96			
490-158137-2	18:21	112		103		102		111		119	
490-158137-2 PDS	18:27	106		99		106		109			
490-158137-2 MS	18:30	108		101		105		108		126	
490-158137-2 MSD	18:34	106		101		106		108		123	
CCV 490-543144/137	18:37	106		101		107		110			
CCB 490-543144/138	18:40	110		99		104		108		103	
490-158137-3	18:43	105		114		120		120		118	
490-158137-4	18:46	105		118		124		131		117	
490-158137-5	18:49	100		119		131		134		114	
490-158137-6	18:52	109		117		122		127			
490-158137-7	18:55	105		122		130		134		119	
CCV 490-543144/149	19:14	106		104		108		110			
CCB 490-543144/150	19:17	110		101		106		111		109	
CCV 490-543144/209	22:20	109		102		107		112			
CCB 490-543144/210	22:23	109		102		106		106		106	
LLCS 490-542059/23-A	22:36	110		105		110		112		114	
CCV 490-543144/221	22:58	109		104		108		114			
CCB 490-543144/222	23:01	113		103		105		109		108	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-543144/16	12:20	92		95		94		91			
ICB 490-543144/17	12:23	98		98		99		99			
ICSA 490-543144/18	12:27	92		97		98		92			
ICSAB 490-543144/19	12:30	94		98		98		93			
CCV 490-543144/23	12:42	100		102		102		99			
CCB 490-543144/24	12:45	102		102		102		102			
CCV 490-543144/125	17:59	112		109		109		104			
CCB 490-543144/126	18:03	114		110		110		108			
MB 490-539211/1-A	18:15	110		108		108		108			
LCS 490-539211/2-A	18:18	95		97		97		92			
490-158137-2	18:21	105		108		108		106			
490-158137-2 PDS	18:27	101		105		106		100			
490-158137-2 MS	18:30	103		105		105		103			
490-158137-2 MSD	18:34	103		105		105		103			
CCV 490-543144/137	18:37	109		110		110		105			
CCB 490-543144/138	18:40	109		108		108		105			
490-158137-3	18:43	102		103		103		100			
490-158137-4	18:46	107		108		109		105			
490-158137-5	18:49	108		110		110		106			
490-158137-6	18:52	111		114		113		108			
490-158137-7	18:55	106		110		109		104			
CCV 490-543144/149	19:14	109		111		110		106			
CCB 490-543144/150	19:17	109		108		108		107			
CCV 490-543144/209	22:20	110		110		110		106			
CCB 490-543144/210	22:23	106		106		105		105			
LLCS 490-542059/23-A	22:36	111		110		111		109			
CCV 490-543144/221	22:58	110		111		111		107			
CCB 490-543144/222	23:01	108		108		108		108			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/14/2018 End Date: 09/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element Ge/3	Q	Element Y-89/2	Q	Element Y-89/3	Q	Element Rh-103	Q
ICV 490-543144/16	12:20			112		93		93		92	
ICB 490-543144/17	12:23	100		93		99		98		98	
ICSA 490-543144/18	12:27	95		99		95		97		91	
ICSAB 490-543144/19	12:30	110		97		98		99		92	
CCV 490-543144/23	12:42			115		102		103		100	
CCB 490-543144/24	12:45	103		107		102		104		102	
CCV 490-543144/125	17:59			112		113		114		106	
CCB 490-543144/126	18:03	107		108		112		115		109	
MB 490-539211/1-A	18:15	110		103		108		110		106	
LCS 490-539211/2-A	18:18			101		95		97		93	
490-158137-2	18:21	104								103	
490-158137-2 PDS	18:27									100	
490-158137-2 MS	18:30	130								101	
490-158137-2 MSD	18:34	130								100	
CCV 490-543144/137	18:37			114		107		110		106	
CCB 490-543144/138	18:40	113		104		105		108		106	
490-158137-3	18:43	105				125		124		98	
490-158137-4	18:46	125								104	
490-158137-5	18:49	112								104	
490-158137-6	18:52	115								106	
490-158137-7	18:55	119								102	
CCV 490-543144/149	19:14			126		109		111		106	
CCB 490-543144/150	19:17	108		112		107		110		107	
CCV 490-543144/209	22:20					108		112		107	
CCB 490-543144/210	22:23	114		94		106		107		105	
LLCS 490-542059/23-A	22:36	115		122		109		112		108	
CCV 490-543144/221	22:58			122		109		111		108	
CCB 490-543144/222	23:01	112		108		106		108		106	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/22/2018 End Date: 09/22/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-544894/16	16:41	86		85		88		89			
ICB 490-544894/17	16:44	104		104		102		104		106	
ICSA 490-544894/18	16:47	98		97		98		97		110	
ICSAB 490-544894/19	16:50	97		96		98		97		118	
CCV 490-544894/23	17:03	101		100		100		103			
CCB 490-544894/24	17:06	104		102		101		102		101	
490-158137-6	17:31	99		105		101		110		125	
CCV 490-544894/35	17:40	101		100		101		103			
CCB 490-544894/36	17:43	103		99		101		102		101	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/22/2018 End Date: 09/22/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q
ICV 490-544894/16	16:41	88		90		90		86			
ICB 490-544894/17	16:44	103		104		104		103			
ICSA 490-544894/18	16:47	93		100		100		94			
ICSAB 490-544894/19	16:50	95		99		100		95			
CCV 490-544894/23	17:03	101		103		103		100			
CCB 490-544894/24	17:06	101		102		103		101			
490-158137-6	17:31	95		103		101		99			
CCV 490-544894/35	17:40	101		103		104		101			
CCB 490-544894/36	17:43	102		102		102		101			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS3 Start Date: 09/22/2018 End Date: 09/22/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element Ge/3	Q	Element Y-89/2	Q	Element Y-89/3	Q	Element Rh-103	Q
ICV 490-544894/16	16:41			107		88		88		89	
ICB 490-544894/17	16:44	106		123		105		101		104	
ICSA 490-544894/18	16:47	99		130		100		95		93	
ICSAB 490-544894/19	16:50	113		119		100		95		93	
CCV 490-544894/23	17:03					102		100		101	
CCB 490-544894/24	17:06	107		126		104		100		102	
490-158137-6	17:31	106								96	
CCV 490-544894/35	17:40			124		103		100		102	
CCB 490-544894/36	17:43	107		104		103		101		102	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS4 Start Date: 09/19/2018 End Date: 09/19/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
ICV 490-544082/14	10:36	94		94		98		97			
ICB 490-544082/15	10:39	103		102		104		104			
ICSA 490-544082/16	10:42	96		96		98		96			
ICSAB 490-544082/17	10:45	97		97		99		98			
CCV 490-544082/22	11:01	96		97		99		96		126	
CCB 490-544082/23	11:04	96		97		99		99			
MB 490-539211/1-A	11:32	85		86		90		91			
LCS 490-539211/2-A	11:35	85		86		89		84			
CCV 490-544082/34	11:38	97		99		100		102			
CCB 490-544082/35	11:41	100		101		96		100			
490-158137-2	11:44	95		98		101		102			
490-158137-2 SD	11:47	97		97		97		100			
490-158137-2 PDS	11:50	95		99		101		100			
490-158137-2 MS	11:53	94		97		100		101			
490-158137-2 MSD	11:57	93		97		100		101			
490-158137-3	12:00	90		105		108		108			
490-158137-4	12:03	93		110		111		112			
490-158137-5	12:06	93		110		114		113			
490-158137-6	12:09	93		104		107		106			
490-158137-7	12:12	92		109		111		113			
CCV 490-544082/46	12:15	86		89		97		96		121	
CCB 490-544082/47	12:18	95		96		98		97			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS4 Start Date: 09/19/2018 End Date: 09/19/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh-103	Q	Element In	Q	Element Tb	Q	Element Ho	Q	Element Bi	Q
ICV 490-544082/14	10:36	98		96		99		100		98	
ICB 490-544082/15	10:39	103		103		103		103		103	
ICSA 490-544082/16	10:42	94		94		98		99		96	
ICSAB 490-544082/17	10:45	93		93		97		99		95	
CCV 490-544082/22	11:01	98		96		99		99		98	
CCB 490-544082/23	11:04	100		100		100		100		100	
MB 490-539211/1-A	11:32	91		90		90		90		92	
LCS 490-539211/2-A	11:35	86		84		87		87		86	
CCV 490-544082/34	11:38	102		101		101		102		100	
CCB 490-544082/35	11:41	102		101		102		102		101	
490-158137-2	11:44	99		97		99		99		98	
490-158137-2 SD	11:47	101		100		100		101		102	
490-158137-2 PDS	11:50	98		96		98		98		96	
490-158137-2 MS	11:53	98		97		99		98		97	
490-158137-2 MSD	11:57	97		95		98		98		98	
490-158137-3	12:00	95		94		96		96		95	
490-158137-4	12:03	97		96		97		96		96	
490-158137-5	12:06	95		93		96		96		95	
490-158137-6	12:09	97		95		99		98		97	
490-158137-7	12:12	94		92		97		97		94	
CCV 490-544082/46	12:15	98		95		97		97		95	
CCB 490-544082/47	12:18	98		96		96		95		94	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

