

ANALYTICAL REPORT

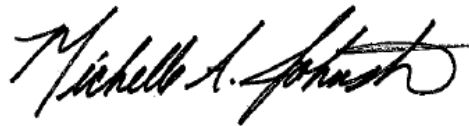
Job Number: 280-77373-1

Job Description: Fort Wingate, New Mexico

For:

Sundance Consulting, Inc
6700 Jefferson Blvd NE
Albuquerque, NM 87109

Attention: JohnDavid Nance



Approved for release.
Michelle A Johnston
Project Manager II
12/7/2015 11:31 AM

Michelle A Johnston, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0110
michelle.johnston@testamericainc.com
12/07/2015

cc: Elizabeth Farias
Jim Lockhart
Ben Moayyad
Mr. Doug Scott

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



Table of Contents

Cover Title Page	1
Data Summaries	4
Report Narrative	4
Sample Summary	5
Executive Summary	6
Method Summary	7
Method / Analyst Summary	8
Sample Datasheets	9
QC Data Summary	10
Data Qualifiers	12
QC Association Summary	13
Lab Chronicle	14
Reagent Traceability	15
COAs	16
Certification Summary	25
Inorganic Sample Data	26
General Chemistry Data	26
Gen Chem Cover Page	27
Gen Chem Sample Data	28
Gen Chem QC Data	29
Gen Chem ICV/CCV	29
Gen Chem Blanks	30
Gen Chem LCS/LCSD	31
Gen Chem MDL	34
Gen Chem Analysis Run Log	36
Gen Chem Raw Data	38

Table of Contents

Gen Chem Prep Data	93
Shipping and Receiving Documents	95
Client Chain of Custody	96
Sample Receipt Checklist	98

CASE NARRATIVE
Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-77373-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

One sample was received on 12/2/2015 9:20 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9°C. No anomalies were encountered during sample receipt.

Nitrate & Nitrite - 9056

Sample TMW28102015 (280-77373-1) was analyzed for anions by ion chromatography in accordance with SW 846 9056. The sample was analyzed on 12/02/2015.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

Nitrate as N was detected in method blank MB 280-306281/13 at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J" in accordance with the DOD QSM.

MS/MSD analyses for analytical batch 280-306281 were not requested.

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

SAMPLE SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-77373-1	TMW28102015	Water	12/01/2015 1335	12/02/2015 0920

EXECUTIVE SUMMARY - Detections

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-77373-1 Nitrate as N	TMW28102015	0.048	J	0.50	mg/L	9056

METHOD SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Anions, Ion Chromatography	TAL DEN	SW846 9056	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

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

METHOD / ANALYST SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Method	Analyst	Analyst ID
SW846 9056	Phan, Thu L	TLP

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

General Chemistry

Client Sample ID: TMW28102015

Lab Sample ID: 280-77373-1

Date Sampled: 12/01/2015 1335

Client Matrix: Water

Date Received: 12/02/2015 0920

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Nitrate as N	0.048	J	mg/L	0.042	0.50	1.0	9056
	Analysis Batch: 280-306281	Analysis Date: 12/02/2015 1746					
Nitrite as N	0.10	U	mg/L	0.049	0.50	1.0	9056
	Analysis Batch: 280-306281	Analysis Date: 12/02/2015 1746					

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Method Blank - Batch: 280-306281

Method: 9056
Preparation: N/A

Lab Sample ID: MB 280-306281/13	Analysis Batch: 280-306281	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 13.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 12/02/2015 1458	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Nitrate as N	0.0424	J	0.042	0.50
Nitrite as N	0.10	U	0.049	0.50

Method Reporting Limit Check - Batch: 280-306281

Method: 9056
Preparation: N/A

Lab Sample ID: MRL 280-306281/10	Analysis Batch: 280-306281	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 10.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 12/02/2015 1408	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	0.200	0.240	120	50 - 150	J
Nitrite as N	0.200	0.191	95	50 - 150	J

Lab Control Sample/

Method: 9056
Preparation: N/A

Lab Control Sample Duplicate Recovery Report - Batch: 280-306281

LCS Lab Sample ID: LCS 280-306281/11	Analysis Batch: 280-306281	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 11.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 12/02/2015 1425	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-306281/12	Analysis Batch: 280-306281	Instrument ID: WC_IonChrom8
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 12.0000.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 12/02/2015 1441	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate as N	100	100	87 - 110	0	10		
Nitrite as N	103	103	87 - 112	0	10		

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-306281**

**Method: 9056
Preparation: N/A**

LCS Lab Sample ID: LCS 280-306281/11 Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 12/02/2015 1425
Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-306281/12
Client Matrix: Water
Dilution: 1.0
Analysis Date: 12/02/2015 1441
Prep Date: N/A
Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate as N	5.00	5.00	4.98	4.99
Nitrite as N	5.00	5.00	5.16	5.17

DATA REPORTING QUALIFIERS

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Lab Section	Qualifier	Description
General Chemistry	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	U	Undetected at the Limit of Detection.

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-306281					
LCS 280-306281/11	Lab Control Sample	T	Water	9056	
LCSD 280-306281/12	Lab Control Sample Duplicate	T	Water	9056	
MB 280-306281/13	Method Blank	T	Water	9056	
280-77373-1	TMW28102015	T	Water	9056	

Report Basis

T = Total

Quality Control Results

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Laboratory Chronicle

Lab ID: 280-77373-1

Client ID: TMW28102015

Sample Date/Time: 12/01/2015 13:35 Received Date/Time: 12/02/2015 09:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056	280-77373-A-1		280-306281		12/02/2015 17:46	1	TAL DEN	TLP

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056	MB 280-306281/13		280-306281		12/02/2015 14:58	1	TAL DEN	TLP

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056	LCS 280-306281/11		280-306281		12/02/2015 14:25	1	TAL DEN	TLP

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056	LCSD 280-306281/12		280-306281		12/02/2015 14:41	1	TAL DEN	TLP

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056	MRL 280-306281/10		280-306281		12/02/2015 14:08	1	TAL DEN	TLP

Lab References:

TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-77373-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
IC Cal low_00145	12/08/15	12/01/15	Di Water, Lot NA	100 mL	IC N02 CAL_00035	5 mL	Nitrite as N	50 mg/L
					IC N03 cal_00012	5 mL	Nitrate as N	50 mg/L
					IC P04 cal_00013	5 mL	Orthophosphate as P	50 mg/L
.IC N02 CAL_00035	02/29/16		RICCA, Lot 4509143		(Purchased Reagent)		Nitrite as N	1000 ppm
.IC N03 cal_00012	05/31/16		Ricca, Lot 1412667		(Purchased Reagent)		Nitrate as N	1000 mg/L
.IC P04 cal_00013	10/30/16		SPEX CertiPrep, Lot 3-132P04-2x		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
IC ICV 5_00120	12/05/15	11/28/15	Di Water, Lot na	10 mL	IC N02 ICV_00010	0.5 mL	Nitrite as N	50 mg/L
					IC N03 ICV_00009	0.5 mL	Nitrate as N	50 mg/L
							(Purchased Reagent)	
.IC N03 ICV_00009	11/30/16		SPEX CertiPrep, Lot 3-128N03-2x		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC LCS_00435	12/03/15	12/02/15	Di Water, Lot na	200 mL	IC Cal low_00145	20 mL	Nitrite as N	5 mg/L
							Nitrate as N	5 mg/L
					.IC Cal low_00145	12/08/15	12/01/15	Di Water, Lot NA
					IC N03 cal_00012	5 mL	Nitrate as N	50 mg/L
..IC N02 CAL_00035	02/29/16		RICCA, Lot 4509143		(Purchased Reagent)		Nitrite as N	1000 ppm
..IC N03 cal_00012	05/31/16		Ricca, Lot 1412667		(Purchased Reagent)		Nitrate as N	1000 mg/L

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO₂)
Lot Number: 4509143

Product Number: R5444900

Manufacture Date: SEP 04, 2015

Expiration Date: FEB 2016

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1003 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO₃)
Lot Number: 1412667

Product Number: 5459

Manufacture Date: DEC 05, 2014

Expiration Date: MAY 2016

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO ₃ -N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO ₃ -N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-4	120 mL natural poly	18 months
5459-32	1 L natural poly	18 months
5459-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO ₂ -N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	030115
ISSUE DATE:	January 12, 2015
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite (NaNO ₂)
CERTIFIED CONCENTRATION¹:	1000 mg/L
UNCERTAINTY²:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	1.0008 ± 0.0008 g/mL at 19.5°C and 768 mm Hg
TRACEABILITY³:	NA
NIST/SRM:	SRM not available
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.
2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor which is equal to the student t factor at a 95% confidence interval at n-1 degrees of freedom. The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.
3. Traceability Recovery = ((% Recovery certified standard)/(% Recovery NIST SRM))*100.

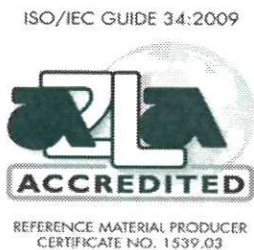
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

This standard **expires 1/2017**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Tom Widera





Reference Materials Producer
Cert #2495.01



Chemical Testing
Cert #2495.02

SPEXertificate®

Certificate of Reference Material

Catalog Number: AS-NO39-2X

Lot No. 3-128NO3-2X

Description: 1000 µg/mL Nitrate

Matrix: H₂O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 999 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3185*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Nitrate, Lot# 04091C. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 997 µg/mL

Method: Precipitate using Nitron Acetate. Filter, dry and weigh as C₂₀H₁₆N₄HNO₃

Instrumental Analysis by Ion Chromatography: 1000 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br ⁻	<0.05	NO ₂ ⁻	<0.03
Cl ⁻	<0.1	PO ₄ ⁻³	<0.06
F ⁻	<0.006	SO ₄ ⁻²	<0.03

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV 2015

Certifying Officer: *Larry Hufnagel*

1 Identification

Product identifier

- Trade name: 1000 g/g/mL Nitrate
- Article number: AS-NO39-2Y / 2X
- Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.
- Application of the substance / the mixture: Certified Reference Material
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier: SPEX CertiPrep, Inc. - 203 Norcross Ave, Metuchen, NJ 08840

Information department, product safety department

Emergency telephone number (24 hours)
CHEMTRAC (800-434-9300)
Outside US: 703-527-3887

2 Hazards (GHS)

- Classification of the substance or mixture: The product is not classified according to the Globally Harmonized System (GHS).

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC: Not applicable.
- The product does not have to be labeled due to the evaluation procedure of international guidelines.
- Classification system: The classification was made according to the latest editions of international substances lists and expanded upon from company and literature data.

Label elements

- GHS label elements: Void
- Hazard pictograms: Void
- Signal word: Void
- Hazard statements: Void
- Classification system: -NFPA ratings (scale 0 - 4)

Health = 0
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FLAME	0	Fire = 0
REACTIVITY	0	Reactivity = 0

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable
vPvB: Not applicable

3 Composition/information on ingredients

- Chemical characterization: Mixtures

- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components: Void

- Chemical identification of the substance/preparation

7631-99-4 sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen	0,1%
7732-18-5 water, distilled, conductivity or of similar purity	99,9%

4 First-aid measures

- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Keep opened eye for several minutes under running water.

(Contd. on page 2)

USA

Trade name: 1000 g/g/mL Nitrate

- After inhalation: If symptoms persist consult doctor.

- After skin contact: Wash with plenty of water. Do not use solvents or abrasives.

- Most important symptoms and effects, both acute and delayed: No further relevant information available.

- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

(Contd. on page 1)

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for fire-fighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Dilute with plenty of water.
- Clean-up methods for containment and cleaning up: Absorb with inert, non-flammable material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections: See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- Handling:
 - Precautions for safe handling
 - No special measures required.
 - Follow good laboratory practices.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- Specific end uses(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
 - General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
 - Breathing equipment: Not required.
 - Protection of hands:
 - The glove material has to be impermeable and resistant to the product, the substance or the preparation.
 - Due to missing tests no recommendation to the glove material can be given for the product, the preparation or the chemical mixture.
 - Material of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
 - Penetration time of glove material
 - The exact break-through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - Eye protection: Goggles recommended during refilling.

(Contd. on page 3)

USA

Trade name: 1000 mg/mL Nitrate

(Cont'd. of page 4)

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

GHS label elements Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: product safety department

Contact:

MSDS@erl-ppp Inc.

713.69.7144

Date of preparation / last revision: 07/21/2014 / -

Abbreviations and acronyms:

ABE: Accord ammonia and its transport for municipalities; ammoniac per Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ADG: International Maritime Code for Dangerous Goods

ADR: US Department of Transportation

ADR: European Union

ACGIH: American Conference of Governmental Industrial Hygienists

ERIECS: European Inventory of Existing Commercial Substances

CLP: Chemical Labeling Procedure (European Union Chemical Safety)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)



SPEXertificate®

Certificate of Reference Material



Catalog Number: AS-PO49-2X

Lot No. 3-132PO4-2X

Description: 1000 µg/mL Phosphate

Matrix: H₂O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1000 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3186*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Dihydrogen Phosphate, Lot# 0691B. The certified value listed is the average of values obtained by classical wet assay and ion chromatography

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 999 µg/mL

Method: Precipitation using Magnesia Mixture. Filter, ignite, and weigh as Mg₂P₂O₇.

Instrumental Analysis by Ion Chromatography: 1001 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br ⁻	<0.04	NO ₂ ⁻	<0.03
Cl ⁻	<0.05	NO ₃ ⁻	<0.03
F ⁻	<0.005	SO ₄ ⁻²	<0.03

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: OCT -- 2015

Certifying Officer: *Lang Hufang*

1 Identification

Product identifier

Product Name: 1000 µg/mL Phosphite
Part Number: AS P049 3Y/2X

Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.

Application of the substance / the mixture: Certified Reference Material

Details of the supplier of the safety data sheet

Manufacturer:
 SPEX Corp/Prep, LLC
 203 Norcross Ave. Norcross,
 NJ 08840 USA

Information department: product safety department
Emergency telephone number:
 CHEMTREC (800-424-9300)
 CHEMTREC (800-424-9300)
 Outside US: 703-527-3887

2 Hazard(s) identification

Classification of the substance or mixture: The product is not classified according to the Globally Harmonized System (GHS).

Classification according to Directive 675/609/EEC or Directive 1999/45/EC: Not applicable.

Information on labels for the substance or mixture: The product does not have to be labeled due to the calculation procedure of international guidelines.

Classification system: The classification was made according to the latest editions of international substance lists, and expanded upon from company and literature data.

Label elements

- GHS hazard elements: Void
- Hazard pictograms: Void
- Signal word: Void
- Hazard statements: Void
- Classification system: NFPA ratings (scale 0 - 4)

Health = 0
 Fire = 0
 Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FLAME	0	Fire = 0
REACTIVITY	0	Reactivity = 0

Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixture

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components: Void

Chemical identification of the substance/preparation

7778-77-0	potassium dihydrogen orthophosphate	0.14%
7732-18-5	water, distilled, conductivity of similar purity	99.86%

4 First-aid measures

- Description of first aid measures**
- General information:** No special measures required.
- After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact:** Generally the product does not irritate the skin.
- After eye contact:** Rinse opened eye for several minutes under running water.

(Contd. on page 2)

5 Pre-fighting measures

After swallowing: If symptoms persist consult doctor.

Information for Doctor:
 Show transport symptoms and effects, both acute and delayed. No further relevant information available.

Special hazards arising from the substance or mixture: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

(Contd. of page 1)

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Not required.

Environmental precautions: Dilute with plenty of water.

Methods and material for containment and cleaning up:
 Work with tight fitting material (sand, diatomite, acid binders, universal binders, sawdust).

References to other information: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

Handling:

- Precautions for safe handling**
- No special measures required.
- Follow good laboratory practices.
- Information about protection against explosions and fires:** No special measures required.
- Conditions for safe storage, including any incompatibilities**
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility:** Not required.
- Further information about storage conditions:** None.
- Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

- Components with limit values that require monitoring at the workplace:**
 The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information:** The lists that were valid during the creation were used as basis.

