September 27, 2016 Service Request No:R1608766

Ms. Ancy Sebastian
ALS Environmental - Canada
1435 Norjohn Court #1
Burlington, ON L7L 0E6

Laboratory Results for: Picatinny Arsenal

Dear Ms.Sebastian,

Enclosed are the results of the sample(s) submitted to our laboratory August 18, 2016
For your reference, these analyses have been assigned our service request number **R1608766.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

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Client: ALS Environmental - Canada
Project: Picatinny Arsenal
Sample Matrix: Soil

Service Request:R1608766
Date Received:8/18/16

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt

Seventeen soil samples were received for analysis at ALS Environmental on 08/18/2016. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at ≤6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

General Chemistry Analyses:

No significant anomalies were noted with this analysis.

Approved by _____ Date 9/27/2016

SAMPLE DETECTION SUMMARY

CLIENT ID: PY-1002S	Lab ID: R1608766-001					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.038			0.010	Percent	9056A

CLIENT ID: PY-1002S DUP	Lab ID: R1608766-002					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.025			0.010	Percent	9056A

CLIENT ID: PY-1008	Lab ID: R1608766-003					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.019			0.010	Percent	9056A

CLIENT ID: PY-1008 DUP	Lab ID: R1608766-004					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.013			0.010	Percent	9056A

CLIENT ID: PY-2003S	Lab ID: R1608766-005					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.022			0.010	Percent	9056A

CLIENT ID: PY-2004S	Lab ID: R1608766-006					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.031			0.010	Percent	9056A

CLIENT ID: PY-2013	Lab ID: R1608766-007					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.016			0.010	Percent	9056A

CLIENT ID: PY-2014	Lab ID: R1608766-008					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.018			0.010	Percent	9056A

CLIENT ID: PY-3002S	Lab ID: R1608766-009					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.026			0.010	Percent	9056A

CLIENT ID: PY-3008	Lab ID: R1608766-010					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.011			0.010	Percent	9056A

CLIENT ID: PY-4008	Lab ID: R1608766-011					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.013			0.010	Percent	9056A

CLIENT ID: PY-5013	Lab ID: R1608766-013					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.010			0.010	Percent	9056A

SAMPLE DETECTION SUMMARY

CLIENT ID: PY-5014	Lab ID: R1608766-014					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chlorine	0.014			0.010	Percent	9056A

Sample Receipt Information

ALS Environmental—Rochester Laboratory
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SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1608766-001	PY-1002S	7/27/2016	1953
R1608766-002	PY-1002S DUP	7/27/2016	1953
R1608766-003	PY-1008	7/27/2016	1940
R1608766-004	PY-1008 DUP	7/27/2016	1940
R1608766-005	PY-2003S	7/28/2016	1700
R1608766-006	PY-2004S	7/28/2016	1700
R1608766-007	PY-2013	7/28/2016	1715
R1608766-008	PY-2014		
R1608766-009	PY-3002S		
R1608766-010	PY-3008	7/29/2016	1535
R1608766-011	PY-4008	8/1/2016	1605
R1608766-012	PY-4008 DUP	8/1/2016	1605
R1608766-013	PY-5013	8/2/2016	1345
R1608766-014	PY-5014	8/2/2016	1345
R1608766-015	PY-6008	8/3/2016	1443
R1608766-016	BLANK		
R1608766-017	BLANK		

(Total Vol. 50 mL)

	Client Sample ID		WO #	Sample #	grams
	PY-1002S	Slurry	R16080026	1A	0.5331
	PY-1002S	Slurry	DUP	1A	0.5011
	PY-1008	Fuel		3A	0.5324
	PY-1008	Fuel	DUP	3A	0.5186
	PY-2003S	Slurry		4A	0.5192
	PY-2004S	Slurry		6A	0.5122
	PY-20013	Fuel		8A	0.5208
	PY-20014	Fuel		9A	0.5675
	PY-3002S	Slurry		10A	0.5391
	PY-3008	Fuel		12A	0.5229
	PY-4008	Fuel	R16080029	1A	0.5361
	PY-4008	Fuel	DUP	1A	0.5638
	PY-5013	Fuel		2A	0.5531
	PY-5014	Fuel		3A	0.5472
	Py-6008	Fuel		4A	0.5348

Blank + Chloride Standard by IC

Received: [signature]
Gregory O. Esmerian
ALS
8-18-16 09:15

R1608766 5
ALS Environmental - Canada
Picatinny Arsenal

R1608766 5
ALS Environmental - Canada
Picatinny Arsenal

Cooler Receipt and Preservation Check Form

Project/Client Stericycle Folder Number R1608766.

Cooler received on 8-18-16 by: RE

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

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

8. Temperature Readings Date: 8-18-16 Time: 09:23 ID: IR#5 (IR#6) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	27.2						
Correction Factor (°C)	0						
Corrected Temp (°C)	27.2						
Within 0-6°C?	Y (N)	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

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

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

All samples held in storage location: R-002 by RE on 8-18-16 at 09:28
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown: Date: 8-18-16 Time: 13:35 by: RE

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

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: Client Bottles

Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

PC Secondary Review: JMS 8/19/16

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: ALS Environmental - Canada **Service Request:** R1608766
Project: Picatinny Arsenal

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1608766-001.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
		9/12/2016	0828	In Lab / NMANSEN	
		9/12/2016	1701	R-002 / KWONG	
R1608766-002.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
		9/12/2016	0828	In Lab / NMANSEN	
		9/12/2016	1701	R-002 / KWONG	
R1608766-003.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-004.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-005.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-006.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-007.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-008.01					

Client: ALS Environmental - Canada **Service Request:** R1608766
Project: Picatinny Arsenal

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-009.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
		9/12/2016	0828	In Lab / NMANSEN	
		9/12/2016	1701	R-002 / KWONG	
R1608766-010.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-011.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-012.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-013.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-014.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-015.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: ALS Environmental - Canada **Service Request:** R1608766
Project: Picatinny Arsenal

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1608766-016.01					
	9056A Modified				
		8/18/2016	1339	SMO / GESMERIAN	
		8/18/2016	1340	R-002 / GESMERIAN	
		8/18/2016	1341	R-002 / GESMERIAN	
R1608766-017.01					
	9056A Modified				
		8/18/2016	1403	SMO / GESMERIAN	
		8/18/2016	1404	R-002 / GESMERIAN	

Miscellaneous Forms

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www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

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

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

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

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

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

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

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

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

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

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

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

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

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).

X See Case Narrative for discussion.

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

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

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

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

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: ALS Environmental - Canada
Project: Picatinny Arsenal
Service Request: R1608766

Sample Name: PY-1002S
Lab Code: R1608766-001
Sample Matrix: Soil
Date Collected: 07/27/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-1002S DUP
Lab Code: R1608766-002
Sample Matrix: Soil
Date Collected: 07/27/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-1008
Lab Code: R1608766-003
Sample Matrix: Soil
Date Collected: 07/27/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-1008 DUP
Lab Code: R1608766-004
Sample Matrix: Soil
Date Collected: 07/27/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-2003S
Lab Code: R1608766-005
Sample Matrix: Soil
Date Collected: 07/28/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Client: ALS Environmental - Canada
Project: Picatinny Arsenal
Service Request: R1608766

Sample Name: PY-2004S
Lab Code: R1608766-006
Sample Matrix: Soil
Date Collected: 07/28/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-2013
Lab Code: R1608766-007
Sample Matrix: Soil
Date Collected: 07/28/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-2014
Lab Code: R1608766-008
Sample Matrix: Soil
Date Collected: NA
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-3002S
Lab Code: R1608766-009
Sample Matrix: Soil
Date Collected: NA
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-3008
Lab Code: R1608766-010
Sample Matrix: Soil
Date Collected: 07/29/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Client: ALS Environmental - Canada
Service Request: R1608766
Project: Picatinny Arsenal

Sample Name: PY-4008
Lab Code: R1608766-011
Sample Matrix: Soil
Date Collected: 08/1/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-4008 DUP
Lab Code: R1608766-012
Sample Matrix: Soil
Date Collected: 08/1/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-5013
Lab Code: R1608766-013
Sample Matrix: Soil
Date Collected: 08/2/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-5014
Lab Code: R1608766-014
Sample Matrix: Soil
Date Collected: 08/2/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: PY-6008
Lab Code: R1608766-015
Sample Matrix: Soil
Date Collected: 08/3/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Client: ALS Environmental - Canada
Project: Picatinny Arsenal
Service Request: R1608766

Sample Name: BLANK
Lab Code: R1608766-016
Sample Matrix: Soil
Date Collected: NA
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

Sample Name: BLANK
Lab Code: R1608766-017
Sample Matrix: Soil
Date Collected: NA
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A Modified	CWOODS	NMANSEN

INORGANIC PREPARATION METHODS

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

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

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General Chemistry

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:53
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1002S	**Basis:**	As Received
Lab Code:	R1608766-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.038**	Percent	0.010	1	09/12/16 16:08	08/26/16	

ALS Group USA, Corp.
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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:53
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1002S DUP	**Basis:**	As Received
Lab Code:	R1608766-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.025**	Percent	0.010	1	09/12/16 16:23	08/26/16	

ALS Group USA, Corp.
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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:40
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1008	**Basis:**	As Received
Lab Code:	R1608766-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.019**	Percent	0.010	1	09/12/16 17:38	08/26/16	

ALS Group USA, Corp.
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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:40
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1008 DUP	**Basis:**	As Received
Lab Code:	R1608766-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.013**	Percent	0.010	1	09/12/16 17:53	08/26/16	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2003S	**Basis:**	As Received
Lab Code:	R1608766-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.022**	Percent	0.010	1	09/12/16 18:09	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2004S	**Basis:**	As Received
Lab Code:	R1608766-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.031**	Percent	0.010	1	09/12/16 18:24	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:15
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2013	**Basis:**	As Received
Lab Code:	R1608766-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.016**	Percent	0.010	1	09/12/16 18:39	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2014	**Basis:**	As Received
Lab Code:	R1608766-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.018**	Percent	0.010	1	09/12/16 18:54	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-3002S	**Basis:**	As Received
Lab Code:	R1608766-009		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.026**	Percent	0.010	1	09/12/16 19:09	08/26/16	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/29/16 15:35
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-3008	**Basis:**	As Received
Lab Code:	R1608766-010		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.011**	Percent	0.010	1	09/12/16 20:39	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/01/16 16:05
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-4008	**Basis:**	As Received
Lab Code:	R1608766-011		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.013**	Percent	0.010	1	09/12/16 20:54	08/26/16	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/01/16 16:05
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-4008 DUP	**Basis:**	As Received
Lab Code:	R1608766-012		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/12/16 21:09	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/02/16 13:45
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-5013	**Basis:**	As Received
Lab Code:	R1608766-013		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.010**	Percent	0.010	1	09/12/16 21:24	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/02/16 13:45
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-5014	**Basis:**	As Received
Lab Code:	R1608766-014		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.014**	Percent	0.010	1	09/12/16 21:39	08/26/16	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/03/16 14:43
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-6008	**Basis:**	As Received
Lab Code:	R1608766-015		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/12/16 21:54	08/26/16	

ALS Group USA, Corp.
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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	BLANK	**Basis:**	As Received
Lab Code:	R1608766-016		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/12/16 23:55	08/26/16	

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dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	BLANK	**Basis:**	As Received
Lab Code:	R1608766-017		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/13/16 00:10	08/26/16	

Raw Data

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Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:53
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1002S	**Basis:**	As Received
Lab Code:	R1608766-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.038**	Percent	0.010	1	09/12/16 16:08	08/26/16	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:53
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1002S DUP	**Basis:**	As Received
Lab Code:	R1608766-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.025**	Percent	0.010	1	09/12/16 16:23	08/26/16	

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:40
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1008	**Basis:**	As Received
Lab Code:	R1608766-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.019**	Percent	0.010	1	09/12/16 17:38	08/26/16	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:40
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-1008 DUP	**Basis:**	As Received
Lab Code:	R1608766-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.013**	Percent	0.010	1	09/12/16 17:53	08/26/16	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2003S	**Basis:**	As Received
Lab Code:	R1608766-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.022**	Percent	0.010	1	09/12/16 18:09	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2004S	**Basis:**	As Received
Lab Code:	R1608766-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.031**	Percent	0.010	1	09/12/16 18:24	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:15
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2013	**Basis:**	As Received
Lab Code:	R1608766-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.016**	Percent	0.010	1	09/12/16 18:39	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-2014	**Basis:**	As Received
Lab Code:	R1608766-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.018**	Percent	0.010	1	09/12/16 18:54	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-3002S	**Basis:**	As Received
Lab Code:	R1608766-009		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.026**	Percent	0.010	1	09/12/16 19:09	08/26/16	

ALS Group USA, Corp.
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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	07/29/16 15:35
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-3008	**Basis:**	As Received
Lab Code:	R1608766-010		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.011**	Percent	0.010	1	09/12/16 20:39	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/01/16 16:05
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-4008	**Basis:**	As Received
Lab Code:	R1608766-011		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.013**	Percent	0.010	1	09/12/16 20:54	08/26/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/01/16 16:05
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-4008 DUP	**Basis:**	As Received
Lab Code:	R1608766-012		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/12/16 21:09	08/26/16	

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/02/16 13:45
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-5013	**Basis:**	As Received
Lab Code:	R1608766-013		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.010**	Percent	0.010	1	09/12/16 21:24	08/26/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/02/16 13:45
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-5014	**Basis:**	As Received
Lab Code:	R1608766-014		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	**0.014**	Percent	0.010	1	09/12/16 21:39	08/26/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	08/03/16 14:43
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	PY-6008	**Basis:**	As Received
Lab Code:	R1608766-015		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/12/16 21:54	08/26/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	BLANK	**Basis:**	As Received
Lab Code:	R1608766-016		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/12/16 23:55	08/26/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608766
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	08/18/16 09:20
Sample Name:	BLANK	**Basis:**	As Received
Lab Code:	R1608766-017		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Chlorine	9056A Modified	0.010 U	Percent	0.010	1	09/13/16 00:10	08/26/16	

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513821 **Method/Testcode:** 300.0/Chloride

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610798-01	Chloride	CCV		Water	4.03 mg/L	10 mL	4.03 mg/L	1					9/12/16 08:07:04	N	IV
RQ1610798-01	Fluoride, undistilled	CCV		Water	1.87 mg/L	10 mL	1.87 mg/L	1					9/12/16 08:07:04	N	IV
RQ1610798-01	Sulfate	CCV		Water	3.79 mg/L	10 mL	3.79 mg/L	1					9/12/16 08:07:04	N	IV
RQ1610798-02	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 08:22:06	N	IV
RQ1610798-02	Fluoride, undistilled	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 08:22:06	N	IV
RQ1610798-02	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 08:22:06	N	IV
RQ1610798-03	Chloride	MB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 08:22:06	N	IV
RQ1610798-03	Fluoride, undistilled	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 08:22:06	N	IV
RQ1610798-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 08:22:06	N	IV
RQ1610798-04	Chloride	LCS		Water	2.15 mg/L	10 mL	2.15 mg/L	1	0.10	0.20	108		9/12/16 08:37:08	N	IV
RQ1610798-04	Fluoride, undistilled	LCS		Water	0.96 mg/L	10 mL	0.964 mg/L	1	0.008	0.10	96		9/12/16 08:37:08	N	IV
RQ1610798-04	Sulfate	LCS		Water	2.09 mg/L	10 mL	2.09 mg/L	1	0.02	0.20	104		9/12/16 08:37:08	N	IV
R1609119-001	Fluoride, undistilled	N/A		Water	0.06 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 08:52:11	N	IV
RQ1610798-05	Fluoride, undistilled	MS	R1609119-001	Water	1.02 mg/L	10 mL	1.02 mg/L	1	0.008	0.10	102		9/12/16 09:07:15	N	IV
RQ1610798-06	Fluoride, undistilled	DMS	R1609119-001	Water	1.02 mg/L	10 mL	1.02 mg/L	1	0.008	0.10	102	<1	9/12/16 09:22:17	N	IV
R1609119-002	Fluoride, undistilled	N/A		Water	0.05 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 09:37:20	N	IV
R1609119-003	Fluoride, undistilled	N/A		Water	0.04 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 09:52:22	N	IV
R1609119-004	Fluoride, undistilled	N/A		Water	0.10 mg/L	10 mL	0.10 mg/L	1	0.008	0.10			9/12/16 10:07:25	N	IV
R1609119-005	Fluoride, undistilled	N/A		Water	0.06 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 10:22:28	N	IV
R1609092-002	Chloride	N/A		Water	-0.03 mg/L	10 mL	2.0 mg/L U	10	1.0	2.0			9/12/16 10:37:31	N	II
R1609150-042	Chloride	N/A		Water	105.63 mg/L	10 mL	106 mg/L	20	2.0	4.0			9/12/16 10:52:34	N	IV
RQ1610798-07	Chloride	CCV		Water	4.06 mg/L	10 mL	4.06 mg/L	1					9/12/16 11:07:38	N	IV
RQ1610798-07	Fluoride, undistilled	CCV		Water	1.84 mg/L	10 mL	1.84 mg/L	1					9/12/16 11:07:38	N	IV
RQ1610798-07	Sulfate	CCV		Water	3.75 mg/L	10 mL	3.75 mg/L	1					9/12/16 11:07:38	N	IV
RQ1610798-08	Chloride	CCB		Water	-0.01 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 11:22:41	N	IV
RQ1610798-08	Fluoride, undistilled	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 11:22:41	N	IV
RQ1610798-08	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 11:22:41	N	IV
R1609119-006	Fluoride, undistilled	N/A		Water	0.05 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 11:37:44	N	IV
R1609374-001	Fluoride, undistilled	N/A		Water	11.14 mg/L	10 mL	11.1 mg/L	1	0.008	0.10			9/12/16 11:52:47	N	II
R1609374-002	Fluoride, undistilled	N/A		Water	10.69 mg/L	10 mL	10.7 mg/L	4	0.03	0.40			9/12/16 12:07:51	N	II
R1609379-001	Fluoride, undistilled	N/A		Water	1.82 mg/L	10 mL	1.82 mg/L	1	0.008	0.10			9/12/16 12:22:54	N	II
R1609379-004	Fluoride, undistilled	N/A		Water	2.88 mg/L	10 mL	2.88 mg/L	1	0.008	0.10			9/12/16 12:37:57	N	II
R1609379-005	Fluoride, undistilled	N/A		Water	19.72 mg/L	10 mL	19.7 mg/L	4	0.03	0.40			9/12/16 12:53:00	N	II
R1609379-006	Fluoride, undistilled	N/A		Water	0.55 mg/L	10 mL	0.55 mg/L	1	0.008	0.10			9/12/16 13:08:03	N	II
R1609374-001	Sulfate	N/A		Water	53.88 mg/L	10 mL	53.9 mg/L	40	0.8	8.0			9/12/16 13:23:06	N	II
RQ1610798-15	Sulfate	MS	R1609374-001	Water	131.26 mg/L	10 mL	131 mg/L	40	0.8	8.0	97		9/12/16 13:38:08	N	II

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

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Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513821 **Method/Testcode:** 300.0/SO4

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610798-16	Sulfate	DMS	R1609374-001	Water	130.78 mg/L	10 mL	131 mg/L	40	0.8	8.0	96	<1	9/12/16 13:53:12	N	II
RQ1610798-11	Chloride	CCV		Water	4.03 mg/L	10 mL	4.03 mg/L	1					9/12/16 14:08:15	N	II
RQ1610798-11	Fluoride, undistilled	CCV		Water	1.84 mg/L	10 mL	1.84 mg/L	1					9/12/16 14:08:15	N	II
RQ1610798-11	Sulfate	CCV		Water	3.76 mg/L	10 mL	3.76 mg/L	1					9/12/16 14:08:15	N	II
RQ1610798-12	Chloride	CCB		Water	0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 14:23:17	N	II
RQ1610798-12	Fluoride, undistilled	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 14:23:17	N	II
RQ1610798-12	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 14:23:17	N	II
R1609379-016	Fluoride, undistilled	N/A		Water	18.43 mg/L	10 mL	18.4 mg/L	10	0.08	1.0			9/12/16 14:38:20	N	II
R1609272-001	Fluoride, undistilled	N/A		Water	0.14 mg/L	10 mL	0.1 mg/L J	1	0.1	1.0			9/12/16 14:53:22	N	I
R1609272-001	Chloride	N/A		Water	39.78 mg/L	10 mL	39.8 mg/L	10	1.0	2.0			9/12/16 15:08:26	N	I
R1609272-001	Sulfate	N/A		Water	49.88 mg/L	10 mL	49.9 mg/L	10	0.2	2.0			9/12/16 15:08:26	N	I
R1609150-043	Chloride	N/A		Water	107.81 mg/L	10 mL	108 mg/L	20	2.0	4.0			9/12/16 15:23:29	N	IV
R1609150-053	Chloride	N/A		Water	107.65 mg/L	10 mL	108 mg/L	40	4.0	8.0			9/12/16 15:38:31	N	IV
R1609150-053	Sulfate	N/A		Water	95.27 mg/L	10 mL	95.3 mg/L	40	0.8	8.0			9/12/16 15:38:31	N	IV
RQ1610798-13	Chloride	CCV		Water	4.00 mg/L	10 mL	4.00 mg/L	1					9/12/16 17:08:49	N	IV
RQ1610798-13	Fluoride, undistilled	CCV		Water	1.83 mg/L	10 mL	1.83 mg/L	1					9/12/16 17:08:49	N	IV
RQ1610798-13	Sulfate	CCV		Water	3.76 mg/L	10 mL	3.76 mg/L	1					9/12/16 17:08:49	N	IV
RQ1610798-14	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 17:23:52	N	IV
RQ1610798-14	Fluoride, undistilled	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.008	0.10			9/12/16 17:23:52	N	IV
RQ1610798-14	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 17:23:52	N	IV

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

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513828 **Method/Testcode:** 9056A Modified/Cl Tot Bomb HL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R1608766-001	Chlorine	N/A		Soil	0.04 Percent	0.5331 g	0.038 Percent	1		0.010			9/12/16 16:08:37	N	IV
R1608766-002	Chlorine	N/A		Soil	0.02 Percent	0.5011 g	0.025 Percent	1		0.010			9/12/16 16:23:41	N	IV
R1608766-003	Chlorine	N/A		Soil	0.02 Percent	0.5324 g	0.019 Percent	1		0.010			9/12/16 17:38:54	N	IV
R1608766-004	Chlorine	N/A		Soil	0.01 Percent	0.5186 g	0.013 Percent	1		0.010			9/12/16 17:53:57	N	IV
R1608766-005	Chlorine	N/A		Soil	0.02 Percent	0.5192 g	0.022 Percent	1		0.010			9/12/16 18:09:00	N	IV
R1608766-006	Chlorine	N/A		Soil	0.03 Percent	0.5122 g	0.031 Percent	1		0.010			9/12/16 18:24:02	N	IV
R1608766-007	Chlorine	N/A		Soil	0.02 Percent	0.5208 g	0.016 Percent	1		0.010			9/12/16 18:39:06	N	IV
R1608766-008	Chlorine	N/A		Soil	0.02 Percent	0.5675 g	0.018 Percent	1		0.010			9/12/16 18:54:08	N	IV
R1608766-009	Chlorine	N/A		Soil	0.03 Percent	0.5391 g	0.026 Percent	1		0.010			9/12/16 19:09:10	N	IV
R1608766-010	Chlorine	N/A		Soil	0.01 Percent	0.5229 g	0.011 Percent	1		0.010			9/12/16 20:39:26	N	IV
R1608766-011	Chlorine	N/A		Soil	0.01 Percent	0.5361 g	0.013 Percent	1		0.010			9/12/16 20:54:30	N	IV
R1608766-012	Chlorine	N/A		Soil	0.01 Percent	0.5638 g	0.010 Percent U	1		0.010			9/12/16 21:09:33	N	IV
R1608766-013	Chlorine	N/A		Soil	0.01 Percent	0.5531 g	0.010 Percent	1		0.010			9/12/16 21:24:35	N	IV
R1608766-014	Chlorine	N/A		Soil	0.01 Percent	0.5472 g	0.014 Percent	1		0.010			9/12/16 21:39:38	N	IV
R1608766-015	Chlorine	N/A		Soil	0.01 Percent	0.5348 g	0.010 Percent U	1		0.010			9/12/16 21:54:41	N	IV

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

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513829 **Method/Testcode:** 300.0/Chloride

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610800-01	Chloride	CCV		Water	4.03 mg/L	10 mL	4.03 mg/L	1					9/12/16 14:08:15	N	II
RQ1610800-01	Sulfate	CCV		Water	3.76 mg/L	10 mL	3.76 mg/L	1					9/12/16 14:08:15	N	II
RQ1610800-02	Chloride	CCB		Water	0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 14:23:17	N	II
RQ1610800-02	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 14:23:17	N	II
RQ1610800-03	Chloride	MB		Water	0.02 mg/L	10 mL	0.20 mg/L U	1	0.1	0.20			9/12/16 14:23:17	N	II
RQ1610800-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 14:23:17	N	II
RQ1610800-04	Chloride	LCS		Water	2.17 mg/L	10 mL	2.17 mg/L	1	0.10	0.20	108		9/12/16 15:53:34	N	II
RQ1610800-04	Sulfate	LCS		Water	2.03 mg/L	10 mL	2.03 mg/L	1	0.02	0.20	102		9/12/16 15:53:34	N	II
R1609251-001	Sulfate	N/A		Water	256.40 mg/L	10 mL	256 mg/L	100	2	20			9/12/16 16:38:44	N	II
R1609251-003	Chloride	N/A		Water	1517.40 mg/L	10 mL	1520 mg/L	1000	100	200			9/12/16 16:53:46	N	II
RQ1610800-05	Chloride	CCV		Water	4.00 mg/L	10 mL	4.00 mg/L	1					9/12/16 17:08:49	N	IV
RQ1610800-05	Sulfate	CCV		Water	3.76 mg/L	10 mL	3.76 mg/L	1					9/12/16 17:08:49	N	IV
RQ1610800-06	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 17:23:52	N	IV
RQ1610800-06	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 17:23:52	N	IV

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

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513833 **Method/Testcode:** 9056A Modified/Cl Tot Bomb HL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R1608766-016	Chlorine	N/A		Soil	0.00 Percent	0.5000 g	0.010 Percent U	1		0.010			9/12/16 23:55:03	N	IV
R1608766-017	Chlorine	N/A		Soil	6E-05 Percent	0.5000 g	0.010 Percent U	1		0.010			9/13/16 00:10:06	N	IV

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

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513834 **Method/Testcode:** 26A/Cl

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610803-01	Chloride	CCV		Water	4.05 mg/L	10 mL	4.05 mg/L	1					9/12/16 23:09:55	N	II
RQ1610803-01	Fluoride	CCV		Water	1.85 mg/L	10 mL	1.85 mg/L	1					9/12/16 23:09:55	N	II
RQ1610803-02	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 23:24:57	N	II
RQ1610803-02	Fluoride	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/12/16 23:24:57	N	II
RQ1610803-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 23:24:57	N	II
RQ1610803-03	Fluoride	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/12/16 23:24:57	N	II
RQ1610803-04	Chloride	LCS		Water	2.18 mg/L	10 mL	2.18 mg/L	1	0.10	0.20	109		9/12/16 23:39:59	N	II
RQ1610803-04	Fluoride	LCS		Water	0.96 mg/L	10 mL	0.957 mg/L	1	0.05	0.10	96		9/12/16 23:39:59	N	II
R1609295-001	Chloride	N/A		Water	0.21 mg/L	10 mL	0.21 mg/L	1	0.10	0.20			9/13/16 00:25:07	N	II
R1609295-001	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 00:25:07	N	II
RQ1610803-05	Chloride	MS	R1609295-001	Water	2.27 mg/L	10 mL	2.27 mg/L	1	0.10	0.20	103		9/13/16 00:40:11	N	II
RQ1610803-05	Fluoride	MS	R1609295-001	Water	0.94 mg/L	10 mL	0.94 mg/L	1	0.05	0.10	94		9/13/16 00:40:11	N	II
RQ1610803-06	Chloride	DMS	R1609295-001	Water	2.28 mg/L	10 mL	2.28 mg/L	1	0.10	0.20	104	<1	9/13/16 00:55:14	N	II
RQ1610803-06	Fluoride	DMS	R1609295-001	Water	0.96 mg/L	10 mL	0.96 mg/L	1	0.05	0.10	96	3	9/13/16 00:55:14	N	II
R1609295-003	Chloride	N/A		Water	0.26 mg/L	10 mL	0.26 mg/L	1	0.10	0.20			9/13/16 01:10:19	N	II
R1609295-003	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 01:10:19	N	II
RQ1610803-07	Chloride	CCV		Water	4.07 mg/L	10 mL	4.07 mg/L	1					9/13/16 02:10:30	N	II
RQ1610803-07	Fluoride	CCV		Water	1.86 mg/L	10 mL	1.86 mg/L	1					9/13/16 02:10:30	N	II
RQ1610803-08	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 02:25:33	N	II
RQ1610803-08	Fluoride	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 02:25:33	N	II
R1609295-007	Chloride	N/A		Water	0.09 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 02:40:35	N	II
R1609295-007	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 02:40:35	N	II
R1609295-008	Chloride	N/A		Water	-0.01 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 02:55:38	N	II
R1609295-008	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 02:55:38	N	II
R1609296-007	Chloride	N/A		Water	-0.01 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 03:10:41	N	II
R1609296-007	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 03:10:41	N	II
R1609296-008	Chloride	N/A		Water	-0.01 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 03:25:44	N	II
R1609296-008	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 03:25:44	N	II
R1609295-005	Chloride	N/A		Water	0.11 mg/L	10 mL	0.11 mg/L J	1	0.10	0.20			9/13/16 03:40:46	N	II
R1609295-005	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 03:40:46	N	II
R1609296-001	Chloride	N/A		Water	0.07 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 03:55:48	N	II
R1609296-001	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 03:55:48	N	II
R1609296-003	Chloride	N/A		Water	0.06 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 04:10:52	N	II
R1609296-003	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 04:10:52	N	II
R1609296-005	Chloride	N/A		Water	0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 04:25:54	N	II
R1609296-005	Fluoride	N/A		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 04:25:54	N	II