ICP-MS Instrument ID: ICPMS4 Start Date: 09/19/2018 End Date: 09/19/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element	Q	Element	Q	Element Ge/3	Q	Element Y-89/2	Q	Element Y-89/3	Q
ICV 490-544082/14	10:36					100		99		97	
ICB 490-544082/15	10:39	104		103		112		104		102	
ICSA 490-544082/16	10:42	104		97		94		98		96	
ICSAB 490-544082/17	10:45	111		111		92		101		94	
CCV 490-544082/22	11:01					100		101		97	
CCB 490-544082/23	11:04	97		103		91		101		99	
MB 490-539211/1-A	11:32	94		86		92		90		90	
LCS 490-539211/2-A	11:35	121		126		89		90		85	
CCV 490-544082/34	11:38					119		101		101	
CCB 490-544082/35	11:41	102		100		98		98		101	
490-158137-2	11:44	106		107				128		126	
490-158137-2 SD	11:47	104		105		112		105		107	
490-158137-2 PDS	11:50							129		126	
490-158137-2 MS	11:53	111		114				128		128	
490-158137-2 MSD	11:57	109		114				130		125	
490-158137-3	12:00	102		103				113		110	
490-158137-4	12:03	109		105				121		116	
490-158137-5	12:06	105		105				125		119	
490-158137-6	12:09	117		118							
490-158137-7	12:12	105		109				128		125	
CCV 490-544082/46	12:15					94		100		96	
CCB 490-544082/47	12:18	99		106		86		99		96	

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METALS BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 539512 Batch Start Date: 08/29/18 14:14 Batch Analyst: Lee, Cameron S

Batch Method: 7470A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	MET_H2SO4 00043	MET_Hg_Hydrox 00090	MET_Hg_KMnO4 00058
MB 490-539512/1		7470A, 7470A		<2 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL
LCS 490-539512/2		7470A, 7470A		<2 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL
490-158137-A-1	CUF-BS-FB05-2018 0827	7470A, 7470A	T	<2 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL
490-158137-A-1 MS	CUF-BS-FB05-2018 0827	7470A, 7470A	T	<2 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL
490-158137-A-1 MSD	CUF-BS-FB05-2018 0827	7470A, 7470A	T	<2 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL
490-158137-A-8	CUF-BS-EB02-2018 0827	7470A, 7470A	T	<2 SU	30 mL	30 mL	1.5 mL	1.8 mL	4.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MET_Hg_Kpsulf 00044	MET_HNO3 00246	MET_SPKSTD 00274			
MB 490-539512/1		7470A, 7470A		2.4 mL	0.75 mL				
LCS 490-539512/2		7470A, 7470A		2.4 mL	0.75 mL	0.03 mL			
490-158137-A-1	CUF-BS-FB05-2018 0827	7470A, 7470A	T	2.4 mL	0.75 mL				
490-158137-A-1 MS	CUF-BS-FB05-2018 0827	7470A, 7470A	T	2.4 mL	0.75 mL	0.03 mL			
490-158137-A-1 MSD	CUF-BS-FB05-2018 0827	7470A, 7470A	T	2.4 mL	0.75 mL	0.03 mL			
490-158137-A-8	CUF-BS-EB02-2018 0827	7470A, 7470A	T	2.4 mL	0.75 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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 539512 Batch Start Date: 08/29/18 14:14 Batch Analyst: Lee, Cameron S

Batch Method: 7470A Batch End Date:

Batch Notes	
Digestion End Time	08/29/18 1717
Digestion Start Time	08/29/18 1511
Digestion Unit ID	B4/181085297
Sulfuric Acid ID	4433238
Nitric Acid ID	4558389
Hydroxylamine ID	4564162
Potassium Persulfate ID	4546918
Potassium Permanganate ID	4555236
pH Indicator ID	hc849161
Pipette/Syringe/Dispenser ID	4558603/4558579
Thermometer ID	B4/181085297
Digestion Tube/Cup ID	1802043
Temperature - Uncorrected - End	97.0 Degrees C
Temperature - Uncorrected - Start	97.0 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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 541313 Batch Start Date: 09/07/18 15:12 Batch Analyst: Lee, Cameron S

Batch Method: 7471B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MET_AquaRegia 00533	MET_Hg_Hydrox 00091	MET_Hg_KMnO4 00058	MET_SPKSTD 00281
MB 490-541313/1		7471B, 7471B		0.605 g	100 mL	10 mL	6 mL	15 mL	
LCS 490-541313/2		7471B, 7471B		0.601 g	100 mL	10 mL	6 mL	15 mL	0.1 mL
490-158137-B-2	CUF-BS-BG01-0.0/0.5-20180827	7471B, 7471B	T	0.614 g	100 mL	10 mL	6 mL	15 mL	
490-158137-B-2 MS	CUF-BS-BG01-0.0/0.5-20180827	7471B, 7471B	T	0.623 g	100 mL	10 mL	6 mL	15 mL	0.1 mL
490-158137-B-2 MSD	CUF-BS-BG01-0.0/0.5-20180827	7471B, 7471B	T	0.613 g	100 mL	10 mL	6 mL	15 mL	0.1 mL
490-158137-B-3	CUF-BS-BG01-1.0/3.0-20180827	7471B, 7471B	T	0.625 g	100 mL	10 mL	6 mL	15 mL	
490-158137-B-4	CUF-BS-BG01-6.5/8.5-20180827	7471B, 7471B	T	0.622 g	100 mL	10 mL	6 mL	15 mL	
490-158137-B-5	CUF-BS-BG01-11.5/13.5-20180827	7471B, 7471B	T	0.596 g	100 mL	10 mL	6 mL	15 mL	
490-158137-B-6	CUF-BS-BG01-16.5/18.5-20180827	7471B, 7471B	T	0.615 g	100 mL	10 mL	6 mL	15 mL	
490-158137-B-7	CUF-BS-BG01-21.5/23.5-20180827	7471B, 7471B	T	0.612 g	100 mL	10 mL	6 mL	15 mL	

Batch Notes	
Blank Matrix ID	22842018
Digestion End Time	09/07/2018 17:51
Digestion Start Time	09/07/2018 17:21
Digestion Unit ID	B4/181085297
Hydrochloric Acid ID	4506614
Nitric Acid ID	4567814
Hydroxylamine ID	4577149
Potassium Permanganate ID	4570745
Pipette/Syringe/Dispenser ID	4558607/4580893
Thermometer ID	B4/181085297
Digestion Tube/Cup ID	802082
Temperature - Uncorrected - End	98.0 Degrees C
Temperature - Uncorrected - Start	98.0 Degrees C

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 541313 Batch Start Date: 09/07/18 15:12 Batch Analyst: Lee, Cameron S

Batch Method: 7471B Batch End Date:

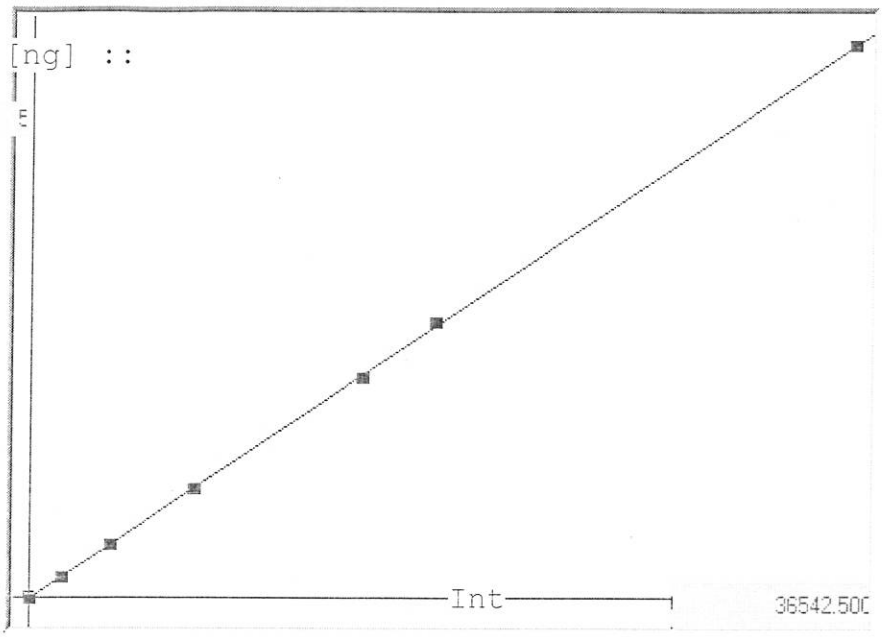
Basis	Basis Description
T	Total/NA

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.

7470/245.1

Linear

Max. Hg [ng] ::



A= 0.0000e+000

B= 1.3697e-004

C= 2.5226e-003

Rho= 0.9999402

Accept=Accepted

Accepted Date=

08/31/18 13:30

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0	0.000	0.002	0.002	-6	2.500	-4	-9			
0.20	0.200	0.202	0.002	1456	0.4 %	1450	1462			
0.50	0.500	0.497	-0.003	3609	0.1 %	3612	3606			
1.0	1.000	1.004	0.004	7314	0.3 %	7295	7333			
2.0	2.000	2.026	0.026	14771	0.6 %	14677	14866			
2.5	2.500	2.462	-0.038	17954	0.4 %	17876	18032			
5.0	5.000	5.008	0.008	36542	0.0 %	36528	36557			