Exposure controls

- Personal protective equipment:**
- General protective and hygienic measures:** The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment:** Not required.
- Protection of hands:**
 The glove material has to be impermeable and resistant to the product/the substance/the preparation.
- Due to mixing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture.**
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation**
- The end of glove use:** suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- Penetration time of glove material**
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection:** Goggles recommended during refilling.

(Contd. on page 3)

Product Name: 1000 µg/mL Phosphate

(Contd. of page 4)

15 Regulatory information

- Safety, health and environmental regulation/regulation specific for the substance or mixture

- *Sara*

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

- TSCA (Toxic Substances Control Act):

All ingredients are listed.

- Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- Carcinogenic categories

- EPA (Environmental Protection Agency)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

- NIOSH/NIOSH (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- GHS label elements

- Hazard pictograms

Signal word

Hazard statements

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: product safety department

- Contact:

SPEX CertPrep, LLC

1-732-549-7144

- Date of preparation / last revision: 05/21/2015 / -

- Abbreviations and acronyms: ABE: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ADR: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

ELINEL: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

MPE: National Fire Protection Association (NFPA)

MMS: International Material Identification System (IMS)

Certification Summary

Client: Sundance Consulting, Inc
 Project/Site: Fort Wingate, New Mexico

TestAmerica Job ID: 280-77373-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAP	1	205310
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina (WW/SW)	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	4025
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002001
TestAmerica Denver	Texas	NELAP	6	T104704183-15-11
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO00026
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	2907.01

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-77373-1

SDG No.: _____

Project: Fort Wingate, New Mexico

Client Sample ID
TMW28102015

Lab Sample ID
280-77373-1

Comments:

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: TMW28102015

Lab Sample ID: 280-77373-1

Lab Name: TestAmerica Denver

Job No.: 280-77373-1

SDG ID.: _____

Matrix: Water

Date Sampled: 12/01/2015 13:35

Reporting Basis: WET

Date Received: 12/02/2015 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Nitrate as N	0.048	0.50	0.10	0.042	mg/L	J		1	9056
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-77373-1
 SDG No.: _____
 Analyst: TLP Batch Start Date: 12/02/2015
 Reporting Units: mg/L Analytical Batch No.: 306281

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	13:34	Nitrate as N	4.17	4.00	104	90-110		IC ICV 5_00120
			Nitrite as N	4.14	4.00	103	90-110		IC ICV 5_00120
9	ICB	13:51	Nitrate as N	0.0538				J	
			Nitrite as N	0.10				U	
24	CCV	19:10	Nitrate as N	5.02	5.00	100	90-110		IC LCS_00435
			Nitrite as N	5.17	5.00	103	90-110		IC LCS_00435
25	CCB	19:27	Nitrate as N	0.0518				J	
			Nitrite as N	0.10				U	
35	CCV	22:37	Nitrate as N	4.98	5.00	100	90-110		IC LCS_00435
			Nitrite as N	5.13	5.00	103	90-110		IC LCS_00435
36	CCB	22:54	Nitrate as N	0.0535				J	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job No.: 280-77373-1

SDG No.: _____

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 306281 Date: 12/02/2015 14:58							
9056	MB 280-306281/13	Nitrate as N	0.0424	J	mg/L	0.50	1
9056	MB 280-306281/13	Nitrite as N	0.10	U	mg/L	0.50	1

7A-IN
 LAB CONTROL SAMPLE
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-77373-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 306281 Date: 12/02/2015 14:25			LCS Source: IC LCS_00435								
9056	LCS 280-306281/11	Nitrate as N	4.98		mg/L	5.00	100	87-110	0	10	
9056	LCS 280-306281/11	Nitrite as N	5.16		mg/L	5.00	103	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
 LAB CONTROL SAMPLE DUPLICATE
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-77373-1
 SDG No.: _____
 Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 306281 Date: 12/02/2015 14:41			LCSD Source: IC LCS_00435								
9056	LCSD 280-306281/12	Nitrate as N	4.99		mg/L	5.00	100	87-110	0	10	
9056	LCSD 280-306281/12	Nitrite as N	5.17		mg/L	5.00	103	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
 METHOD REPORTING LIMIT CHECK
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-77373-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 306281			Date: 12/02/2015 14:08			LCS Source: IC Cal low_00145					
9056	MRL 280-306281/10	Nitrate as N	0.240	J	mg/L	0.200	120	50-150			
9056	MRL 280-306281/10	Nitrite as N	0.191	J	mg/L	0.200	95	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-77373-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom8

Method: 9056

DL Date: 06/16/2013 17:31

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.042
Nitrite as N		0.5	0.049

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-77373-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom8

Method: 9056

XMDL Date: 06/16/2013 17:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.042
Nitrite as N		0.5	0.049

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-77373-1

SDG No.: _____

Instrument ID: WC_IonChrom8 Method: 9056

Start Date: 12/02/2015 11:06 End Date: 12/03/2015 04:47

Lab Sample ID	D / F	Type	Time	Analytes															
				N - N O 2	N O 3														
RTC 280-306281/1			11:06																
STD 280-306281/2 IC			11:23	X	X														
STD 280-306281/3 IC			11:40	X	X														
STD 280-306281/4 IC			11:56	X	X														
STD 280-306281/5 IC			12:13	X	X														
STD 280-306281/6 IC			12:30	X	X														
STD 280-306281/7 IC			12:47	X	X														
ICV 280-306281/8	1		13:34	X	X														
ICB 280-306281/9	1		13:51	X	X														
MRL 280-306281/10	1	T	14:08	X	X														
LCS 280-306281/11	1	T	14:25	X	X														
LCSD 280-306281/12	1	T	14:41	X	X														
MB 280-306281/13	1	T	14:58	X	X														
ZZZZZZ			16:22																
ZZZZZZ			16:39																
ZZZZZZ			16:56																
ZZZZZZ			17:13																
ZZZZZZ			17:29																
280-77373-1	1	T	17:46	X	X														
ZZZZZZ			18:03																
ZZZZZZ			18:20																
ZZZZZZ			18:37																
ZZZZZZ			18:53																
CCV 280-306281/24	1		19:10	X	X														
CCB 280-306281/25	1		19:27	X	X														
ZZZZZZ			19:44																
ZZZZZZ			20:01																
ZZZZZZ			20:17																
ZZZZZZ			20:34																
ZZZZZZ			20:51																
ZZZZZZ			21:08																
ZZZZZZ			21:25																
ZZZZZZ			21:41																
ZZZZZZ			21:58																
CCV 280-306281/35	1		22:37	X	X														
CCB 280-306281/36	1		22:54	X	X														
ZZZZZZ			23:11																
ZZZZZZ			23:28																
ZZZZZZ			23:45																
ZZZZZZ			00:01																
ZZZZZZ			00:18																
ZZZZZZ			00:35																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-77373-1

SDG No.: _____

Instrument ID: WC_IonChrom8 Method: 9056

Start Date: 12/02/2015 11:06 End Date: 12/03/2015 04:47

Lab Sample ID	D / F	T y p e	Time	Analytes																		
				N - N O 2	N O 3																	
ZZZZZZ			00:52																			
ZZZZZZ			01:09																			
CCV 280-306281/47			01:59																			
CCB 280-306281/48			02:16																			
ZZZZZZ			03:06																			
ZZZZZZ			03:23																			
ZZZZZZ			03:40																			
ZZZZZZ			03:57																			
ZZZZZZ			04:13																			
CCV 280-306281/56			04:30																			
CCB 280-306281/57			04:47																			

Prep Types
T = Total/NA

TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\02.0000.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 02-Dec-2015 11:23:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:41 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

First Level Reviewer: bensona Date: 02-Dec-2015 13:08:10

Detector: 0005
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.000	1.842	2.750	6658896	11.76	4.10		1 Fluoride
3.242	3.067	3.583	18292316	32.30	4.68		2 Chloride
3.750	3.583	4.083	8005022	14.13	5.24		3 Nitrite as N
5.992	5.683	6.167	1065397	1.88	7.61		4 Bromide
6.600	6.175	7.192	8105424	14.31	9.29		5 Nitrate as N
11.292	11.117	11.408	12150715	21.45	4.20		6 Sulfate
11.567	11.425	11.592	61287	0.11	8.96		
12.675	12.433	12.800	2302139	4.06	8.07		7 Orthophosphate as P
			56641196			Totals	

Total Unknown Area% = 0.11

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\02.0000.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 02-Dec-2015 11:23:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-002 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:41 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

First Level Reviewer: bensona Date: 02-Dec-2015 13:08:10

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	2.017	-0.017	6658896	0.2000	0.1849	
2 Chloride	3.242	3.225	0.017	18292316	1.00	1.05	
3 Nitrite as N	3.750	3.742	0.008	8005022	0.2000	0.1837	
4 Bromide	5.992	5.942	0.050	1065397	0.2000	0.2366	
5 Nitrate as N	6.600	6.425	0.175	8105424	0.2000	0.2124	
6 Sulfate	11.292	11.058	0.234	12150715	1.00	1.03	
7 Orthophosphate as P	12.675	12.617	0.058	2302139	0.2000	0.2432	

Reagents:

IC CAL cl/so4_00075 Amount Added: 0.02 Units: mL
 IC Cal low_00145 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\02.0000.d

Injection Date: 02-Dec-2015 11:23:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L1

Worklist Smp#: 2

Client ID:

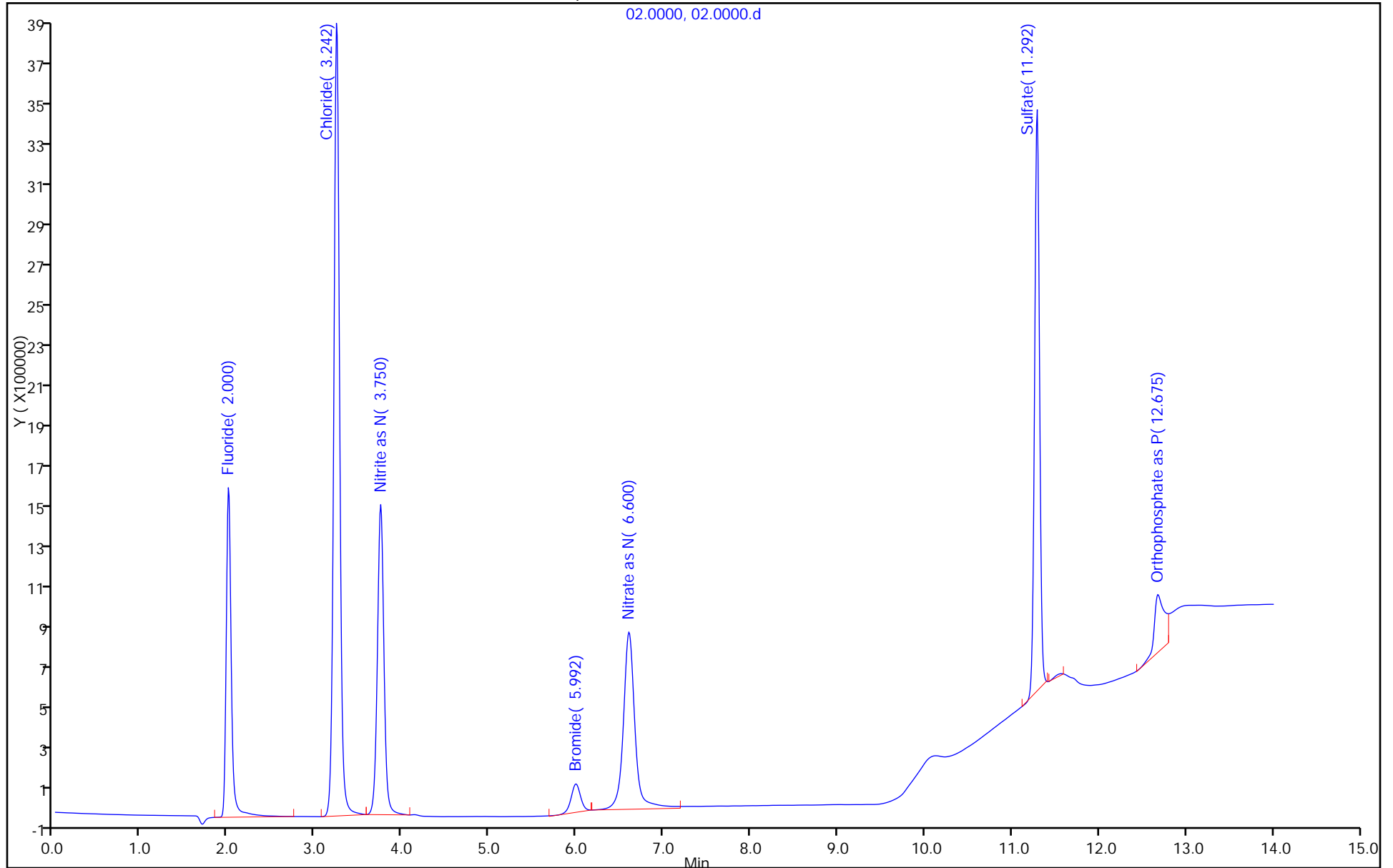
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\03.0000.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 02-Dec-2015 11:40:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-003 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:45 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.008	1.842	2.817	16338009	11.69	4.14		1 Fluoride
3.242	3.067	3.575	43459391	31.10	4.73		2 Chloride
3.750	3.575	4.083	21108137	15.11	5.49		3 Nitrite as N
5.992	5.667	6.233	2994695	2.14	7.70		4 Bromide
6.583	6.233	7.292	21057056	15.07	9.00		5 Nitrate as N
11.275	11.108	11.425	31196715	22.33	4.18		6 Sulfate
11.567	11.442	11.592	58744	0.04	7.76		
12.658	12.442	12.808	3513187	2.51	7.10		7 Orthophosphate as P
			139725934			Totals	

Total Unknown Area% = 0.04

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\03.0000.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 02-Dec-2015 11:40:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-003 Temporary sequence for manual data acquisition
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:45 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.008	2.017	-0.009	16338009	0.5000	0.5098	
2 Chloride	3.242	3.225	0.017	43459391	2.50	2.45	
3 Nitrite as N	3.750	3.742	0.008	21108137	0.5000	0.5121	
4 Bromide	5.992	5.942	0.050	2994695	0.5000	0.4814	
5 Nitrate as N	6.583	6.425	0.158	21057056	0.5000	0.4908	
6 Sulfate	11.275	11.058	0.217	31196715	2.50	2.48	
7 Orthophosphate as P	12.658	12.617	0.041	3513187	0.5000	0.4644	

Reagents:

IC CAL cl/so4_00075 Amount Added: 0.05 Units: mL
 IC Cal low_00145 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\03.0000.d

Injection Date: 02-Dec-2015 11:40:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L2

Worklist Smp#: 3

Client ID:

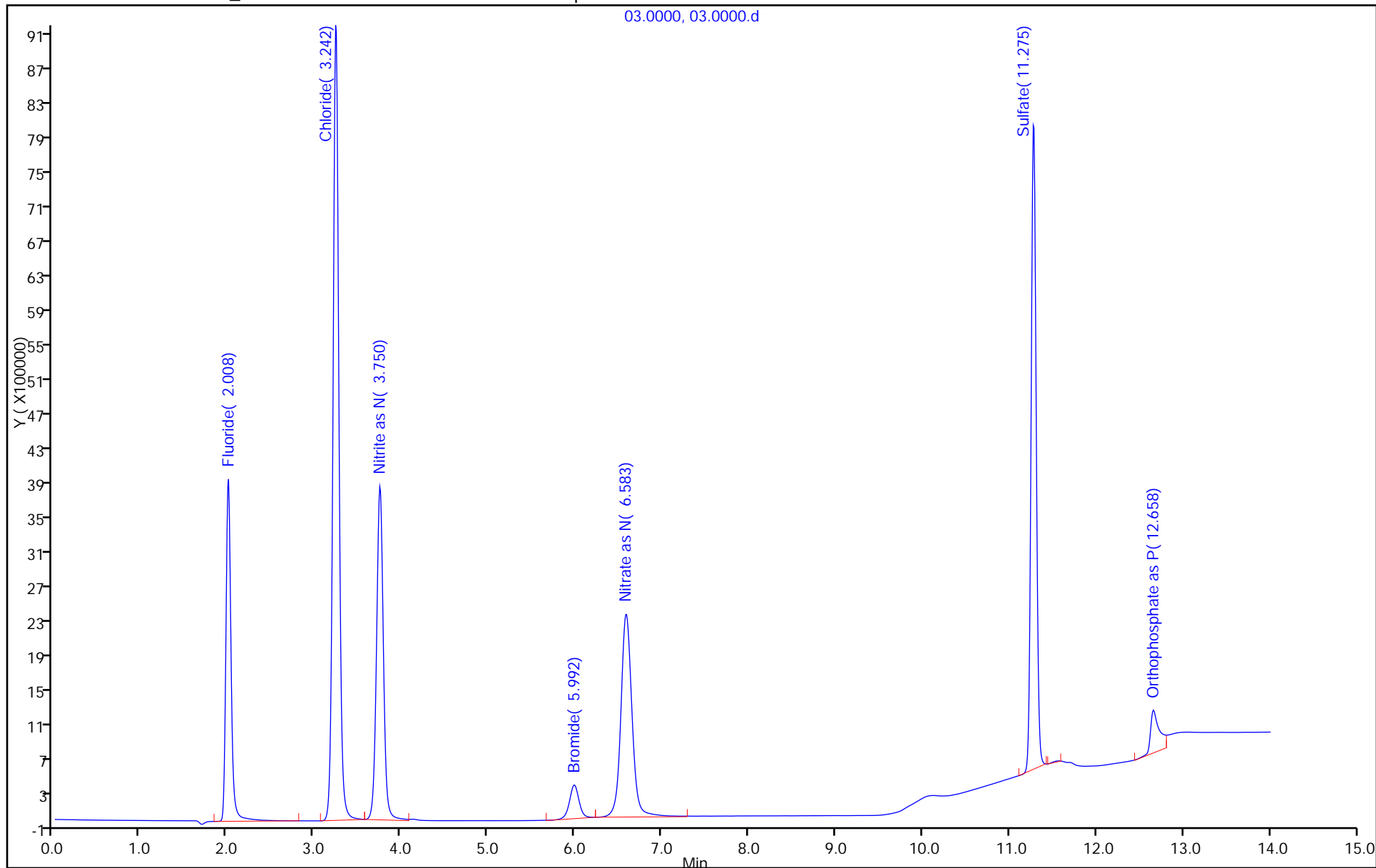
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\04.0000.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 02-Dec-2015 11:56:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-004 Temporary sequence for manual data acquisition
 Misc. Info.: 4 F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:46 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.008	1.842	3.042	32528732	11.47	4.27		1 Fluoride
3.242	3.067	3.567	88126211	31.08	4.77		2 Chloride
3.750	3.567	4.483	42728151	15.07	5.76		3 Nitrite as N
5.983	5.667	6.250	6034124	2.13	7.14		4 Bromide
6.567	6.250	7.358	43475536	15.33	9.16		5 Nitrate as N
11.275	11.108	11.442	63661906	22.45	4.36		6 Sulfate
11.567	11.442	11.667	1084955	0.38	12.19		
12.650	12.442	12.825	5873482	2.07	6.22		7 Orthophosphate as P
			283513097			Totals	

Total Unknown Area% = 0.38

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\04.0000.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 02-Dec-2015 11:56:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-004 Temporary sequence for manual data acquisition
 Misc. Info.: 4 F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:46 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.008	2.017	-0.009	32528732	1.00	1.05	
2 Chloride	3.242	3.225	0.017	88126211	5.00	4.93	
3 Nitrite as N	3.750	3.742	0.008	42728151	1.00	1.05	
4 Bromide	5.983	5.942	0.041	6034124	1.00	0.8672	
5 Nitrate as N	6.567	6.425	0.142	43475536	1.00	0.9726	
6 Sulfate	11.275	11.058	0.217	63661906	5.00	4.95	
7 Orthophosphate as P	12.650	12.617	0.033	5873482	1.00	0.8955	

Reagents:

IC CAL cl/so4_00075 Amount Added: 0.10 Units: mL
 IC Cal low_00145 Amount Added: 0.10 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\04.0000.d

Injection Date: 02-Dec-2015 11:56:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L3

Worklist Smp#: 4

Client ID:

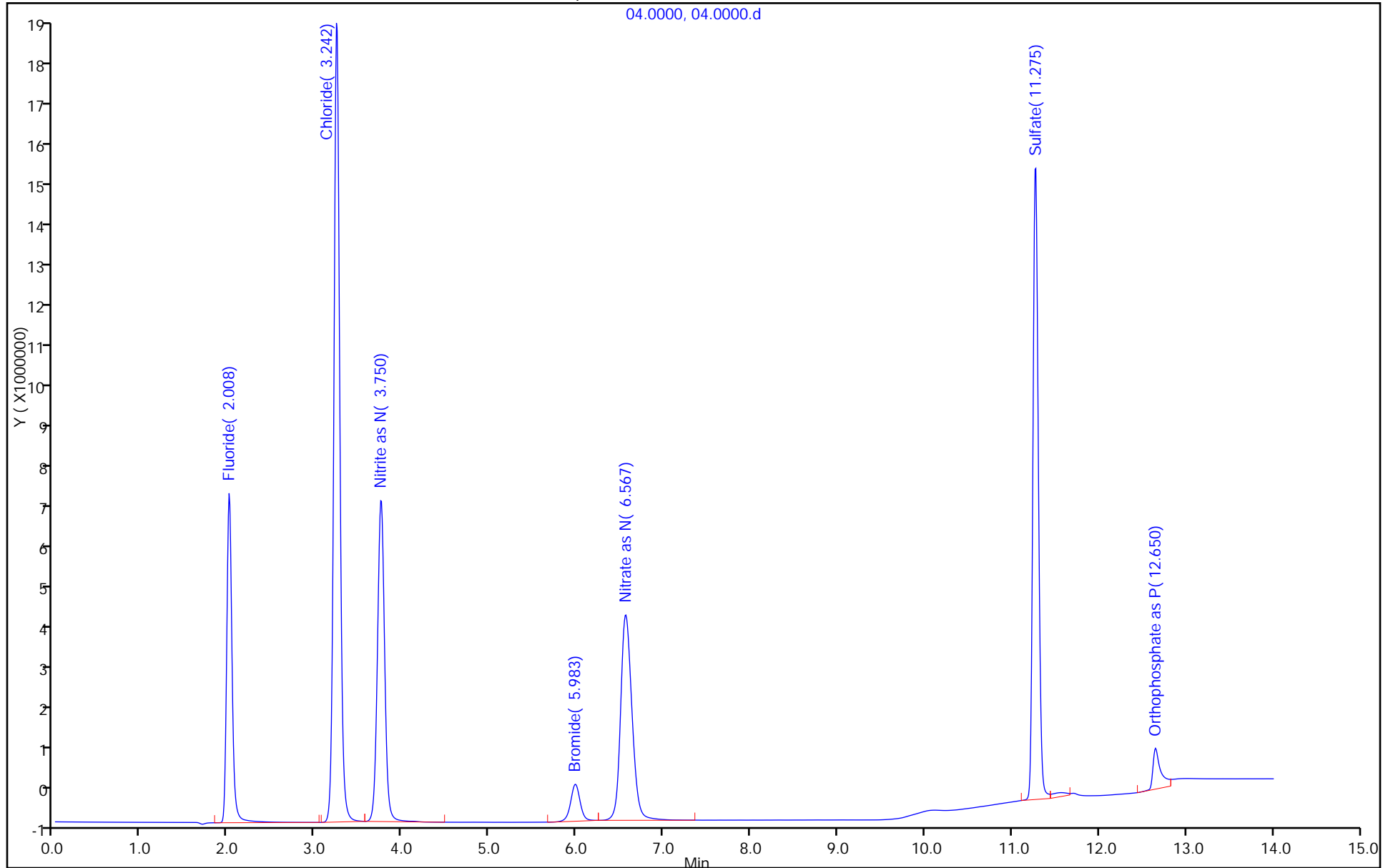
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 02-Dec-2015 12:13:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-005 Temporary sequence for manual data acquisition
 Misc. Info.: 5 F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:49 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.017	1.850	3.033	121687741	5.20	4.98		1 Fluoride
3.233	3.050	3.558	1056103976	45.11	4.92		2 Chloride
3.750	3.558	4.808	162396804	6.94	6.81		3 Nitrite as N
5.950	5.667	6.233	29325252	1.25	7.59		4 Bromide
6.450	6.233	7.533	178250893	7.61	11.20		5 Nitrate as N
11.133	10.975	11.492	772167440	32.98	8.36		6 Sulfate
11.700	11.642	11.842	486726	0.02	4.93		
12.625	12.458	12.842	20951626	0.89	4.88		7 Orthophosphate as P
			2341370458			Totals	

Total Unknown Area% = 0.02

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
IC, ICal Standard Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 02-Dec-2015 12:13:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-005 Temporary sequence for manual data acquisition
 Misc. Info.: 5 F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:49 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005
 Start Cal Date: 02-Dec-2015 11:23:00
 End Cal Date: 02-Dec-2015 12:47:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	4.00	0.0	4.05	30421935	1.2	0	101
2 Chloride	60.0	0.0	58.8	17601733	-2.0	0	98
3 Nitrite as N	4.00	0.0	4.05	40599201	1.3	0	101
4 Bromide	4.00	0.0	3.82	7331313	-4.4	0	96
5 Nitrate as N	4.00	0.0	3.87	44562723	-3.3	0	97
6 Sulfate	60.0	0.0	58.9	12869457	-1.8	0	98
7 Orthophosphate as P	4.00	0.0	3.65	5237907	-8.8	0	91

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\05.0000.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 02-Dec-2015 12:13:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-005 Temporary sequence for manual data acquisition
 Misc. Info.: 5 F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:49 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	121687741	4.00	4.05	
2 Chloride	3.233	3.233	0.000	1056103976	60.0	58.8	
3 Nitrite as N	3.750	3.750	0.000	162396804	4.00	4.05	
4 Bromide	5.950	5.950	0.000	29325252	4.00	3.82	
5 Nitrate as N	6.450	6.450	0.000	178250893	4.00	3.87	
6 Sulfate	11.133	11.133	0.000	772167440	60.0	58.9	
7 Orthophosphate as P	12.625	12.625	0.000	20951626	4.00	3.65	

Reagents:

IC CAL cl/so4_00075 Amount Added: 1.20 Units: mL
 IC Cal low_00145 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\05.0000.d

Injection Date: 02-Dec-2015 12:13:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L4

Worklist Smp#: 5

Client ID:

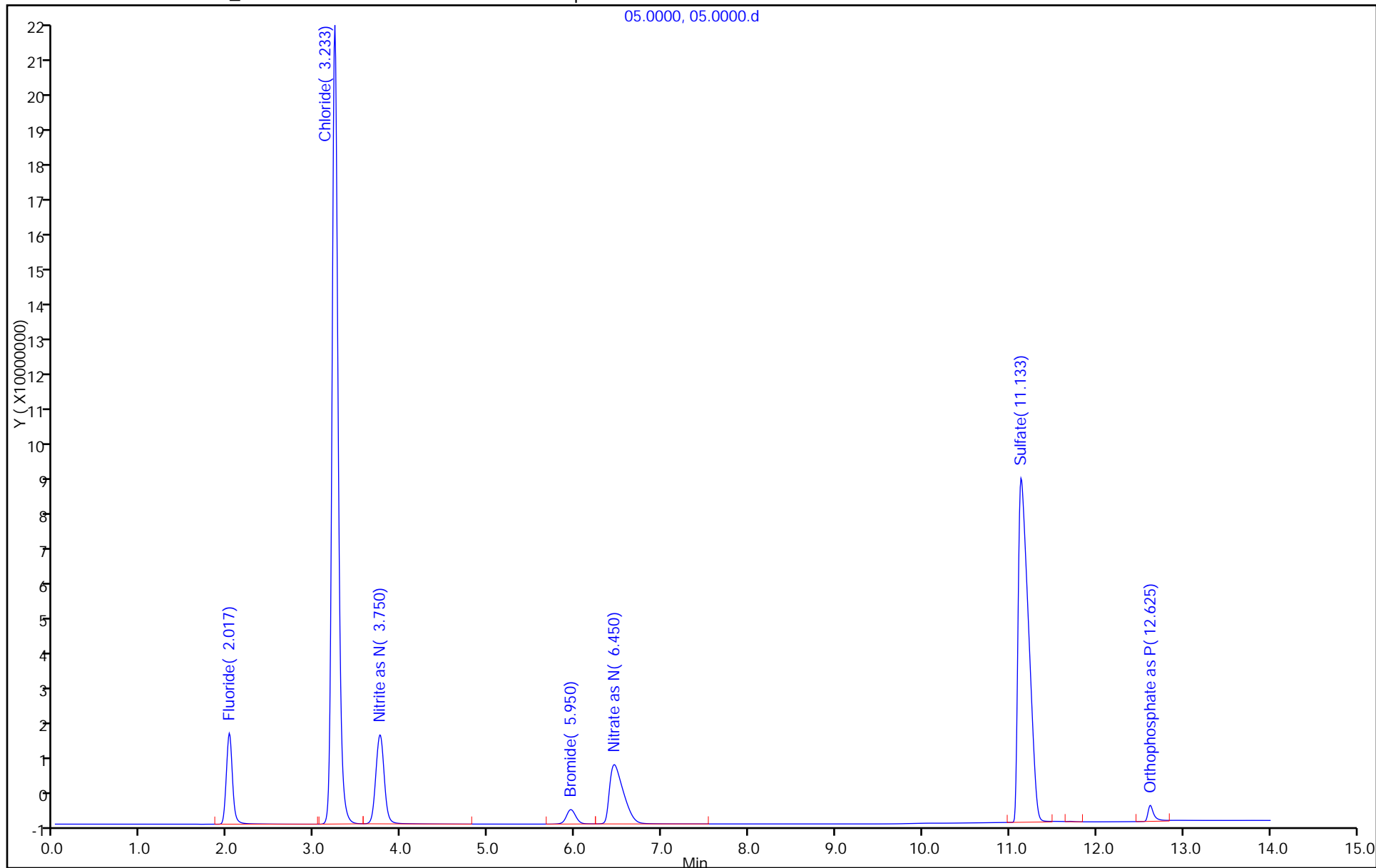
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\06.0000.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 02-Dec-2015 12:30:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-006 Temporary sequence for manual data acquisition
 Misc. Info.: 6 F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:52 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.025	1.850	3.017	239712114	5.00	5.73		1 Fluoride
3.225	3.042	3.550	2170953518	45.28	5.09		2 Chloride
3.750	3.550	5.058	320653518	6.69	7.87		3 Nitrite as N
5.900	5.658	6.167	62901366	1.31	7.66		4 Bromide
6.342	6.167	7.500	372430577	7.77	13.76		5 Nitrate as N
11.050	10.958	11.633	1581919973	32.99	11.55		6 Sulfate
11.700	11.633	11.792	618385	0.01	4.11		
12.608	12.450	12.867	45286260	0.94	4.74		7 Orthophosphate as P
			4794475711			Totals	

Total Unknown Area% = 0.01

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\06.0000.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 02-Dec-2015 12:30:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-006 Temporary sequence for manual data acquisition
 Misc. Info.: 6 F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:52 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.017	0.008	239712114	8.00	8.01	
2 Chloride	3.225	3.233	-0.008	2170953518	120.0	120.8	
3 Nitrite as N	3.750	3.750	0.000	320653518	8.00	8.02	
4 Bromide	5.900	5.950	-0.050	62901366	8.00	8.08	
5 Nitrate as N	6.342	6.450	-0.108	372430577	8.00	8.04	
6 Sulfate	11.050	11.133	-0.083	1581919973	120.0	120.6	
7 Orthophosphate as P	12.608	12.625	-0.017	45286260	8.00	8.09	