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

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Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513834 **Method/Testcode:** 26A/Cl

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610803-09	Chloride	CCV		Water	4.10 mg/L	10 mL	4.10 mg/L	1					9/13/16 05:11:03	N	II
RQ1610803-09	Fluoride	CCV		Water	1.87 mg/L	10 mL	1.87 mg/L	1					9/13/16 05:11:03	N	II
RQ1610803-10	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 05:26:04	N	II
RQ1610803-10	Fluoride	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/13/16 05:26:04	N	II

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

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513835 **Method/Testcode:** 300.0/Br

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610802-01	Bromide	CCV		Water	2.00 mg/L	10 mL	2.00 mg/L	1					9/12/16 23:09:55	N	II
RQ1610802-01	Chloride	CCV		Water	4.05 mg/L	10 mL	4.05 mg/L	1					9/12/16 23:09:55	N	II
RQ1610802-01	Sulfate	CCV		Water	3.77 mg/L	10 mL	3.77 mg/L	1					9/12/16 23:09:55	N	II
RQ1610802-02	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/12/16 23:24:57	N	II
RQ1610802-02	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/12/16 23:24:57	N	II
RQ1610802-02	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 23:24:57	N	II
RQ1610802-03	Bromide	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.09	0.10			9/12/16 23:24:57	N	II
RQ1610802-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.1	0.20			9/12/16 23:24:57	N	II
RQ1610802-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/12/16 23:24:57	N	II
RQ1610802-04	Bromide	LCS		Water	1.03 mg/L	10 mL	1.03 mg/L	1	0.04	0.10	103		9/12/16 23:39:59	N	II
RQ1610802-04	Chloride	LCS		Water	2.18 mg/L	10 mL	2.18 mg/L	1	0.10	0.20	109		9/12/16 23:39:59	N	II
RQ1610802-04	Sulfate	LCS		Water	2.07 mg/L	10 mL	2.07 mg/L	1	0.02	0.20	103		9/12/16 23:39:59	N	II
R1609402-001	Chloride	N/A		Water	263.83 mg/L	10 mL	264 mg/L	100	10	20			9/13/16 01:25:22	N	II
R1609402-002	Chloride	N/A		Water	579.57 mg/L	10 mL	580 mg/L	100	10	20			9/13/16 01:40:24	N	II
R1609402-004	Chloride	N/A		Water	112.07 mg/L	10 mL	112 mg/L	100	10	20			9/13/16 01:55:26	N	II
RQ1610802-05	Bromide	CCV		Water	2.01 mg/L	10 mL	2.01 mg/L	1					9/13/16 02:10:30	N	II
RQ1610802-05	Chloride	CCV		Water	4.07 mg/L	10 mL	4.07 mg/L	1					9/13/16 02:10:30	N	II
RQ1610802-05	Sulfate	CCV		Water	3.76 mg/L	10 mL	3.76 mg/L	1					9/13/16 02:10:30	N	II
RQ1610802-06	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/13/16 02:25:33	N	II
RQ1610802-06	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 02:25:33	N	II
RQ1610802-06	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/13/16 02:25:33	N	II
R1609402-005	Chloride	N/A		Water	260.29 mg/L	10 mL	260 mg/L	100	10	20			9/13/16 04:40:56	N	II
R1609402-007	Chloride	N/A		Water	426.30 mg/L	10 mL	426 mg/L	100	10	20			9/13/16 04:56:00	N	II
RQ1610802-07	Bromide	CCV		Drinking Water	2.02 mg/L	10 mL	2.02 mg/L	1					9/13/16 05:11:03	N	II
RQ1610802-07	Chloride	CCV		Drinking Water	4.10 mg/L	10 mL	4.10 mg/L	1					9/13/16 05:11:03	N	II
RQ1610802-07	Sulfate	CCV		Drinking Water	3.81 mg/L	10 mL	3.81 mg/L	1					9/13/16 05:11:03	N	II
RQ1610802-08	Bromide	CCB		Drinking Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/13/16 05:26:04	N	II
RQ1610802-08	Chloride	CCB		Drinking Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 05:26:04	N	II
RQ1610802-08	Sulfate	CCB		Drinking Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/13/16 05:26:04	N	II
R1609354-001	Bromide	N/A		Drinking Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/13/16 05:41:08	N	II
R1609354-001	Chloride	N/A		Drinking Water	51.24 mg/L	10 mL	51.2 mg/L	10	1.0	2.0			9/13/16 05:41:08	N	II
R1609354-001	Sulfate	N/A		Drinking Water	16.71 mg/L	10 mL	16.7 mg/L	10	0.2	2.0			9/13/16 05:41:08	N	II

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

9/13/16

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513835 **Method/Testcode:** 300.0/Br

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610802-09	Bromide	MS	R1609354-001	Drinking Water	9.54 mg/L	10 mL	9.5 mg/L	10	0.4	1.0	95		9/13/16 05:56:11	N	II
RQ1610802-09	Chloride	MS	R1609354-001	Drinking Water	66.05 mg/L	10 mL	66.1 mg/L	10	1.0	2.0	74*		9/13/16 05:56:11	N	II
RQ1610802-09	Sulfate	MS	R1609354-001	Drinking Water	35.33 mg/L	10 mL	35.3 mg/L	10	0.2	2.0	93		9/13/16 05:56:11	N	II
RQ1610802-10	Bromide	DMS	R1609354-001	Drinking Water	9.77 mg/L	10 mL	9.8 mg/L	10	0.4	1.0	98	2	9/13/16 06:11:13	N	II
RQ1610802-10	Chloride	DMS	R1609354-001	Drinking Water	66.98 mg/L	10 mL	67.0 mg/L	10	1.0	2.0	79*	1	9/13/16 06:11:13	N	II
RQ1610802-10	Sulfate	DMS	R1609354-001	Drinking Water	36.20 mg/L	10 mL	36.2 mg/L	10	0.2	2.0	97	2	9/13/16 06:11:13	N	II
RQ1610802-11	Bromide	CCV		Drinking Water	2.04 mg/L	10 mL	2.04 mg/L	1					9/13/16 06:56:22	N	II
RQ1610802-11	Chloride	CCV		Drinking Water	4.14 mg/L	10 mL	4.14 mg/L	1					9/13/16 06:56:22	N	II
RQ1610802-11	Sulfate	CCV		Drinking Water	3.83 mg/L	10 mL	3.83 mg/L	1					9/13/16 06:56:22	N	II
RQ1610802-12	Bromide	CCB		Drinking Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/13/16 07:11:24	N	II
RQ1610802-12	Chloride	CCB		Drinking Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/13/16 07:11:24	N	II
RQ1610802-12	Sulfate	CCB		Drinking Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/13/16 07:11:24	N	II

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

Schedule File: C:\PeakNet\Schedule\IC#6\6-091216.sch

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	CCV	Sample		6-070616.met	912_001.dxd	1	300.0/9056A/26A
2	CCB	Sample		6-070616.met	912_002.dxd	1	300.0/9056A/26A
3	LCS	Sample		6-070616.met	912_003.dxd	1	300.0/9056A/26A
4	R1609119-001	Sample		6-070616.met	912_004.dxd	1	300.0 F
5	R1609119-001 MS	Sample		6-070616.met	912_005.dxd	1	300.0 F
6	R1609119-001 MSD	Sample		6-070616.met	912_006.dxd	1	300.0 F
7	R1609119-002	Sample		6-070616.met	912_007.dxd	1	300.0 F
8	R1609119-003	Sample		6-070616.met	912_008.dxd	1	300.0 F
9	R1609119-004	Sample		6-070616.met	912_009.dxd	1	300.0 F
10	R1609119-005	Sample		6-070616.met	912_010.dxd	1	300.0 F
11	R1609092-002	Sample		6-070616.met	912_011.dxd	10	300.0 C
12	R1609150-042	Sample		6-070616.met	912_012.dxd	20	300.0 C
13	CCV	Sample		6-070616.met	912_013.dxd	1	300.0/9056A/26A
14	CCB	Sample		6-070616.met	912_014.dxd	1	300.0/9056A/26A
15	R1609119-006	Sample		6-070616.met	912_015.dxd	1	300.0 F
16	R1609374-001	Sample		6-070616.met	912_016.dxd	10	300.0 F
17	R1609374-002	Sample		6-070616.met	912_017.dxd	4	300.0 F
18	R1609379-001	Sample		6-070616.met	912_018.dxd	1	300.0 F
19	R1609379-004	Sample		6-070616.met	912_019.dxd	1	300.0 F
20	R1609379-005	Sample		6-070616.met	912_020.dxd	4	300.0 F
21	R1609379-006	Sample		6-070616.met	912_021.dxd	1	300.0 F
22	R1609374-001	Sample		6-070616.met	912_022.dxd	40	300.0 S
23	R1609374-001 MS	Sample		6-070616.met	912_023.dxd	40	300.0 S
24	R1609374-001 MSD	Sample		6-070616.met	912_024.dxd	40	300.0 S
25	CCV	Sample		6-070616.met	912_025.dxd	1	300.0/9056A/26A
26	CCB	Sample		6-070616.met	912_026.dxd	1	300.0/9056A/26A
27	R1609379-016	Sample		6-070616.met	912_027.dxd	10	300.0 F
28	R1609272-001	Sample		6-070616.met	912_028.dxd	1	300.0 F
29	R1609272-001	Sample		6-070616.met	912_029.dxd	10	300.0 CS
30	R1609150-043	Sample		6-070616.met	912_030.dxd	20	300.0 C
31	R1609150-053	Sample		6-070616.met	912_031.dxd	40	300.0 CS
32	LCS	Sample		6-070616.met	912_032.dxd	1	300.0/9056A/26A
33	R1608766-001	Sample		6-070616.met	912_033.dxd	1	%CL
34	R1608766-002	Sample		6-070616.met	912_034.dxd	1	%CL
35	R1609251-001	Sample		6-070616.met	912_035.dxd	100	300.0 CS
36	R1609251-003	Sample		6-070616.met	912_036.dxd	1000	300.0 CS
37	CCV	Sample		6-070616.met	912_037.dxd	1	300.0/9056A/26A
38	CCB	Sample		6-070616.met	912_038.dxd	1	300.0/9056A/26A
39	R1608766-003	Sample		6-070616.met	912_039.dxd	1	%CL
40	R1608766-004	Sample		6-070616.met	912_040.dxd	1	%CL
41	R1608766-005	Sample		6-070616.met	912_041.dxd	1	%CL
42	R1608766-006	Sample		6-070616.met	912_042.dxd	1	%CL
43	R1608766-007	Sample		6-070616.met	912_043.dxd	1	%CL
44	R1608766-008	Sample		6-070616.met	912_044.dxd	1	%CL
45	R1608766-009	Sample		6-070616.met	912_045.dxd	1	%CL
46	R1609150-050	Sample		6-070616.met	912_046.dxd	40	300.0 S
47	R1609150-050 MS	Sample		6-070616.met	912_047.dxd	40	300.0 S
48	R1609150-050 MSD	Sample		6-070616.met	912_048.dxd	40	300.0 S
49	CCV	Sample		6-070616.met	912_049.dxd	1	300.0/9056A/26A
50	CCB	Sample		6-070616.met	912_050.dxd	1	300.0/9056A/26A
51	R1608766-010	Sample		6-070616.met	912_051.dxd	1	%CL
52	R1608766-011	Sample		6-070616.met	912_052.dxd	1	%CL
53	R1608766-012	Sample		6-070616.met	912_053.dxd	1	%CL
54	R1608766-013	Sample		6-070616.met	912_054.dxd	1	%CL
55	R1608766-014	Sample		6-070616.met	912_055.dxd	1	%CL
56	R1608766-015	Sample		6-070616.met	912_056.dxd	1	%CL
57	R1609545-001	Sample		6-070616.met	912_057.dxd	10	300.0 N
58	R1609545-002	Sample		6-070616.met	912_058.dxd	10	300.0 N
59	R1609545-002 MS	Sample		6-070616.met	912_059.dxd	10	300.0 N
60	R1609545-002 MSD	Sample		6-070616.met	912_060.dxd	10	300.0 N
61	CCV	Sample		6-070616.met	912_061.dxd	1	300.0/9056A/26A
62	CCB	Sample		6-070616.met	912_062.dxd	1	300.0/9056A/26A
63	LCS	Sample		6-070616.met	912_063.dxd	1	300.0/9056A/26A
64	R1608766-016	Sample		6-070616.met	912_064.dxd	1	%CL
65	R1608766-017	Sample		6-070616.met	912_065.dxd	1	%CL
66	R1609295-001	Sample		6-070616.met	912_066.dxd	1	26A FC
67	R1609295-001 MS	Sample		6-070616.met	912_067.dxd	1	26A FC
68	R1609295-001 MSD	Sample		6-070616.met	912_068.dxd	1	26A FC
69	R1609295-003	Sample		6-070616.met	912_069.dxd	1	26A FC
70	R1609402-001	Sample		6-070616.met	912_070.dxd	100	300.0 C
71	R1609402-002	Sample		6-070616.met	912_071.dxd	100	300.0 C
72	R1609402-004	Sample		6-070616.met	912_072.dxd	100	300.0 C
73	CCV	Sample		6-070616.met	912_073.dxd	1	300.0/9056A/26A
74	CCB	Sample		6-070616.met	912_074.dxd	1	300.0/9056A/26A
75	R1609295-007	Sample		6-070616.met	912_075.dxd	1	26A FC
76	R1609295-008	Sample		6-070616.met	912_076.dxd	1	26A FC
77	R1609296-007	Sample		6-070616.met	912_077.dxd	1	26A FC

IC#6 300.0/9056A/26A 9/12/16 LM Pipettes: Fred, Ferb + Speedy Gonzalez

Schedule File: C:\PeakNet\Schedule\IC#6\6-091216.sch

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
78	R1609296-008	Sample		6-070616.met	912_078.dxd	1	26A FC
79	R1609295-005	Sample		6-070616.met	912_079.dxd	1	26A FC
80	R1609296-001	Sample		6-070616.met	912_080.dxd	1	26A FC
81	R1609296-003	Sample		6-070616.met	912_081.dxd	1	26A FC
82	R1609296-005	Sample		6-070616.met	912_082.dxd	1	26A FC
83	R1609402-005	Sample		6-070616.met	912_083.dxd	100	300.0 C
84	R1609402-007	Sample		6-070616.met	912_084.dxd	100	300.0 C
85	CCV	Sample		6-070616.met	912_085.dxd	1	300.0/9056A/26A
86	CCB	Sample		6-070616.met	912_086.dxd	1	300.0/9056A/26A
87	R1609534-001	Sample		6-070616.met	912_087.dxd	10	300.0 CBS
88	R1609534-001 MS	Sample		6-070616.met	912_088.dxd	10	300.0 CBS
89	R1609534-001 MSD	Sample		6-070616.met	912_089.dxd	10	300.0 CBS
90	R1609301-001	Sample		6-070616.met	912_090.dxd	10	9056A C
91	R1609301-002	Sample		6-070616.met	912_091.dxd	10	9056A C
92	CCV	Sample		6-070616.met	912_092.dxd	1	300.0/9056A/26A
93	CCB	Sample		6-070616.met	912_093.dxd	1	300.0/9056A/26A
94	END	Sample		shutdown.met	912	1	300.0/9056A/26A

Default Method Path: C:\PEAKNET\METHODS\IC#6\DI METHODS
Default Data Path: C:\PEAKNET\DATA\IC#6\091216
Comment:

Sample Dilutions

Final Volume: 4-6mL - IC#5, 6, 8, 9

Analyst: NM
Instrument: IC#6

Date 9/12/16
Analysis Anions

Common Dilutions

Dilution	Matrix of Diluent	1st Dilution			2nd Dilution			3rd Dilution			4th Dilution			5th Dilution		
		mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor	mL's of Sample	mL's of Diluent	Dilution Factor
1/2	DI	3	3	1/2												
1/3	DI	2	4	1/3												
1/4	DI	1	3	1/4												
1/5	DI	1	4	1/5												
1/10	DI	0.5	4.5	1/10												
1/20	DI	1	1	1/2	0.5	4.5	1/20									
1/30	DI	2	4	1/3	0.5	4.5	1/30									
1/40	DI	1	3	1/4	0.5	4.5	1/40									
1/50	DI	1	4	1/5	0.5	4.5	1/50									
1/100	DI	0.5	4.5	1/10	0.5	4.5	1/100									
1/200	DI	1	1	1/2	0.5	4.5	1/20	0.5	4.5	1/200						
1/300	DI	2	4	1/3	0.5	4.5	1/30	0.5	4.5	1/300						
1/400	DI	1	3	1/4	0.5	4.5	1/40	0.5	4.5	1/400						
1/500	DI	1	4	1/5	0.5	4.5	1/50	0.5	4.5	1/500						
1/1000	DI	0.5	4.5	1/10	0.5	4.5	1/100	0.5	4.5	1/1000						
1/2000	DI	1	1	1/2	0.5	4.5	1/20	0.5	4.5	1/200	0.5	4.5	1/2000			
1/3000	DI	2	4	1/3	0.5	4.5	1/30	0.5	4.5	1/300	0.5	4.5	1/3000			
1/4000	DI	1	3	1/4	0.5	4.5	1/40	0.5	4.5	1/400	0.5	4.5	1/4000			
1/10000	DI	0.5	4.5	1/10	0.5	4.5	1/100	0.5	4.5	1/1000	0.5	4.5	1/10000			
1/20000	DI	1	1	1/2	0.5	4.5	1/20	0.5	4.5	1/200	0.5	4.5	1/2000	0.5	4.5	1/20000
1/40000	DI	1	3	1/4	0.5	4.5	1/40	0.5	4.5	1/400	0.5	4.5	1/4000	0.5	4.5	1/40000
1/100000	DI	0.5	4.5	1/10	0.5	4.5	1/100	0.5	4.5	1/1000	0.5	4.5	1/10000	0.5	4.5	1/100000

Special Dilutions

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

Ion Chromatography Analytical Report
Columbia Analytical Services * Now Part of the ALS Group
Rochester, NY 14623

Sample Name : CCV
Data File Name : ...\912_001.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:07:04 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

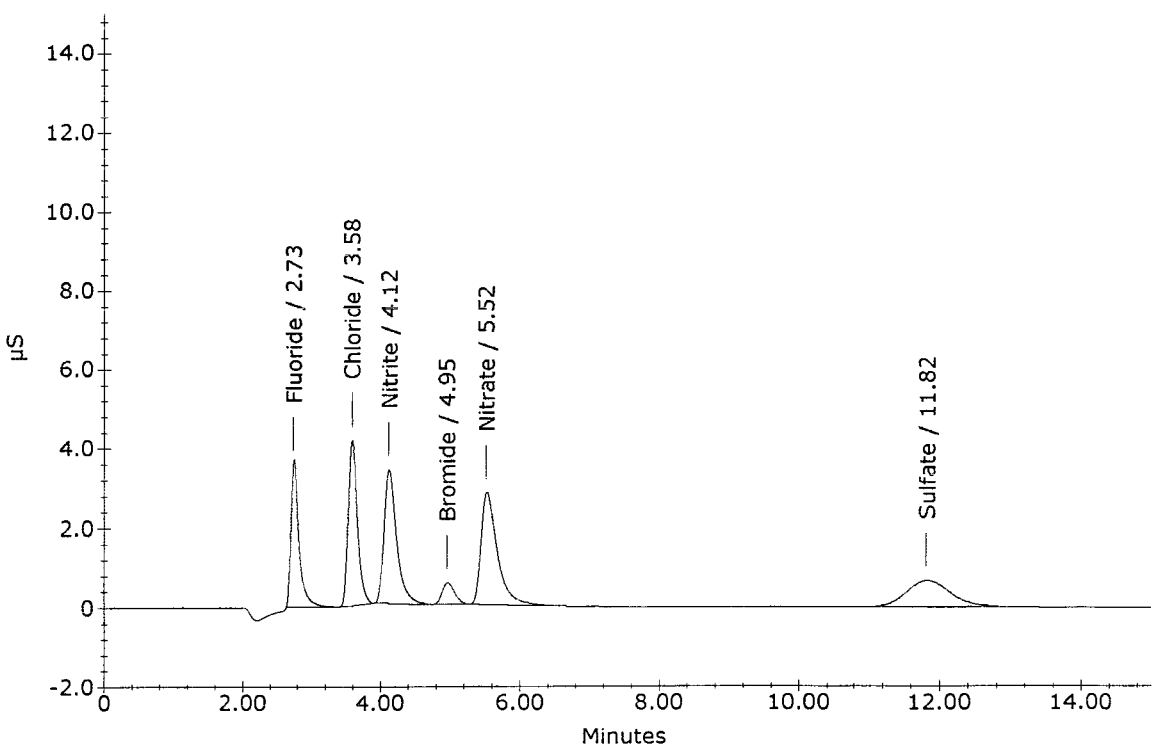
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	1.866	305767
2	3.58	Chloride	4.028	375280
3	4.12	Nitrite	2.054	426936
4	4.95	Bromide	1.982	67780
5	5.52	Nitrate	1.982	459419
6	11.82	Sulfate	3.793	289120

CCV



Ion Chromatography Analytical Report
Columbia Analytical Services * Now Part of the ALS Group
Rochester, NY 14623

Sample Name : CCB
Data File Name : ...\912_002.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:22:06 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

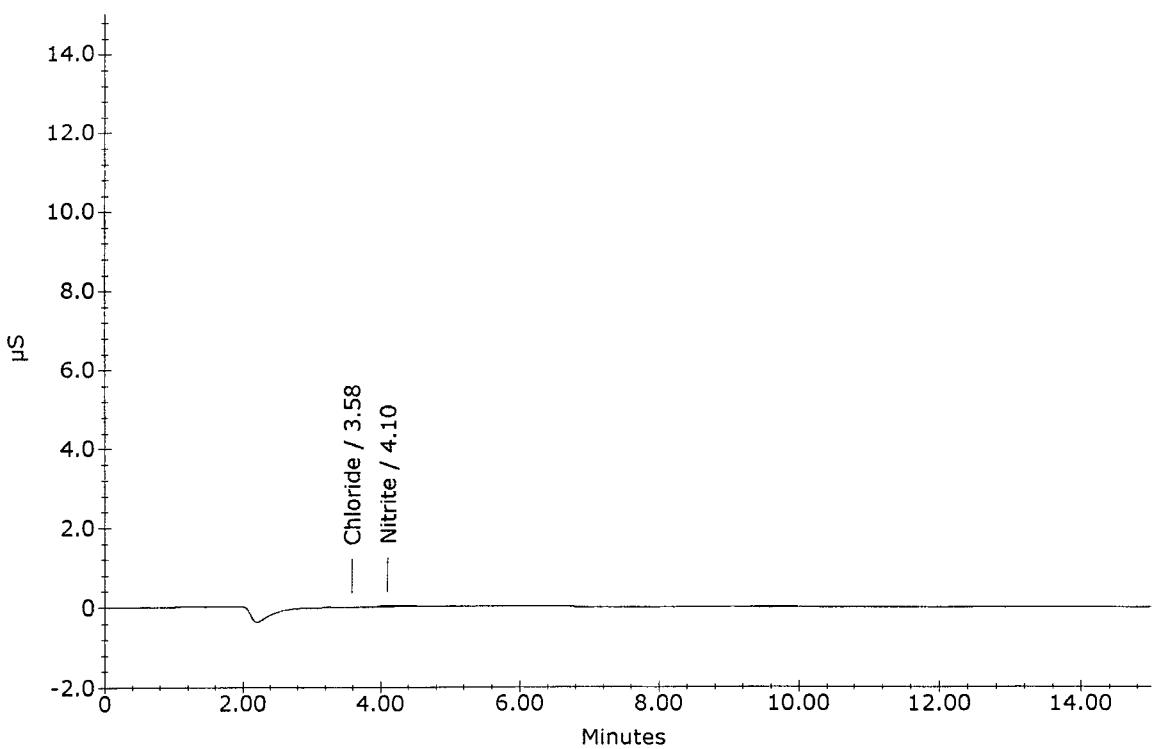
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.58	Chloride	-0.017	1179
2	4.10	Nitrite	-0.004	7667

CCB



Ion Chromatography Analytical Report
Columbia Analytical Services * Now Part of the ALS Group
Rochester, NY 14623

Sample Name : LCS
Data File Name : ...\912_003.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:37:08 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

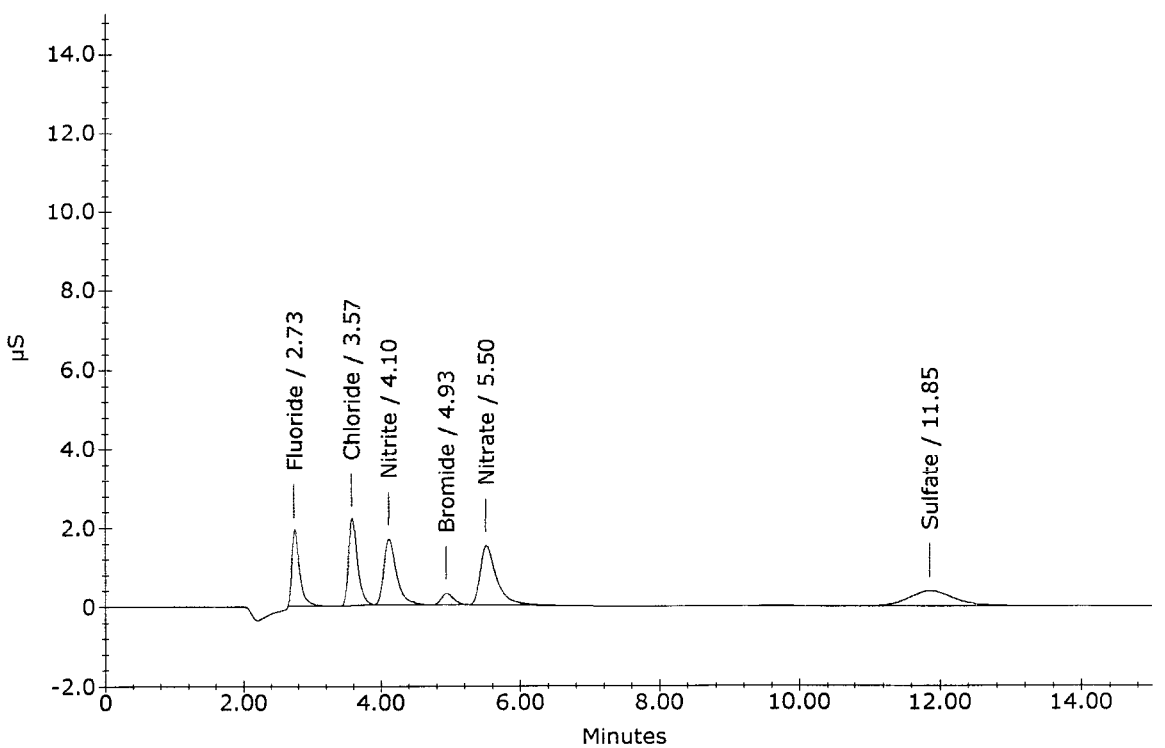
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.964	154934
2	3.57	Chloride	2.152	197522
3	4.10	Nitrite	1.006	210556
4	4.93	Bromide	1.019	35041
5	5.50	Nitrate	1.077	245954
6	11.85	Sulfate	2.085	160577

LCS



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Sample Name : R1609119-001
Data File Name : ...\912_004.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:52:11 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