08/31/18_Overnight

Method: 7470/245.1 Operator: Admin Date of Analysis: 30 Aug 2018 13:55:51

Sample ID	Extended ID	Wt.	Vol.	µ Abs.	Conc.	Date
0.0 - 1		1.0000	1.0000	-4	-	31 Aug 2018 13:11:40
0.0 - 2		1.0000	1.0000	-9	-	31 Aug 2018 13:11:40
0.20 - 1		1.0000	1.0000	1450	-	31 Aug 2018 13:14:18
0.20 - 2		1.0000	1.0000	1462	-	31 Aug 2018 13:14:18
0.50 - 1		1.0000	1.0000	3612	-	31 Aug 2018 13:16:57
0.50 - 2		1.0000	1.0000	3606	-	31 Aug 2018 13:16:57
1.0 - 1		1.0000	1.0000	7295	-	31 Aug 2018 13:19:36
1.0 - 2		1.0000	1.0000	7333	-	31 Aug 2018 13:19:36
2.0 - 1		1.0000	1.0000	14677	-	31 Aug 2018 13:22:14
2.0 - 2		1.0000	1.0000	14866	-	31 Aug 2018 13:22:14
2.5 - 1		1.0000	1.0000	17876	-	31 Aug 2018 13:24:51
2.5 - 2		1.0000	1.0000	18032	-	31 Aug 2018 13:24:51
5.0 - 1		1.0000	1.0000	36528	-	31 Aug 2018 13:27:28
5.0 - 2		1.0000	1.0000	36557	-	31 Aug 2018 13:27:28
ICV - 1		1.0000	1.0000	18160	99.6% 2.4899	31 Aug 2018 13:30:05
ICB - 1		1.0000	1.0000	-44	-0.0035	31 Aug 2018 13:32:39
CRA - 1		1.0000	1.0000	1488	103.2% 0.2063	31 Aug 2018 13:35:14
CCV - 1		1.0000	1.0000	13885	95.2% 1.9044	31 Aug 2018 15:28:08
CCB - 1		1.0000	1.0000	-67	-0.0067	31 Aug 2018 15:30:41
MB 490-539241/1-A - 1		1.0000	1.0000	32	0.0069	31 Aug 2018 15:33:17
LCS 490-539241/2-A - 1		1.0000	1.0000	14295	1.9605	31 Aug 2018 15:35:51
LB 490-538996/1-C - 1		1.0000	1.0000	-46	-0.0038	31 Aug 2018 15:38:26
490-157890-A-5-C - 1		1.0000	1.0000	25	0.0059	31 Aug 2018 15:41:00
sd 490-157890-A-5-C@5 - 1		1.0000	1.0000	-6	0.0017	31 Aug 2018 15:43:35
pds 490-157890-A-5-C - 1		1.0000	1.0000	9590	1.3161	31 Aug 2018 15:46:09
490-157890-A-5-D MS - 1		1.0000	1.0000	14393	1.9739	31 Aug 2018 15:48:44
490-157890-A-5-E MSD - 1		1.0000	1.0000	14011	1.9216	31 Aug 2018 15:51:19
490-157890-A-4-E - 1		1.0000	1.0000	-62	-0.0060	31 Aug 2018 15:53:54
490-158070-A-1-F - 1		1.0000	1.0000	115	0.0183	31 Aug 2018 15:56:30
CCV - 1		1.0000	1.0000	14566	99.9% 1.9976	31 Aug 2018 15:59:05
CCB - 1		1.0000	1.0000	-63	-0.0061	31 Aug 2018 16:01:39
490-158100-B-2-C - 1		1.0000	1.0000	106	0.0170	31 Aug 2018 16:04:15
490-158100-B-1-C - 1		1.0000	1.0000	179	0.0270	31 Aug 2018 16:06:51
MB 490-539154/1-C - 1		1.0000	1.0000	69	0.0120	31 Aug 2018 16:09:27
490-158086-I-1-D - 1		1.0000	1.0000	92	0.0151	31 Aug 2018 16:12:02
490-157864-A-4-C - 1		1.0000	1.0000	50	0.0094	31 Aug 2018 16:14:36
490-157864-A-3-C - 1		1.0000	1.0000	532	0.0754	31 Aug 2018 16:17:11
490-157864-A-1-C - 1		1.0000	1.0000	350	0.0505	31 Aug 2018 16:19:45
490-157864-A-2-C - 1		1.0000	1.0000	61	0.0109	31 Aug 2018 16:22:19
490-157987-E-1-D - 1		1.0000	1.0000	306	0.0444	31 Aug 2018 16:24:54
MB 490-538849/1-A - 1		1.0000	1.0000	123	0.0194	31 Aug 2018 16:27:28
CCV - 1		1.0000	1.0000	14207	97.4% 1.9485	31 Aug 2018 16:30:04
CCB - 1		1.0000	1.0000	-60	-0.0057	31 Aug 2018 16:32:38
LCS 490-538849/2-A - 1		1.0000	1.0000	14863	2.0383	31 Aug 2018 16:35:13
LB 490-538505/1-C - 1		1.0000	1.0000	-36	-0.0024	31 Aug 2018 16:37:48
490-157863-A-5-E - 1		1.0000	1.0000	13	0.0043	31 Aug 2018 16:40:24
sd 490-157863-A-5-E@5 - 1		1.0000	1.0000	-3	0.0021	31 Aug 2018 16:43:01
pds 490-157863-A-5-E - 1		1.0000	1.0000	8356	1.1470	31 Aug 2018 16:45:37
490-157863-A-5-F MS - 1		1.0000	1.0000	14912	2.0450	31 Aug 2018 16:48:11
CCV - 1		1.0000	1.0000	13980	95.9% 1.9174	31 Aug 2018 17:34:22
CCB - 1		1.0000	1.0000	-46	-0.0038	31 Aug 2018 17:36:56
LCS 490-538849/2-A - 1		1.0000	1.0000	14137	1.9389	31 Aug 2018 17:39:31
LB 490-538505/1-C - 1		1.0000	1.0000	-34	-0.0021	31 Aug 2018 17:42:06
490-157863-A-5-E - 1		1.0000	1.0000	45	0.0087	31 Aug 2018 17:44:40
490-157863-A-5-F MS - 1		1.0000	1.0000	14771	2.0257	31 Aug 2018 17:47:14
490-157863-A-5-G MSD - 1		1.0000	1.0000	14167	1.9430	31 Aug 2018 17:49:49
490-157863-A-6-C - 1		1.0000	1.0000	-43	-0.0034	31 Aug 2018 17:52:23
sd 490-157863-A-6-C@5 - 1		1.0000	1.0000	14	0.0044	31 Aug 2018 17:54:58
pds 490-157863-A-6-C - 1		1.0000	1.0000	9289	1.2748	31 Aug 2018 17:57:33
490-157863-A-9-C - 1		1.0000	1.0000	-30	-0.0016	31 Aug 2018 18:00:08
490-157863-A-10-C - 1		1.0000	1.0000	14	0.0044	31 Aug 2018 18:02:43
CCV - 1		1.0000	1.0000	14082	96.6% 1.9313	31 Aug 2018 18:05:19
CCB - 1		1.0000	1.0000	-44	-0.0035	31 Aug 2018 18:07:53
490-157894-A-1-D - 1		1.0000	1.0000	29	0.0065	31 Aug 2018 18:10:28
490-157895-A-1-E - 1		1.0000	1.0000	29	0.0065	31 Aug 2018 18:13:04
LB 490-538517/1-C - 1		1.0000	1.0000	28	0.0064	31 Aug 2018 18:15:41
490-157806-A-2-E - 1		1.0000	1.0000	96	0.0157	31 Aug 2018 18:18:15
LB 490-538518/1-C - 1		1.0000	1.0000	45	0.0087	31 Aug 2018 18:20:49
490-157863-A-8-C - 1		1.0000	1.0000	22	0.0055	31 Aug 2018 18:23:24
LB 490-537717/1-D - 1		1.0000	1.0000	1	0.0027	31 Aug 2018 18:25:58
490-157629-A-1-C - 1		1.0000	1.0000	22	0.0055	31 Aug 2018 18:28:33
490-157723-B-6-E - 1		1.0000	1.0000	24	0.0058	31 Aug 2018 18:31:07
490-157728-B-1-G - 1		1.0000	1.0000	-106	-0.0120	31 Aug 2018 18:33:42