Reagents:

IC CAL cl/so4_00075 Amount Added: 2.40 Units: mL
 IC Cal low_00145 Amount Added: 0.80 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\06.0000.d

Injection Date: 02-Dec-2015 12:30:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L5

Worklist Smp#: 6

Client ID:

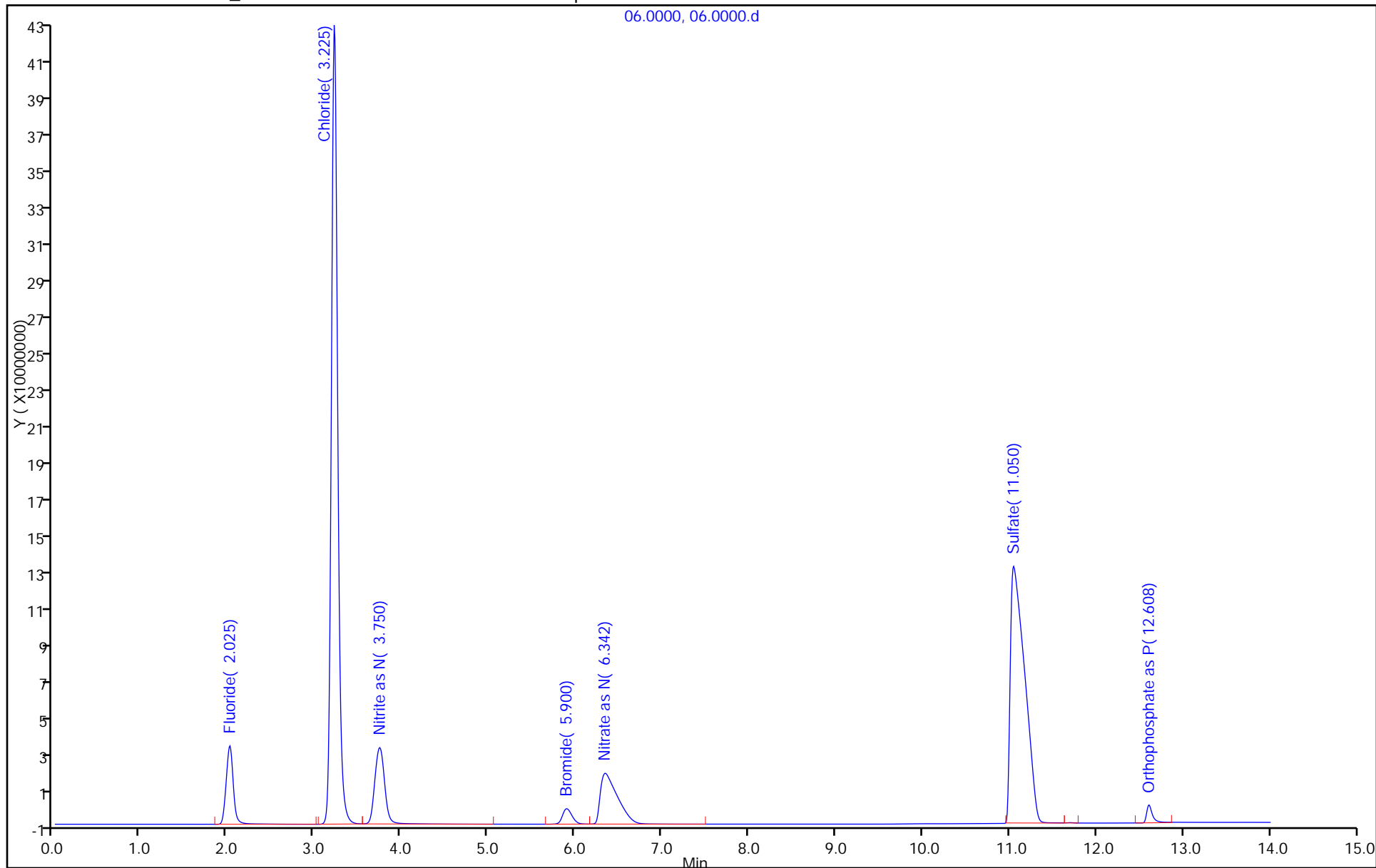
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 02-Dec-2015 12:47:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-007 Temporary sequence for manual data acquisition
 Misc. Info.: 7 3610F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:54 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

First Level Reviewer: bensona Date: 02-Dec-2015 13:06:07

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.017	1.842	3.008	295969390	3.93	6.24		1 Fluoride
3.225	3.025	3.550	3601030593	47.84	5.55		2 Chloride
3.742	3.550	4.975	394811899	5.24	8.31		3 Nitrite as N
5.875	5.650	6.125	79633279	1.06	7.71		4 Bromide
6.292	6.125	7.550	468622132	6.23	14.70		5 Nitrate as N
10.958	10.808	11.575	2629087017	34.92	14.96	M	6 Sulfate
11.692	11.617	11.850	1150765	0.02	5.30		
12.600	12.450	12.875	57651501	0.77	4.80		7 Orthophosphate as P
			7527956576			Totals	

Total Unknown Area% = 0.02

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 02-Dec-2015 12:47:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-007 Temporary sequence for manual data acquisition
 Misc. Info.: 7 3610F
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:54 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

First Level Reviewer: bensona Date: 02-Dec-2015 13:06:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	295969390	10.0	9.90	
2 Chloride	3.225	3.233	-0.008	3601030593	200.0	200.4	
3 Nitrite as N	3.742	3.750	-0.008	394811899	10.0	9.88	
4 Bromide	5.875	5.950	-0.075	79633279	10.0	10.2	
5 Nitrate as N	6.292	6.450	-0.158	468622132	10.0	10.1	
6 Sulfate	10.958	11.133	-0.175	2629087017	200.0	200.4	M
7 Orthophosphate as P	12.600	12.625	-0.025	57651501	10.0	10.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

IC CAL cl/so4_00075 Amount Added: 4.00 Units: mL
 IC Cal low_00145 Amount Added: 1.00 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d

Injection Date: 02-Dec-2015 12:47:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: std L6

Worklist Smp#: 7

Client ID:

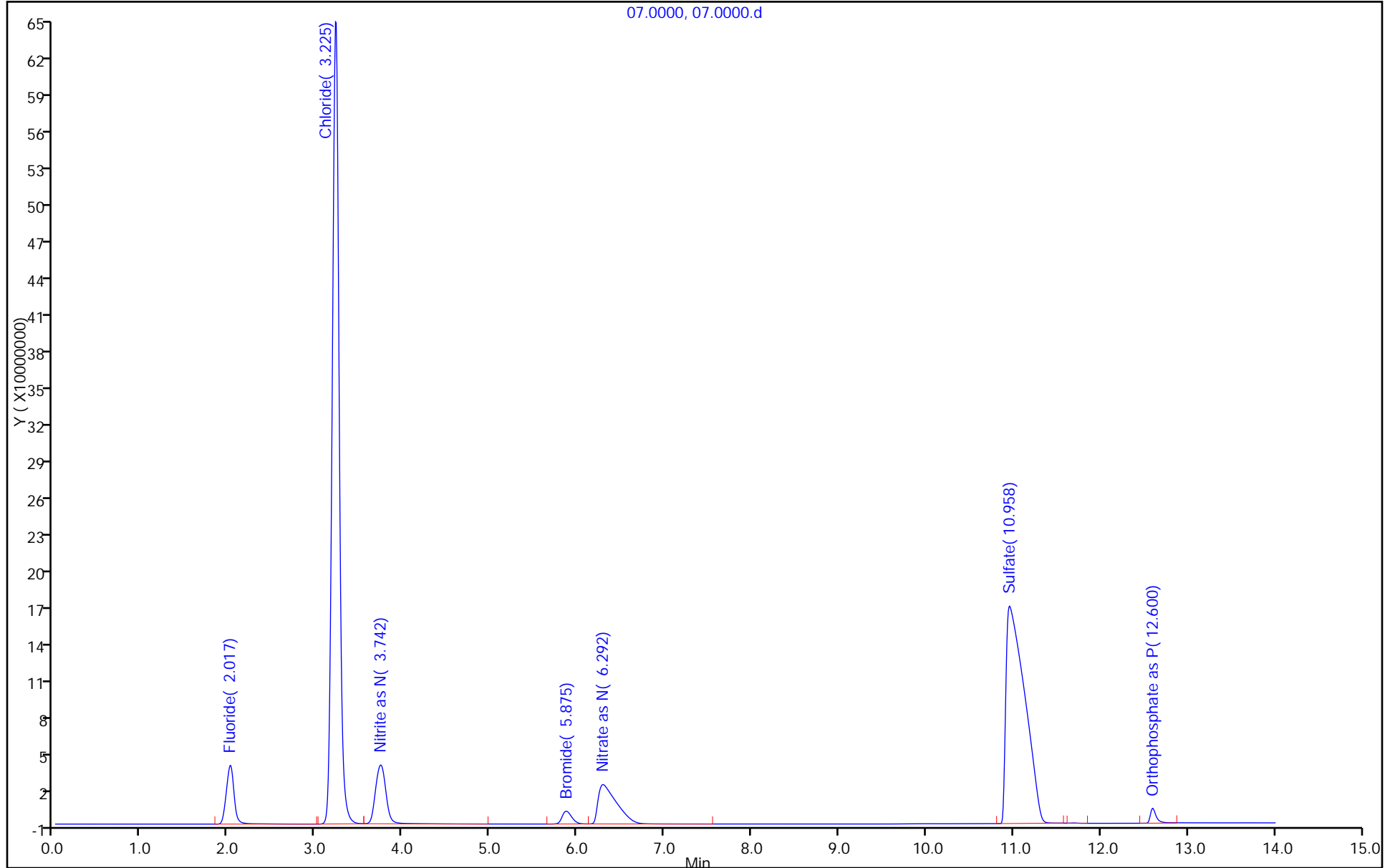
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\08.0000.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 02-Dec-2015 13:34:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-008 Temporary sequence for manual data acquisition
 Misc. Info.: 21925
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist:
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.017	1.850	3.025	121181685	3.95	5.03		1 Fluoride
3.233	3.050	3.558	1461367693	47.59	4.97		2 Chloride
3.750	3.558	4.825	165690364	5.40	6.83		3 Nitrite as N
5.950	5.675	6.233	29987414	0.98	7.44		4 Bromide
6.442	6.233	7.550	192110512	6.26	11.31		5 Nitrate as N
11.108	10.967	11.508	1077896916	35.11	9.63		6 Sulfate
12.625	12.450	12.858	22235740	0.72	4.93		7 Orthophosphate as P
			3070470324			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver

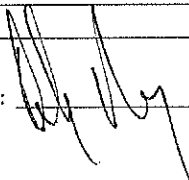
Ion Chromatography Data Review Checklist

LIMS Batch Number: 306281/82		Worklist #: 42076		Instrument ID: IC8	
Analyst/1 st Reviewer/Date: JP/JP/12/03/15		Method (circle): 300.0 9056 9056A DV-WC-0077		QC Type (circle): Standard DOD Q4 DoD Q5 QAPP Other	
Matrix (circle): Water Solid Leachate					

Review Items	Yes	No	NA	2 nd Rev	If No, why is data reportable?
A. Calibration/Instrument Run QC					
1. Verify intermediate standards for correct concentration stated in SOP (ICAL pts at correct concentration)	✓			✗	
2. Calibrated with at least 5 standards & a blank	✓			✓	
3. Elution order of analytes in ICAL confirmed to be correct	✓			✓	
4. Linearity and intercept: r ≥ 0.995 (r ² > 0.99) & x-intercept < ½ RL (absolute value)	✓			✓	
5. ICV, second source: run before samples 90-110% recovery / 80-120% recovery (Hydrazine)	✓			✗	
6. CCV: 10% frequency & closing 90-110% recovery / 80-120% recovery (Hydrazine)	✓			✗	
7. ICB/CCB: run before samples, 10% freq. & closing	✓			✓	
8. Result < ½ RL	✓			✓	
9. RL-level check standard (Anions) run before samples 50-150% Recovery	✓			✓	
10. RT Window set based on midpoint of ICAL or initial CCV?	✓			✓	
B. Client Sample and QC Sample Results					
11. Samples with results > linear range diluted and reanalyzed?	✓			✗	Comments:
12. Manual integrations done & documented appropriately? (before & after chroms, date, initial, & reason)	✓			✓	Comments:
C. Preparation/Matrix QC					
13. If samples are lab filtered are QC samples also filtered?	✓			✓	
14. Method Blank: one per preparation batch Result < 1/2 RL <i>If no, list blank ID & explain:</i>	✓			✗	<input type="checkbox"/> No analyte > RL in associated samples <input type="checkbox"/> Sample results > 10x blank <input type="checkbox"/> Insufficient sample for reanalysis
15. LCS: one per preparation batch 90-110% recovery (routine) / Lab limits (Hydrazine) <i>If no, list LCS ID & explain:</i>	✓			✓	<input type="checkbox"/> Insufficient sample for reanalysis <input type="checkbox"/> LCS %R > QC limits & samples < RL
16. Matrix Retention Time Spike: one per sample (Hydrazine) MS/MSD freq.: a pair per 20 samples (Hydrazine) MS/MSD and Dup freq.: a pair per 10 samples (Anions) <i>If no, list QC ID & explain:</i>	✓			✗	<input type="checkbox"/> Insufficient sample

Review Items	Yes	No	NA	2 nd Rev	If No, why is data reportable?
17. MS/MSD recovery & RPD: 80-120% recovery (Anions) Lab limits (Hydrazine) 20% RPD <i>If no, list MS or MSD ID & explain:</i>	-			✓	<input type="checkbox"/> LCS acceptable – matrix effects <input type="checkbox"/> Native analyte > 4x spike level <input type="checkbox"/> Matrix effect <u>and</u> native analyte > 4x spike
D. Raw Data & TALS Data Entry					
18. Raw Data					
a. Unused data is clearly identified (with reason)	-			✓	
b. All cross outs are initialed and dated	-			✓	
c. Out of control QC is clearly identified	-			✓	
d. Any data that has a qualifier is commented on with appropriate action taken	-			✓	
e. The first page of the run includes the filename, instrument, and analyst initials/signature	-			✓	
19. Run Log					
a. Unused data is clearly identified	-			✓	
b. All cross outs are initialed and dated	-			✓	
c. Analyst initials/signature provided	-			✓	
20. TALS Samples Tab					
a. LIMS Sample IDs / Containers are correct	-			✓	
b. Method and matrix are correct	-			✓	
c. Date and time match raw data	-			✓	
d. Dilutions are correct	-			✓	
e. Correct suffix designated (where applicable)	-			✓	
21. TALS Worksheet Tab is complete and correct	-			✓	
22. TALS Reagent Tab is complete and correct	-			✓	
23. TALS QC Links Tab is correct	-			✓	
24. TALS Sample Results Tab					
a. All unused data are marked Rejected or Accepted	-			✓	
b. All reported analytes are marked Primary or Secondary	-			✓	
25. TALS Batch Information Screen documentation is complete	-			✓	
26. TALS Status set to appropriate review level	-			✓	
E. Final Report and NCMs (2nd level review only)					
27. Were all job/project requirements met?	✓				
28. Results for samples and QC correct on final report?	✓				
29. Are all necessary scanned documents in TALS?	✓				
30. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?	✓				

Comments: _____

2nd Reviewer: 

Review Date: 12/4/15

IC Instrument Information

M
306281/82

WL: 42076 Inst ID: 8 Analysis Date: 12/02 Analyst: _____

Rush	Job No.	Samples	Anions	QC Req	HT Exp
300-0 ✓	77374	4	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	_____
✓	77383	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	_____
9056 DOD Q4 ✓	77373	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
✓	77372	6	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	2 1/4
9056 DOD Q4	75830	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
	77040	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	_____
	77140	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	_____
MDLV	LOQV 76252		F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
			F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
			F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
			F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
			F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
			F Cl NO2 Br NO3 PO4 SO4	MS/D	_____
			F Cl NO2 Br NO3 PO4 SO4	MS/D	_____