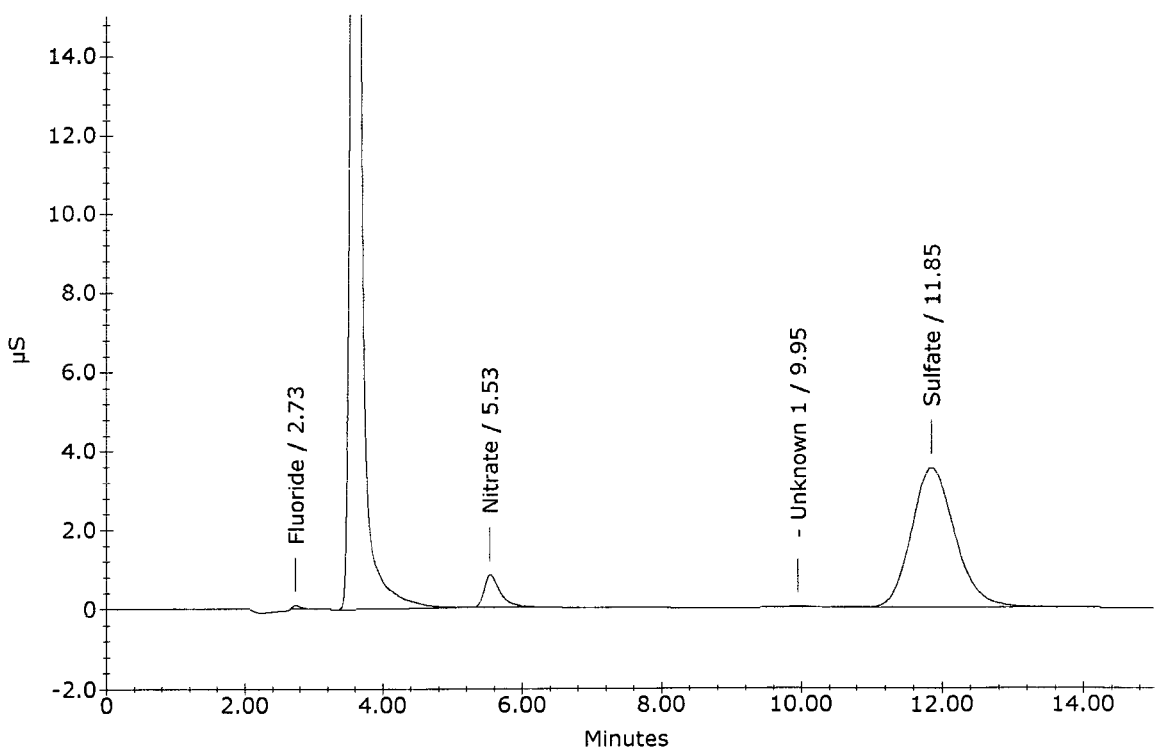
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.059	7796
2	3.58	Chloride	23.418	3520198
3	5.53	Nitrate	0.591	134429
5	11.85	Sulfate	19.683	1504684

R1609119-001



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Sample Name : R1609119-001 MS
Data File Name : ...\912_005.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:07:15 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

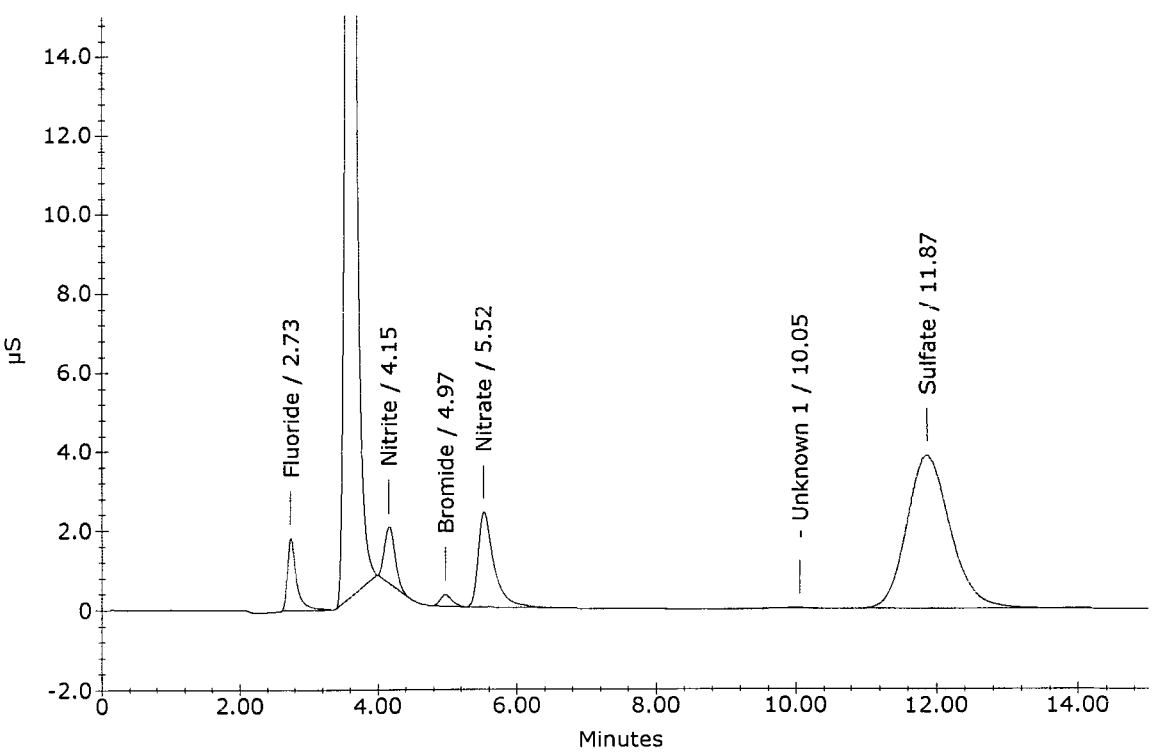
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	1.016	163582
2	3.60	Chloride	23.297	3461904
3	4.15	Nitrite	0.722	153046
4	4.97	Bromide	0.959	33007
5	5.52	Nitrate	1.648	379742
7	11.87	Sulfate	21.401	1638248

R1609119-001 MS



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Sample Name : R1609119-001 MSD
Data File Name : ...\912_006.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:22:17 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

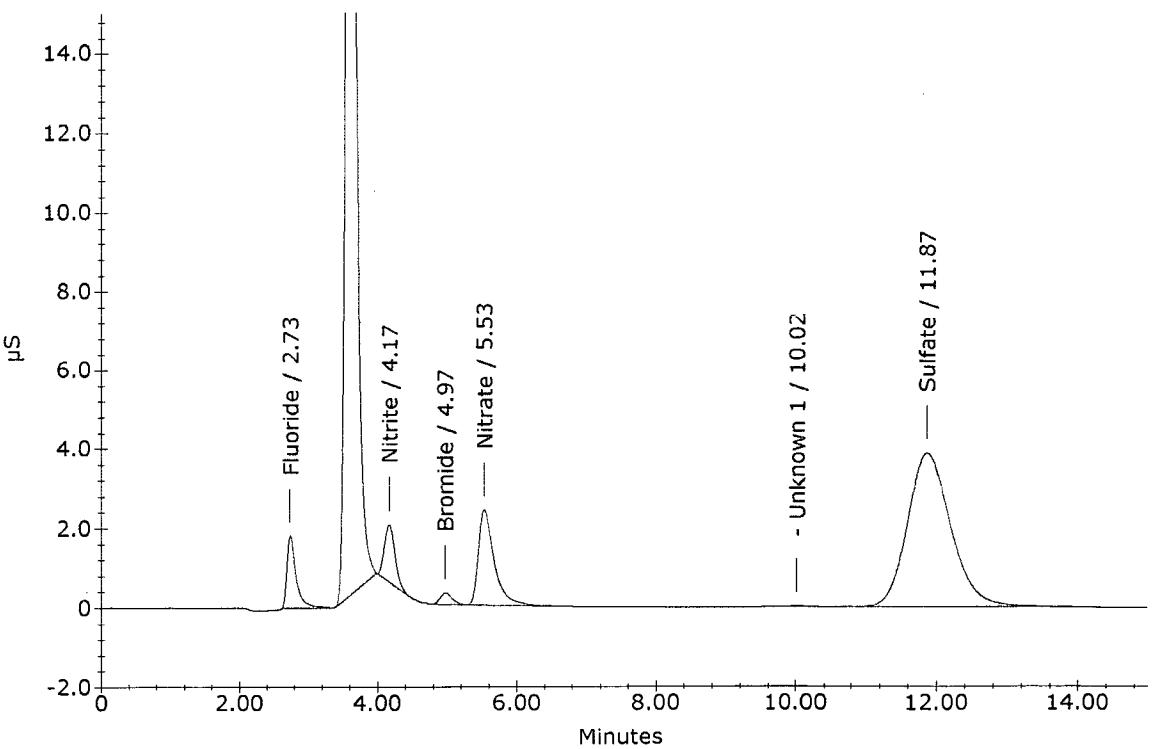
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	1.021	164340
2	3.60	Chloride	23.317	3471361
3	4.17	Nitrite	0.733	155216
4	4.97	Bromide	0.969	33324
5	5.53	Nitrate	1.649	379969
7	11.87	Sulfate	21.390	1637404

R1609119-001 MSD



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Sample Name : R1609119-002
Data File Name : ...\912_007.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:37:20 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

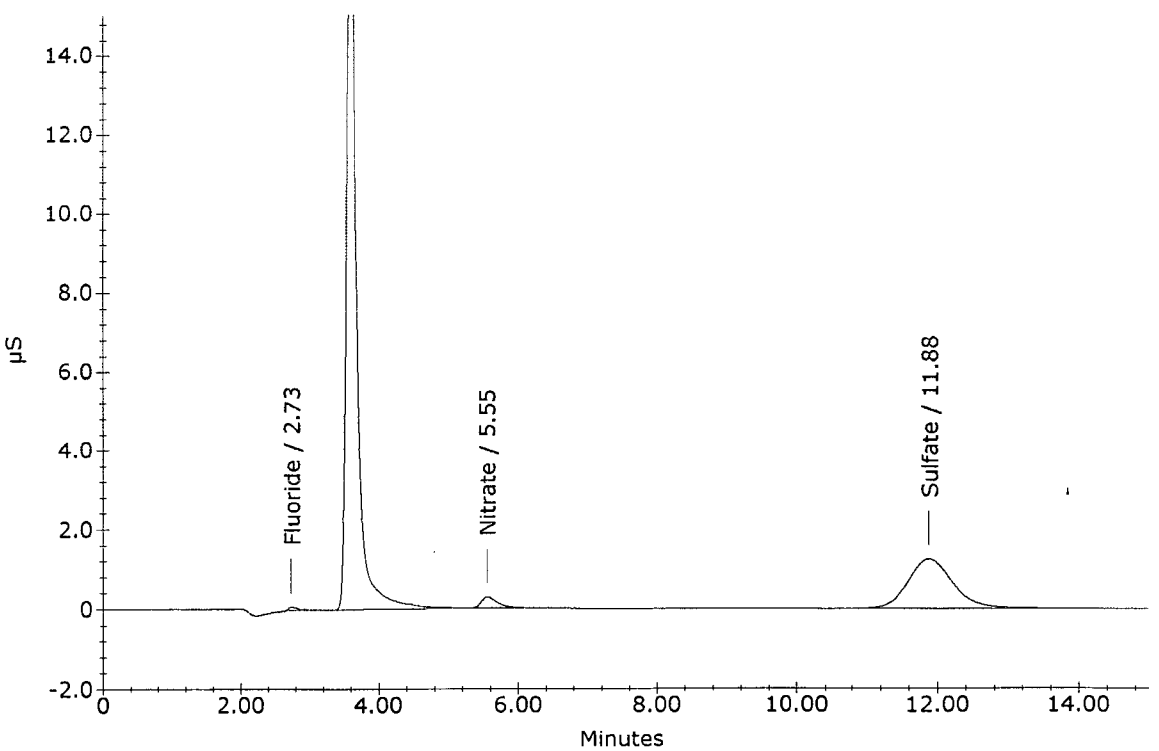
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.046	5765
2	3.58	Chloride	16.901	1933404
3	5.55	Nitrate	0.201	46590
4	11.88	Sulfate	6.958	528473

R1609119-002



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Sample Name : R1609119-003
Data File Name : ...\912_008.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:52:22 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

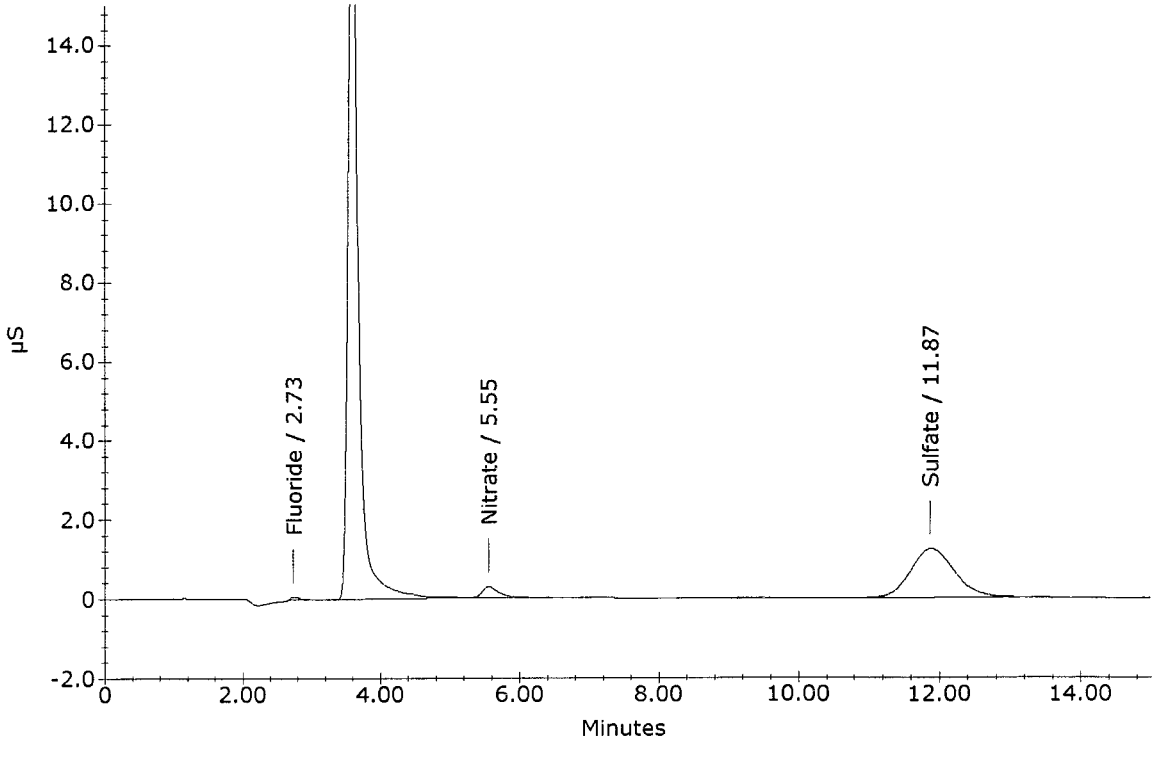
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.044	5478
2	3.58	Chloride	16.850	1925177
3	5.55	Nitrate	0.199	46082
4	11.87	Sulfate	6.932	526436

R1609119-003



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Sample Name : R1609119-004
Data File Name : ...\912_009.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:07:25 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

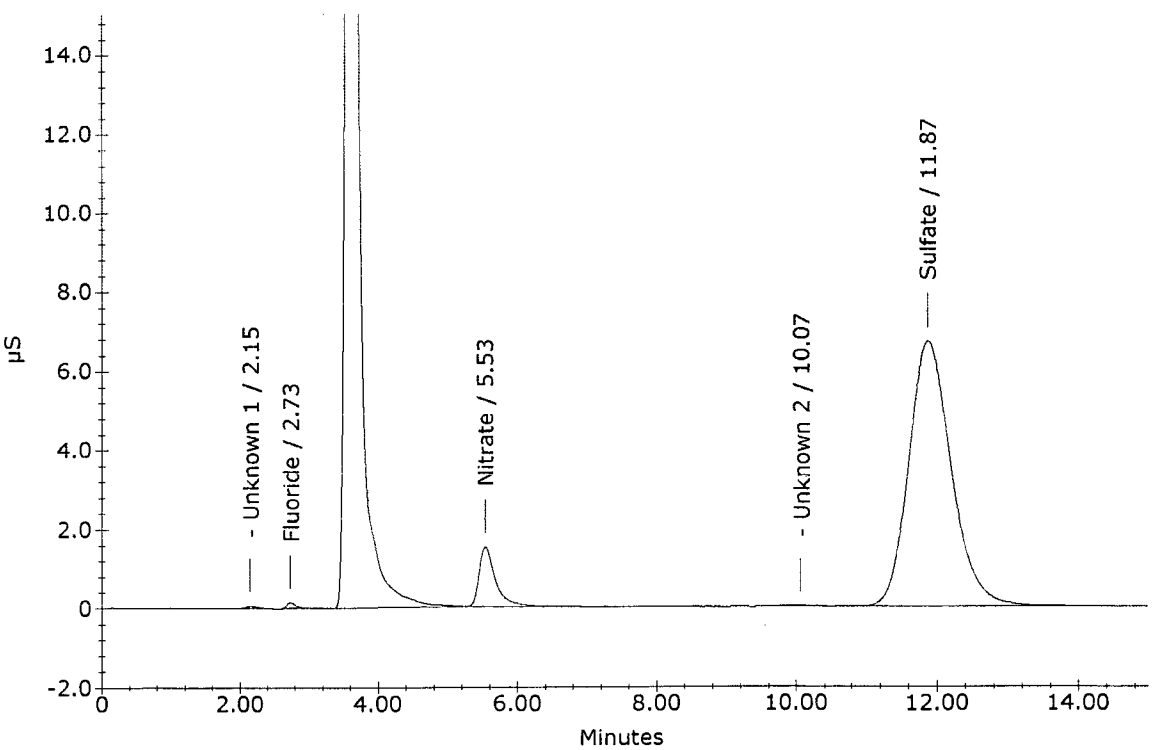
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.73	Fluoride	0.101	14531
3	3.60	Chloride	20.709	5903266
4	5.53	Nitrate	1.058	241519
6	11.87	Sulfate	36.039	2794732

R1609119-004



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Sample Name : R1609119-005
Data File Name : ...\912_010.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:22:28 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

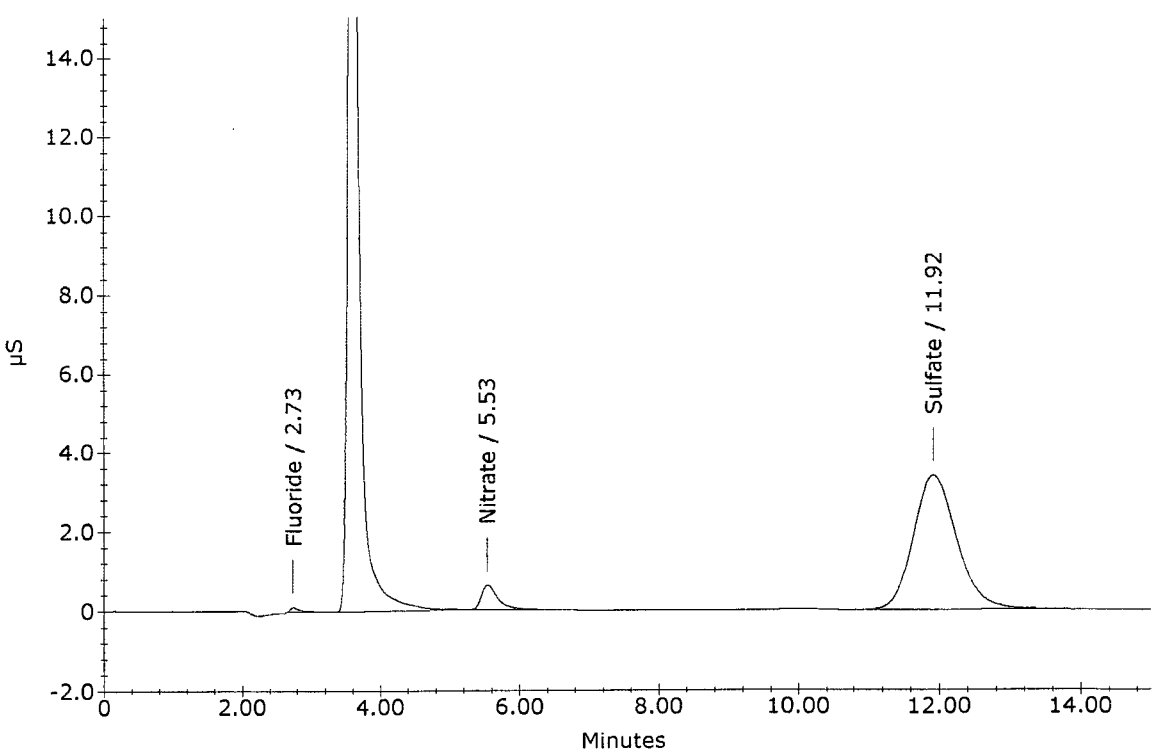
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.064	8625
2	3.60	Chloride	21.929	2975009
3	5.53	Nitrate	0.446	101546
4	11.92	Sulfate	18.720	1430006

R1609119-005



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Sample Name : R1609092-002
Data File Name : ...\912_011.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:37:31 AM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

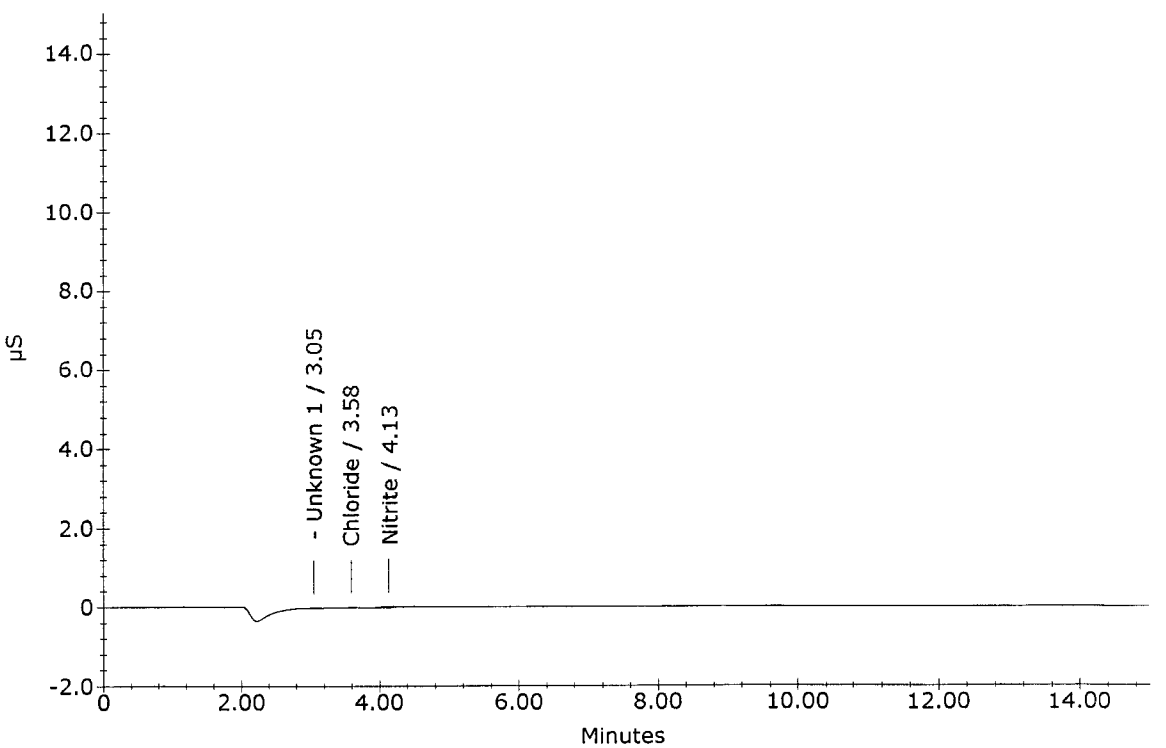
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.58	Chloride	-0.032	2420
3	4.13	Nitrite	-0.051	7404

R1609092-002



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Sample Name : R1609150-042
Data File Name : ...\912_012.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:52:34 AM

Dilution Factor : 20.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

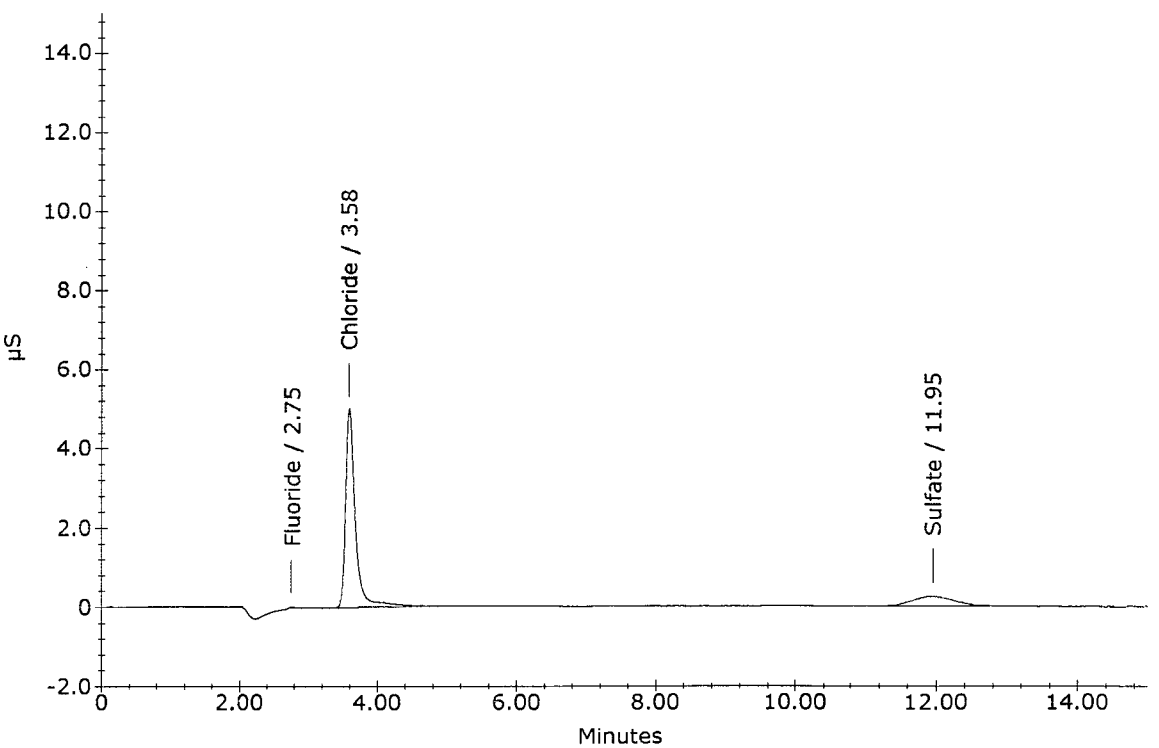
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.75	Fluoride	0.307	870
2	3.58	Chloride	105.626	498631
3	11.95	Sulfate	27.766	108237

R1609150-042



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Sample Name : CCV
Data File Name : ...\912_013.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:07:38 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

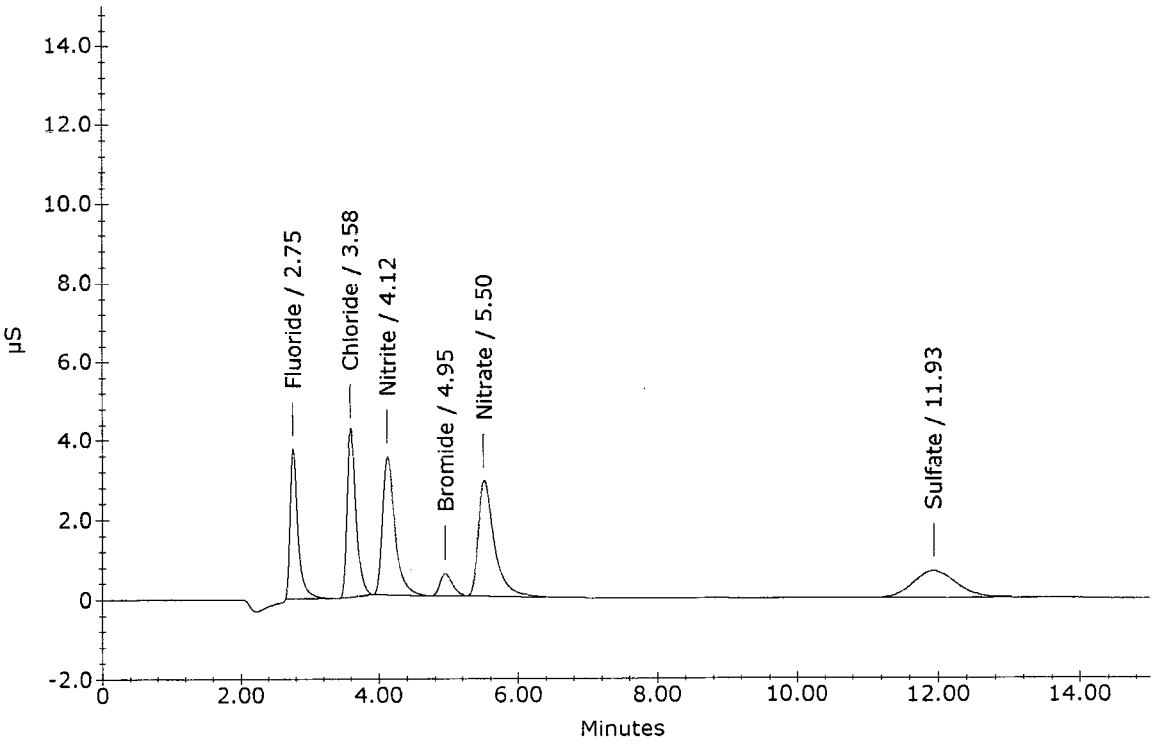
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.75	Fluoride	1.837	300799
2	3.58	Chloride	4.056	377997
3	4.12	Nitrite	2.073	430716
4	4.95	Bromide	2.003	68504
5	5.50	Nitrate	1.994	462341
6	11.93	Sulfate	3.746	285629

CCV



Ion Chromatography Analytical Report
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Sample Name : CCB
Data File Name : ...\912_014.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:22:41 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