08/31/18_Overnight

Method: 7470/245.1 Operator: Admin Date of Analysis: 30 Aug 2018 13:55:51

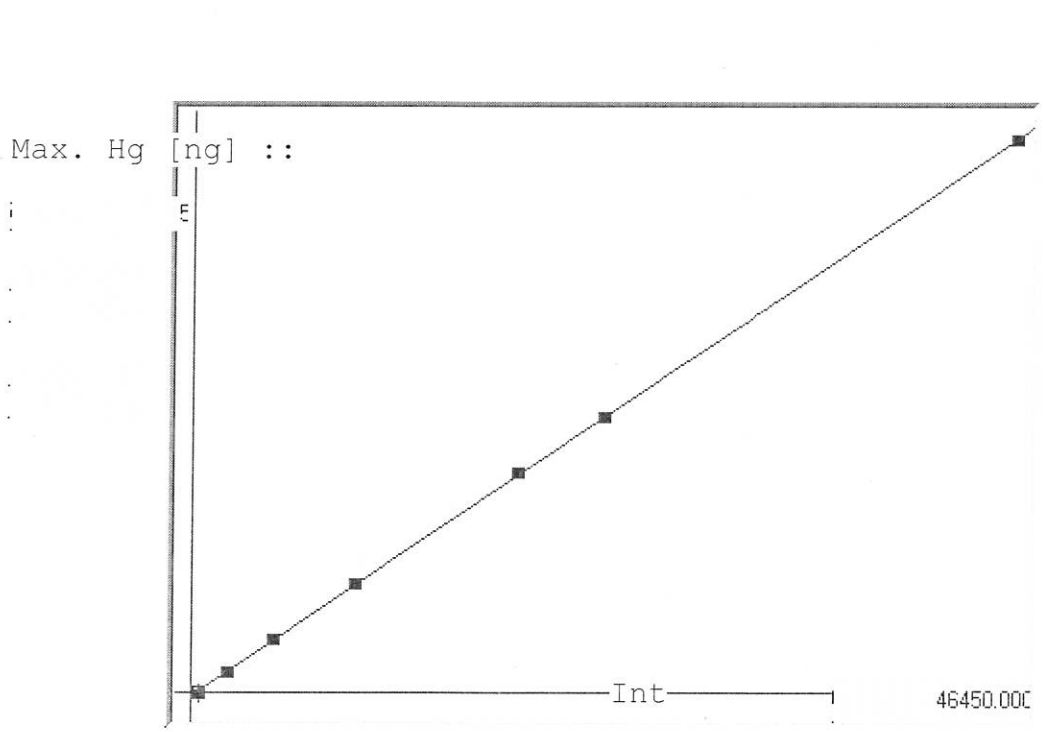
Sample ID	Extended ID	Wt.	Vol.	µ Abs.	Conc.	Date
CCV - 1		1.0000	1.0000	13956	95.7% 1.9141	31 Aug 2018 18:36:18
CCB - 1		1.0000	1.0000	-49	-0.0042	31 Aug 2018 18:38:52
MB 490-538911/1-A - 1		1.0000	1.0000	29	0.0065	31 Aug 2018 18:41:27
LCS 490-538911/2-A - 1		1.0000	1.0000	7115	0.9771	31 Aug 2018 18:44:03
LCSD 490-538911/3-A - 1		1.0000	1.0000	7104	0.9756	31 Aug 2018 18:46:39
240-100003-S-1-B - 1		1.0000	1.0000	-20	-0.0002	31 Aug 2018 18:49:15
sd 240-100003-S-1-B@5 - 1		1.0000	1.0000	-18	0.0001	31 Aug 2018 18:51:51
pds 240-100003-S-1-B - 1		1.0000	1.0000	9127	1.2527	31 Aug 2018 18:54:26
240-100003-S-1-C MS - 1		1.0000	1.0000	7632	1.0479	31 Aug 2018 18:57:00
240-100003-S-1-D MSD - 1		1.0000	1.0000	7758	1.0651	31 Aug 2018 18:59:35
240-100003-G-2-A - 1		1.0000	1.0000	18	0.0050	31 Aug 2018 19:02:10
240-100003-G-3-D - 1		1.0000	1.0000	113	0.0180	31 Aug 2018 19:04:44
CCV - 1		1.0000	1.0000	13925	95.5% 1.9098	31 Aug 2018 19:07:19
CCB - 1		1.0000	1.0000	-75	-0.0078	31 Aug 2018 19:09:53
240-100003-G-4-B - 1		1.0000	1.0000	50	0.0094	31 Aug 2018 19:12:29
240-100003-G-5-B - 1		1.0000	1.0000	70	0.0121	31 Aug 2018 19:15:04
240-100003-G-6-B - 1		1.0000	1.0000	19	0.0051	31 Aug 2018 19:17:39
240-100003-G-7-B - 1		1.0000	1.0000	60	0.0107	31 Aug 2018 19:20:15
240-100003-G-9-B - 1		1.0000	1.0000	72	0.0124	31 Aug 2018 19:22:51
240-100003-G-10-B - 1		1.0000	1.0000	122	0.0192	31 Aug 2018 19:25:27
240-100030-G-2-B - 1		1.0000	1.0000	289	0.0421	31 Aug 2018 19:28:03
490-156436-A-1-B - 1		1.0000	1.0000	103	0.0166	31 Aug 2018 19:30:38
490-157572-D-1-B - 1		1.0000	1.0000	60	0.0107	31 Aug 2018 19:33:13
490-157991-A-1-B - 1		1.0000	1.0000	28	0.0064	31 Aug 2018 19:35:48
CCV - 1		1.0000	1.0000	14851	101.8% 2.0367	31 Aug 2018 19:38:23
CCB - 1		1.0000	1.0000	-9	0.0013	31 Aug 2018 19:40:57
490-157892-A-3-B - 1		1.0000	1.0000	8	0.0036	31 Aug 2018 19:43:32
490-157869-N-1-A - 1		1.0000	1.0000	10265	1.4085	31 Aug 2018 19:46:07
490-157710-A-2-B - 1		1.0000	1.0000	-33	-0.0020	31 Aug 2018 19:48:42
MB 490-539228/1-A - 1		1.0000	1.0000	156	0.0239	31 Aug 2018 19:51:17
LCS 490-539228/2-A - 1		1.0000	1.0000	14727	2.0197	31 Aug 2018 19:53:52
LB 490-538618/1-C - 1		1.0000	1.0000	70	0.0121	31 Aug 2018 19:56:28
490-157863-A-1-C - 1		1.0000	1.0000	62	0.0110	31 Aug 2018 19:59:03
sd 490-157863-A-1-C@5 - 1		1.0000	1.0000	10	0.0039	31 Aug 2018 20:01:40
pds 490-157863-A-1-C - 1		1.0000	1.0000	9672	1.3273	31 Aug 2018 20:04:17
490-157863-A-1-D MS - 1		1.0000	1.0000	14938	2.0486	31 Aug 2018 20:06:51
CCV - 1		1.0000	1.0000	14585	100.0% 2.0002	31 Aug 2018 20:09:26
CCB - 1		1.0000	1.0000	-49	-0.0042	31 Aug 2018 20:12:00
490-157863-A-1-E MSD - 1		1.0000	1.0000	14658	2.0102	31 Aug 2018 20:14:36
490-157946-A-1-E - 1		1.0000	1.0000	-12	0.0009	31 Aug 2018 20:17:11
490-157966-A-1-E - 1		1.0000	1.0000	57	0.0103	31 Aug 2018 20:19:45
490-157966-A-2-D - 1		1.0000	1.0000	28	0.0064	31 Aug 2018 20:22:21
490-157863-A-11-C - 1		1.0000	1.0000	44	0.0085	31 Aug 2018 20:24:56
490-158016-A-1-C - 1		1.0000	1.0000	63	0.0112	31 Aug 2018 20:27:31
490-157866-C-2-C - 1		1.0000	1.0000	53	0.0098	31 Aug 2018 20:30:06
MB 490-538972/1-C - 1		1.0000	1.0000	48	0.0091	31 Aug 2018 20:32:42
490-157863-A-7-C - 1		1.0000	1.0000	59	0.0106	31 Aug 2018 20:35:18
490-157863-A-4-C - 1		1.0000	1.0000	36	0.0075	31 Aug 2018 20:37:53
CCV - 1		1.0000	1.0000	14485	99.3% 1.9865	31 Aug 2018 20:40:30
CCB - 1		1.0000	1.0000	-27	-0.0012	31 Aug 2018 20:43:04
490-157863-A-3-C - 1		1.0000	1.0000	41	0.0081	31 Aug 2018 20:45:40
490-157863-A-2-C - 1		1.0000	1.0000	52	0.0096	31 Aug 2018 20:48:15
490-157890-A-1-C - 1		1.0000	1.0000	92	0.0151	31 Aug 2018 20:50:50
490-157890-A-2-C - 1		1.0000	1.0000	65	0.0114	31 Aug 2018 20:53:25
490-157890-A-3-C - 1		1.0000	1.0000	56	0.0102	31 Aug 2018 20:56:00
MB 490-539512/1-A - 1		1.0000	1.0000	168	0.0255	31 Aug 2018 20:58:35
LCS 490-539512/2-A - 1		1.0000	1.0000	7790	1.0695	31 Aug 2018 21:01:10
490-158137-A-1-A - 1		1.0000	1.0000	113	0.0180	31 Aug 2018 21:03:45
sd 490-158137-A-1-A@5 - 1		1.0000	1.0000	7	0.0035	31 Aug 2018 21:06:20
pds 490-158137-A-1-A - 1		1.0000	1.0000	9510	1.3051	31 Aug 2018 21:08:56
CCV - 1		1.0000	1.0000	14726	101.0% 2.0196	31 Aug 2018 21:11:32
CCB - 1		1.0000	1.0000	-15	0.0005	31 Aug 2018 21:14:06
490-158137-A-1-B MS - 1		1.0000	1.0000	7617	1.0458	31 Aug 2018 21:16:42
490-158137-A-1-C MSD - 1		1.0000	1.0000	7668	1.0528	31 Aug 2018 21:19:18
490-158137-A-8-A - 1		1.0000	1.0000	77	0.0131	31 Aug 2018 21:21:54
490-157829-A-6-D - 1		1.0000	1.0000	148	0.0228	31 Aug 2018 21:24:30
490-157721-A-1-B - 1		1.0000	1.0000	122	0.0192	31 Aug 2018 21:27:05
490-158008-I-1-D - 1		1.0000	1.0000	1373	0.1906	31 Aug 2018 21:29:40
490-158018-I-1-A - 1		1.0000	1.0000	232	0.0343	31 Aug 2018 21:32:16
490-157997-B-1-B - 1		1.0000	1.0000	133	0.0207	31 Aug 2018 21:34:51
490-157997-B-2-B - 1		1.0000	1.0000	129	0.0202	31 Aug 2018 21:37:26
490-157991-A-6-B - 1		1.0000	1.0000	109	0.0175	31 Aug 2018 21:40:02
CCV - 1		1.0000	1.0000	14698	100.8% 2.0157	31 Aug 2018 21:42:37