Dilutions

Job No.	Samples	Anions	Dilution	Reason
77374	3	F Cl NO2 Br NO3 PO4 SO4	5x	high
77374	4	F (Cl) NO2 Br NO3 PO4 SO4	50x	high
77374	5	F (Cl) NO2 Br NO3 PO4 SO4	10x	high
77383	1	F Cl NO2 Br NO3 PO4 SO4	5x	high
77372	1,3	F (Cl) NO2 Br NO3 PO4 SO4	5x	high
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

77383 -1 check SO4 peak at 2+ 1/2 5x

30
27
27

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Instrument: WC_IonChrom8 Lims Location: 280
 Lock State: Unlocked Cpnd Order: Retention Time
 Integrator: Falcon Last Modified: 03-Dec-2015 13:38:09
 No.Compounds:7

Initial Calibration Batches

Ical Batch: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b
 Inj Date : 02-Dec-2015 11:23:00, Sublist: chrom-Anions_IC8*sub1

Detector 1: 0005

Compound	Wet - Anions				Wet - Anions 28D			
	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	1150429	2978870		1.000	1150429	2978870		1.000
2 Chloride	-499783	1796902		1.000	-499783	1796902		1.000
3 Nitrite as N	675724	3990081		1.000	675724	3990081		1.000
4 Bromide	-798808	7879619	R4	1.998*	-798808	7879619	R4	1.998*
5 Nitrate as N	-177478	4652279		1.000	-177478	4652279		1.000
6 Sulfate	-133577	1312277		1.000	-133577	1312277		1.000
7 Orthophosphate as P	970498	5474903		0.997	970498	5474903		0.997

ICalib Error Legend

R4, Curve Zero Intercept is > Reporting Limit

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\08.0000.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 02-Dec-2015 13:34:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-008 Temporary sequence for manual data acquisition
 Misc. Info.: 21925
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist:
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	121181685	4.00	4.03	
2 Chloride	3.233	3.233	0.000	1461367693	80.0	81.4	
3 Nitrite as N	3.750	3.750	0.000	165690364	4.00	4.14	
4 Bromide	5.950	5.950	0.000	29987414	4.00	3.91	
5 Nitrate as N	6.442	6.442	0.000	192110512	4.00	4.17	
6 Sulfate	11.108	11.108	0.000	1077896916	80.0	82.2	
7 Orthophosphate as P	12.625	12.625	0.000	22235740	4.00	3.88	

Reagents:

IC ICV 5_00120 Amount Added: 0.40 Units: mL
 IC CL ICV_00012 Amount Added: 0.40 Units: mL
 IC SO4 ICV_00015 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\08.0000.d

Injection Date: 02-Dec-2015 13:34:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ICV

Worklist Smp#: 8

Client ID:

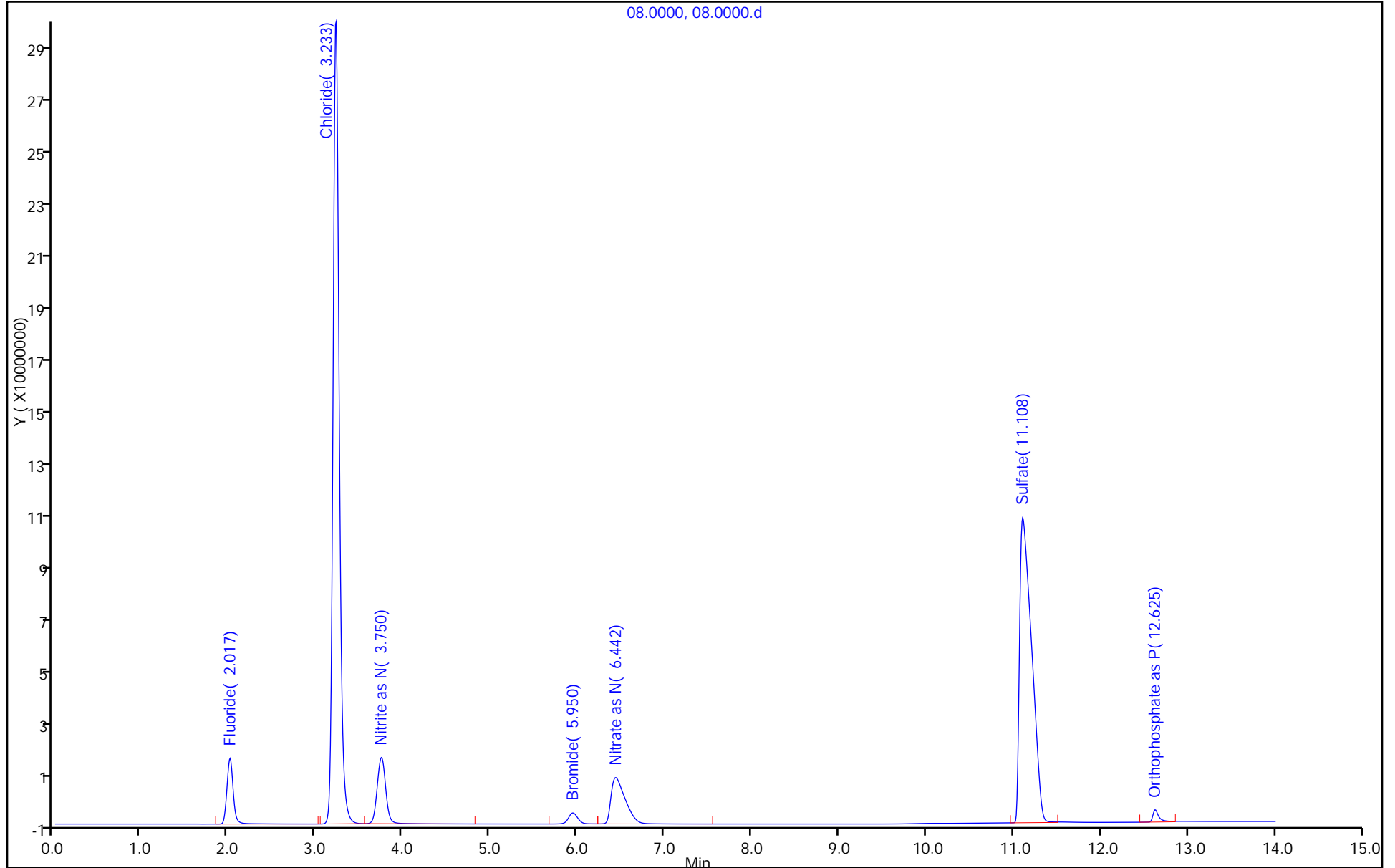
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\09.0000.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 02-Dec-2015 13:51:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-009 Temporary sequence for manual data acquisition
 Misc. Info.: 17703
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005

Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.992	1.850	2.158	361728	4.82	4.46		1 Fluoride
3.242	3.092	3.950	392540	5.23	5.17		2 Chloride
4.142	3.958	4.358	68445	0.91	6.20		
6.642	5.592	6.725	726966	9.68	30.62		5 Nitrate as N
11.308	11.183	11.350	237259	3.16	5.23		6 Sulfate
13.142	12.433	13.167	5722212	76.20	35.93		
			7509150			Totals	

Total Unknown Area% = 77.11

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\09.0000.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 02-Dec-2015 13:51:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-009 Temporary sequence for manual data acquisition
 Misc. Info.: 17703
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	2.017	-0.025	361728		-0.0265	
2 Chloride	3.242	3.233	0.009	392540		0.0497	
3 Nitrite as N		3.750				ND	
4 Bromide		5.950				ND	
5 Nitrate as N	6.642	6.442	0.200	726966		0.0538	
6 Sulfate	11.308	11.108	0.200	237259		0.1199	
7 Orthophosphate as P		12.625				ND	

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\09.0000.d

Injection Date: 02-Dec-2015 13:51:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ICB

Worklist Smp#: 9

Client ID:

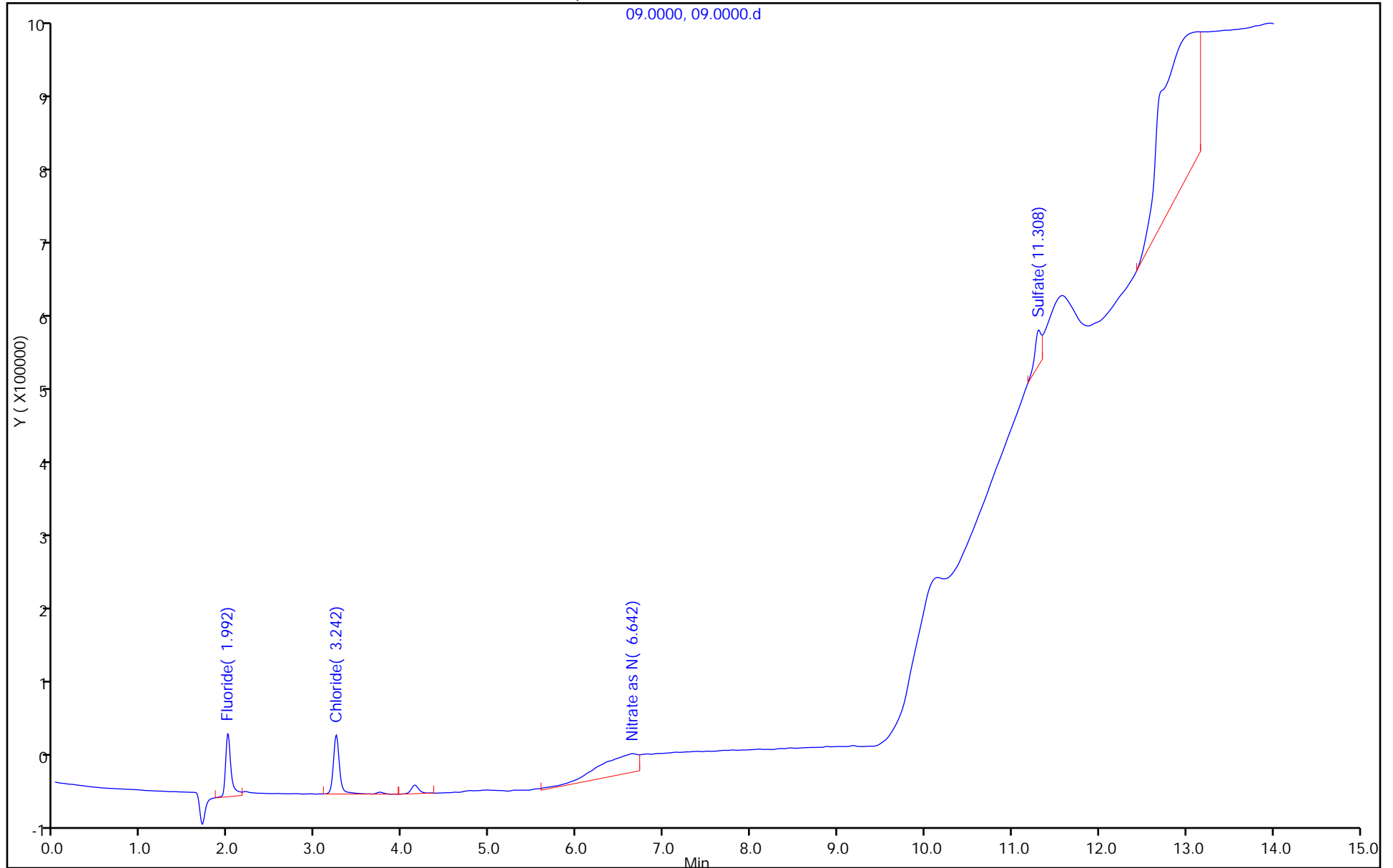
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\10.0000.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 02-Dec-2015 14:08:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-010 Temporary sequence for manual data acquisition
 Misc. Info.: 5010
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.000	1.842	2.625	6680722	6.37	4.07		1 Fluoride
3.242	3.058	3.592	45071226	42.99	4.77		2 Chloride
3.750	3.592	4.258	8285736	7.90	5.24		3 Nitrite as N
5.992	5.775	6.167	1092303	1.04	7.47		4 Bromide
6.600	6.167	7.175	9401114	8.97	10.09		5 Nitrate as N
11.292	11.125	11.442	31842175	30.37	4.12		6 Sulfate
11.575	11.442	11.600	540097	0.52	12.89		
12.683	12.458	12.792	1926375	1.84	7.34		7 Orthophosphate as P
			104839748			Totals	

Total Unknown Area% = 0.52

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\10.0000.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 02-Dec-2015 14:08:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-010 Temporary sequence for manual data acquisition
 Misc. Info.: 5010
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	2.017	-0.017	6680722	0.2000	0.1857	
2 Chloride	3.242	3.233	0.009	45071226	2.50	2.54	
3 Nitrite as N	3.750	3.750	0.000	8285736	0.2000	0.1907	
4 Bromide	5.992	5.950	0.042	1092303	0.2000	0.2400	
5 Nitrate as N	6.600	6.442	0.158	9401114	0.2000	0.2402	
6 Sulfate	11.292	11.108	0.184	31842175	2.50	2.53	
7 Orthophosphate as P	12.683	12.625	0.058	1926375	0.2000	0.1746	

Reagents:

IC CAL cl/so4_00075 Amount Added: 0.05 Units: mL
 IC Cal low_00145 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\10.0000.d

Injection Date: 02-Dec-2015 14:08:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: MRL

Worklist Smp#: 10

Client ID:

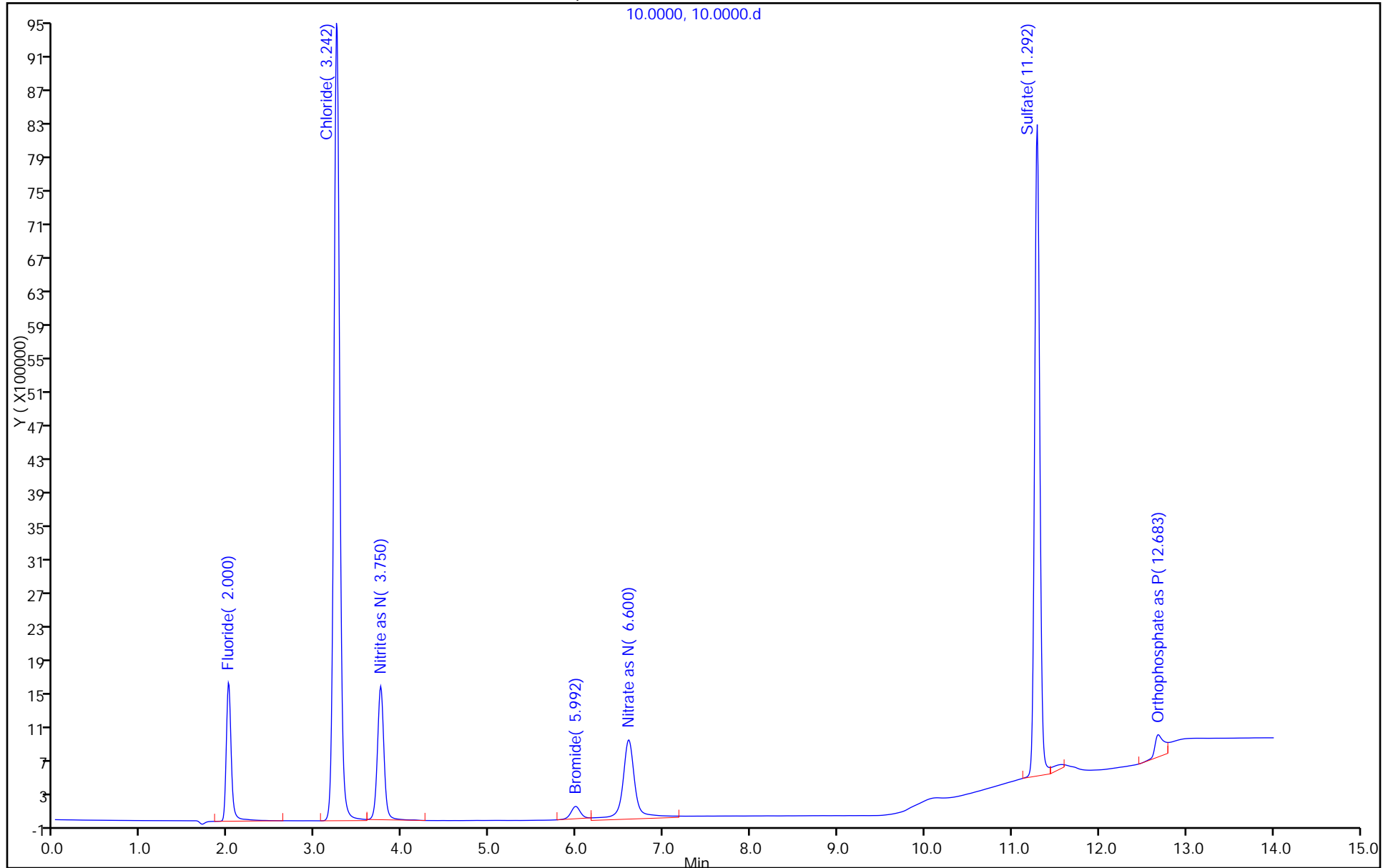
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\11.0000.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-Dec-2015 14:25:00 ALS Bottle#: 0 Worklist Smp#: 11
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-011 Temporary sequence for manual data acquisition
 Misc. Info.: 25258
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.017	1.850	3.025	154432551	4.07	5.24		1 Fluoride
3.225	3.042	3.558	1809374593	47.69	5.02		2 Chloride
3.750	3.558	4.808	206394012	5.44	7.08		3 Nitrite as N
5.933	5.658	6.217	38384187	1.01	7.50		4 Bromide
6.408	6.217	7.467	229717278	6.05	11.83		5 Nitrate as N
11.075	10.958	11.642	1328138536	35.00	10.61		6 Sulfate
11.708	11.642	11.792	375549	0.01	3.92		
12.617	12.458	12.850	27524561	0.73	4.73		7 Orthophosphate as P
			3794341267			Totals	