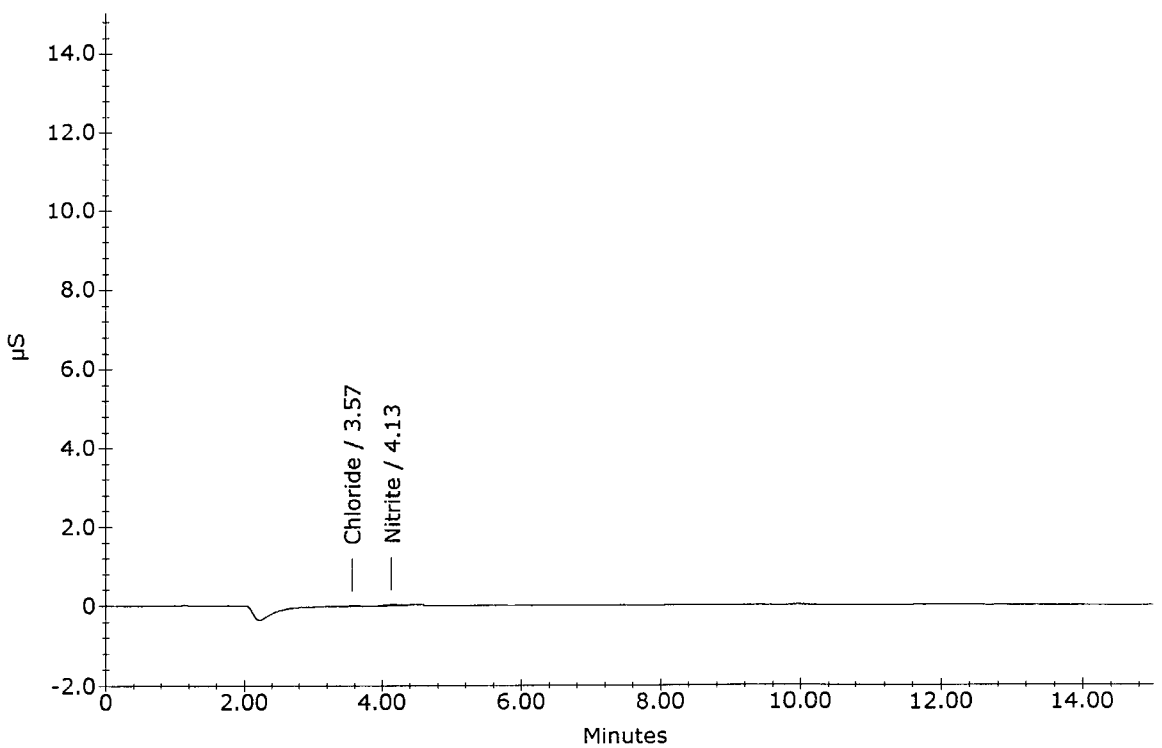
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.57	Chloride	-0.006	2153
2	4.13	Nitrite	-0.014	5620

CCB



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Sample Name : R1609119-006
Data File Name : ...\912_015.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:37:44 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

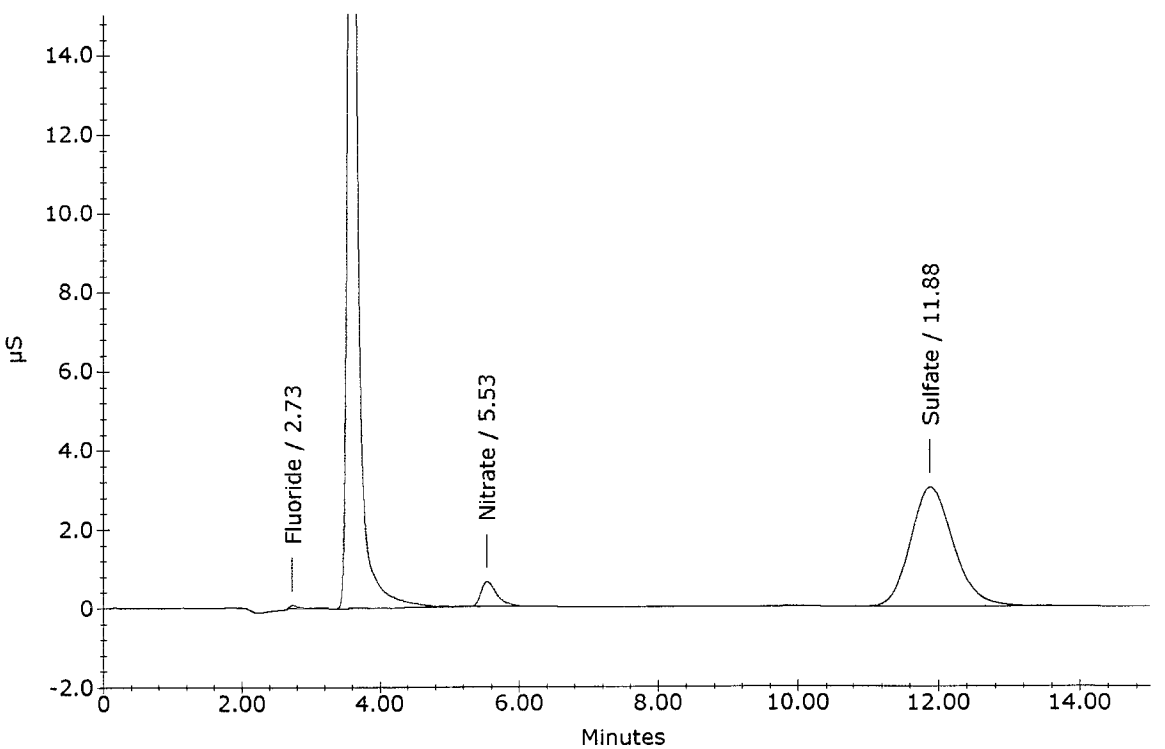
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.054	7020
2	3.58	Chloride	21.102	2753964
		Bromide		
3	5.53	Nitrate	0.459	104455
4	11.88	Sulfate	16.724	1275557

R1609119-006



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Sample Name : R1609374-001
Data File Name : ...\912_016.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:52:47 AM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

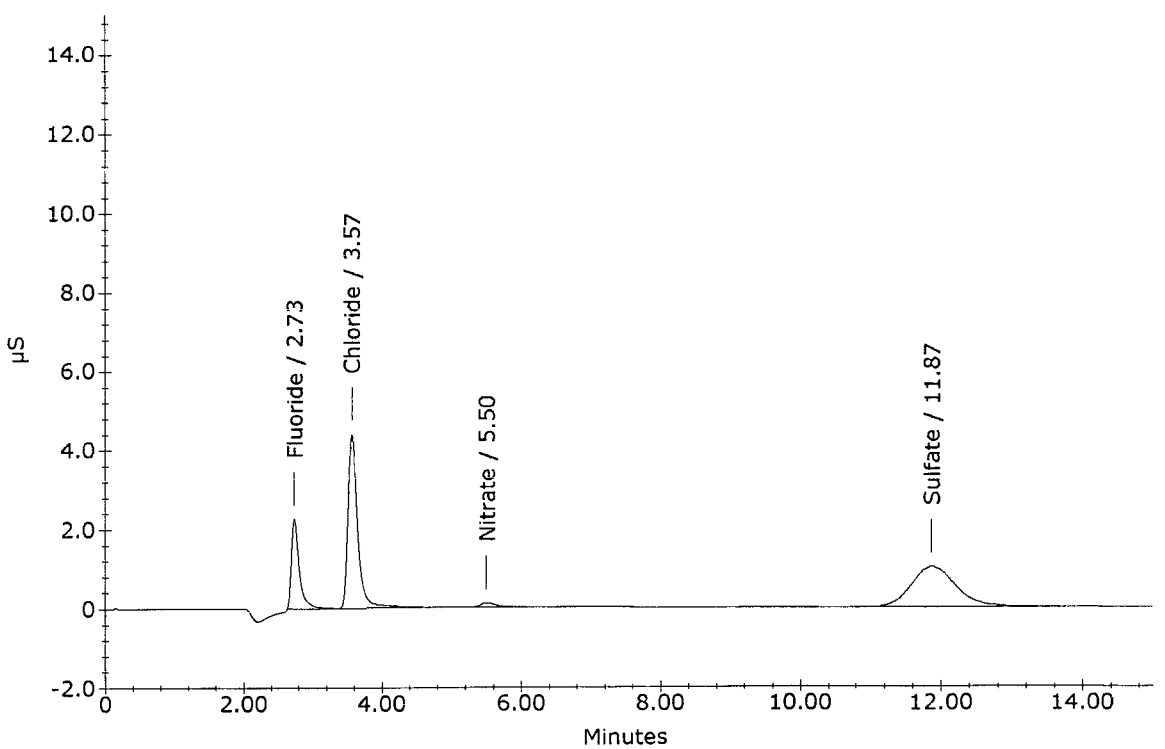
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	11.140	179741
2	3.57	Chloride	44.833	419608
3	5.50	Nitrate	0.722	17765
4	11.87	Sulfate	57.049	433536

R1609374-001



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Sample Name : R1609374-002
Data File Name : ...\912_017.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 12:07:51 PM

Dilution Factor : 4.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

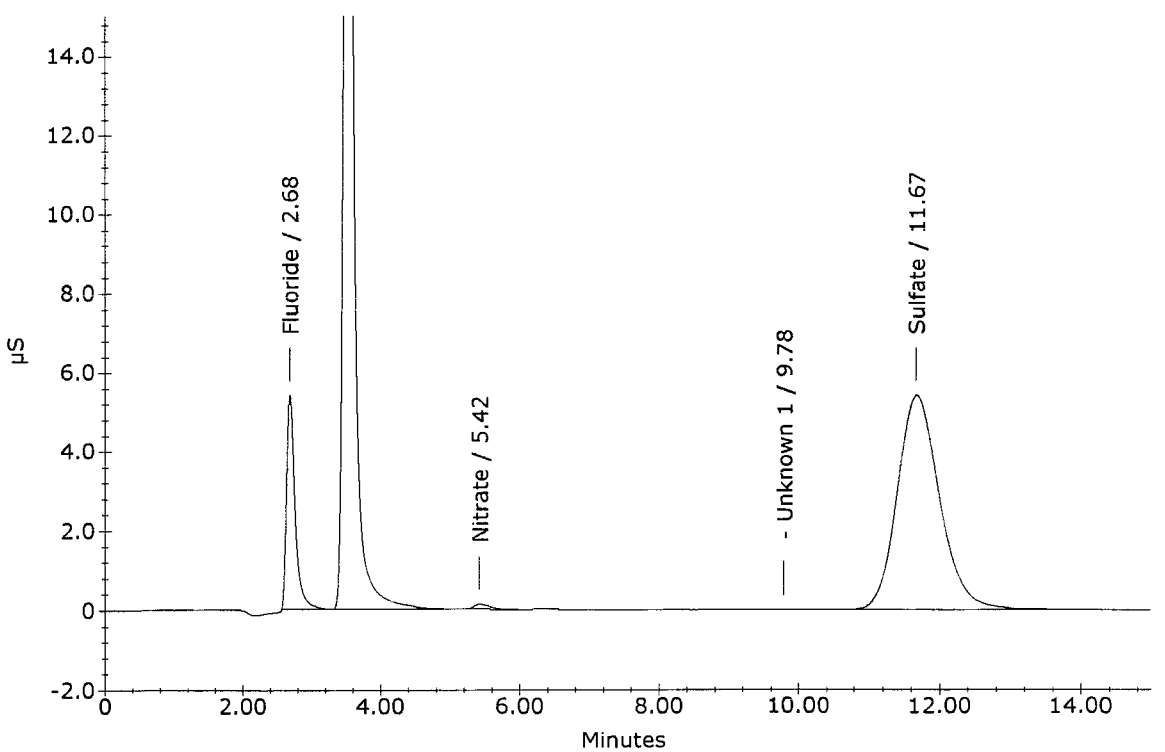
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.68	Fluoride	10.691	444635
2	3.52	Chloride	90.062	3157581
3	5.42	Nitrate	0.358	21614
5	11.67	Sulfate	115.656	2227668

R1609374-002



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Sample Name : R1609379-001
Data File Name : ...\912_018.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 12:22:54 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

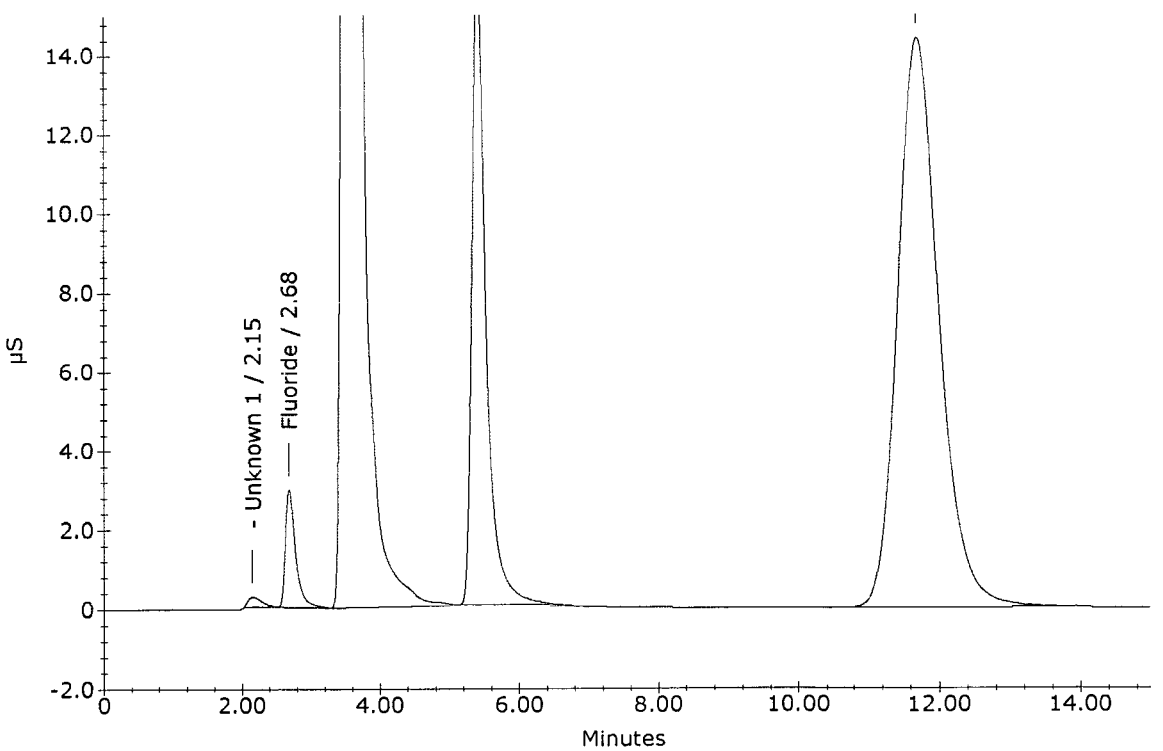
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.68	Fluoride	1.823	298432
3	3.62	Chloride	-260.069	18950127
4	5.40	Nitrate	8.278	2268804
5	11.67	Sulfate	72.029	5793003

R1609379-001



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Sample Name : R1609379-004
Data File Name : ...\912_019.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 12:37:57 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

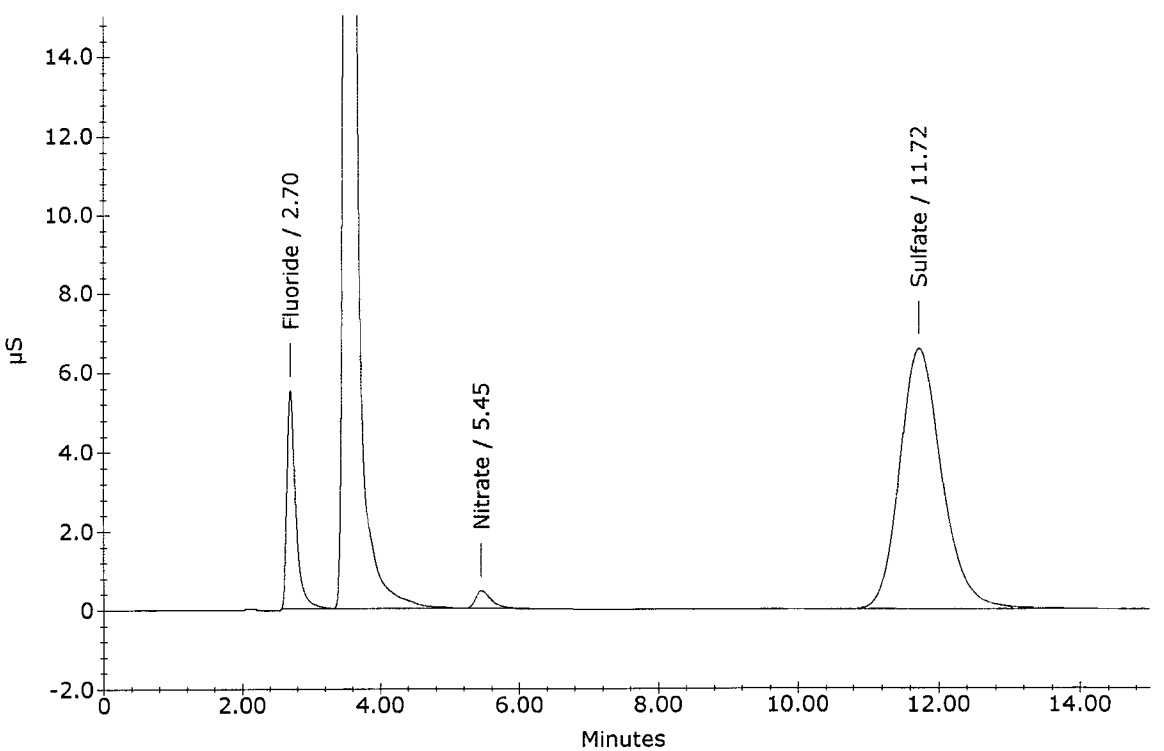
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	2.883	481389
2	3.55	Chloride	19.123	6238627
3	5.45	Nitrate	0.311	71100
4	11.72	Sulfate	34.862	2700478

R1609379-004



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Sample Name : R1609379-005
Data File Name : ...\912_020.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 12:53:00 PM

Dilution Factor : 4.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

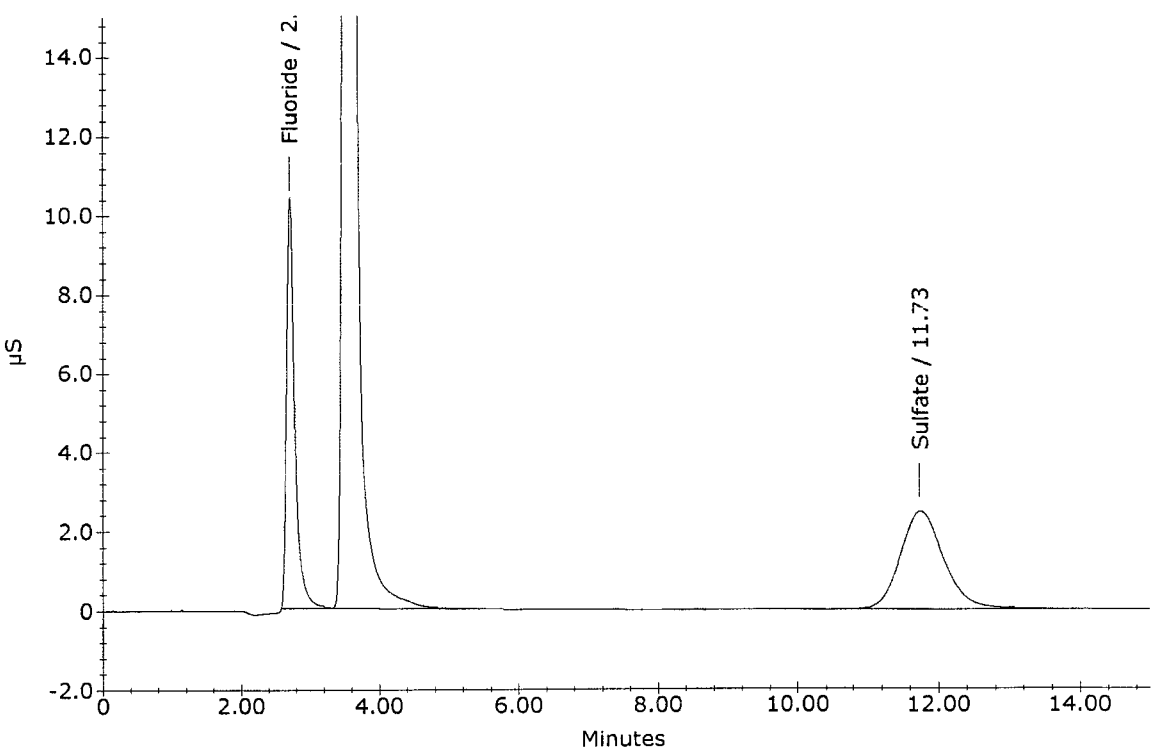
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	19.718	855547
2	3.57	Chloride	43.442	7457085
		Bromide		
3	11.73	Sulfate	54.083	1029049

R1609379-005



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Sample Name : R1609379-006
Data File Name : ...\912_021.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 1:08:03 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

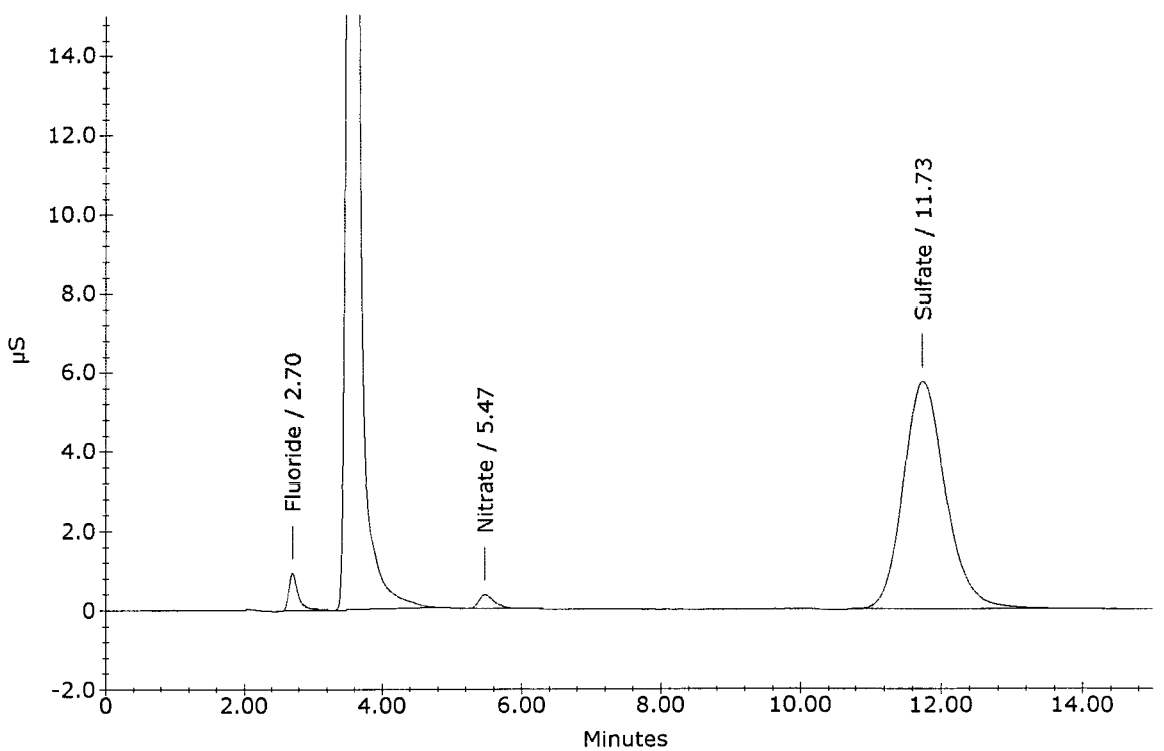
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	0.552	87497
2	3.55	Chloride	22.994	5230371
3	5.47	Nitrate	0.249	57176
4	11.73	Sulfate	30.671	2366748

R1609379-006



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Sample Name : R1609374-001
Data File Name : ...\912_022.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 1:23:06 PM

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 300.0 S

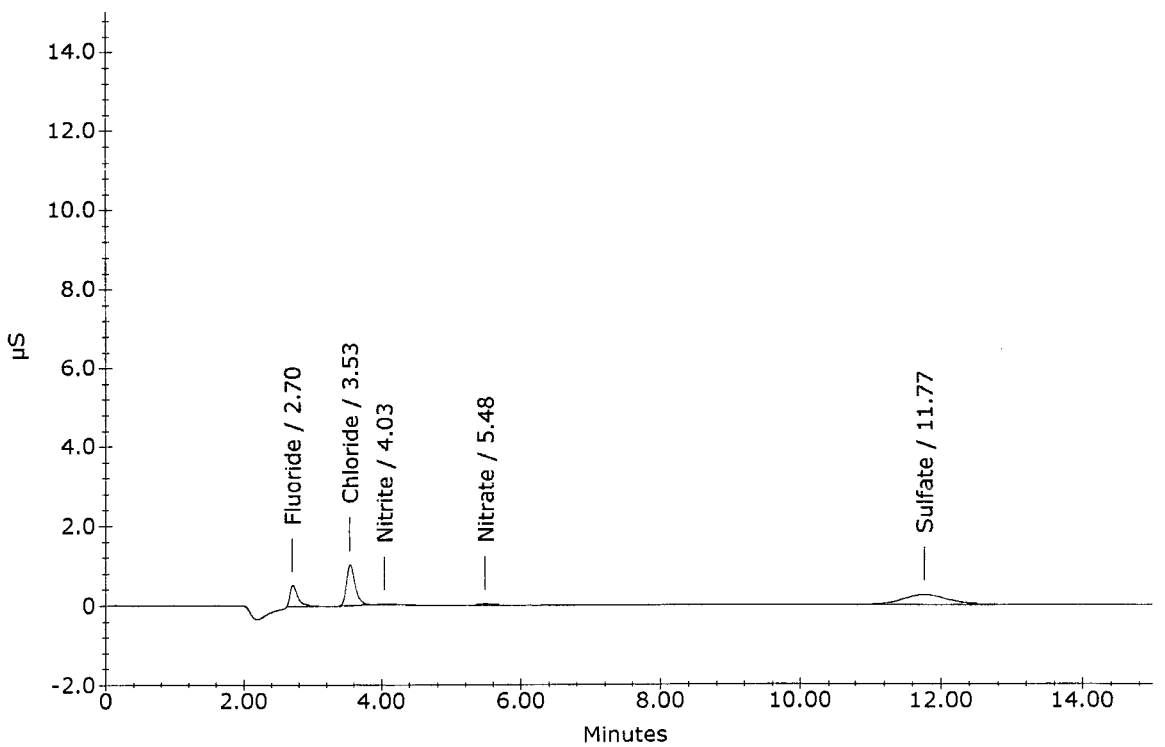
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	10.106	38997
2	3.53	Chloride	39.817	91685
3	4.03	Nitrite	-0.876	4063
4	5.48	Nitrate	0.298	3356
5	11.77	Sulfate	53.875	105126

R1609374-001



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Sample Name : R1609374-001 MS
Data File Name : ...\912_023.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 1:38:08 PM

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 300.0 S

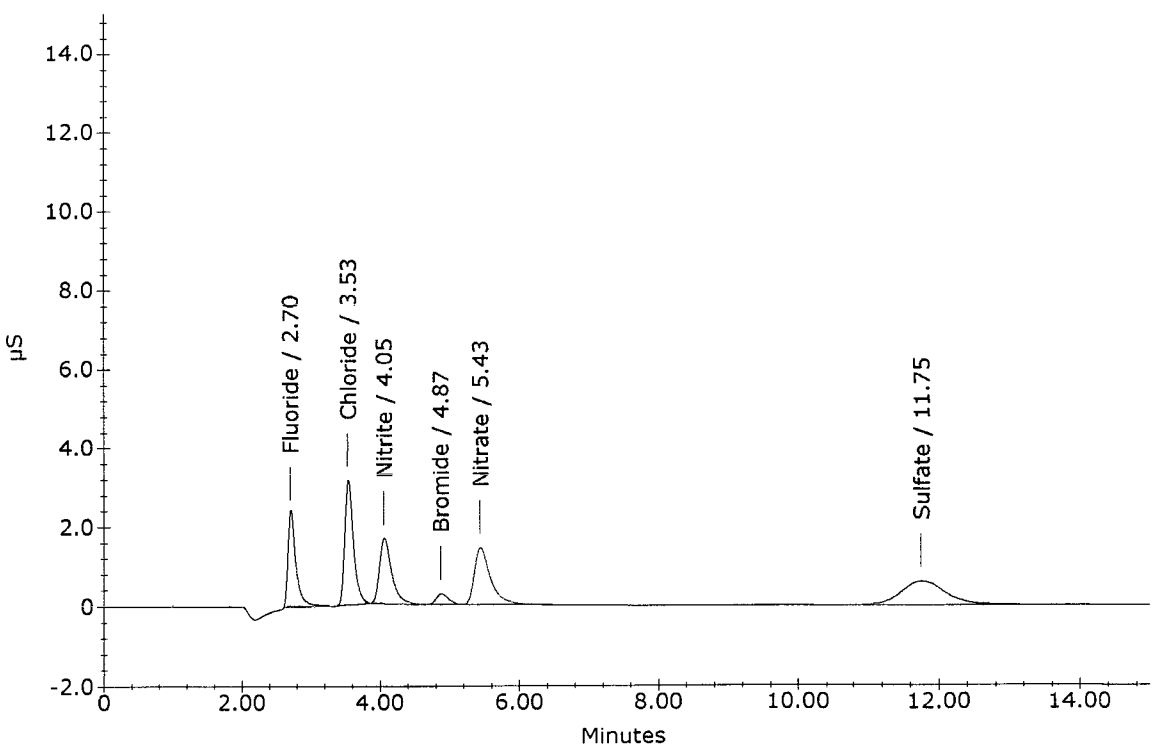
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	47.021	189935
2	3.53	Chloride	120.101	277107
3	4.05	Nitrite	38.251	200539
4	4.87	Bromide	37.470	32242
5	5.43	Nitrate	40.600	231599
6	11.75	Sulfate	131.260	250599