08/31/18_Overnight

Method: 7470/245.1 Operator: Admin Date of Analysis: 30 Aug 2018 13:55:51

Sample ID	Extended ID	Wt.	Vol.	µ Abs.	Conc.	Date
CCB - 1		1.0000	1.0000	-19	-0.0001	31 Aug 2018 21:45:11
490-158029-B-1-B - 1		1.0000	1.0000	126	0.0198	31 Aug 2018 21:47:46
MB 490-540150/1-A - 1		1.0000	1.0000	30	0.0066	31 Aug 2018 21:50:21
LCS 490-540150/2-A - 1		1.0000	1.0000	7571	1.0395	31 Aug 2018 21:52:57
490-158178-O-1-A - 1		1.0000	1.0000	57	0.0103	31 Aug 2018 21:55:33
sd 490-158178-O-1-A@5 - 1		1.0000	1.0000	-14	0.0006	31 Aug 2018 21:58:10
pds 490-158178-O-1-A - 1		1.0000	1.0000	10754	1.4755	31 Aug 2018 22:00:45
490-158178-O-1-B MS - 1		1.0000	1.0000	7943	1.0905	31 Aug 2018 22:03:21
490-158178-O-1-C MSD - 1		1.0000	1.0000	7649	1.0502	31 Aug 2018 22:05:56
490-157703-A-2-A - 1		1.0000	1.0000	2138	0.2954	31 Aug 2018 22:08:32
490-158059-A-3-B - 1		1.0000	1.0000	22	0.0055	31 Aug 2018 22:11:08
CCV - 1		1.0000	1.0000	14425	98.9% 1.9783	31 Aug 2018 22:13:43
CCB - 1		1.0000	1.0000	-46	-0.0038	31 Aug 2018 22:16:18
490-158059-A-2-B - 1		1.0000	1.0000	227	0.0336	31 Aug 2018 22:18:53
490-158059-A-1-D - 1		1.0000	1.0000	113	0.0180	31 Aug 2018 22:21:28
490-157917-A-1-B - 1		1.0000	1.0000	127	0.0199	31 Aug 2018 22:24:04
490-157175-H-1-H - 1		1.0000	1.0000	343	0.0495	31 Aug 2018 22:26:39
MB 490-540160/1-A - 1		1.0000	1.0000	64	0.0113	31 Aug 2018 22:29:15
LCS 490-540160/2-A - 1		1.0000	1.0000	14599	2.0022	31 Aug 2018 22:31:51
LB 490-539884/1-C - 1		1.0000	1.0000	-39	-0.0028	31 Aug 2018 22:34:28
490-158264-I-1-F - 1		1.0000	1.0000	43	0.0084	31 Aug 2018 22:37:03
sd 490-158264-I-1-F@5 - 1		1.0000	1.0000	3	0.0029	31 Aug 2018 22:39:39
pds 490-158264-I-1-F - 1		1.0000	1.0000	9832	1.3492	31 Aug 2018 22:42:15
CCV - 1		1.0000	1.0000	14502	99.4% 1.9889	31 Aug 2018 22:44:50
CCB - 1		1.0000	1.0000	-41	-0.0031	31 Aug 2018 22:47:24
490-158264-I-1-G MS - 1		1.0000	1.0000	13999	1.9200	31 Aug 2018 22:50:00
490-158264-I-1-H MSD - 1		1.0000	1.0000	13864	1.9015	31 Aug 2018 22:52:35
490-158263-J-1-D - 1		1.0000	1.0000	-3	0.0021	31 Aug 2018 22:55:11
490-155242-A-8-C - 1		1.0000	1.0000	2	0.0028	31 Aug 2018 22:57:47
490-158280-A-1-C - 1		1.0000	1.0000	20	0.0053	31 Aug 2018 23:00:22
LB 490-539596/1-C - 1		1.0000	1.0000	16	0.0047	31 Aug 2018 23:02:58
500-150509-A-1-C - 1		1.0000	1.0000	16	0.0047	31 Aug 2018 23:05:34
CCV - 1		1.0000	1.0000	14477	99.3% 1.9854	31 Aug 2018 23:08:10
CCB - 1		1.0000	1.0000	-33	-0.0020	31 Aug 2018 23:10:43

7471/245.5



Linear

A= 0.0000e+000

B= 1.0838e-004

C= -2.3625e-002

Rho= 0.9999474

Accept=Accepted

Accepted Date=

09/08/18 14:48

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
BLANK	0.000	0.028	0.028	477	2.500	480	475			
0.2	0.200	0.208	0.008	2139	0.0 %	2138	2140			
0.5	0.500	0.489	-0.011	4730	0.1 %	4736	4725			
1.0	1.000	0.982	-0.018	9276	0.5 %	9234	9318			
2.0	2.000	1.977	-0.023	18463	0.0 %	18458	18468			
2.5	2.500	2.505	0.005	23329	0.1 %	23346	23313			
5.0	5.000	5.011	0.011	46450	0.4 %	46262	46638			

090818_All Day

Method: 7471/245.5 Operator: Admin Date of Analysis: 08 Sep 2018 14:22:10

Sample ID	Extended ID	Wt.	Vol.	µ Abs.	Conc.	Date
BLANK - 1		1.0000	1.0000	480	-	08 Sep 2018 14:29:16
BLANK - 2		1.0000	1.0000	475	-	08 Sep 2018 14:29:16
0.2 - 1		1.0000	1.0000	2138	-	08 Sep 2018 14:32:04
0.2 - 2		1.0000	1.0000	2140	-	08 Sep 2018 14:32:04
0.5 - 1		1.0000	1.0000	4736	-	08 Sep 2018 14:34:53
0.5 - 2		1.0000	1.0000	4725	-	08 Sep 2018 14:34:53
1.0 - 1		1.0000	1.0000	9234	-	08 Sep 2018 14:37:42
1.0 - 2		1.0000	1.0000	9318	-	08 Sep 2018 14:37:42
2.0 - 1		1.0000	1.0000	18458	-	08 Sep 2018 14:40:30
2.0 - 2		1.0000	1.0000	18468	-	08 Sep 2018 14:40:30
2.5 - 1		1.0000	1.0000	23346	-	08 Sep 2018 14:43:17
2.5 - 2		1.0000	1.0000	23313	-	08 Sep 2018 14:43:17
5.0 - 1		1.0000	1.0000	46262	-	08 Sep 2018 14:46:04
5.0 - 2		1.0000	1.0000	46638	-	08 Sep 2018 14:46:04
ICV - 1		1.0000	1.0000	23971	103.0% 2.5744	08 Sep 2018 14:48:51
ICB - 1		1.0000	1.0000	405	0.0203	08 Sep 2018 14:51:34
CRA - 1		1.0000	1.0000	3869	98.9% 0.3957	08 Sep 2018 14:54:19
CCV - 1		1.0000	1.0000	18545	99.3% 1.9863	08 Sep 2018 14:57:03
CCB - 1		1.0000	1.0000	452	0.0254	08 Sep 2018 14:59:47
MB 490-541313/1-A - 1		1.0000	1.0000	187	-0.0034	08 Sep 2018 15:02:32
LCS 490-541313/2-A - 1		1.0000	1.0000	8902	0.9412	08 Sep 2018 15:05:16
490-158137-B-2-D - 1		1.0000	1.0000	3119	0.3144	08 Sep 2018 15:08:01
sd 490-158137-B-2-D@5 - 1		1.0000	1.0000	555	0.0365	08 Sep 2018 15:10:45
pds 490-158137-B-2-D - 1		1.0000	1.0000	13748	1.4664	08 Sep 2018 15:13:29
490-158137-B-2-E MS - 1		1.0000	1.0000	12185	1.2970	08 Sep 2018 15:16:14
490-158137-B-2-F MSD - 1		1.0000	1.0000	12209	1.2996	08 Sep 2018 15:18:58
490-158137-B-3-B - 1		1.0000	1.0000	4745	0.4906	08 Sep 2018 15:21:43
490-158137-B-4-B - 1		1.0000	1.0000	10216	1.0836	08 Sep 2018 15:24:28
490-158137-B-5-B - 1		1.0000	1.0000	3550	0.3611	08 Sep 2018 15:27:14
CCV - 1		1.0000	1.0000	18530	99.2% 1.9847	08 Sep 2018 15:29:59
CCB - 1		1.0000	1.0000	387	0.0183	08 Sep 2018 15:32:43
490-158137-B-6-B - 1		1.0000	1.0000	4609	0.4759	08 Sep 2018 15:35:29
490-158137-B-7-B - 1		1.0000	1.0000	7196	0.7563	08 Sep 2018 15:38:15
490-158232-B-2-D - 1		1.0000	1.0000	2607	0.2589	08 Sep 2018 15:41:01
490-158232-B-3-B - 1		1.0000	1.0000	2304	0.2261	08 Sep 2018 15:43:46
490-158232-B-4-B - 1		1.0000	1.0000	1617	0.1516	08 Sep 2018 15:46:30
490-158232-A-5-C - 1		1.0000	1.0000	2387	0.2351	08 Sep 2018 15:49:14
490-158232-A-6-C - 1		1.0000	1.0000	2202	0.2150	08 Sep 2018 15:51:59
490-158232-B-7-B - 1		1.0000	1.0000	3444	0.3496	08 Sep 2018 15:54:43
490-158232-B-8-B - 1		1.0000	1.0000	2677	0.2665	08 Sep 2018 15:57:27
490-158232-B-9-B - 1		1.0000	1.0000	2940	0.2950	08 Sep 2018 16:00:13
CCV - 1		1.0000	1.0000	18604	99.6% 1.9927	08 Sep 2018 16:02:58
CCB - 1		1.0000	1.0000	421	0.0220	08 Sep 2018 16:05:42
490-158029-A-2-F - 1		1.0000	1.0000	1779	0.1692	08 Sep 2018 16:08:27
490-158174-A-1-J - 1		1.0000	1.0000	84	-0.0145	08 Sep 2018 16:11:12
490-158132-A-1-K - 1		1.0000	1.0000	384	0.0180	08 Sep 2018 16:13:58
490-158132-A-2-K - 1		1.0000	1.0000	565	0.0376	08 Sep 2018 16:16:44
490-158132-A-3-K - 1		1.0000	1.0000	2075	0.2013	08 Sep 2018 16:19:31
490-158132-A-4-O - 1		1.0000	1.0000	260	0.0046	08 Sep 2018 16:22:15
MB 490-541455/1-A - 1		1.0000	1.0000	467	0.0270	08 Sep 2018 16:25:00
LCS 490-541455/2-A - 1		1.0000	1.0000	9584	1.0151	08 Sep 2018 16:27:45
490-158747-B-3-D - 1		1.0000	1.0000	913	0.0753	08 Sep 2018 16:30:29
sd 490-158747-B-3-D@5 - 1		1.0000	1.0000	157	-0.0066	08 Sep 2018 16:33:14
CCV - 1		1.0000	1.0000	18499	99.1% 1.9813	08 Sep 2018 16:35:59
CCB - 1		1.0000	1.0000	469	0.0272	08 Sep 2018 16:38:42
pds 490-158747-B-3-D - 1		1.0000	1.0000	10841	1.1513	08 Sep 2018 16:41:28
490-158747-B-3-E MS - 1		1.0000	1.0000	10603	1.1255	08 Sep 2018 16:44:13
490-158747-B-3-F MSD - 1		1.0000	1.0000	10674	1.1332	08 Sep 2018 16:46:58
490-158673-A-1-F - 1		1.0000	1.0000	487	0.0292	08 Sep 2018 16:49:44
490-158675-A-1-F - 1		1.0000	1.0000	1892	0.1814	08 Sep 2018 16:52:30
490-157421-A-1-B - 1		1.0000	1.0000	70030	7.5663	08 Sep 2018 16:55:16
490-157421-A-2-B - 1		1.0000	1.0000	22339	2.3975	08 Sep 2018 16:58:02
490-157421-A-3-B - 1		1.0000	1.0000	54383	5.8704	08 Sep 2018 17:00:47
490-157439-A-1-B - 1		1.0000	1.0000	154312	16.7008	08 Sep 2018 17:03:32
490-157439-A-2-B - 1		1.0000	1.0000	62259	6.7240	08 Sep 2018 17:06:16
CCV - 1		1.0000	1.0000	17724	(L)94.9% 1.8973	08 Sep 2018 17:09:01
CCB - 1		1.0000	1.0000	222	0.0004	08 Sep 2018 17:11:45
490-157439-A-3-B - 1		1.0000	1.0000	39764	4.2860	08 Sep 2018 17:14:31
490-157421-A-1-B@5 - 1		1.0000	1.0000	18135	1.9419	08 Sep 2018 17:17:16
490-157421-A-3-B@5 - 1		1.0000	1.0000	13604	1.4508	08 Sep 2018 17:20:00
490-157439-A-1-B@10 - 1		1.0000	1.0000	18877	2.0223	08 Sep 2018 17:22:45
490-157439-A-2-B@5 - 1		1.0000	1.0000	14856	1.5865	08 Sep 2018 17:25:30
CCV - 1		1.0000	1.0000	18618	99.7% 1.9942	08 Sep 2018 17:28:16
CCB - 1		1.0000	1.0000	353	0.0146	08 Sep 2018 17:31:00