Total Unknown Area% = 0.01

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\11.0000.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-Dec-2015 14:25:00 ALS Bottle#: 0 Worklist Smp#: 11
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-011 Temporary sequence for manual data acquisition
 Misc. Info.: 25258
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	154432551	5.00	5.15	
2 Chloride	3.225	3.233	-0.008	1809374593	100.0	100.7	
3 Nitrite as N	3.750	3.750	0.000	206394012	5.00	5.16	
4 Bromide	5.933	5.950	-0.017	38384187	5.00	4.97	
5 Nitrate as N	6.408	6.442	-0.034	229717278	5.00	4.98	
6 Sulfate	11.075	11.108	-0.033	1328138536	100.0	101.3	
7 Orthophosphate as P	12.617	12.625	-0.008	27524561	5.00	4.85	

Reagents:

IC LCS_00435 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\11.0000.d

Injection Date: 02-Dec-2015 14:25:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: LCS

Worklist Smp#: 11

Client ID:

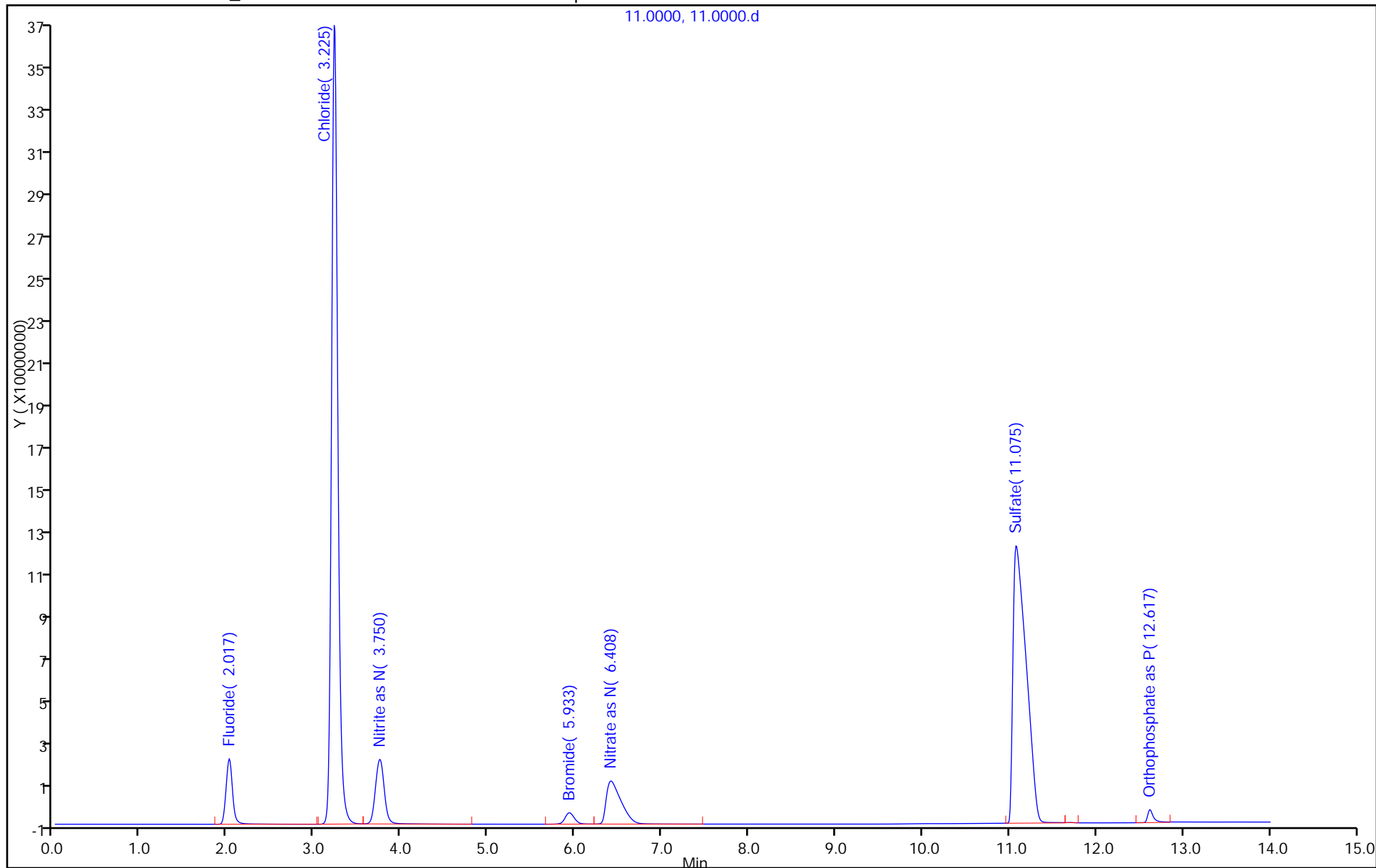
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\13.0000.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 02-Dec-2015 14:58:00 ALS Bottle#: 0 Worklist Smp#: 13
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-013 Temporary sequence for manual data acquisition
 Misc. Info.: 1258
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.992	1.842	2.150	324388	5.59	4.55		1 Fluoride
3.242	3.100	3.567	241844	4.16	5.37		2 Chloride
6.617	5.358	6.658	197746	3.41	14.00		5 Nitrate as N
11.308	11.183	11.333	173612	2.99	4.86		6 Sulfate
12.708	12.433	12.733	1286425	22.15	7.28		7 Orthophosphate as P
13.133	12.733	13.158	3583184	61.70	36.73		
			5807199			Totals	

Total Unknown Area% = 61.70

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\13.0000.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 02-Dec-2015 14:58:00 ALS Bottle#: 0 Worklist Smp#: 13
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-013 Temporary sequence for manual data acquisition
 Misc. Info.: 1258
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	2.017	-0.025	324388		-0.0277	
2 Chloride	3.242	3.233	0.009	241844		0.0413	
3 Nitrite as N		3.750				ND	
4 Bromide		5.950				ND	
5 Nitrate as N	6.617	6.442	0.175	197746		0.0424	
6 Sulfate	11.308	11.108	0.200	173612		0.1150	
7 Orthophosphate as P	12.708	12.625	0.083	1286425		0.0577	

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\13.0000.d

Injection Date: 02-Dec-2015 14:58:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: MB

Worklist Smp#: 13

Client ID:

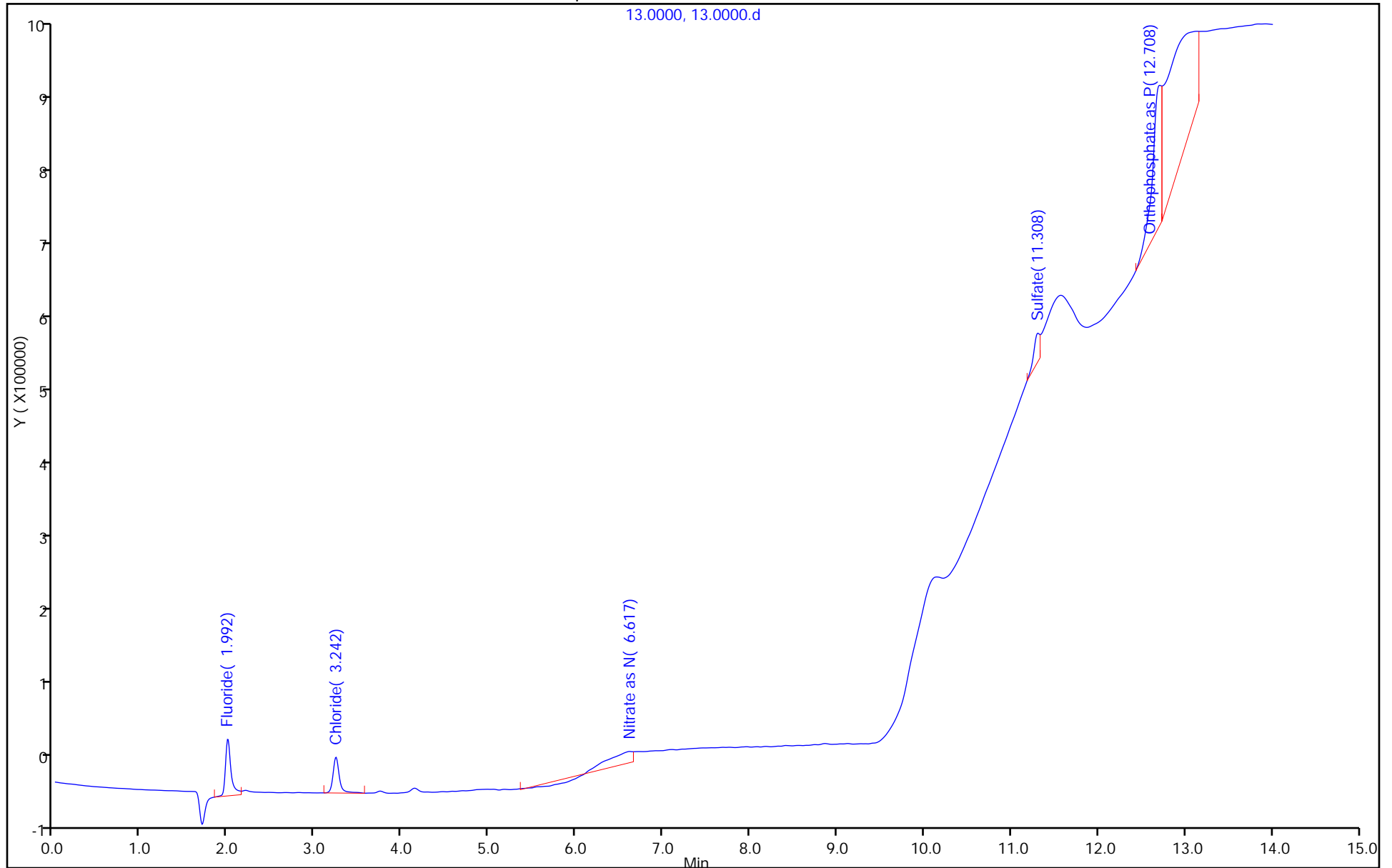
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\19.0000.d
 Lims ID: 280-77373-A-1 Lab Sample ID: 280-77373-1
 Client ID: TMW28102015
 Sample Type: Client
 Inject. Date: 02-Dec-2015 17:46:00 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-019 Temporary sequence for manual data acquisition
 Misc. Info.: 12088 2725
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

First Level Reviewer: phantl Date: 02-Dec-2015 19:02:51

Detector: 0005
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.692	1.617	1.817	364984	0.01	6.17		
1.975	1.817	2.942	14629774	0.39	7.44		1 Fluoride
3.192	2.950	4.600	3343946717	90.11	5.92		2 Chloride
5.608	5.417	5.908	6822044	0.18	6.05		
6.050	5.925	6.192	438556	0.01	6.43		5 Nitrate as N
7.125	5.925	10.158	339078622	9.14	114.68		
13.075	12.417	13.100	5002003	0.13	26.04		7 Orthophosphate as P
13.458	13.342	13.667	685571	0.02	9.59		
			3710968271			Totals	

Total Unknown Area% = 9.35

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\19.0000.d
 Lims ID: 280-77373-A-1 Lab Sample ID: 280-77373-1
 Client ID: TMW28102015
 Sample Type: Client
 Inject. Date: 02-Dec-2015 17:46:00 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-019 Temporary sequence for manual data acquisition
 Misc. Info.: 12088 2725
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:36:56 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

First Level Reviewer: phantl Date: 02-Dec-2015 19:02:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	1.975	2.017	-0.042	14629774	0.4525	
2 Chloride	3.192	3.233	-0.041	3343946717	186.1	
3 Nitrite as N		3.750			ND	
4 Bromide		5.950			ND	
5 Nitrate as N	6.050	6.442	-0.392	438556	0.0476	
6 Sulfate		11.108			ND	
7 Orthophosphate as P	13.075	12.625	0.450	5002003	0.7364	

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\19.0000.d

Injection Date: 02-Dec-2015 17:46:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: 280-77373-A-1