R1609374-001 MS



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Sample Name : R1609374-001 MSD
Data File Name : ...\912_024.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 1:53:12 PM

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 300.0 S

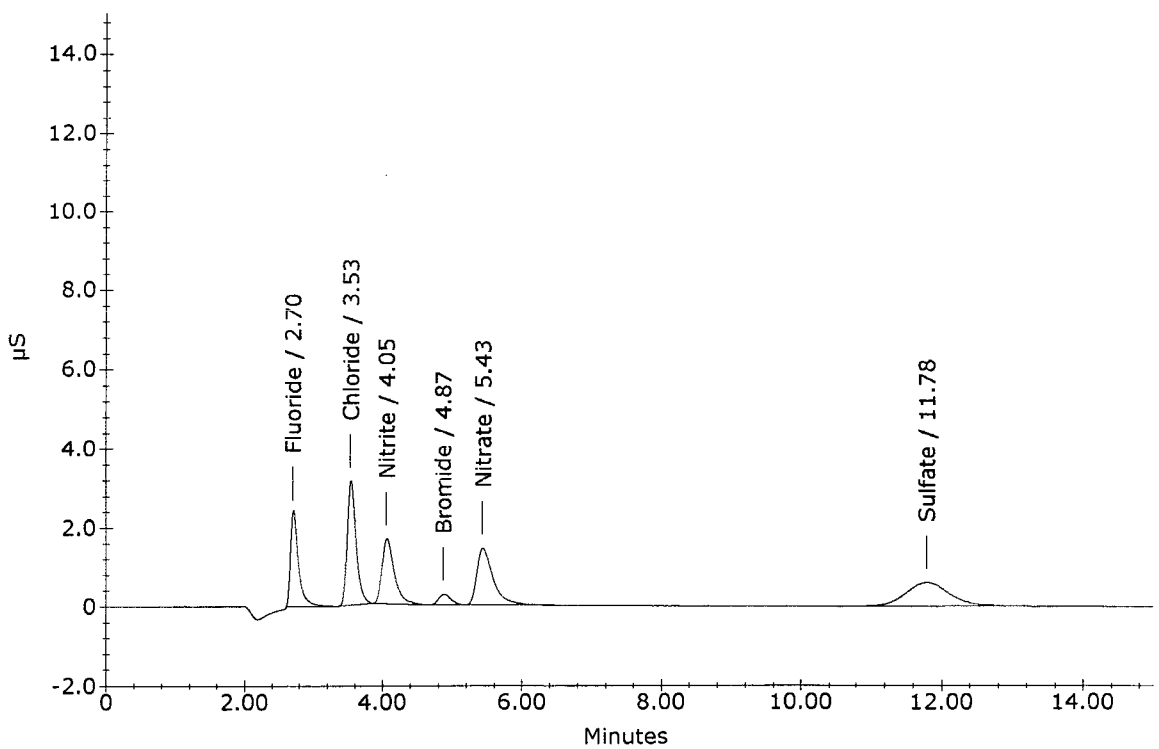
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	47.460	191754
2	3.53	Chloride	120.892	278979
3	4.05	Nitrite	38.558	202099
4	4.87	Bromide	37.848	32563
5	5.43	Nitrate	40.960	233684
6	11.78	Sulfate	130.776	249687

R1609374-001 MSD



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Sample Name : CCV
Data File Name : ...\912_025.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 2:08:15 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

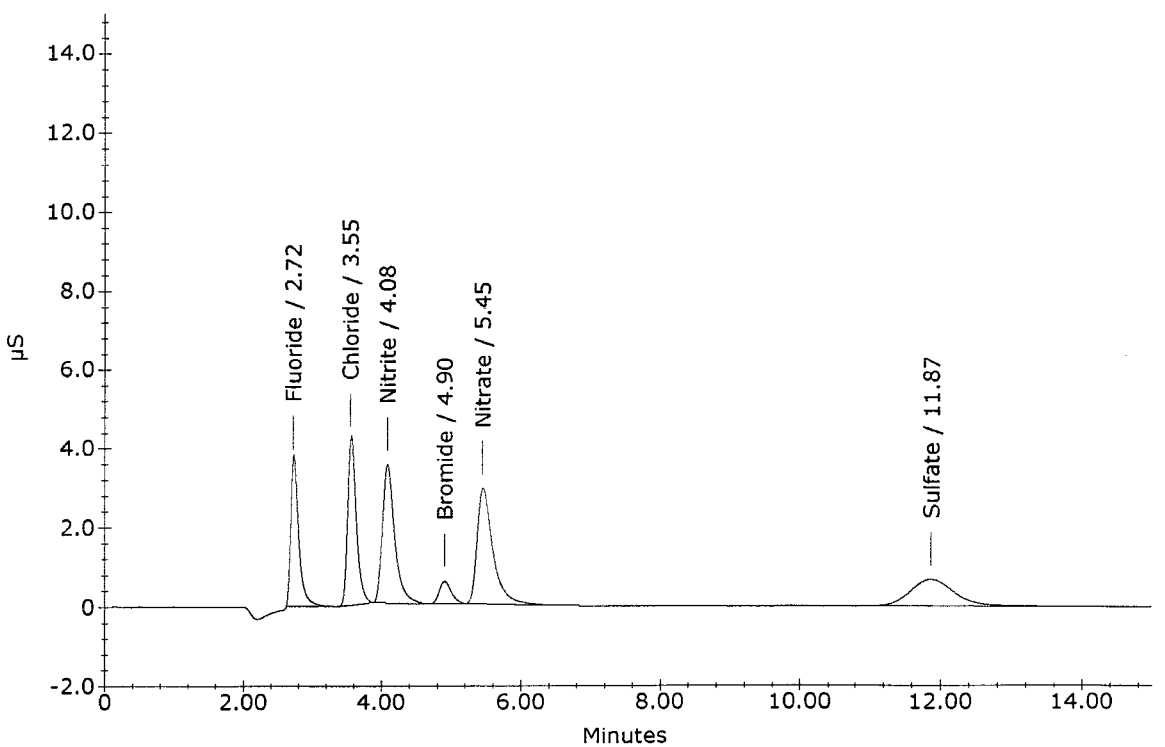
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	1.838	301055
2	3.55	Chloride	4.033	375729
3	4.08	Nitrite	2.058	427588
4	4.90	Bromide	1.991	68076
5	5.45	Nitrate	1.979	458771
6	11.87	Sulfate	3.762	286833

CCV



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Sample Name : CCB
Data File Name : ...\912_026.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 2:23:17 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

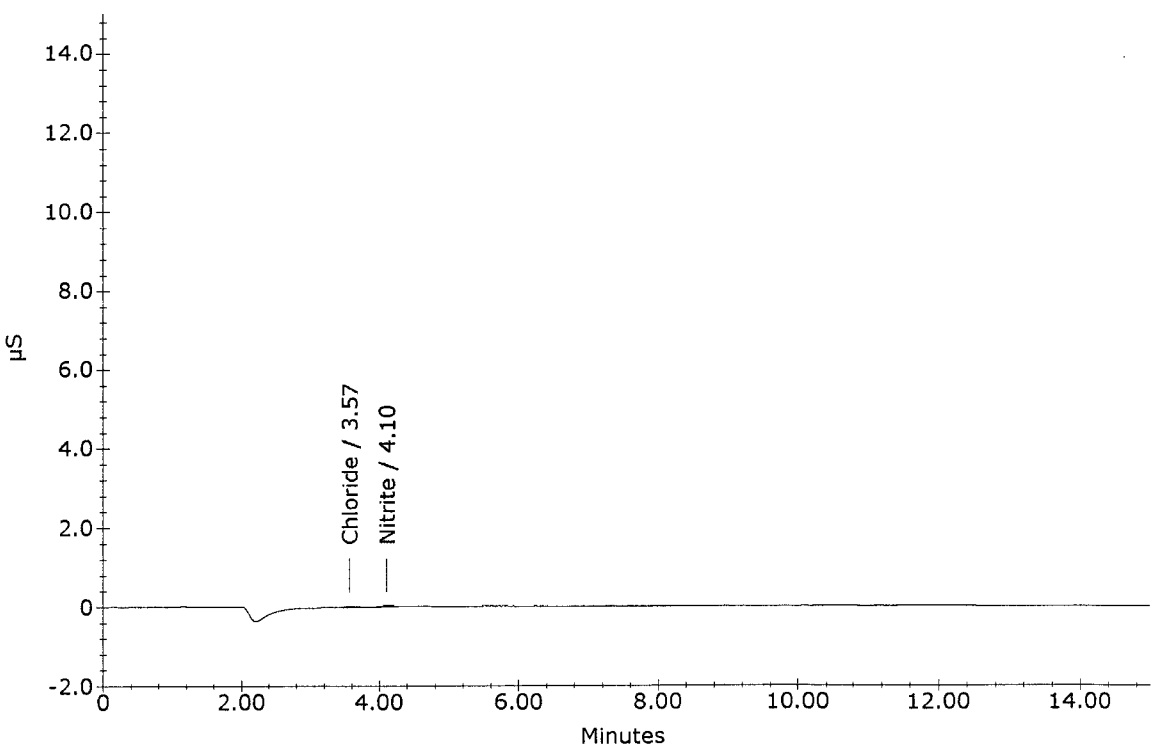
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.57	Chloride	0.021	4599
2	4.10	Nitrite	-0.016	5309

CCB



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Sample Name : R1609379-016
Data File Name : ...\912_027.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 2:38:20 PM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

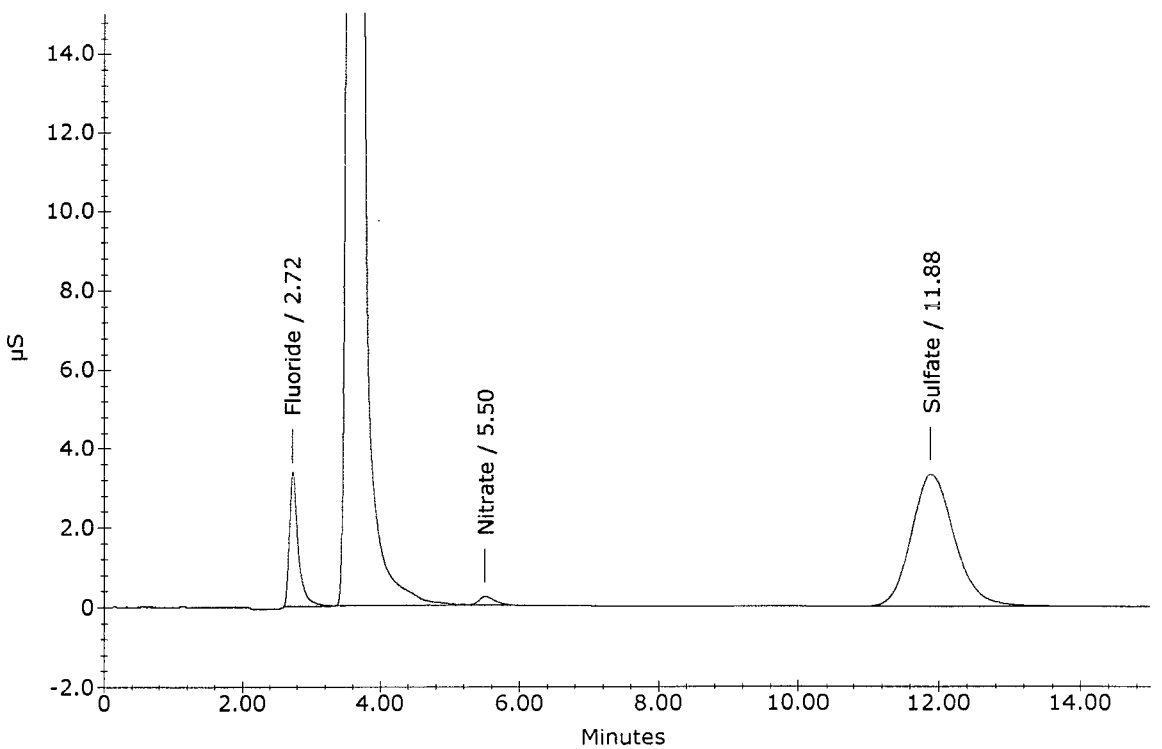
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	18.428	301869
2	3.63	Chloride	-707.601	12758976
3	5.50	Nitrate	1.479	34644
4	11.88	Sulfate	182.752	1395514

R1609379-016



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Sample Name : R1609272-001
Data File Name : ...\912_028.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 2:53:22 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0 F

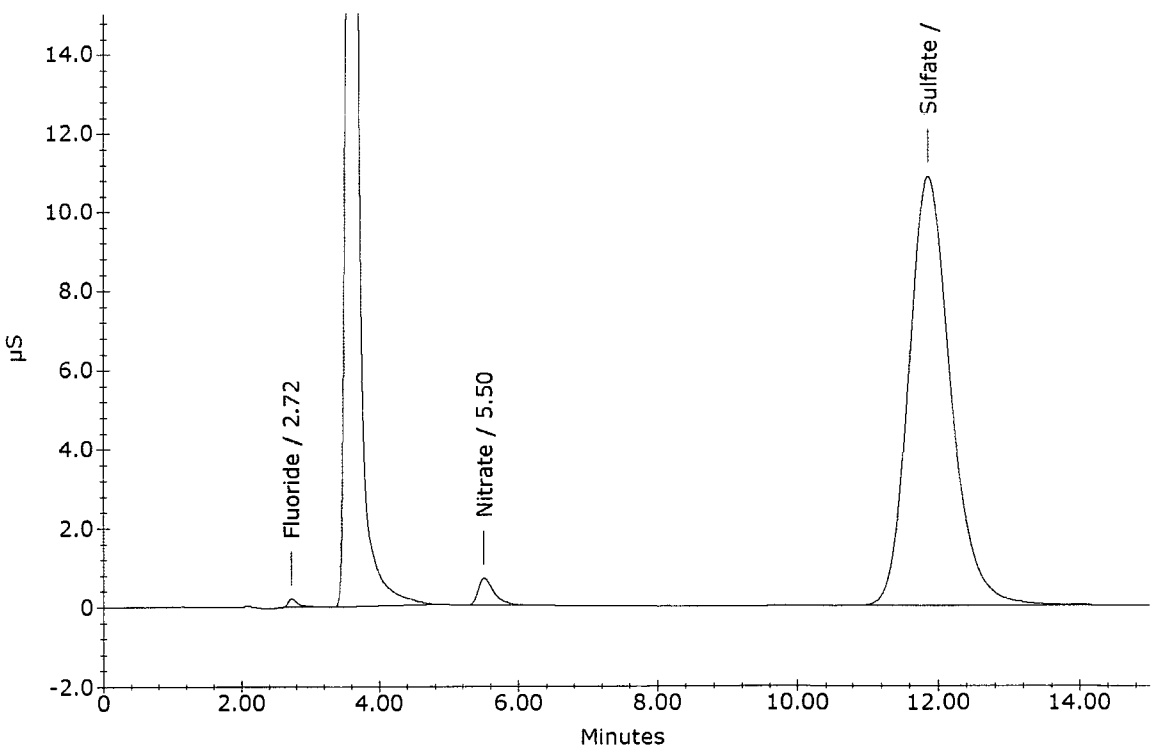
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	0.144	21550
2	3.58	Chloride	23.770	4840904
3	5.50	Nitrate	0.481	109592
4	11.85	Sulfate	55.920	4421762

R1609272-001



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Sample Name : R1609272-001
Data File Name : ...\912_029.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 3:08:26 PM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 CS

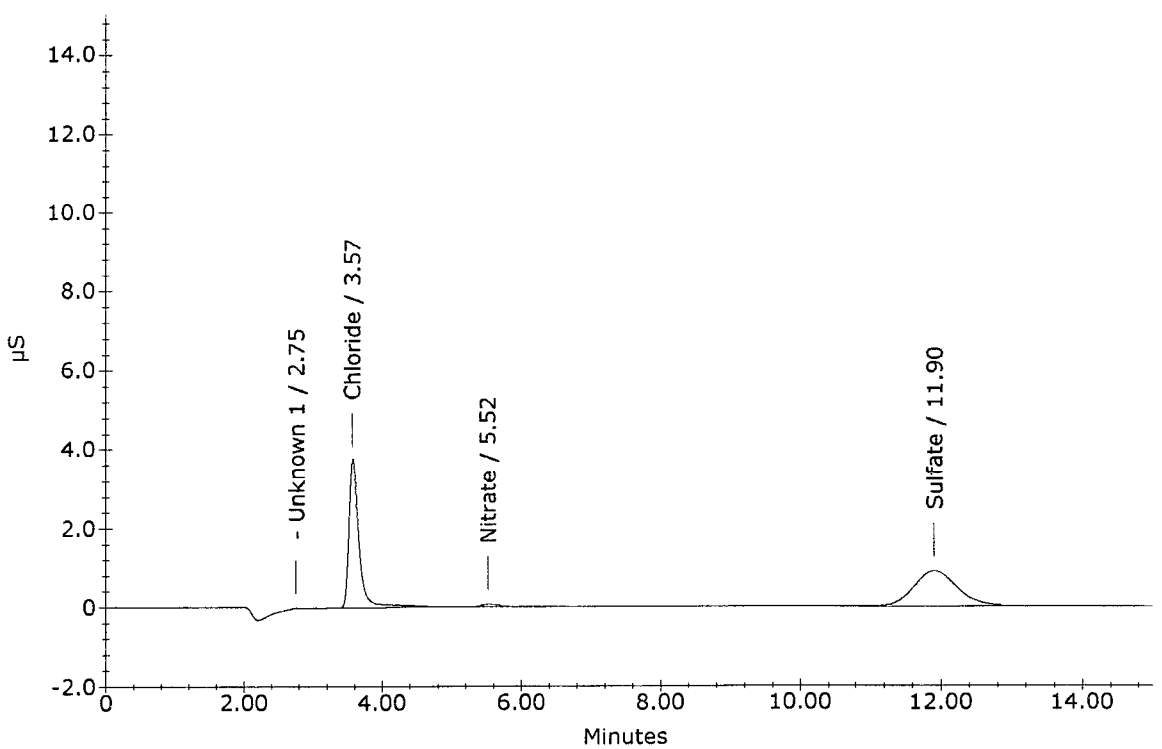
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.57	Chloride	39.776	370358
3	5.52	Nitrate	0.335	9142
4	11.90	Sulfate	49.875	379297

R1609272-001



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Sample Name : R1609150-043
Data File Name : ...\912_030.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 3:23:29 PM

Dilution Factor : 20.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

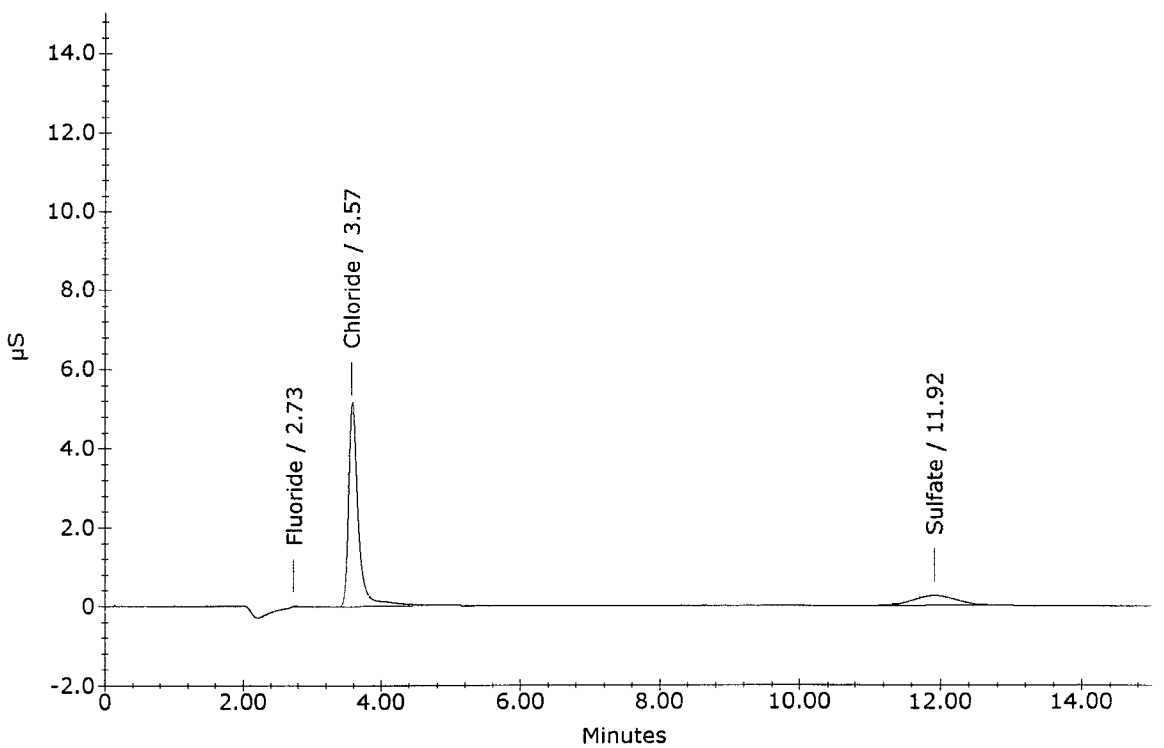
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.341	1142
2	3.57	Chloride	107.807	509559
3	11.92	Sulfate	26.602	103866

R1609150-043



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Sample Name : R1609150-053
Data File Name : ...\912_031.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 3:38:31 PM

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 300.0 CS

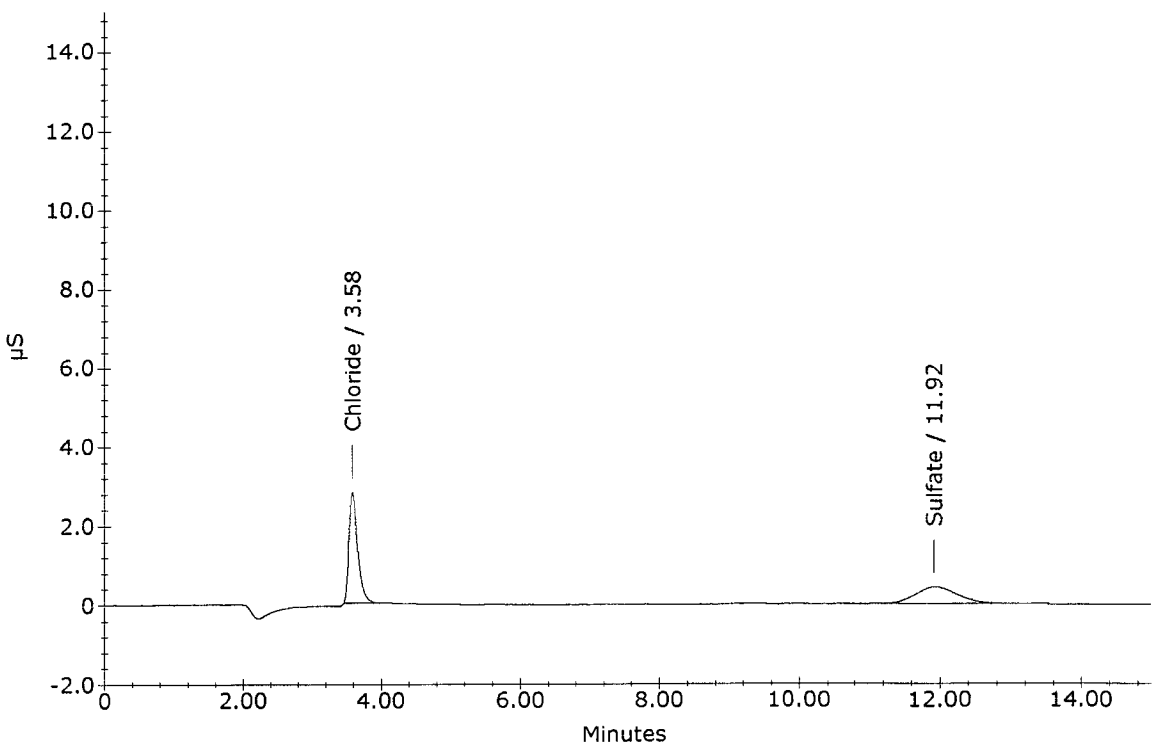
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.58	Chloride	107.653	247799
2	11.92	Sulfate	95.273	182885

R1609150-053



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Sample Name : LCS
Data File Name : ...\912_032.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 3:53:34 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

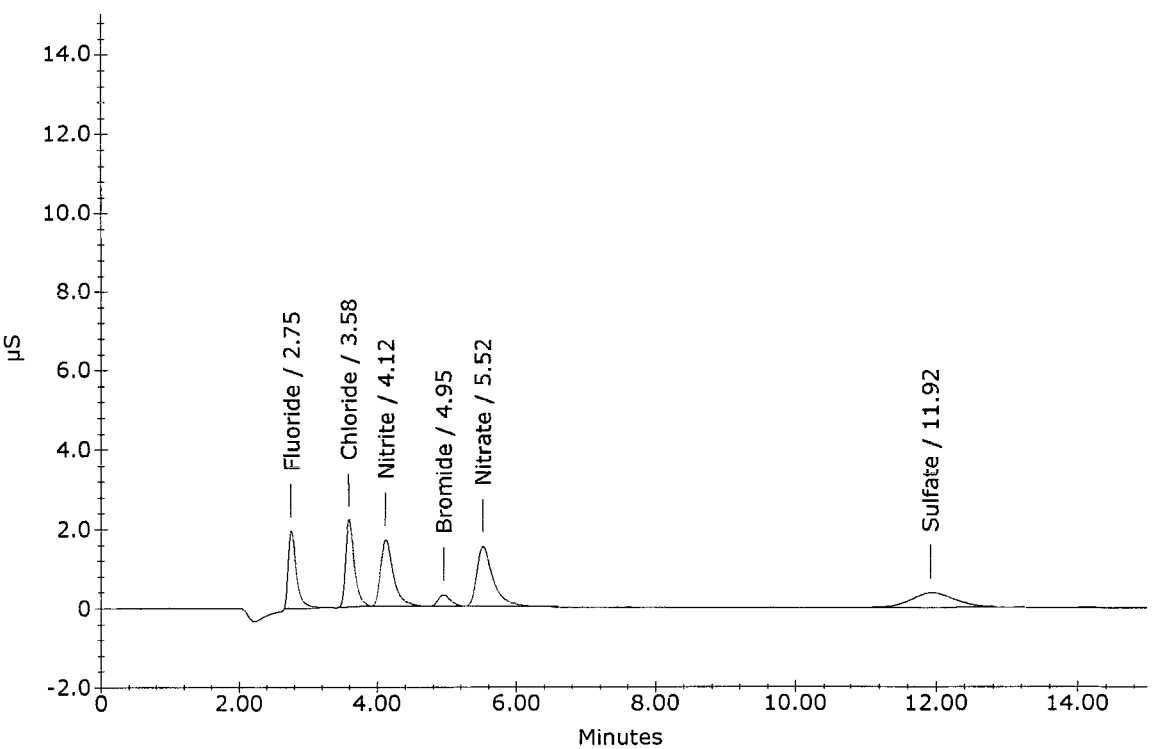
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.75	Fluoride	0.957	153750
2	3.58	Chloride	2.170	199193
3	4.12	Nitrite	1.005	210447
4	4.95	Bromide	1.034	35557
5	5.52	Nitrate	1.080	246602
6	11.92	Sulfate	2.031	156489

LCS



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Sample Name : R1608766-001
Data File Name : ...\912_033.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 4:08:37 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