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG No.:

Project: CUF_BS_20180827_1A

Client Sample ID	Lab Sample ID
CUF-BS-BG01-0.0/0.5-20180827	490-158137-2
CUF-BS-BG01-1.0/3.0-20180827	490-158137-3
CUF-BS-BG01-6.5/8.5-20180827	490-158137-4
CUF-BS-BG01-11.5/13.5-20180827	490-158137-5
CUF-BS-BG01-16.5/18.5-20180827	490-158137-6
CUF-BS-BG01-21.5/23.5-20180827	490-158137-7

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG01-0.0/0.5-20180827
Lab Sample ID: 490-158137-2
Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2018 13:12
Reporting Basis: WET
Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	6.2	0.1		SU			1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG01-1.0/3.0-20180827
Lab Sample ID: 490-158137-3
Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2018 13:59
Reporting Basis: WET
Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	6.0	0.1		SU			1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG01-6.5/8.5-20180827
Lab Sample ID: 490-158137-4
Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2018 14:19
Reporting Basis: WET
Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	5.1	0.1		SU			1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG01-11.5/13.5-20180827
Lab Sample ID: 490-158137-5
Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2018 14:45
Reporting Basis: WET
Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	5.0	0.1		SU			1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG01-16.5/18.5-20180827
Lab Sample ID: 490-158137-6
Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2018 15:05
Reporting Basis: WET
Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	5.2	0.1		SU			1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - SOLUBLE

Client Sample ID: CUF-BS-BG01-21.5/23.5-20180827
Lab Sample ID: 490-158137-7
Lab Name: TestAmerica Nashville
Job No.: 490-158137-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/27/2018 15:25
Reporting Basis: WET
Date Received: 08/27/2018 19:00

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	pH	4.6	0.1		SU			1	9045D

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Analyst: MXX Batch Start Date: 08/28/2018

Reporting Units: SU Analytical Batch No.: 539285

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	19:15	pH	7.0	7.00	99	98-103		LP_CCV pH 7.0 00068

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 539285 Date: 08/28/2018 19:15								
9045D	CUF-BS-BG01-0.0/0.5-20180827	490-158137-2	pH	6.2	SU			
9045D	CUF-BS-BG01-0.0/0.5-20180827	490-158137-2 DU	pH	6.2	SU	0	20	

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 539285	Date: 08/28/2018 19:15										
						LCS Source: LP_LCS 7.0_00063					
9045D	LCS 490-539285/1	pH	7.0		SU	7.00	100	98-103			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - SOLUBLE

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9045D RL Date: 01/16/2012 19:00

Leach Method: DI Leach

Analyte	Wavelength/ Mass	RL (SU)	
pH		0.1	

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - SOLUBLE

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9045D XRL Date: 01/16/2012 19:01

Analyte	Wavelength/ Mass	XRL (SU)	
pH		0.1	

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 03/01/2011 13:57

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 490-158137-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 03/01/2011 14:03

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9045D

Start Date: 08/28/2018 19:15 End Date: 08/28/2018 19:15

Lab Sample Id	D/F	Type	Time	Analytes																							
				pH																							
LCS 490-539285/1	1	T	19:15	X																							
490-158137-2	1	S	19:15	X																							
490-158137-2 DU	1	S	19:15	X																							
490-158137-3	1	S	19:15	X																							
490-158137-4	1	S	19:15	X																							
490-158137-5	1	S	19:15	X																							
490-158137-6	1	S	19:15	X																							
490-158137-7	1	S	19:15	X																							
ZZZZZZ			19:15																								
ZZZZZZ			19:15																								
ZZZZZZ			19:15																								
ZZZZZZ			19:15																								
CCV 490-539285/13	1		19:15	X																							

Prep Types:
S = Soluble
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 08/28/2018 13:17 End Date: 08/28/2018 13:55

Lab Sample Id	D/F	Type	Time	Analytes																									
				%Sol	Moist																								
ZZZZZZ			13:17																										
ZZZZZZ			13:17																										
ZZZZZZ			13:17																										
ZZZZZZ			13:17																										
ZZZZZZ			13:17																										
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ZZZZZZ			13:18																										
ZZZZZZ			13:18																										
ZZZZZZ			13:18																										
ZZZZZZ			13:18																										
490-158137-2	1	T	13:18	X	X																								
490-158137-2 DU	1	T	13:18	X	X																								
490-158137-3	1	T	13:18	X	X																								
490-158137-4	1	T	13:18	X	X																								
490-158137-5	1	T	13:18	X	X																								
490-158137-6	1	T	13:18	X	X																								
490-158137-7	1	T	13:18	X	X																								
ZZZZZZ			13:18																										
ZZZZZZ			13:48																										
ZZZZZZ			13:55																										
ZZZZZZ			13:55																										
ZZZZZZ			13:55																										

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: Moisture

Start Date: 08/28/2018 13:17 End Date: 08/28/2018 13:55

Lab Sample Id	D/F	Type	Time	Analytes																								
				% Sol	Moist																							
ZZZZZZ			13:55																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 539284 Batch Start Date: 08/28/18 19:08 Batch Analyst: Xaysongkham, Malisa X

Batch Method: DI Leach Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
490-158137-A-2	CUF-BS-BG01-0.0/ 0.5-20180827	DI Leach, 9045D	S	20 g	20 mL				
490-158137-A-3	CUF-BS-BG01-1.0/ 3.0-20180827	DI Leach, 9045D	S	20 g	20 mL				
490-158137-A-4	CUF-BS-BG01-6.5/ 8.5-20180827	DI Leach, 9045D	S	20 g	20 mL				
490-158137-A-5	CUF-BS-BG01-11.5 /13.5-20180827	DI Leach, 9045D	S	20 g	20 mL				
490-158137-A-6	CUF-BS-BG01-16.5 /18.5-20180827	DI Leach, 9045D	S	20 g	20 mL				
490-158137-A-7	CUF-BS-BG01-21.5 /23.5-20180827	DI Leach, 9045D	S	20 g	20 mL				

Batch Notes	
Balance ID	1120430697
Batch Comment	9045D

Basis	Basis Description
S	Soluble

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 539285 Batch Start Date: 08/28/18 19:13 Batch Analyst: Xaysongkham, Malisa X