Lab Sample ID: 280-77373-1

Worklist Smp#: 19

Client ID: TMW28102015

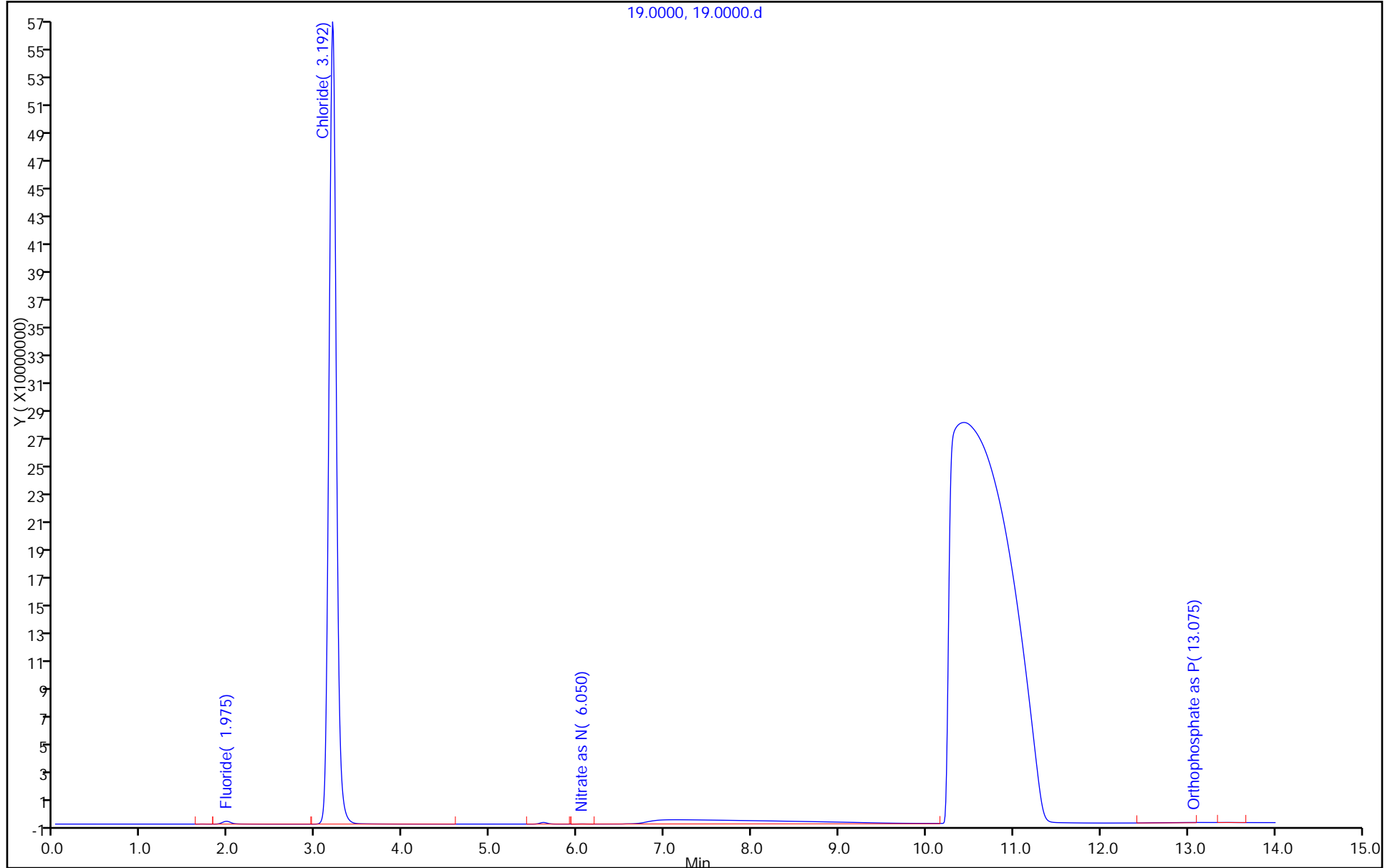
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-Dec-2015 19:10:00 ALS Bottle#: 0 Worklist Smp#: 24
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-024 Temporary sequence for manual data acquisition
 Misc. Info.: 9458
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:24 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.017	1.850	3.025	153907119	4.04	5.30		1 Fluoride
3.225	3.050	3.558	1817174907	47.65	5.04		2 Chloride
3.750	3.558	4.800	206793574	5.42	7.08		3 Nitrite as N
5.933	5.667	6.217	38686415	1.01	7.43		4 Bromide
6.408	6.217	7.417	231714193	6.08	11.77		5 Nitrate as N
11.092	10.958	11.675	1332150219	34.93	10.69		6 Sulfate
11.733	11.675	11.817	291646	0.01	3.86		
12.725	12.433	13.625	32610756	0.86	19.53		7 Orthophosphate as P
			3813328829			Totals	

Total Unknown Area% = 0.01

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
CCV, Cal Verification Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-Dec-2015 19:10:00 ALS Bottle#: 0 Worklist Smp#: 24
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-024 Temporary sequence for manual data acquisition
 Misc. Info.: 9458
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:24 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005
 Start Cal Date: 02-Dec-2015 11:23:00
 End Cal Date: 02-Dec-2015 12:47:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	5.00	0.0	5.13	30781424	2.6	10	103
2 Chloride	100.0	-0.008	101.2	18171749	1.2	10	101
3 Nitrite as N	5.00	0.0	5.17	41358715	3.3	10	103
4 Bromide	5.00	-0.017	5.01	7737283	0.2	10	100
5 Nitrate as N	5.00	-0.034	5.02	46342839	0.4	10	100
6 Sulfate	100.0	-0.016	101.6	13321502	1.6	10	102
7 Orthophosphate as P	5.00	0.100	5.78	6522151	15.6	10	116

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\24.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-Dec-2015 19:10:00 ALS Bottle#: 0 Worklist Smp#: 24
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-024 Temporary sequence for manual data acquisition
 Misc. Info.: 9458
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:24 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	153907119	5.00	5.13	
2 Chloride	3.225	3.233	-0.008	1817174907	100.0	101.2	
3 Nitrite as N	3.750	3.750	0.000	206793574	5.00	5.17	
4 Bromide	5.933	5.950	-0.017	38686415	5.00	5.01	
5 Nitrate as N	6.408	6.442	-0.034	231714193	5.00	5.02	
6 Sulfate	11.092	11.108	-0.016	1332150219	100.0	101.6	
7 Orthophosphate as P	12.725	12.625	0.100	32610756	5.00	5.78	

Reagents:

IC LCS_00435 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\24.0000.d

Injection Date: 02-Dec-2015 19:10:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ccv

Worklist Smp#: 24

Client ID:

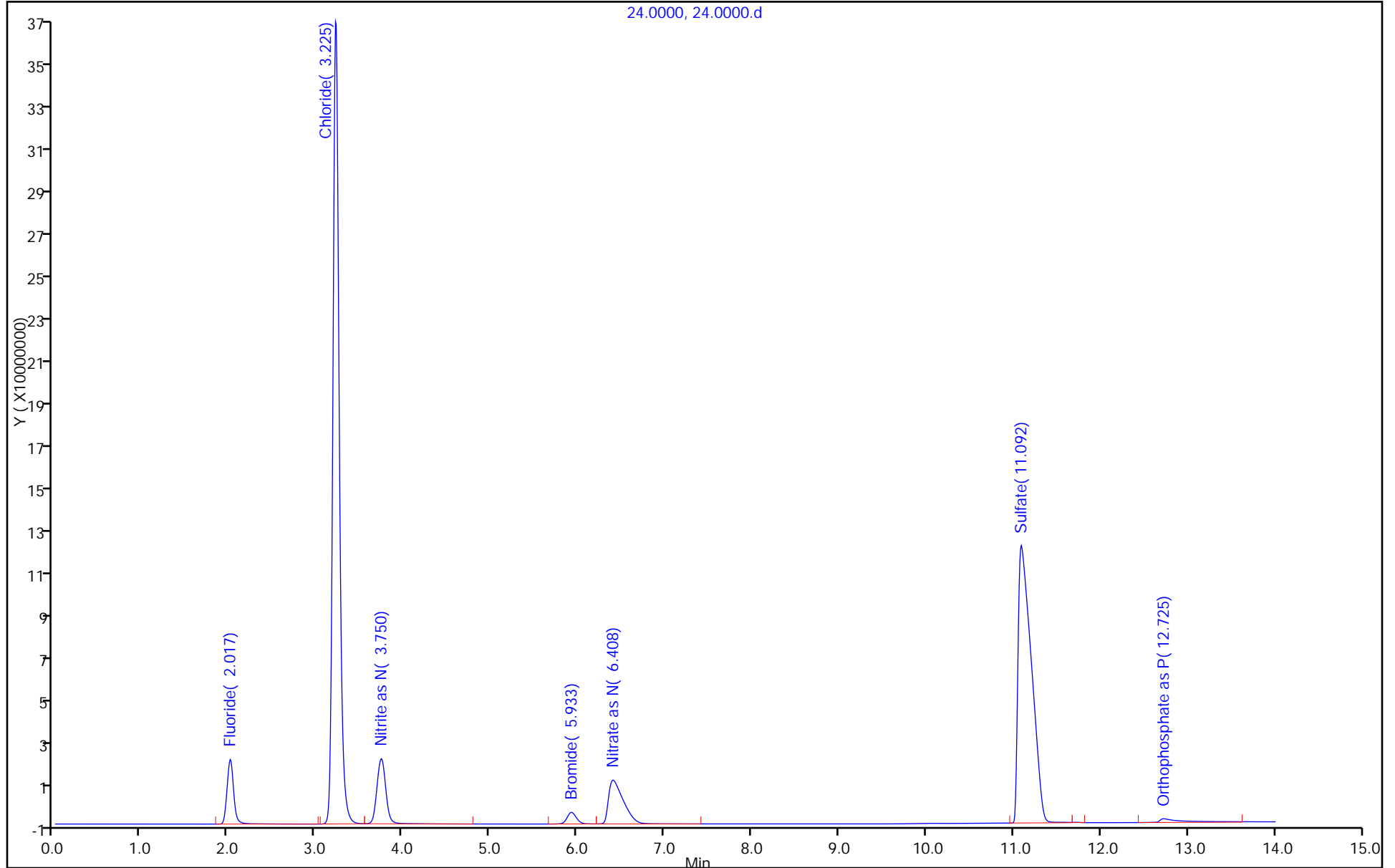
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\25.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 02-Dec-2015 19:27:00 ALS Bottle#: 0 Worklist Smp#: 25
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-025 Temporary sequence for manual data acquisition
 Misc. Info.: 6431
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:24 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.000	1.842	2.217	172212	2.85	4.50		1 Fluoride
3.242	3.092	3.567	208151	3.44	5.05		2 Chloride
6.908	5.567	6.933	635112	10.49	32.57		5 Nitrate as N
11.583	11.192	11.608	1073871	17.74	17.34		6 Sulfate
13.058	12.450	13.083	3963585	65.48	21.80		7 Orthophosphate as P
			6052931			Totals	

Total Unknown Area% = 0.00

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\25.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 02-Dec-2015 19:27:00 ALS Bottle#: 0 Worklist Smp#: 25
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-025 Temporary sequence for manual data acquisition
 Misc. Info.: 6431
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:24 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	2.017	-0.017	172212		-0.0328	
2 Chloride	3.242	3.233	0.009	208151		0.0394	
3 Nitrite as N		3.750				ND	
4 Bromide		5.950				ND	
5 Nitrate as N	6.908	6.442	0.466	635112		0.0518	
6 Sulfate	11.583	11.108	0.475	1073871		0.1836	
7 Orthophosphate as P	13.058	12.625	0.433	3963585		0.5467	

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\25.0000.d

Injection Date: 02-Dec-2015 19:27:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ccb

Worklist Smp#: 25

Client ID:

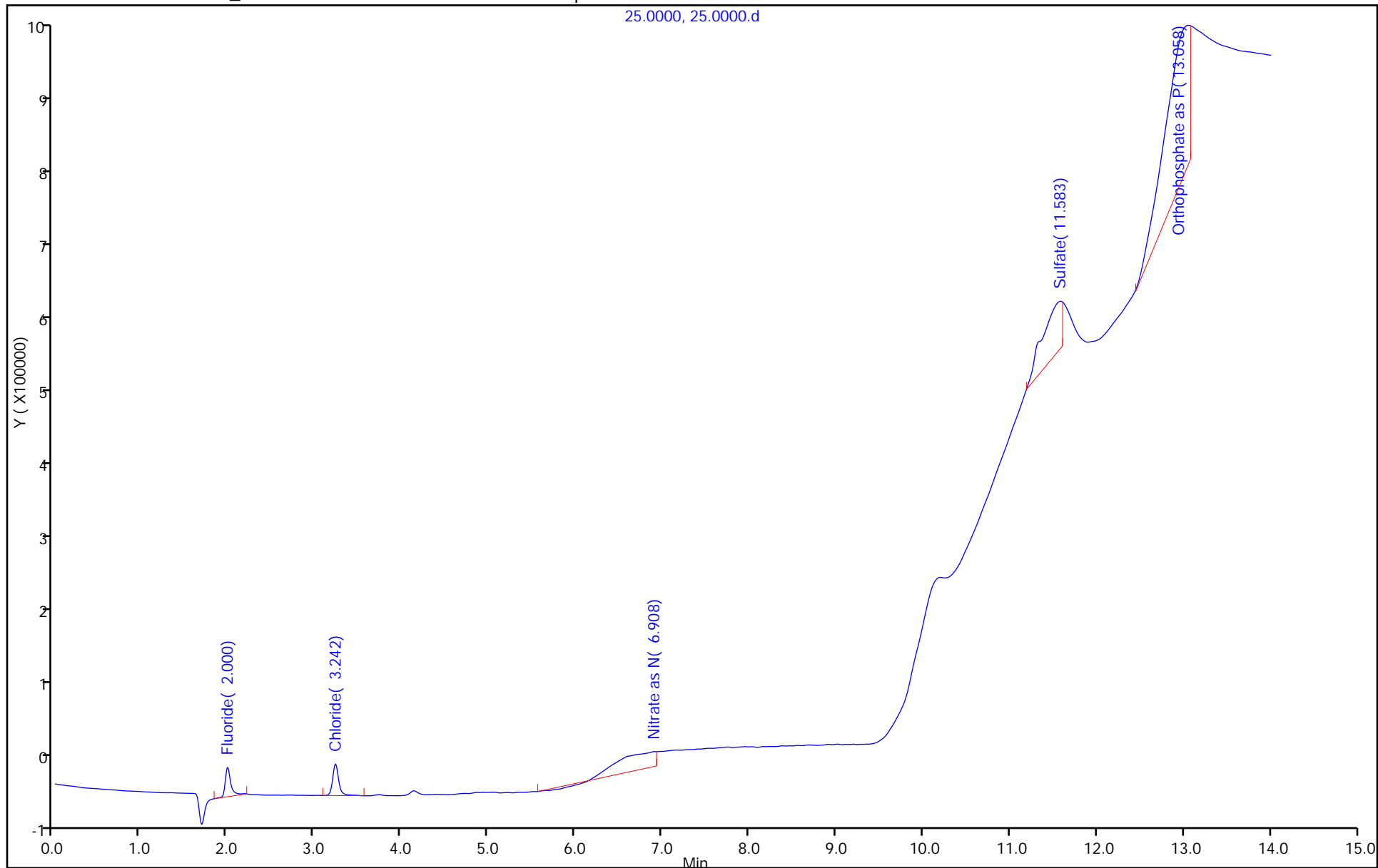
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\35.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-Dec-2015 22:37:00 ALS Bottle#: 0 Worklist Smp#: 35
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-035 Temporary sequence for manual data acquisition
 Misc. Info.: 30074
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:44 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005
 Number of peaks found: 9

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.017	1.850	3.025	153363518	4.03	5.33		1 Fluoride
3.225	3.050	3.558	1810862723	47.62	5.03		2 Chloride
3.750	3.558	4.392	205392872	5.40	7.08		3 Nitrite as N
4.742	4.417	5.475	1442366	0.04	23.86		
5.933	5.683	6.225	37833126	0.99	7.35		4 Bromide
6.408	6.225	7.525	229684322	6.04	11.72		5 Nitrate as N
11.092	10.958	11.675	1335748623	35.13	10.72		6 Sulfate
11.725	11.675	11.817	298446	0.01	4.11		
12.708	12.442	13.467	27946443	0.73	16.73		7 Orthophosphate as P
			3802572439			Totals	

Total Unknown Area% = 0.05

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
CCV, Cal Verification Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\35.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-Dec-2015 22:37:00 ALS Bottle#: 0 Worklist Smp#: 35
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-035 Temporary sequence for manual data acquisition
 Misc. Info.: 30074
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:44 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005
 Start Cal Date: 02-Dec-2015 11:23:00
 End Cal Date: 02-Dec-2015 12:47:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	5.00	0.0	5.11	30672704	2.2	10	102
2 Chloride	100.0	-0.008	100.8	18108627	0.8	10	101
3 Nitrite as N	5.00	0.0	5.13	41078574	2.6	10	103
4 Bromide	5.00	-0.017	4.90	7566625	-1.9	10	98
5 Nitrate as N	5.00	-0.034	4.98	45936864	-0.5	10	100
6 Sulfate	100.0	-0.016	101.9	13357486	1.9	10	102
7 Orthophosphate as P	5.00	0.083	4.93	5589289	-1.5	10	99