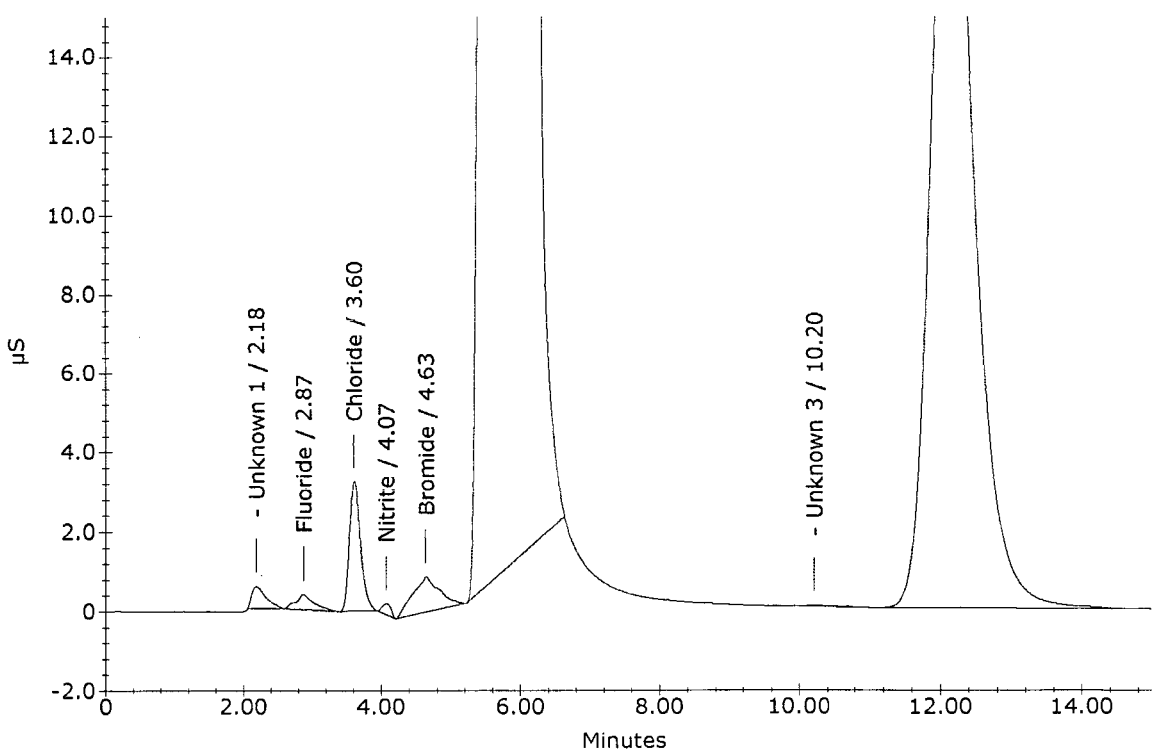
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.87	Fluoride	0.437	68796
3	3.60	Chloride	4.017	374198
4	4.07	Nitrite	0.077	23768
5	4.63	Bromide	6.851	234465
8	12.12	Sulfate	108.641	9118678

R1608766-001



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Sample Name : R1608766-002
Data File Name : ...\912_034.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 4:23:41 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

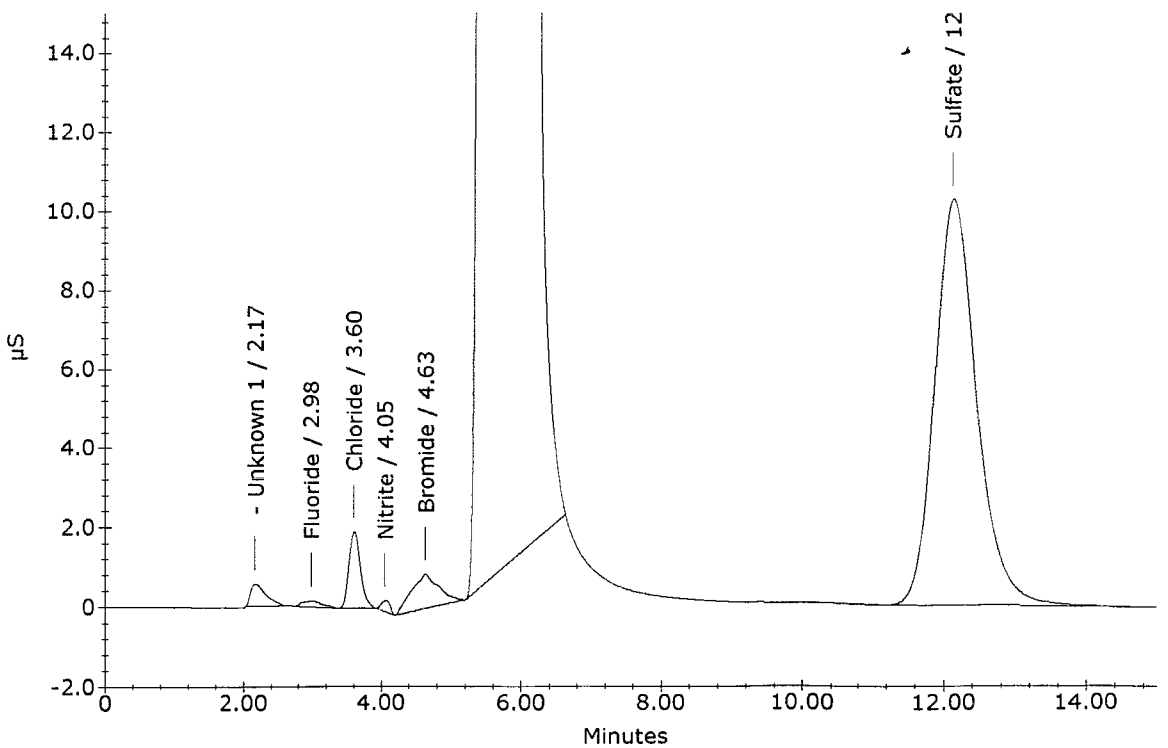
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.196	29819
3	3.60	Chloride	2.462	226359
4	4.05	Nitrite	0.082	24748
5	4.63	Bromide	6.775	231823
7	12.12	Sulfate	53.244	4198700

R1608766-002



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Sample Name : R1609251-001
Data File Name : ...\912_035.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 4:38:44 PM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : 300.0 CS

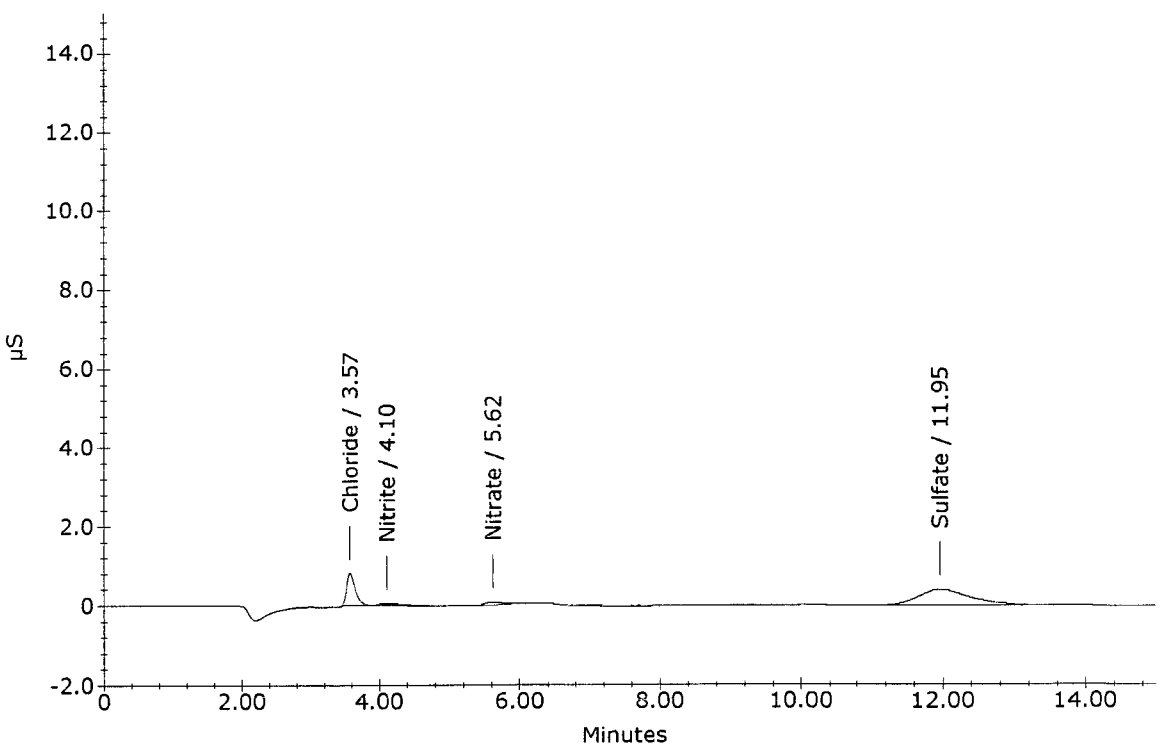
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.57	Chloride 1/10	77.223	71570
2	4.10	Nitrite	1.432	11255
3	5.62	Nitrate	5.054	12936
4	11.95	Sulfate	256.402	196590

R1609251-001



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Sample Name : R1609251-003
Data File Name : ...\912_036.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 4:53:46 PM

Dilution Factor : 1000.00
Sample Type : Sample Analysis
Sample Comment : 300.0 CS

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

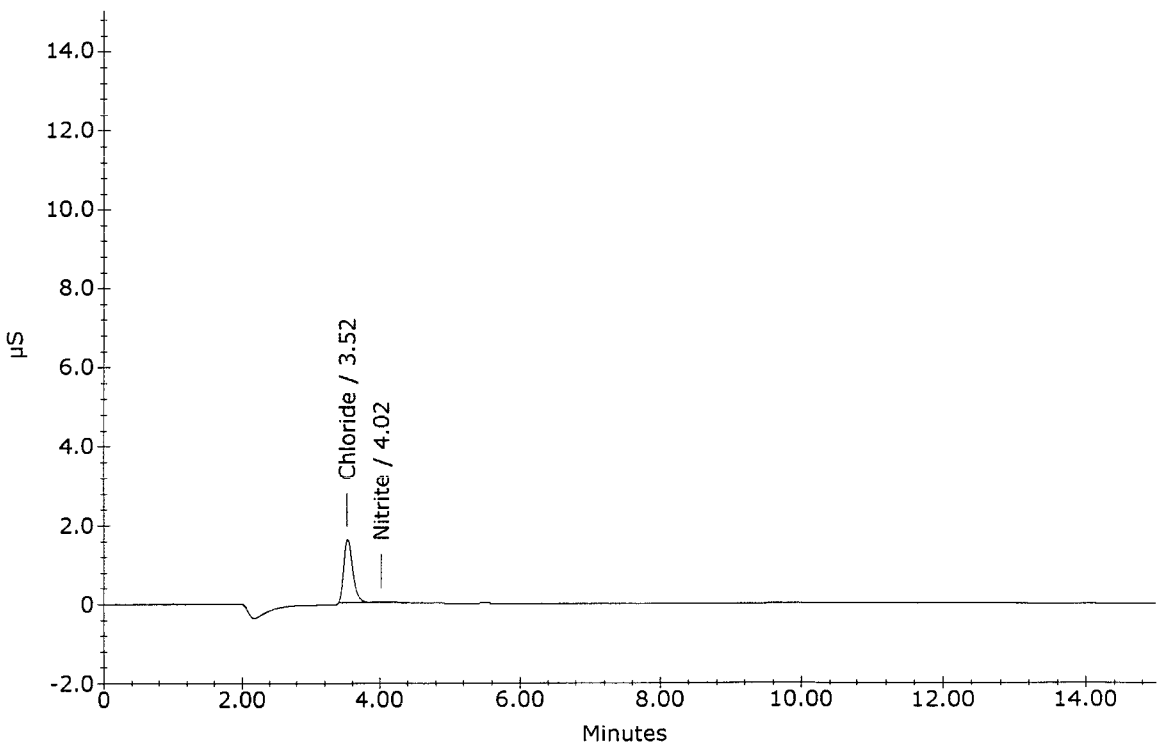
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.52	Chloride	1517.398	139108
2	4.02	Nitrite	-18.290	4779

1/10

R1609251-003



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Sample Name : CCV
Data File Name : ...\912_037.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 5:08:49 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

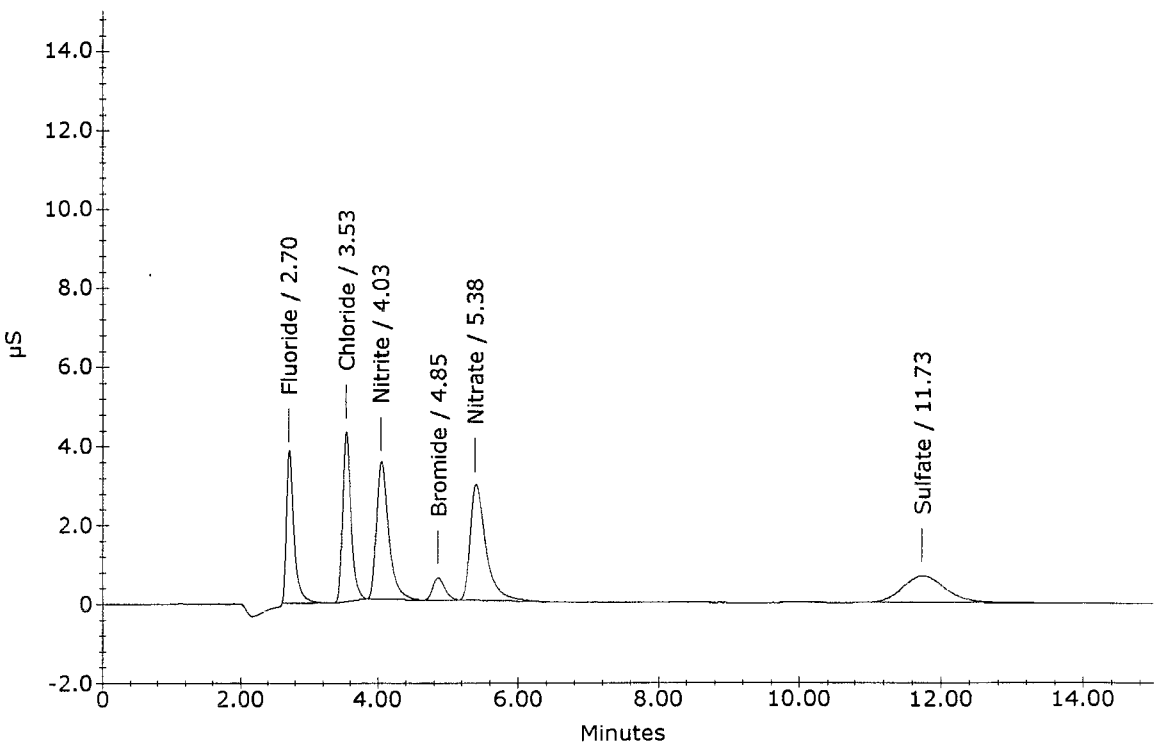
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	1.828	299378
2	3.53	Chloride	3.997	372246
3	4.03	Nitrite	2.044	424784
4	4.85	Bromide	1.976	67570
5	5.38	Nitrate	1.969	456296
6	11.73	Sulfate	3.762	286829

CCV



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Sample Name : CCB
Data File Name : ...\912_038.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 5:23:52 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

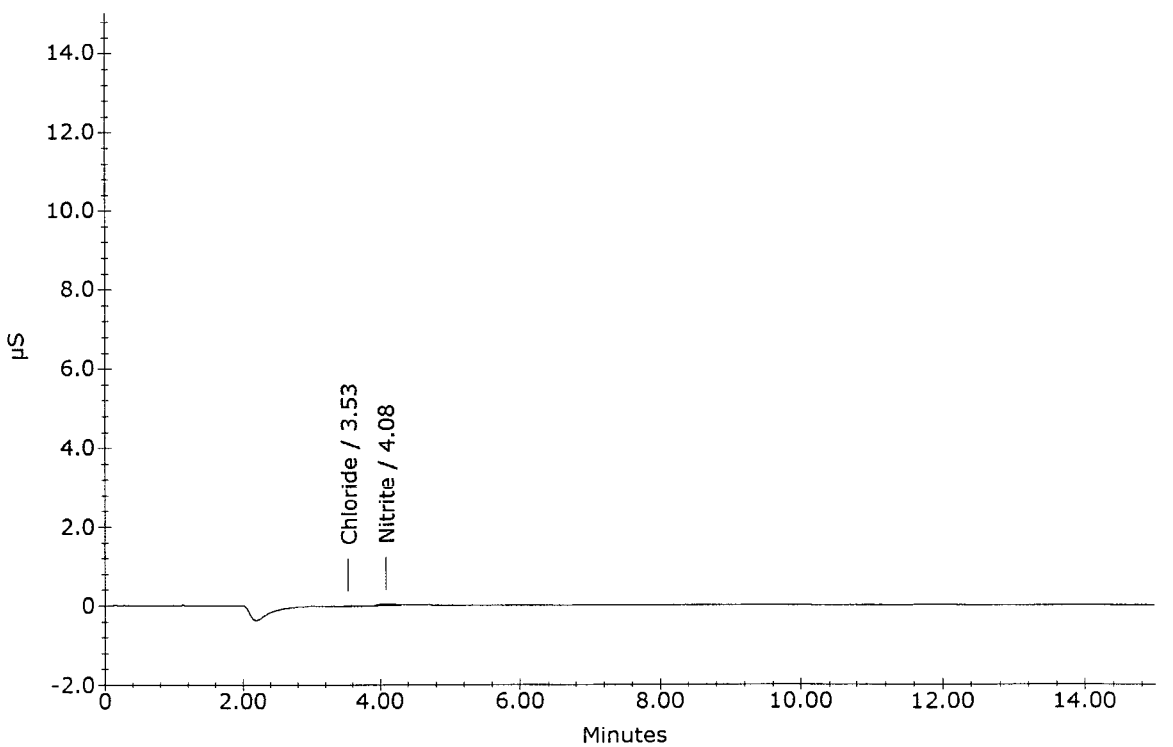
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.53	Chloride	-0.017	1185
2	4.08	Nitrite	-0.010	6472

CCB



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Sample Name : R1608766-003
Data File Name : ...\912_039.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 5:38:54 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

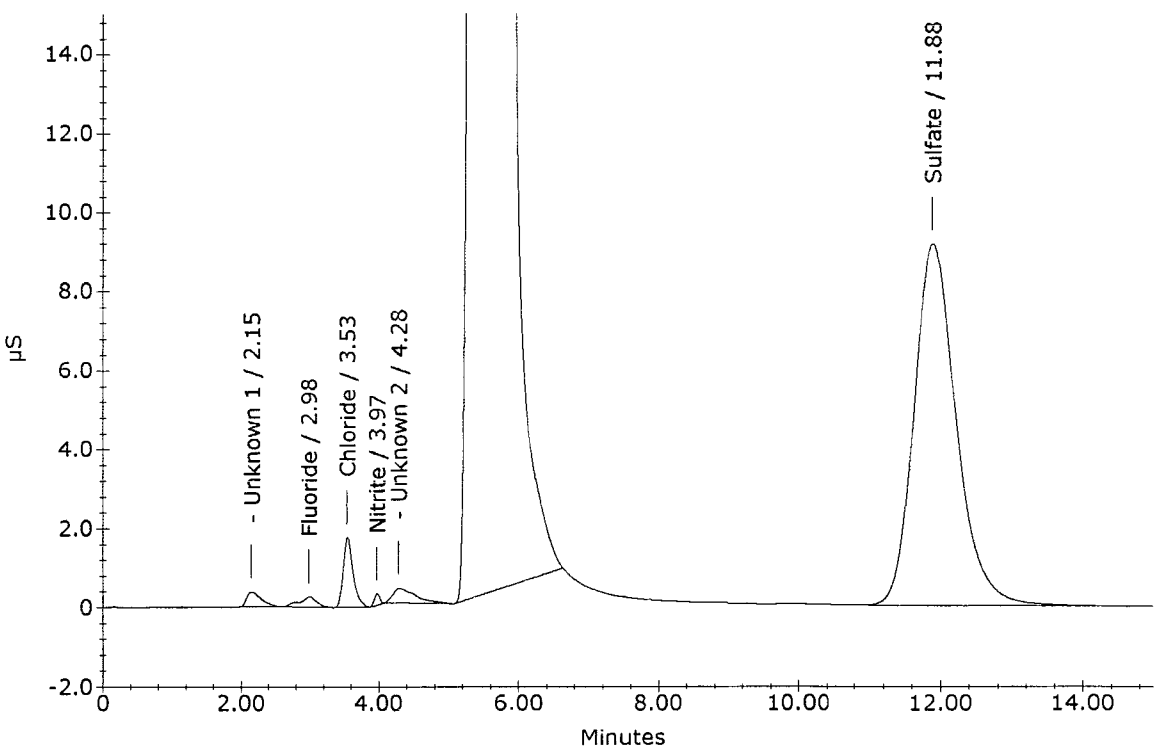
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.310	48236
3	3.53	Chloride	1.993	182764
4	3.97	Nitrite	0.035	15277
6	5.78	Nitrate	-1739.093	74386050
7	11.88	Sulfate	47.826	3751109

R1608766-003



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Sample Name : R1608766-004
Data File Name : ...\912_040.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 5:53:57 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

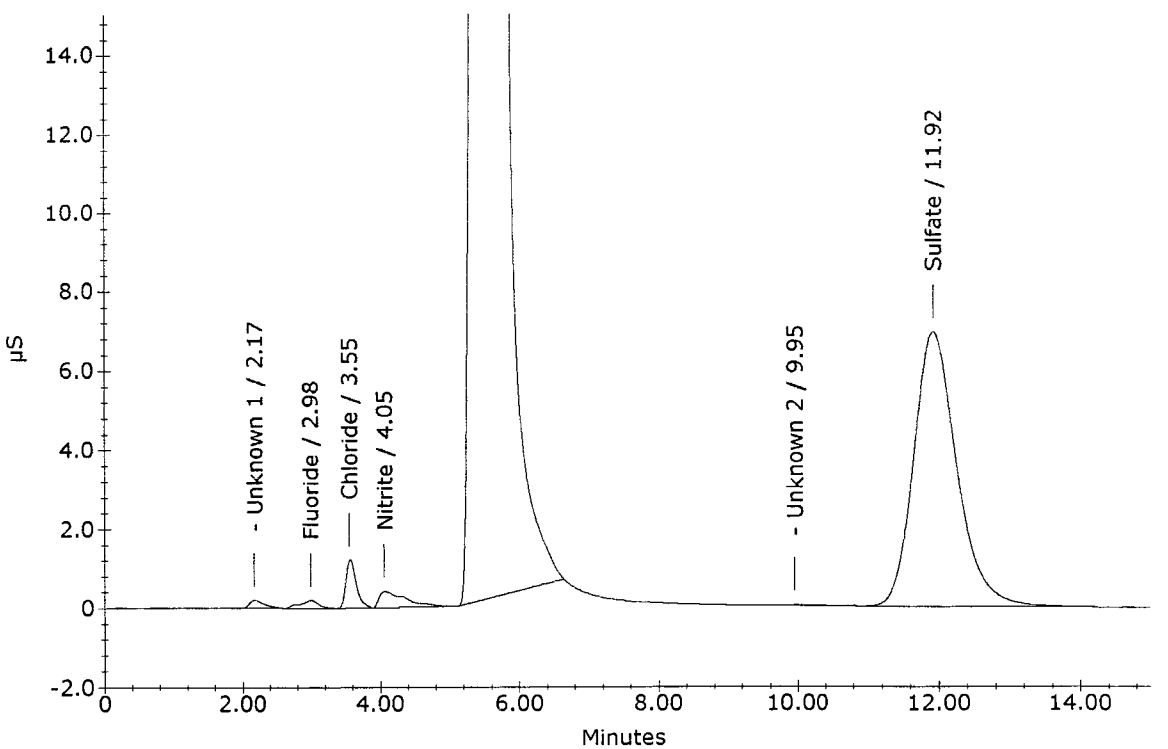
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.248	38226
3	3.55	Chloride	1.354	124240
4	4.05	Nitrite	0.514	111199
5	5.67	Nitrate	-639.691	47751674
7	11.92	Sulfate	37.472	2909742

R1608766-004



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Sample Name : R1608766-005
Data File Name : ...\912_041.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 6:09:00 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

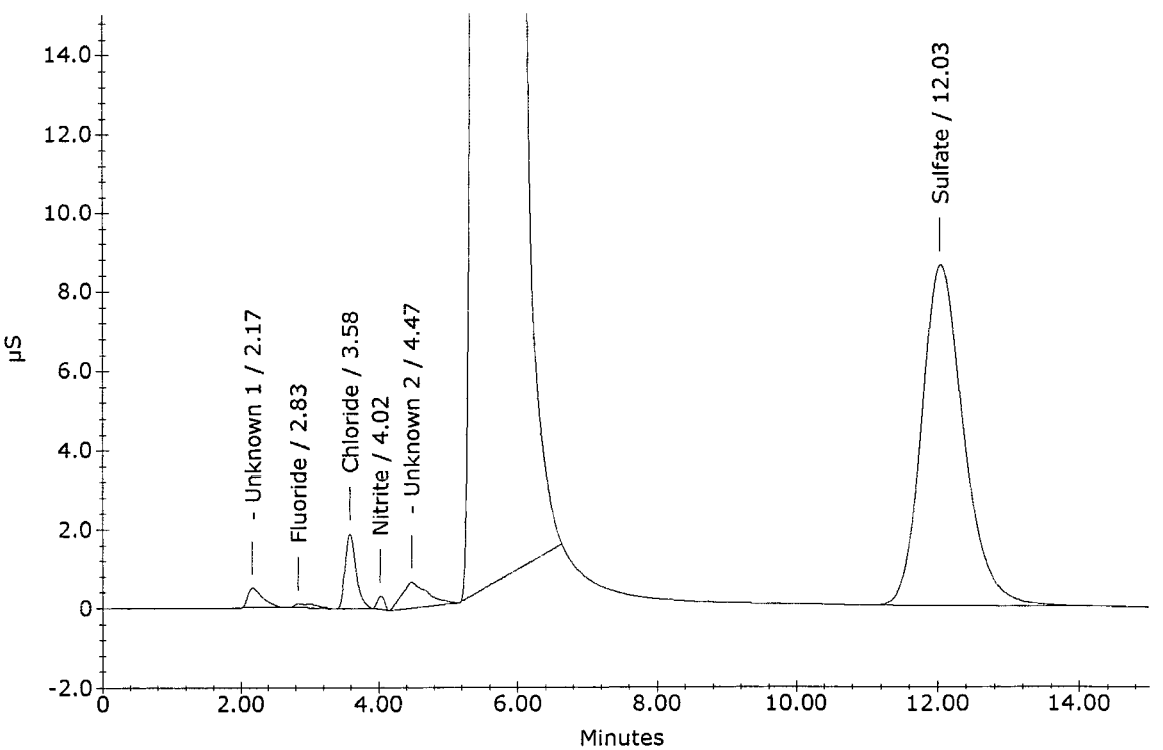
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.83	Fluoride	0.138	20582
3	3.58	Chloride	2.251	206691
4	4.02	Nitrite	0.077	23663
7	12.03	Sulfate	45.222	3537814

R1608766-005



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Sample Name : R1608766-006
Data File Name : ...\912_042.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 6:24:02 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

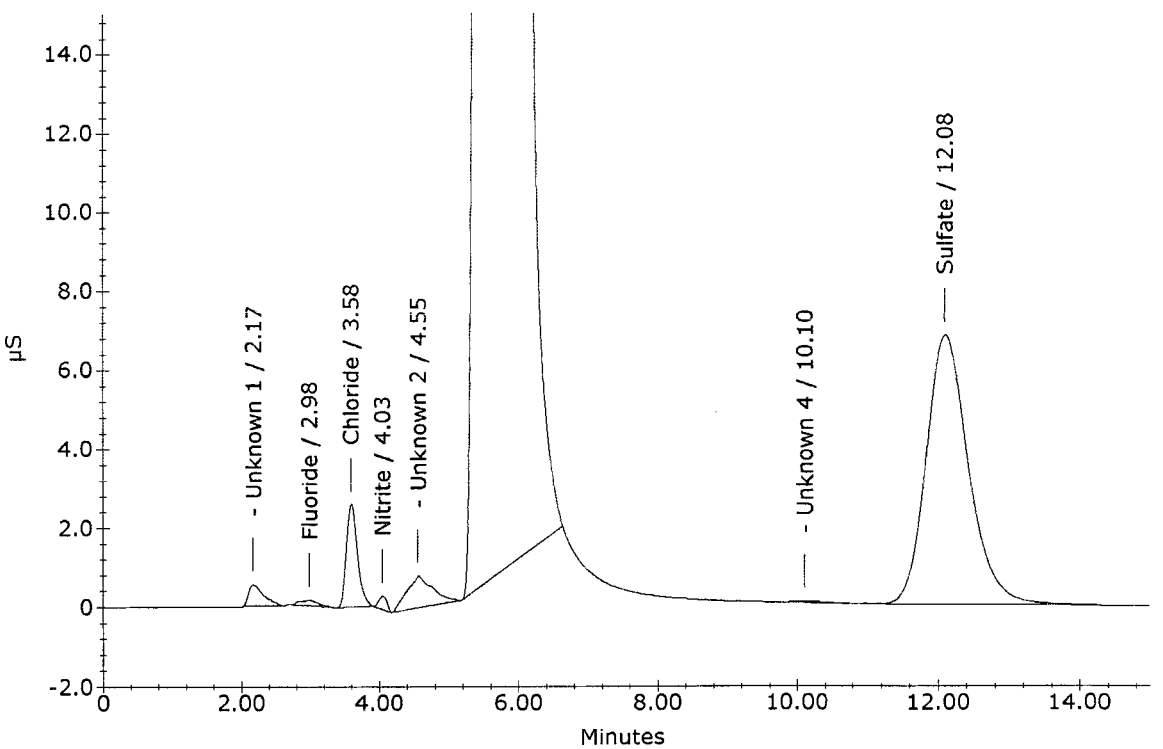
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.174	26349
3	3.58	Chloride	3.176	293512
4	4.03	Nitrite	0.094	27052
8	12.08	Sulfate	36.435	2826523