Batch Method: 9045D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LP_CCV pH 7.0 00068	LP_LCS 7.0 00063		
LCS 490-539285/1		9045D		0 g	20 mL		20 mL		
490-158137-A-2-A	CUF-BS-BG01-0.0/0.5-20180827	9045D	S	20 g	20 mL				
490-158137-A-2-A DU	CUF-BS-BG01-0.0/0.5-20180827	9045D	S	20 g	20 mL				
490-158137-A-3-A	CUF-BS-BG01-1.0/3.0-20180827	9045D	S	20 g	20 mL				
490-158137-A-4-A	CUF-BS-BG01-6.5/8.5-20180827	9045D	S	20 g	20 mL				
490-158137-A-5-A	CUF-BS-BG01-11.5/13.5-20180827	9045D	S	20 g	20 mL				
490-158137-A-6-A	CUF-BS-BG01-16.5/18.5-20180827	9045D	S	20 g	20 mL				
490-158137-A-7-A	CUF-BS-BG01-21.5/23.5-20180827	9045D	S	20 g	20 mL				
CCV 490-539285/13		9045D		0 g	20 mL	20 mL			

Batch Notes	
Balance ID	1120430697
pH Buffer 1 ID	LP_pH4.0_00050
pH Buffer 2 ID	LP_CCVpH7.0_00068
pH Buffer 3 ID	LP_pH10.0_00043
pH Buffer 4 ID	LP_pH13.0_00018
pH Buffer 5 ID	LP_LCSpH7.0_00063
Calibration Date and Time	08/28/2018 12:09
pH Meter Calibration Slope	99.8
pH Meter ID	S/N AB92333068
Probe ID	VVR1 11440
Sufficient volume for sample dup	Yes
Thermometer ID	150606784

Basis	Basis Description
S	Soluble

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: TestAmerica Nashville Job No.: 490-158137-1

SDG No.:

Batch Number: 539184 Batch Start Date: 08/28/18 13:16 Batch Analyst: Ali, Blnd A

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry	AnalysisComment		
490-158137-B-2	CUF-BS-BG01-0.0/0.5-20180827	Moisture	T	1.00 g	11.93 g	9.83 g	9.83@1615		
490-158137-B-2 DU	CUF-BS-BG01-0.0/0.5-20180827	Moisture	T	1.00 g	10.09 g	7.99 g	7.99@1615		
490-158137-B-3	CUF-BS-BG01-1.0/3.0-20180827	Moisture	T	1.00 g	10.13 g	8.73 g	8.73@1615		
490-158137-B-4	CUF-BS-BG01-6.5/8.5-20180827	Moisture	T	1.00 g	12.29 g	10.25 g	10.25@1615		
490-158137-B-5	CUF-BS-BG01-11.5/13.5-20180827	Moisture	T	1.00 g	10.57 g	8.59 g	8.59@1615		
490-158137-B-6	CUF-BS-BG01-16.5/18.5-20180827	Moisture	T	1.00 g	12.07 g	9.66 g	9.66@1615		
490-158137-B-7	CUF-BS-BG01-21.5/23.5-20180827	Moisture	T	1.00 g	11.76 g	9.15 g	9.15@1615		

Batch Notes	
Balance ID	PB602-S/1126143319 No Unit
Date samples were placed in the oven	08/28/2018
Oven Temp In	110 Degrees C
Time samples were place in the oven	13:48
Date samples were removed from oven	08/28/2018
Oven Temp Out	110 Degrees C
Time Samples were removed from oven	15:48
Oven ID	OA-B142345
Thermometer ID	OA-B142345

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.

#539285
DI: #539284

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

Daily pH Meter Run Log - Soil or Waste
SW-846 Method 9045C/D

9045D

Calibration
Analyst: Melissa X
Date: 08/28/18
Time: 1209

Analyzed
Analyst: Melissa X
Date: 08/28/18
Time: 1643

[ ] pH Meter A (AB92340881)

[X] pH Meter B (AB92333068)

See attached page for calibration details.

Row	Sample ID	pH 1	pH 2	Temp. deg. C	<20% Water?* Yes	No	Stirring Time Start	Stop	
LCS	00063	7.01	7.01	23.5					
	158137A2	6.22	6.22	23.0					4572017
dw	158137A2	6.22	6.22	23.0					
	158137A3	6.03	6.03	22.9					4572018
	158137A4	5.14	5.13	23.1					4572019
	158137A5	4.99	4.99	23.0					4572020
	158137A6	5.20	5.20	22.8					4572021
	158137A7	4.59	4.59	22.8					4572022
	158132A1	6.20	6.20	23.0					4572023
	158132A2	9.04	9.04	22.9					4572024
	158132A3	1.00	1.00	23.1					4572025
	158132A4	2.97	2.97	23.0					4572026
CW	00068	6.95	6.95	23.3					

*By visual examination
pH run log-soil

IF-36
End of Form

5.5.14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Nashville, TN

Daily Calibration Report

Analyst: Melissa X

Date: 08/28/18

Time: 1209

Thermometer: A: VWYI 2197

B: VVRI 11440

pH Meter A (AB92340881)			
Buffer	Buffer ID	pH	Slope
1	LP_pH1.0_000 31	1.00	99.8
4	LP_pH4.0_000 51	3.99	—
7	LP_CCVpH7.0_000 69	7.01	98.4
10	LP_pH10.0_000 44	10.02	99.5
13	LP_pH13.0_000 —		
ICV	LP_LCSpH7.0_000 64	7.00	98.4

final: 98.3%

pH Meter B (AB92333068)			
Buffer	Buffer ID	pH	Slope
1	LP_pH1.0_000 —		
4	LP_pH4.0_000 50	4.00	—
7	LP_CCVpH7.0_000 68	7.01	100.0
10	LP_pH10.0_000 43	10.01	101.0
13	LP_pH13.0_000 18	12.97	93.9
ICV	LP_LCSpH7.0_000 63	7.00	99.8

final: 99.8%

pH Meter (AB92346712)			
Buffer	Buffer ID	pH	Slope
1	LP_pH1.0_000		
4	LP_pH4.0_000		
7	LP_CCVpH7.0_000		
10	LP_pH10.0_000		
13	LP_pH13.0_000		
ICV	LP_LCSpH7.0_000		

Shipping and Receiving Documents

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-158137 Chain of Custody

Cooler Received/Opened On 8/28/2018@ 1900

Time Samples Removed From Cooler_____ Time Samples Placed In Storage_____ (2 Hour Window)

1. Tracking # N/A (last 4 digits, FedEx) Courier:

   IR Gun ID_31470368 _____ pH Strip Lot_____ Chlorine Strip Lot_____

2. Temperature of rep. sample or temp blank when opened: 2.5 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) EA

7. Were custody seals on containers: YES NO 8-28-18 EA and Intact YES...NO...NA 8-28-18 EA

   Were these signed and dated correctly? YES...NO...NA 8-28-18 EA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) EA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) EA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) EA

I certify that I attached a label with the unique LIMS number to each container (intial) EA

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

Loc: 490
158137

COOLER RECEIPT FORM

Cooler Received/Opened On 8/28/2018@ 1900

Time Samples Removed From Cooler_____ Time Samples Placed In Storage_____ (2 Hour Window)

1. Tracking # NA (last 4 digits, FedEx) Courier:

   IR Gun ID_31470368 _____ pH Strip Lot_____ Chlorine Strip Lot_____

2. Temperature of rep. sample or temp blank when opened: 3.3 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 2 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) EA

7. Were custody seals on containers: YES NO 8-28-18 EA and Intact YES...NO...NA 8-28-18 EA

   Were these signed and dated correctly? YES...NO...NA 8-28-18 EA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) EA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) EA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) EA

I certify that I attached a label with the unique LIMS number to each container (intial) EA

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

Loc: 490
158137

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Cooler Received/Opened On 8/~~28~~ 27/2018@ 1900

Time Samples Removed From Cooler_____ Time Samples Placed In Storage_____ (2 Hour Window)

1. Tracking # N/A (last 4 digits, FedEx) Courier:

IR Gun ID_31470368 _____ pH Strip Lot_____ Chlorine Strip Lot_____

2. *Temperature of rep. sample or temp blank when opened:* 1.7 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 2 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) EA

7. Were custody seals on containers: YES NO 8-28-18 EA and Intact YES...NO...NA 8-28-18 EA

Were these signed and dated correctly? YES...NO...NA 8-28-18 EA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) EA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) EA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) EA

I certify that I attached a label with the unique LIMS number to each container (intial) EA

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	1	of	3
COC No:	CUF_BS_20180827_1A		
1 of 1 Pages	[redacted]		
Task Desc:	CUF_BS		

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

Required Ship to Lab:

Lab Name:	TestAmerica Nashville
Lab Address:	29360 Foster Creighton Dr Nashville, TN 37204

Lab Manager Contact Information

Lab PM:	Gail Lage
Phone/Fax:	615-301-5741/615-726-3404
Lab Email:	Gail.Lage@testamericainc.com

Required Project Information:

Site ID #:	CUMBERLAND FOSSIL PLANT		
Project #:	177568209		
Site Address	815 Cumberland City Road		
City	Cumberland City	State, Zip:	TN, 37763
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	jrquinn@tva.gov		

Required Sampler Information

Sampler:	Suama Bolden and Walker Padgett		
Sampling Company:	Stantec		
Address	Warehouse Row North 1110 Market Street, Suite 214A		
City/State	Chattanooga TN	Phone:	(859) 619-8010
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva-el@envstd.com		