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\35.0000.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 02-Dec-2015 22:37:00 ALS Bottle#: 0 Worklist Smp#: 35
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-035 Temporary sequence for manual data acquisition
 Misc. Info.: 30074
 Operator ID: Instrument ID: WC_IonChrom8
 Sublist: chrom-Anions_IC8*sub1
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:44 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.017	0.000	153363518	5.00	5.11	
2 Chloride	3.225	3.233	-0.008	1810862723	100.0	100.8	
3 Nitrite as N	3.750	3.750	0.000	205392872	5.00	5.13	
4 Bromide	5.933	5.950	-0.017	37833126	5.00	4.90	
5 Nitrate as N	6.408	6.442	-0.034	229684322	5.00	4.98	
6 Sulfate	11.092	11.108	-0.016	1335748623	100.0	101.9	
7 Orthophosphate as P	12.708	12.625	0.083	27946443	5.00	4.93	

Reagents:

IC LCS_00435 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\35.0000.d

Injection Date: 02-Dec-2015 22:37:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ccv

Worklist Smp#: 35

Client ID:

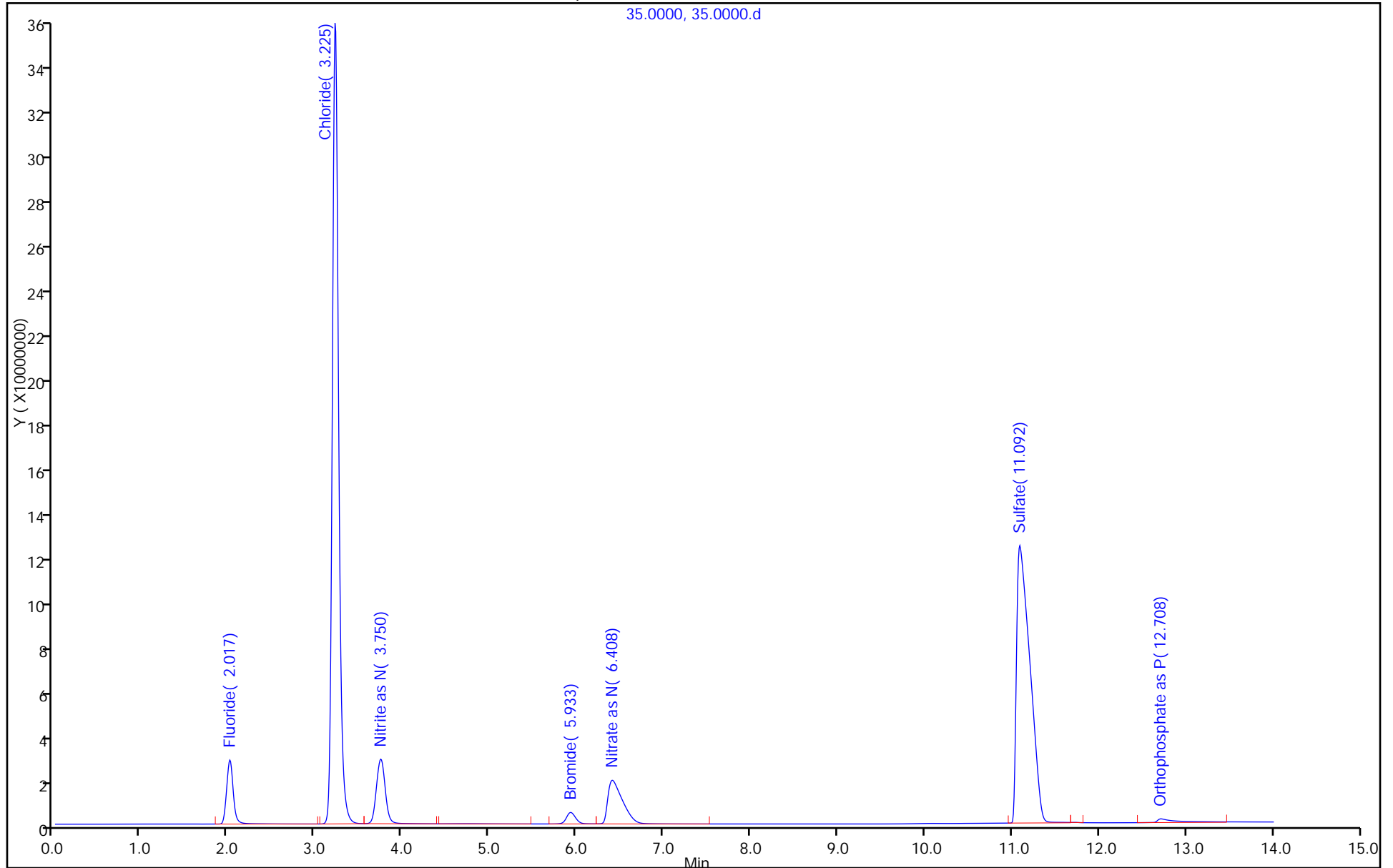
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\36.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 02-Dec-2015 22:54:00 ALS Bottle#: 0 Worklist Smp#: 36
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-036 Temporary sequence for manual data acquisition
 Misc. Info.: 24382
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:44 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Process Host: XAWRK005

Detector: 0005

Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.000	1.842	2.225	218623	3.89	4.49		1 Fluoride
3.242	3.108	3.633	348814	6.20	5.10		2 Chloride
4.142	3.992	4.275	46429	0.83	5.88		
6.633	5.633	6.725	714119	12.70	22.12		5 Nitrate as N
11.317	11.167	11.383	633737	11.27	5.29		6 Sulfate
13.058	12.450	13.083	3661960	65.12	22.17		7 Orthophosphate as P
			5623682			Totals	

Total Unknown Area% = 0.83

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\36.0000.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 02-Dec-2015 22:54:00 ALS Bottle#: 0 Worklist Smp#: 36
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0042076-036 Temporary sequence for manual data acquisition
 Misc. Info.: 24382
 Operator ID: Instrument ID: WC_IonChrom8
 Method: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\Anions_IC8.m
 Limit Group: Wet - Anions
 Last Update: 03-Dec-2015 13:37:44 Calib Date: 02-Dec-2015 12:47:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\07.0000.d
 Column 1 : Det: 0005
 Process Host: XAWRK005

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	2.017	-0.017	218623		-0.0313	
2 Chloride	3.242	3.233	0.009	348814		0.0472	
3 Nitrite as N		3.750				ND	
4 Bromide		5.950				ND	
5 Nitrate as N	6.633	6.442	0.191	714119		0.0535	
6 Sulfate	11.317	11.108	0.209	633737		0.1501	
7 Orthophosphate as P	13.058	12.625	0.433	3661960		0.4916	

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\WC_IonChrom8\20151202-42076.b\36.0000.d

Injection Date: 02-Dec-2015 22:54:00

Instrument ID: WC_IonChrom8

Operator ID:

Lims ID: ccb

Worklist Smp#: 36

Client ID:

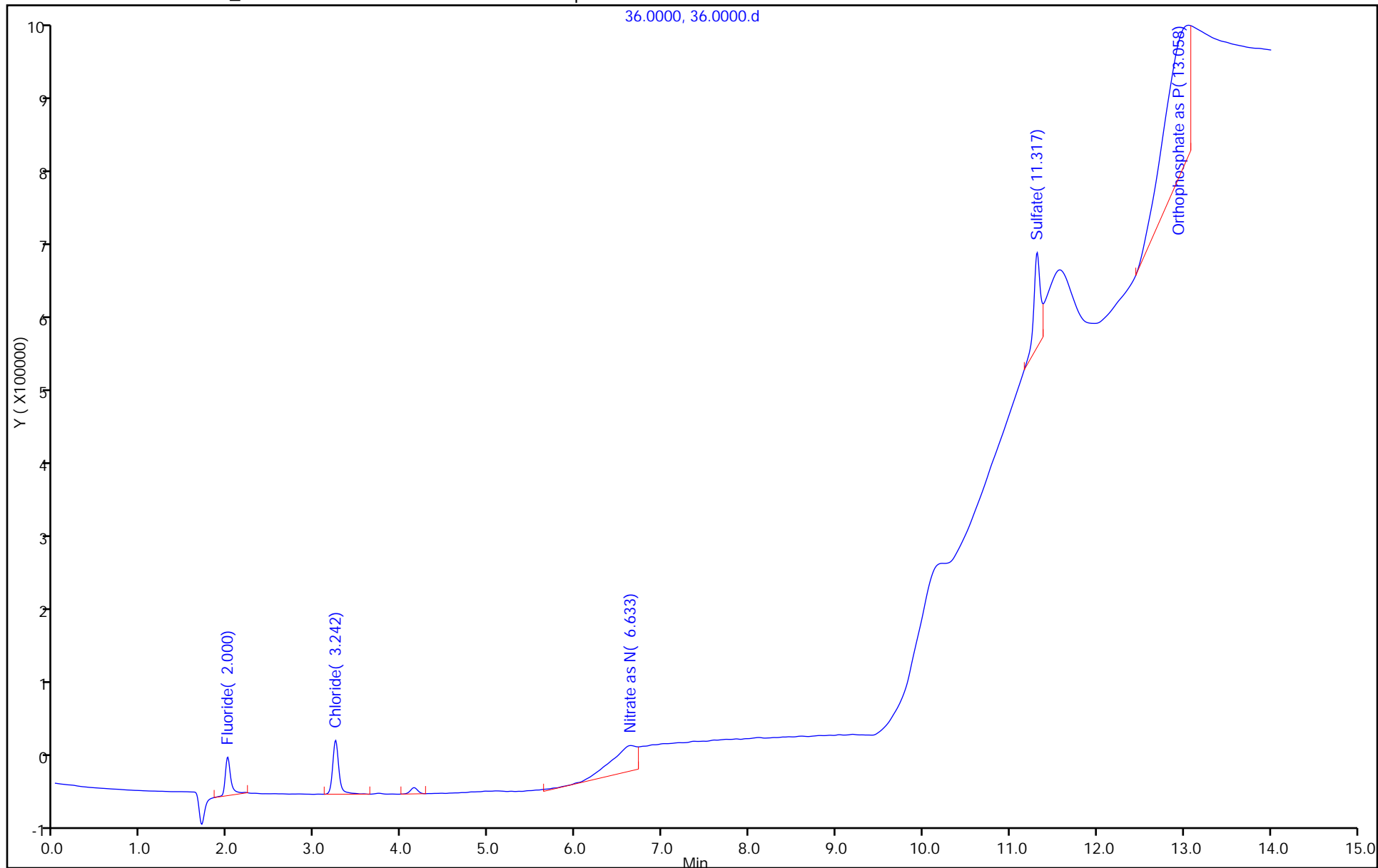
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC8

Limit Group: Wet - Anions



GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-77373-1

SDG No.: _____

Batch Number: 306281 Batch Start Date: 12/02/15 11:06 Batch Analyst: Phan, Thu L

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	IC CAL c1/so4 00075	IC Cal low 00145	IC CL ICV 00012
STD 280-306281/2		9056		5 mL	5 mL	OK	0.02 mL	0.02 mL	
STD 280-306281/3		9056		5 mL	5 mL	OK	0.05 mL	0.05 mL	
STD 280-306281/4		9056		5 mL	5 mL	OK	0.1 mL	0.1 mL	
STD 280-306281/5		9056		5 mL	5 mL	OK	1.2 mL	0.4 mL	
STD 280-306281/6		9056		5 mL	5 mL	OK	2.4 mL	0.8 mL	
STD 280-306281/7		9056		5 mL	5 mL	OK	4 mL	1 mL	
ICV 280-306281/8		9056		5 mL	5 mL	OK			0.4 mL
ICB 280-306281/9		9056		5 mL	5 mL	OK			
MRL 280-306281/10		9056		5 mL	5 mL	OK	0.05 mL	0.02 mL	
LCS 280-306281/11		9056		5 mL	5 mL	OK			
LCSD 280-306281/12		9056		5 mL	5 mL	OK			
MB 280-306281/13		9056		5 mL	5 mL	OK			
280-77373-A-1	TMW28102015	9056	T	5 mL	5 mL	OK			
CCV 280-306281/24		9056		5 mL	5 mL	OK			
CCB 280-306281/25		9056		5 mL	5 mL	OK			
CCV 280-306281/35		9056		5 mL	5 mL	OK			
CCB 280-306281/36		9056		5 mL	5 mL	OK			

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC ICV 5 00120	IC LCS 00435	IC SO4 ICV 00015			
STD 280-306281/2		9056							
STD 280-306281/3		9056							

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 Denver Job No.: 280-77373-1

SDG No.: _____

Batch Number: 306281 Batch Start Date: 12/02/15 11:06 Batch Analyst: Phan, Thu L

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC ICV 5 00120	IC LCS 00435	IC SO4 ICV 00015			
STD 280-306281/4		9056							
STD 280-306281/5		9056							
STD 280-306281/6		9056							
STD 280-306281/7		9056							
ICV 280-306281/8		9056		0.4 mL		0.4 mL			
ICB 280-306281/9		9056							
MRL 280-306281/10		9056							
LCS 280-306281/11		9056			5 mL				
LCSD 280-306281/12		9056			5 mL				
MB 280-306281/13		9056							
280-77373-A-1	TMW28102015	9056	T						
CCV 280-306281/24		9056			5 mL				
CCB 280-306281/25		9056							
CCV 280-306281/35		9056			5 mL				
CCB 280-306281/36		9056							

Batch Notes	
Batch Comment	pipets: 5ml-b, 1000z, 100c
Regeneration Solution Lot	141060605014
Perform Calculation (0=No, 1=Yes)	1

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.

Shipping and Receiving Documents

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sampler ID _____
 Temperature on Receipt _____
 Drinking Water? Yes No

019125T
 1271010
 400 62DEC15
Chain of Custody Record
 Client: Sundance Consulting

TAL-4124-280 (0508)
 Address: 8210 Louisiana Ave NE
 City: Albuquerque, NM 87113
 State: NM Zip Code: 87113
 Project Name and Location (State): FWDA Gallup, NM
 Contract/Purchase Order/Quote No.: Fed Ex

Project Manager: John Nance
 Telephone Number (Area Code)/Fax Number: 49056
 Date: 12/11/15
 Chain of Custody Number: 155665
 Page: 1 of 1

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	
			Aq	Sol	Sed	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		
TMW2810 2015	12/1/2015	1335	X							X				X Nitrate/Nitrite 49056
RECEIVED 12/11/15														



Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months
 (A fee may be assessed if samples are retained longer than 1-month)

QC Requirements (Specify)

Turn Around Time Required
 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

1. Relinquished By: Rachel Hobbs
 Date: 12/11/15 Time: 1500
 Received By: [Signature] Date: 02 Dec 15 Time: 0920

2. Relinquished By: _____
 Date: _____ Time: _____
 Received By: _____ Date: _____ Time: _____

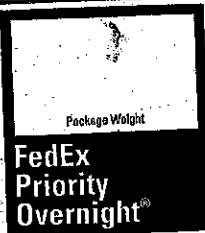
3. Relinquished By: _____
 Date: _____ Time: _____
 Received By: _____ Date: _____ Time: _____

Comments: _____

FedEx Expanded Billable Stamp
Express Use only for shipments within the U.S.
Saturday delivery available.

There is an artificial watermark on this document. Hold at an angle to view.

1 From SUNNANCE CONSULTING
ORDER: 00801291
8210 LOUISIANA BLVD. NE
ALBUQUERQUE, NM 87113
(505) 835-7660



Release Signature
For nonresidential deliveries.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

2 To *Shipment will not be accepted if address below is altered.*

SAMPLE RECEIVING
TESTAMERICA DENVER
4955 YARROW ST
ARVADA, CO 80002
(303) 736-0100

M-10091 Rev. 3/10

NONREDEEMABLE
Please see the back of the receipt for important terms and conditions.

FedEx
TRK# 8044 4655 6978
0867

WED - 02 DEC 10:30A
PRIORITY OVERNIGHT

XH WHHA

80002
CO-US DEN



#5042520 12/01 539J1/1308/3100

Login Sample Receipt Checklist

Client: Sundance Consulting, Inc

Job Number: 280-77373-1

Login Number: 77373
List Number: 1
Creator: Muniz, Ashley T

List Source: TestAmerica Denver

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