R1608766-006



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Sample Name : R1608766-007
Data File Name : ...\912_043.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 6:39:06 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

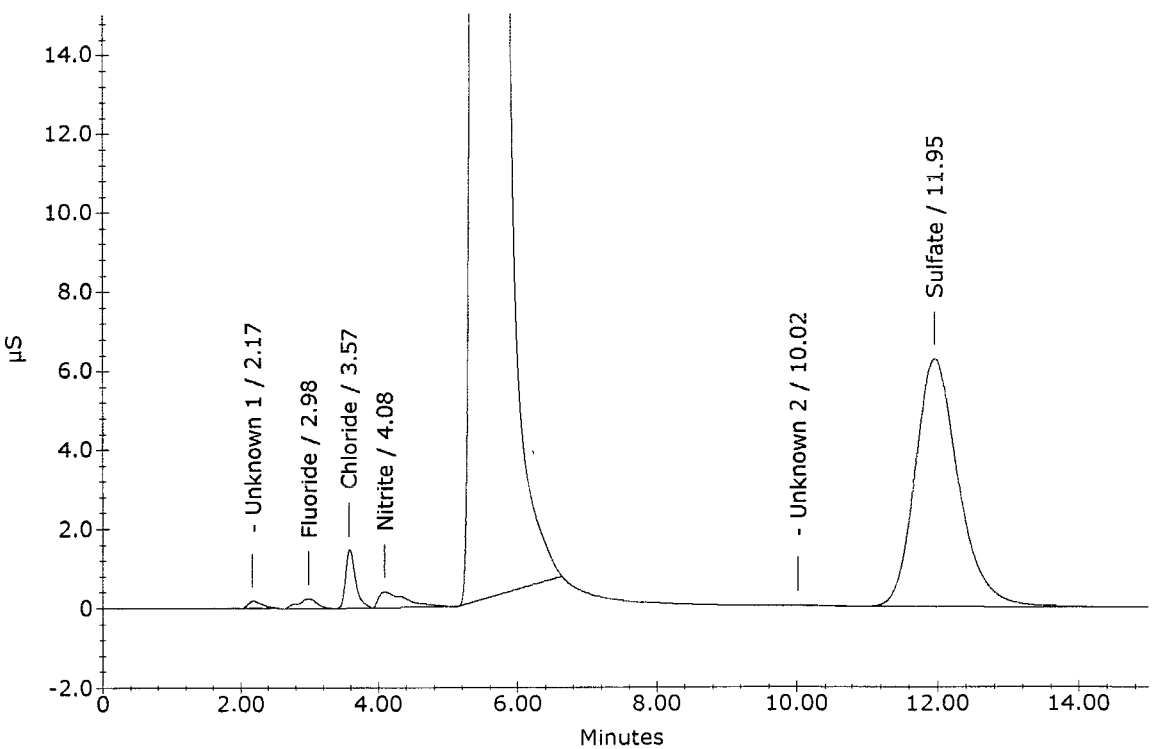
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.307	47827
3	3.57	Chloride	1.635	149912
4	4.08	Nitrite	0.508	109833
5	5.70	Nitrate	-642.718	47848302
7	11.95	Sulfate	34.162	2644572

R1608766-007



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Sample Name : R1608766-008
Data File Name : ...\912_044.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 6:54:08 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

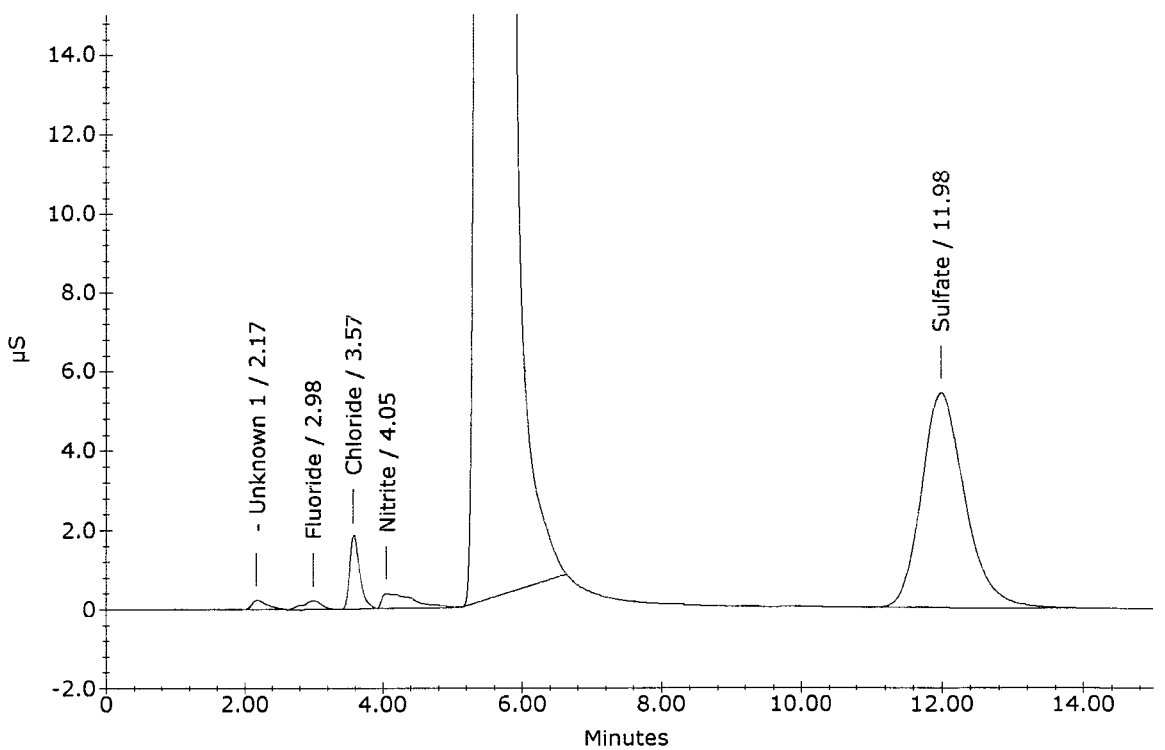
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.277	42996
3	3.57	Chloride	2.049	187962
4	4.05	Nitrite	0.541	116569
5	5.73	Nitrate	-838.925	53695038
6	11.98	Sulfate	29.838	2300742

R1608766-008



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Sample Name : R1608766-009
Data File Name : ...\912_045.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 7:09:10 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

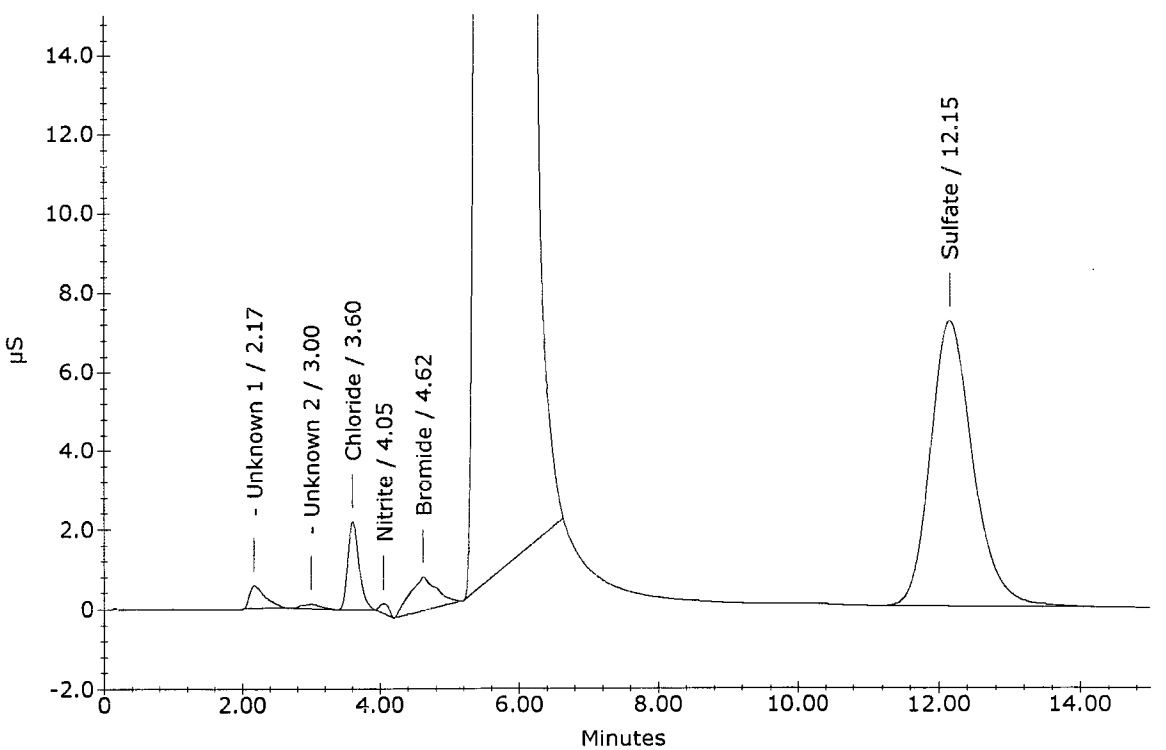
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
3	3.60	Chloride	2.786	256693
4	4.05	Nitrite	0.069	22188
5	4.62	Bromide	6.520	223065
7	12.15	Sulfate	38.519	2993998

R1608766-009



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Sample Name : R1609150-050
Data File Name : ...\912_046.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 7:24:14 PM

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 300.0 S

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

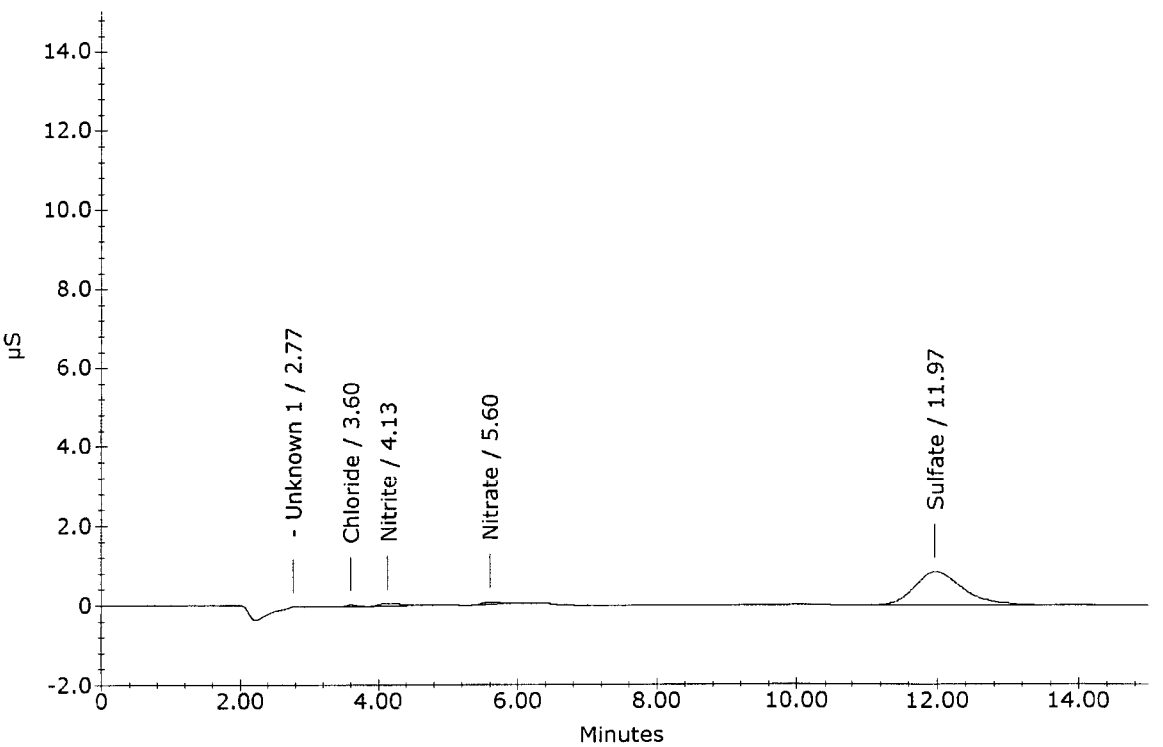
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.60	Chloride	0.619	4072
3	4.13	Nitrite	1.083	13789
4	5.60	Nitrate	1.369	9305
5	11.97	Sulfate	204.630	388988

Repeated - MS/MSD does not confirm
NM 9/13/16

R1609150-050



Ion Chromatography Analytical Report
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Sample Name : R1609150-050 MS
Data File Name : ...\912_047.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 7:39:16 PM

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 300.0 S

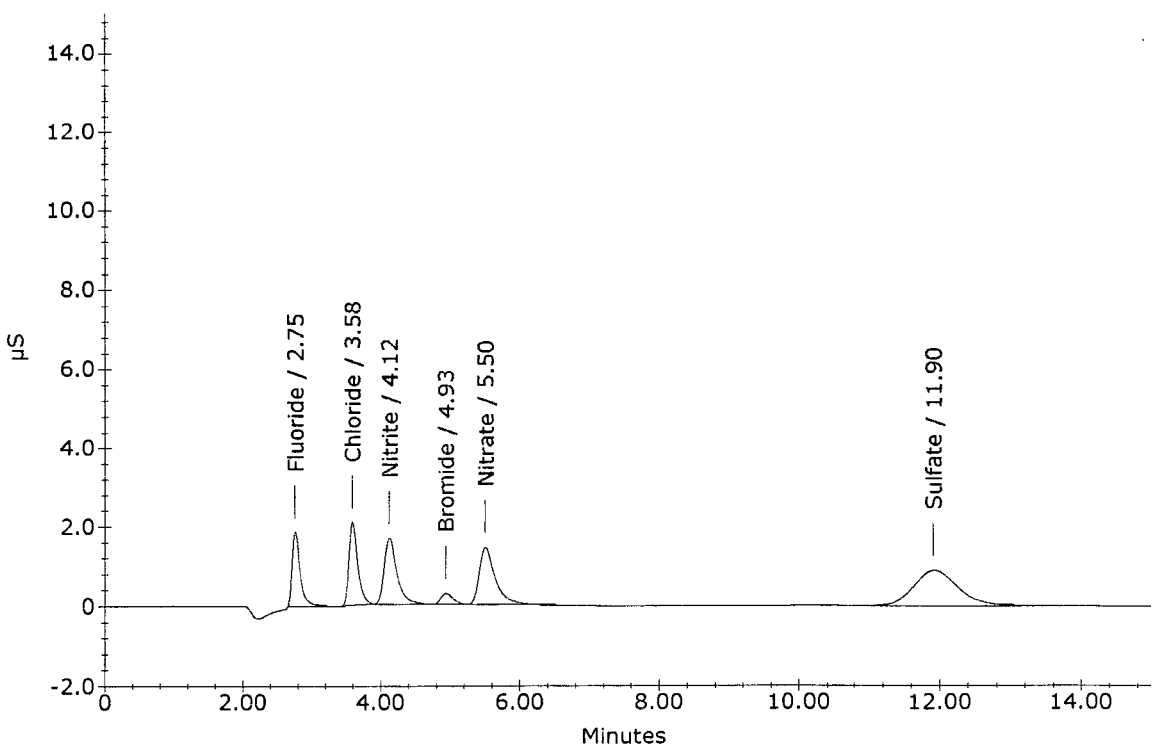
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.75	Fluoride	37.032	148660
2	3.58	Chloride	81.461	186818
3	4.12	Nitrite	40.163	210259
4	4.93	Bromide	38.474	33094
5	5.50	Nitrate	40.669	231999
6	11.90	Sulfate	198.864	378097

R1609150-050 MS



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Sample Name : R1609150-050 MSD
Data File Name : ...\912_048.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 7:54:18 PM

Dilution Factor : 40.00
Sample Type : Sample Analysis
Sample Comment : 300.0 S

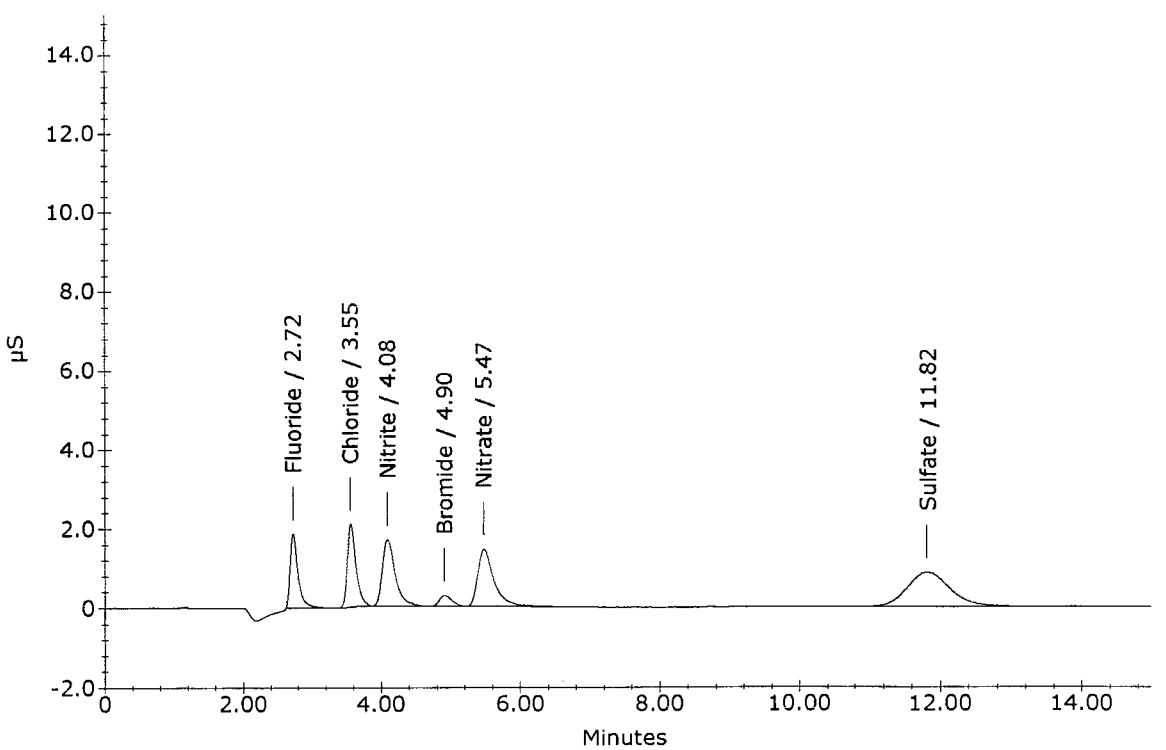
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	37.362	150018
2	3.55	Chloride	82.193	188509
3	4.08	Nitrite	40.387	211400
4	4.90	Bromide	38.937	33488
5	5.47	Nitrate	40.890	233280
6	11.82	Sulfate	190.245	361820

R1609150-050 MSD



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Sample Name : CCV
Data File Name : ...\912_049.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:09:22 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

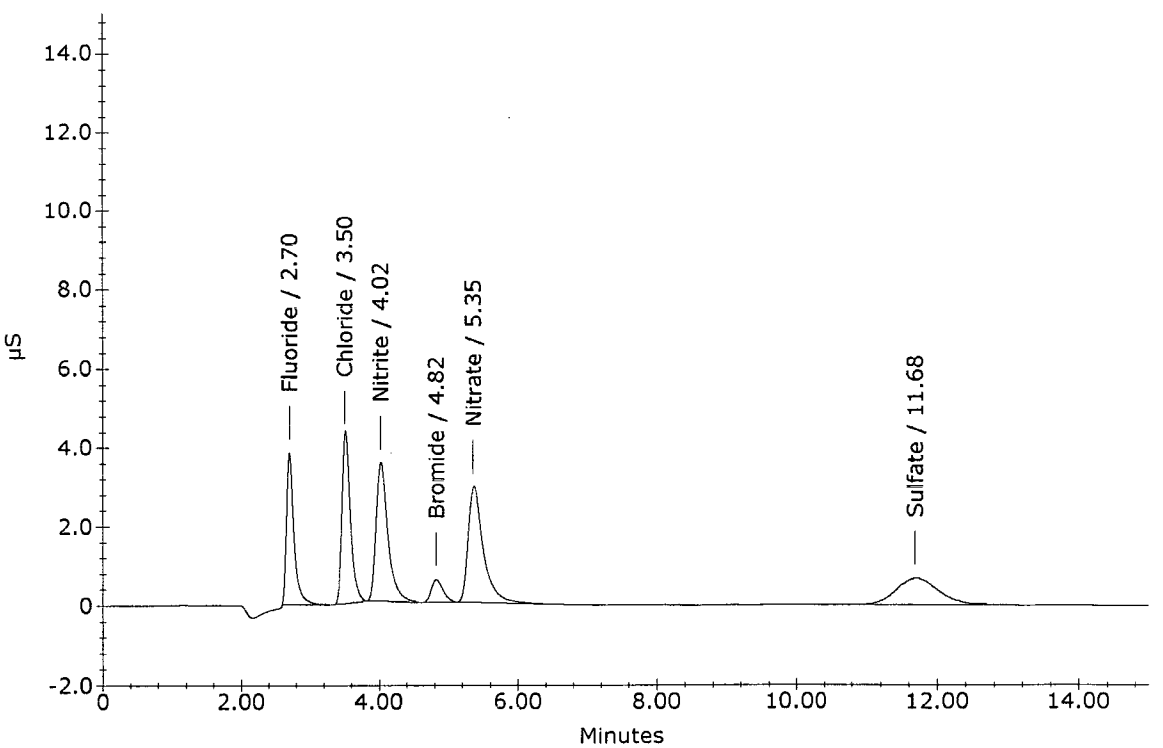
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	1.806	295602
2	3.50	Chloride	4.041	376490
3	4.02	Nitrite	2.034	422571
4	4.82	Bromide	1.971	67395
5	5.35	Nitrate	1.953	452475
6	11.68	Sulfate	3.697	281910

CCV



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Sample Name : CCB
Data File Name : ...\912_050.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:24:25 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

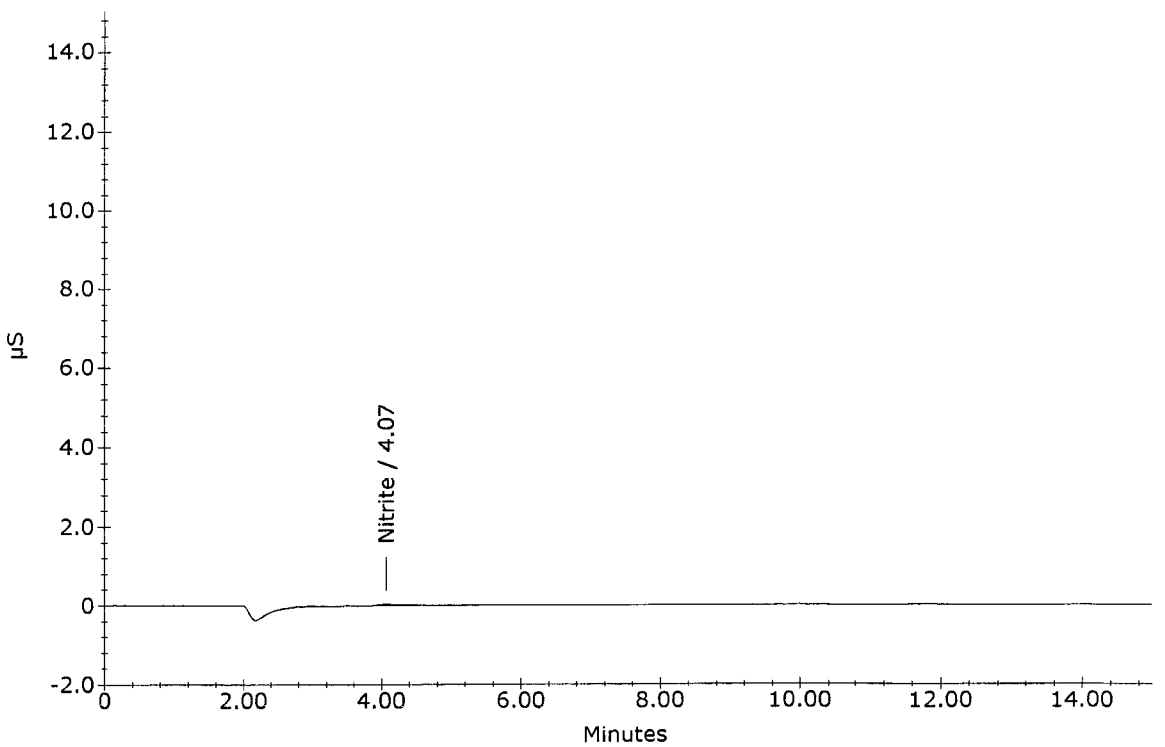
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.07	Nitrite	-0.025	3377

CCB



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Sample Name : R1608766-010
Data File Name : ...\912_051.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:39:26 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

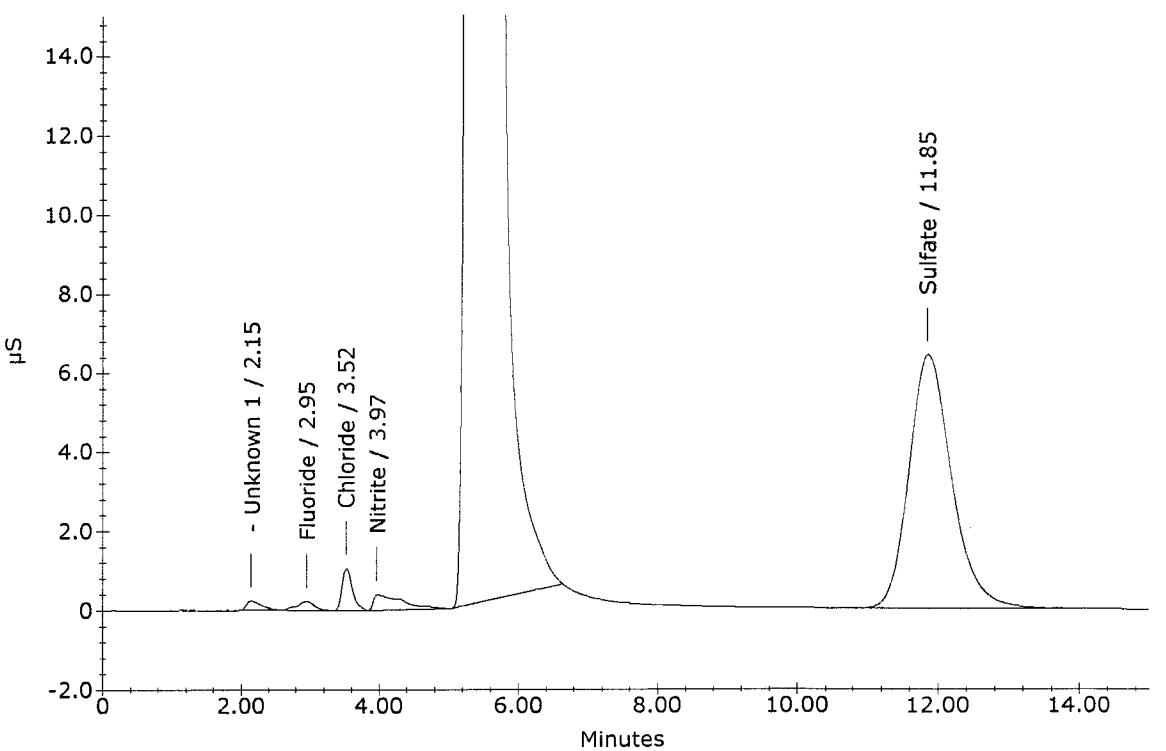
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.95	Fluoride	0.258	39797
3	3.52	Chloride	1.161	106630
4	3.97	Nitrite	0.527	113673
5	5.63	Nitrate	-773.013	51814242
6	11.85	Sulfate	34.554	2675849

R1608766-010



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Sample Name : R1608766-011
Data File Name : ...\912_052.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 8:54:30 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

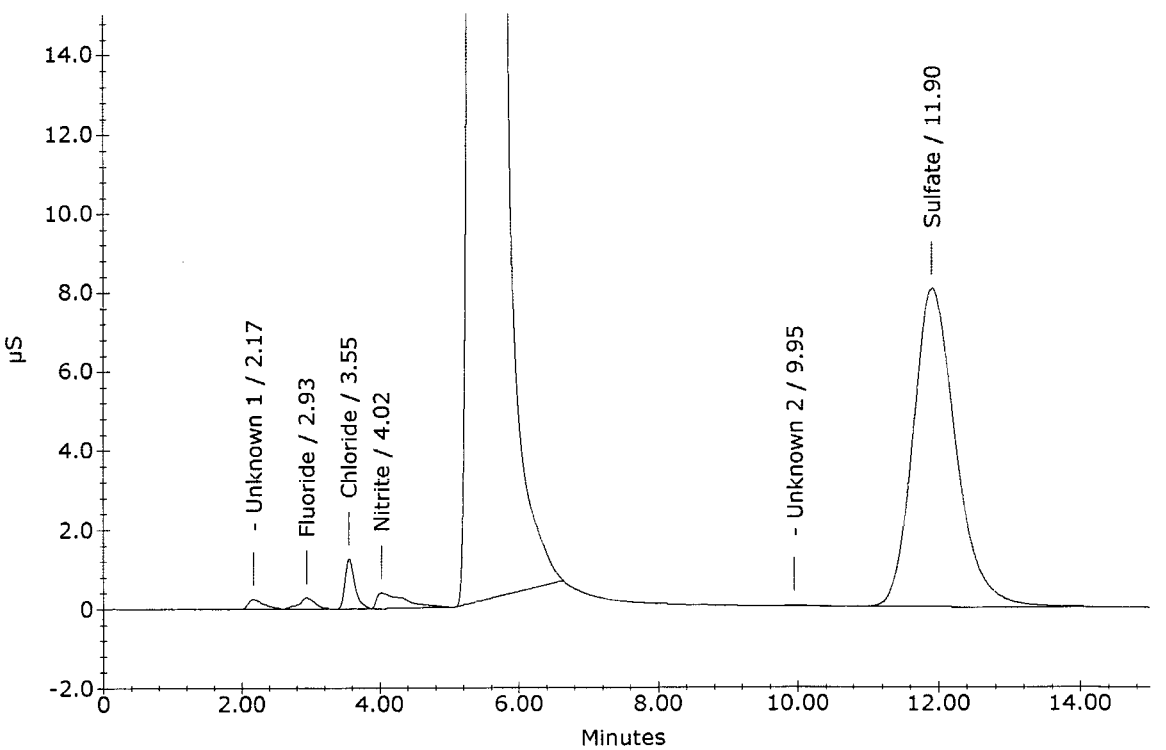
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.93	Fluoride	0.295	45874
3	3.55	Chloride	1.379	126467
4	4.02	Nitrite	0.508	109875
5	5.65	Nitrate	-728.347	50494533
7	11.90	Sulfate	43.025	3358696