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

- ☐ 24 Hours
- ☐ 3 Business Days
- ☑ 5 Business Days
- ☐ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Start Depth (Depth Unit)	Sample Depth: End Depth (Select Unit)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: CUF_BACKGROUNDSOIL (Filtered N, Preserve None)	Analysis: CUF_BACKGROUNDSOIL_BLANKS (Filtered N, Preserve see comments)	Analysis: CUF_BACKGROUDSOIL_pH (Filtered N, Preserve None)
1	CUF-BS-FB05-20180827	BG-01	NA	NA	W	G	FB	8/27/2018	1231	2		☐		X	
2	CUF-BS-BG01-0.0/0.5-20180827	BG-01	0.0	0.5	S	G	N	8/27/2018	1312	2		☐	X		X
3	CUF-BS-BG01-1.0/3.0-20180827	BG-01	1.0	3.0	S	G	N	8/27/2018	1359	2		☐	X		X
4	CUF-BS-BG01-6.5/8.5-20180827	BG-01	6.5	8.5	S	G	N	8/27/2018	1419	2		☐	X		X
5	CUF-BS-BG01-11.5/13.5-20180827	BG-01	11.5	13.5	S	G	N	8/27/2018	1445	2		☐	X		X
6	CUF-BS-BG01-16.5/18.5-20180827	BG-01	16.5	18.5	S	G	N	8/27/2018	1505	2		☐	X		X
7	CUF-BS-BG01-21.5/23.5-20180827	BG-01	21.5	23.5	S	G	N	8/27/2018	1525	2		☑	X		X
8	CUF-BS-EB02-20180827	BG-01	NA	NA	W	G	EB	8/27/2018	1555	2		☐		X	
9												☐			
10												☐			
11												☐			
12												☐			
13												☐			

SB 8/27/2018

SB 8/27/2018

SB 8/27/2018

Loc: 490
158137
#1
A

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

CUF_BACKGROUNDSOIL: Perform MS/MSD on sample identified above

CUF_BACKGROUNDSOIL_BLANKS: Anions – unpreserved; Metals – preserved w/ HNO3 to pH<2

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Suama Bolden (Stantec)	8/27/2018	17:00	[signature]	8-27-18	1900
SB 8/27/2018					

Sample Receipt Conditions

Temperature in °C	Sample on Ice?	Sample Intact?	Trip Blank?
☑Yes ☐No	☑Yes ☐No	☑Yes ☐No	☐Yes ☑No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Courier	Suama Bolden [signature]
SB 8/27/2018	

Form TVA 30067A

TVA Environmental Investigations

Tennessee Valley Authority

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

COOLER No.:	2 of 3
COC No:	CUF_BS_20180827_1B
1 of 1 Pages	
Task Desc:	CUF_BS

Required Ship to Lab:

Lab Name:	TestAmerica Nashville
Lab Address:	29360 Foster Creighton Dr Nashville, TN 37204

Lab Manager Contact Information

Lab PM:	Gail Lage
Phone/Fax:	615-301-5741/615-726-3404
Lab Email:	Gail.Lage@testamericainc.com

Required Project Information:

Site ID #:	CUMBERLAND FOSSIL PLANT		
Project #:	177568209		
Site Address	815 Cumberland City Road		
City	Cumberland City	State, Zip:	TN, 37763
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	rquinn@tva.gov		

Required Sampler Information

Sampler:	Suama Bolden and Walker Padgett		
Sampling Company:			
Address	Warehouse Row North 1110 Market Street, Suite 214A		
City/State	Chattanooga TN	Phone:	(859) 619-8010
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva-ei@envsid.com		

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below ____ Standard (28 days)____

- ☐ 24 Hours
- ☐ 3 Business Days
- ☐ 5 Business Days
- ☐ 10 Business Days (Standard)

Loc: 490
158137

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Start Depth (Depth Unit)	Sample Depth: End Depth (Select Unit)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: CUF_BACKGROUNDSOIL_RAD (Filtered N, Preserve None)	Analysis: CUF_BACKGROUNDSOIL_BLANKS (Filtered N, Preserve HNO3)
1	CUF-BS-FB05-20180827	BG-01	NA	NA	W	G	FB	8/27/2018	1231	3		☐		X
2	CUF-BS-BG01-0.0/0.5-20180827	BG-01	0.0	0.5	S	G	N	8/27/2018	1312	2		☐	X	
3	CUF-BS-BG01-1.0/3.0-20180827	BG-01	1.0	3.0	S	G	N	8/27/2018	1359	2		☐	X	
4	CUF-BS-BG01-6.5/8.5-20180827	BG-01	6.5	8.5	S	G	N	8/27/2018	1419	2		☐	X	
5	CUF-BS-BG01-11.5/13.5-20180827	BG-01	11.5	13.5	S	G	N	8/27/2018	1445	2		☐	X	
6	CUF-BS-BG01-16.5/18.5-20180827	BG-01	16.5	18.5	S	G	N	8/27/2018	1505	2		☐	X	
7	CUF-BS-BG01-21.5/23.5-20180827	BG-01	21.5	23.5	S	G	N	8/27/2018	1525	2		☑	X	
8	CUF-BS-EB02-20180827	BG-01	NA	NA	W	G	EB	8/27/2018	1555	3		☐		X
9												☐		
10												☐		
11												☐		
12												☐		
13												☐		

SS 8/27/2018

Additional Comments/Special Instructions:

SS 8/27/2018

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Suama Bolden (Stantec)	8/27/2018	17:00		8/27/18	1900

SS 8/27/2018

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Courier	Suama Bolden

SS 8/27/2018

Sample Receipt Conditions

Temperature in °C	Sample on Ice?	Sample Intact?	Trip Blank?
☑Yes ☐No	☑Yes ☐No	☑Yes ☐No	☐Yes ☑No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No

Form TVA 30067A

TVA Environmental Investigations

Tennessee Valley Authority

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

COOLER No.:	3 of 3
COC No:	CUF_BS_20180827_1A
1 of 1 Pages	
Task Desc:	CUF_BS

Required Ship to Lab:

Lab Name:	TestAmerica Nashville
Lab Address:	29360 Foster Creighton Dr Nashville, TN 37204

Lab Manager Contact Information

Lab PM:	Gail Lage
Phone/Fax:	615-301-5741/615-726-3404
Lab Email:	Gail.Lage@testamericainc.com

Required Project Information:

Site ID #:	CUMBERLAND FOSSIL PLANT
Project #:	177568209
Site Address	815 Cumberland City Road
City	Cumberland City State, Zip: TN, 37763
Site PM Name:	Roy Quinn
Phone/Fax:	423-751-3753
Site PM Email:	jrquinn@tva.gov

Required Sampler Information

Sampler:	Suama Bolden and Walker Padgett
Sampling Company:	Stantec
Address	Warehouse Row North 1110 Market Street, Suite 214A
City/State	Chattanooga TN Phone: (859) 619-8010
Sampling Team Number:	1
Send EDD/Hard Copy to:	tva-ei@envstd.com

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

- ☐ 24 Hours
- ☐ 3 Business Days
- ☑ 5 Business Days
- ☐ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Start Depth (Depth Unit)	Sample Depth: End Depth (Select Unit)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: CUF_BACKGROUNDSOIL	Analysis: CUF_BACKGROUNDSOIL_BLANKS	Analysis: CUF_BACKGROUDSOIL_pH
1	CUF-BS-FB05-20180827	BG-01	NA	NA	W	G	FB	8/27/2018	1231	2		☐		X	
2	CUF-BS-BG01-0.0/0.5-20180827	BG-01	0.0	0.5	S	G	N	8/27/2018	1312	2		☐	X		X
3	CUF-BS-BG01-1.0/3.0-20180827	BG-01	1.0	3.0	S	G	N	8/27/2018	1359	2		☐	X		X
4	CUF-BS-BG01-6.5/8.5-20180827	BG-01	6.5	8.5	S	G	N	8/27/2018	1419	2		☐	X		X
5	CUF-BS-BG01-11.5/13.5-20180827	BG-01	11.5	13.5	S	G	N	8/27/2018	1445	2		☐	X		X
6	CUF-BS-BG01-16.5/18.5-20180827	BG-01	16.5	18.5	S	G	N	8/27/2018	1505	2		☐	X		X
7	CUF-BS-BG01-21.5/23.5-20180827	BG-01	21.5	23.5	S	G	N	8/27/2018	1525	2		☑	X		X
8	CUF-BS-EB02-20180827	BG-01	NA	NA	W	G	EB	8/27/2018	1555	2		☐		X	
9												☐			
10												☐			
11												☐			
12												☐			
13												☐			

Filtered: N N N

Preserve: None; see comments; None

SS 8/27/2018

Loc: 490
158137

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

CUF_BACKGROUNDSOIL: Perform MS/MSD on sample identified above

CUF_BACKGROUNDSOIL_BLANKS: Anions – unpreserved; Metals – preserved w/ HNO3 to pH<2

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Suama Bolden (Stantec)	8/27/2018	17:00	[signature]	8-28-18	1900
SS 8/27/2018					

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Courier	Suama Bolden [signature]
SS 8/27/2018	

Sample Receipt Conditions

Temperature in °C	Sample on Ice?	Sample Intact?	Trip Blank?
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No


490-157892 Waybill
490-158137 Waybill
490-157991 Waybill
490-164382 Waybill
490-158029 Waybill
490-158137 Waybill
490-157829 Waybill
ORIGIN ID:RNC
SHIPPING
TEST AMERICA
2960 FOSTER CREIGHTON
NASHVILLE, TN 37204
UNITED STATES US
TO SHIPPING/RECEIVING
TESTAMERICA LABORA
301 ALPHA DRIVE
RIDC PARK
TTSBURGH PA 15238
REF: S490-92791
4587 8113 9403
FRI - 07 DEC 10:30A
PRIORITY OVERNIGHT
EV AGCA
15238
PA-US PIT
Uncorrected temp 2.0/2.2 °C
Thermometer ID 10
CF 0.2 Initials B
PT-WI-SR-001 effective 7/26/13