R1608766-011



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Sample Name : R1608766-012
Data File Name : ...\912_053.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:09:33 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

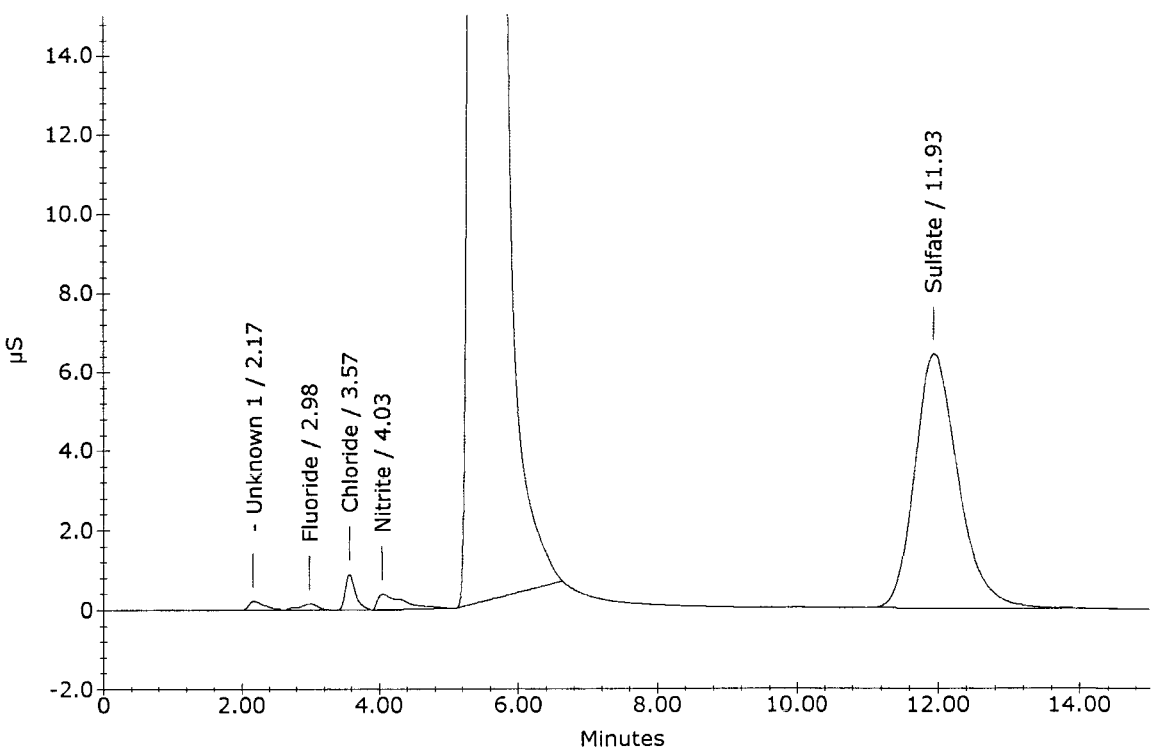
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.189	28814
3	3.57	Chloride	0.989	91118
4	4.03	Nitrite	0.473	102818
5	5.67	Nitrate	-655.009	48238329
6	11.93	Sulfate	35.018	2712985

R1608766-012



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Sample Name : R1608766-013
Data File Name : ...\912_054.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:24:35 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

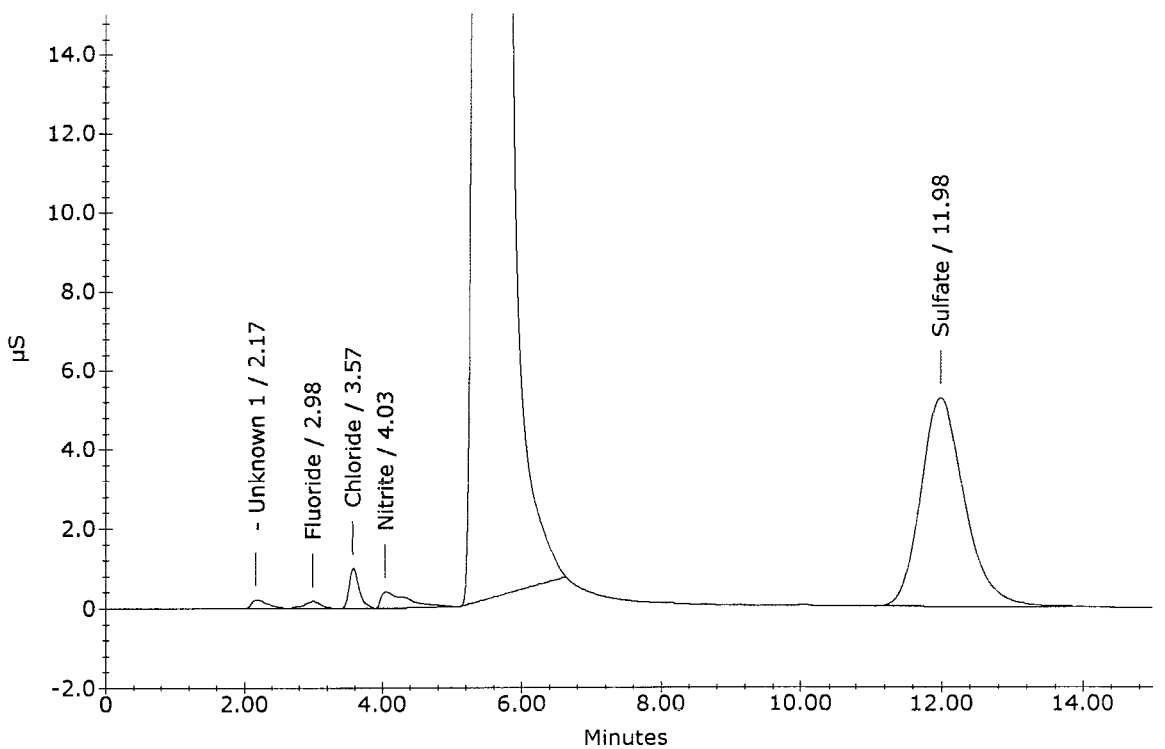
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.98	Fluoride	0.204	31134
3	3.57	Chloride	1.114	102403
4	4.03	Nitrite	0.500	108320
5	5.68	Nitrate	-709.686	49931438
6	11.98	Sulfate	29.086	2241238

R1608766-013



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Sample Name : R1608766-014
Data File Name : ...\912_055.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:39:38 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

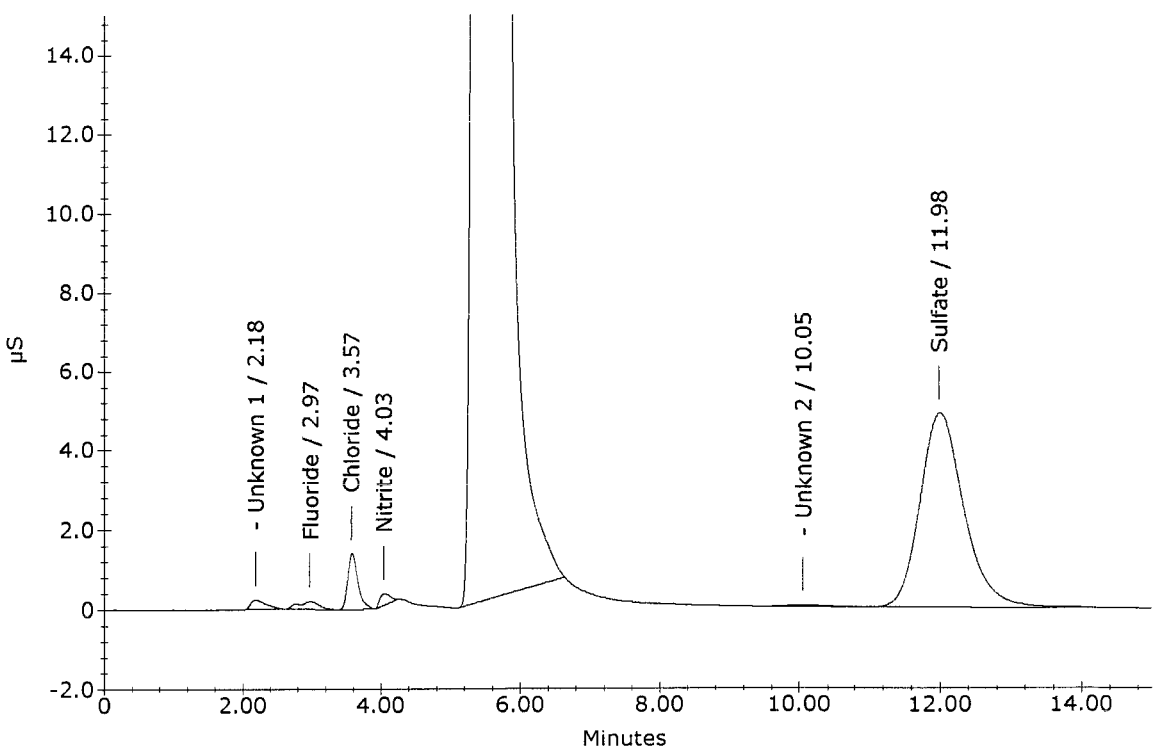
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.97	Fluoride	0.270	41809
3	3.57	Chloride	1.561	143070
4	4.03	Nitrite	0.101	28400
5	5.70	Nitrate	-724.818	50388590
7	11.98	Sulfate	27.269	2097874

R1608766-014



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Sample Name : R1608766-015
Data File Name : ...\912_056.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 9:54:41 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

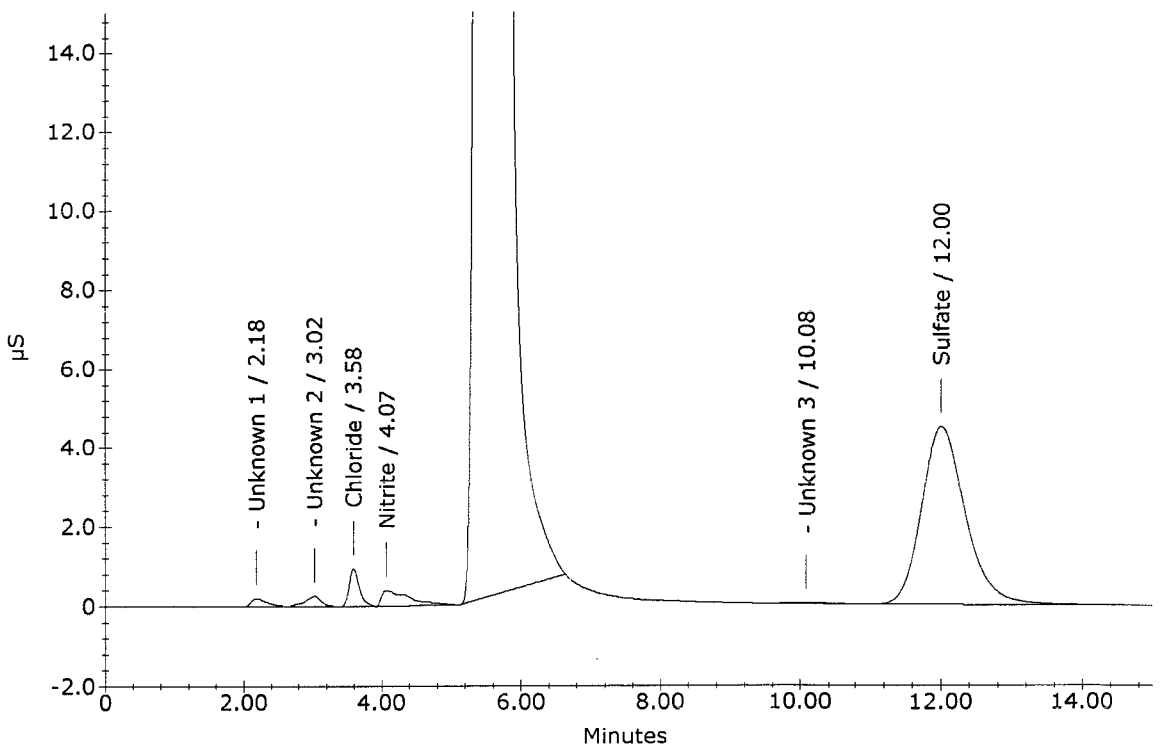
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
3	3.58	Chloride	1.059	97452
4	4.07	Nitrite	0.508	109909
5	5.70	Nitrate	-680.992	49051217
7	12.00	Sulfate	24.988	1918604

R1608766-015



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Sample Name : R1609545-001 Cancelled NM 9/13/16
Data File Name : ...\912_057.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:09:43 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

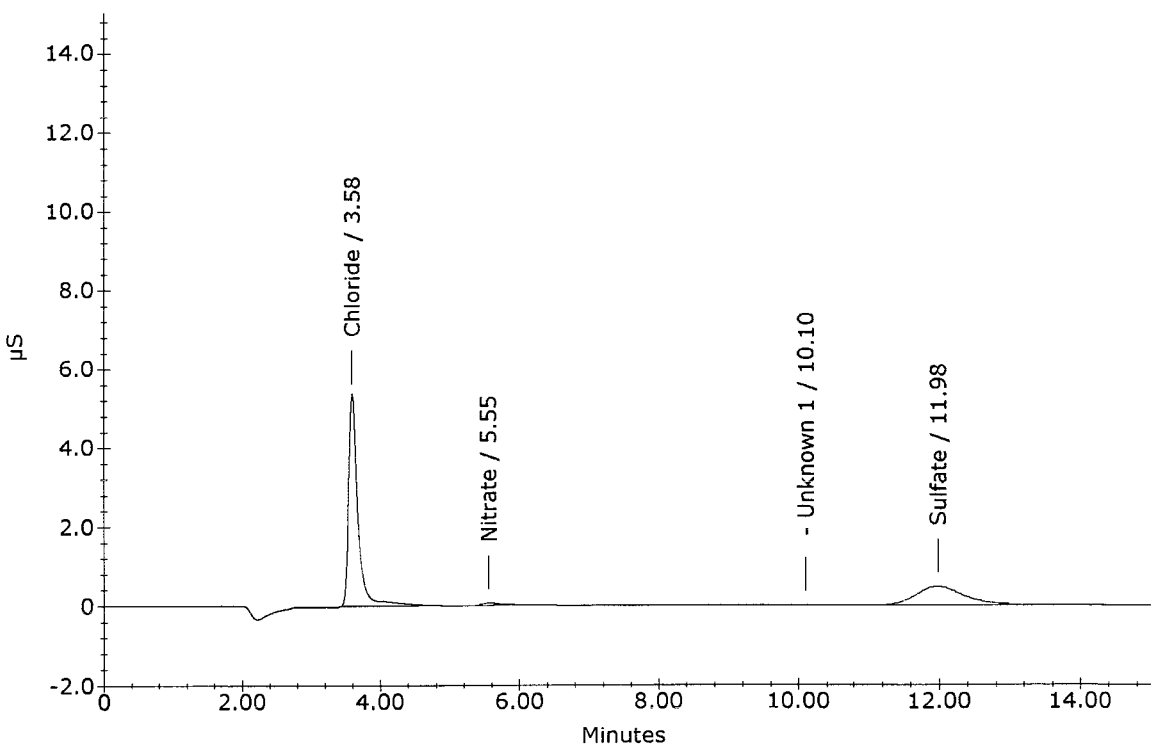
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 N

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.58	Chloride	54.384	514380
2	5.55	Nitrate	0.395	10474
4	11.98	Sulfate	29.309	224196

R1609545-001



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Sample Name : R1609545-002 Cancelled HM 9/13/16
Data File Name : ...\912_058.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:24:46 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

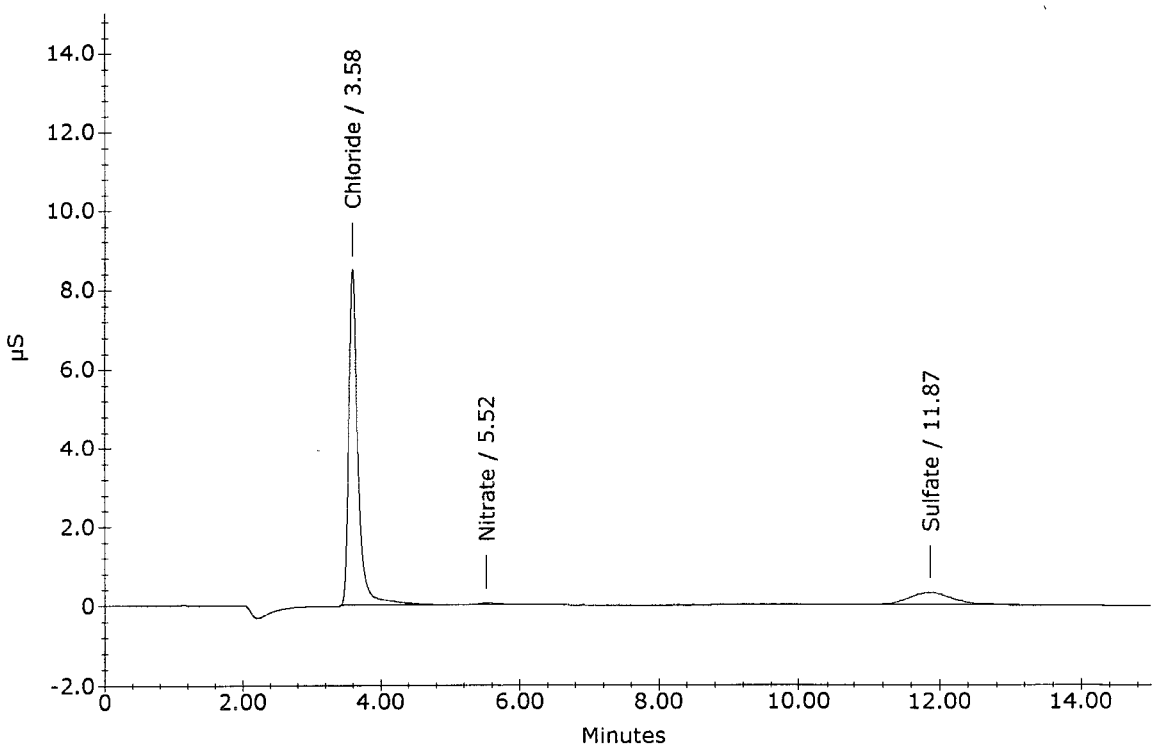
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 N

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.58	Chloride	81.329	795610
2	5.52	Nitrate	0.371	9946
3	11.87	Sulfate	17.419	134786

R1609545-002



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Sample Name : R1609545-002 MS Cancelled NM 9/13/16
Data File Name : ...\912_059.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:39:49 PM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 N

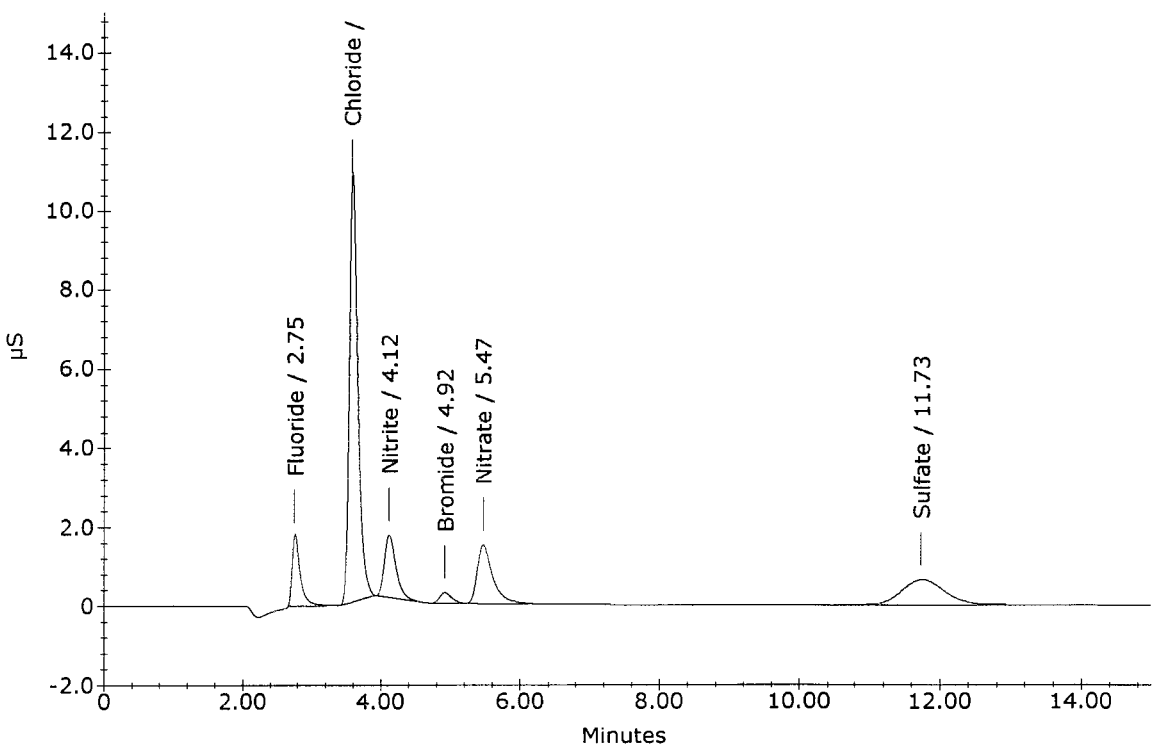
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.75	Fluoride	9.070	145568
2	3.58	Chloride	93.697	932606
3	4.12	Nitrite	8.828	185621
4	4.92	Bromide	9.279	31941
5	5.47	Nitrate	10.259	234122
6	11.73	Sulfate	35.466	270575

R1609545-002 MS



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Sample Name : R1609545-002 MSD Cancelled NM 9/13/16
Data File Name : ...\912_060.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 10:54:51 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

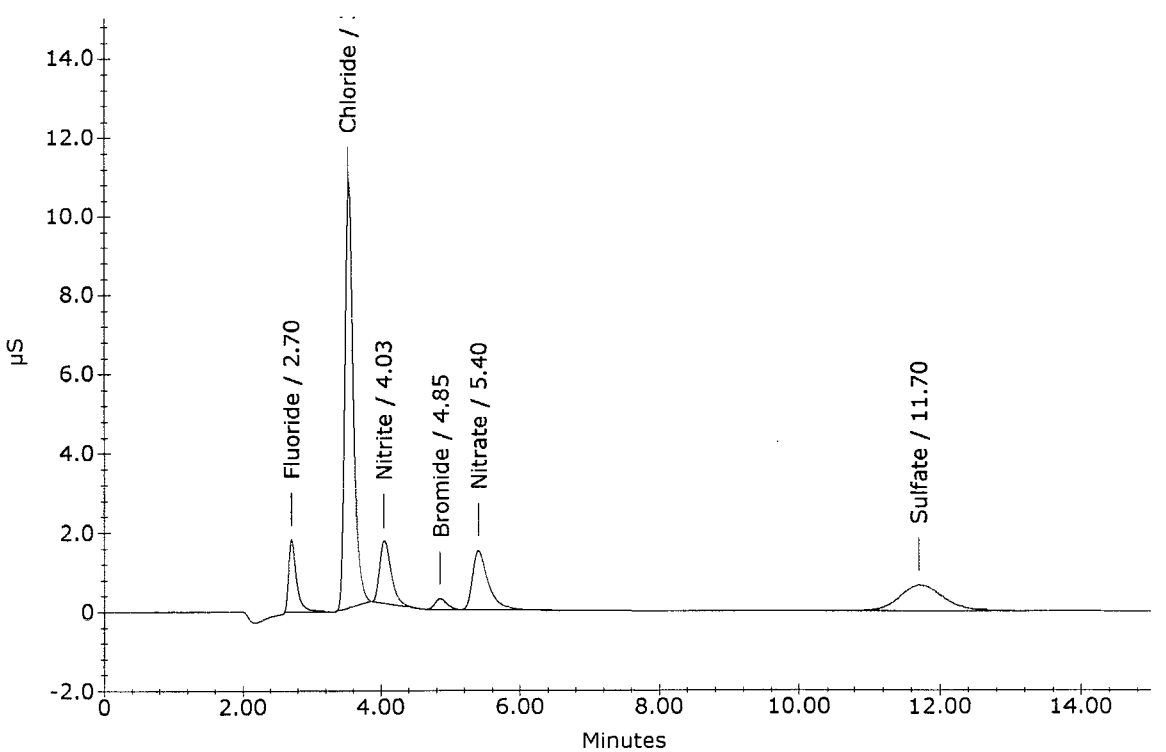
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 N

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	9.059	145387
2	3.52	Chloride	93.069	925513
3	4.03	Nitrite	8.845	185950
4	4.85	Bromide	9.402	32361
5	5.40	Nitrate	10.388	237107
6	11.70	Sulfate	36.111	275435

R1609545-002 MSD



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Sample Name : CCV
Data File Name : ...\912_061.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:09:55 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

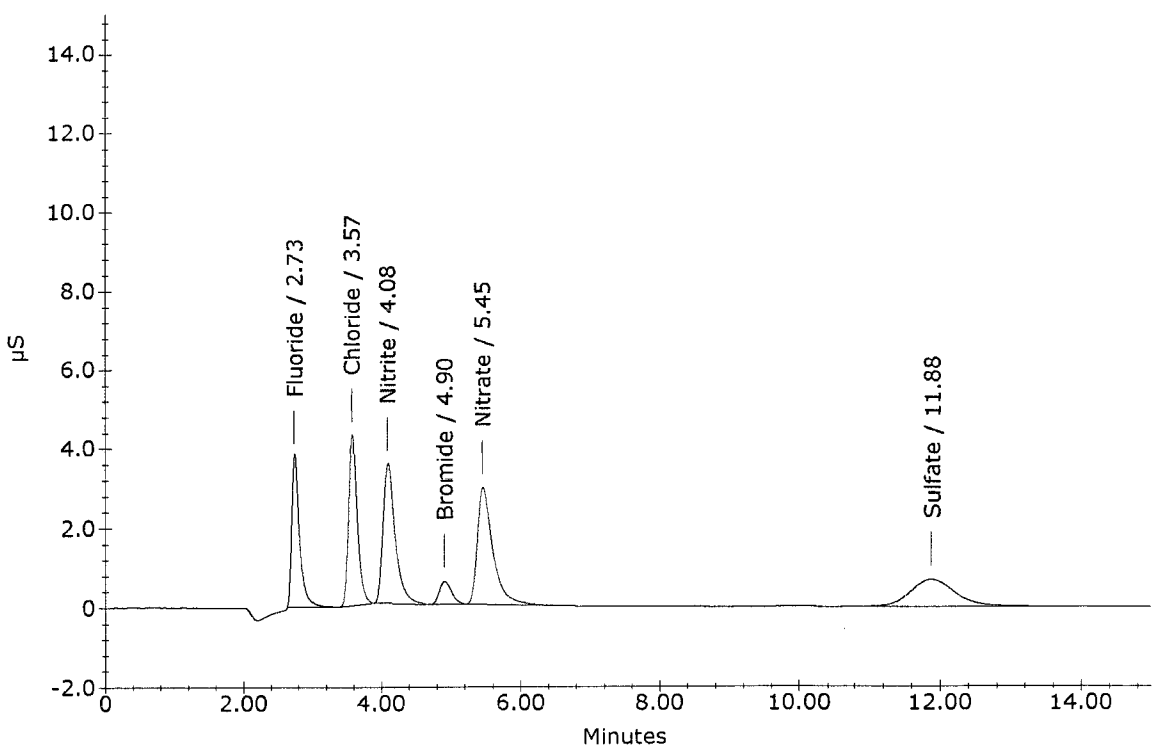
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	1.845	302273
2	3.57	Chloride	4.049	377229
3	4.08	Nitrite	2.069	430042
4	4.90	Bromide	1.998	68304
5	5.45	Nitrate	1.984	459988
6	11.88	Sulfate	3.767	287182

CCV



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Sample Name : CCB
Data File Name : ...\912_062.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:24:57 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

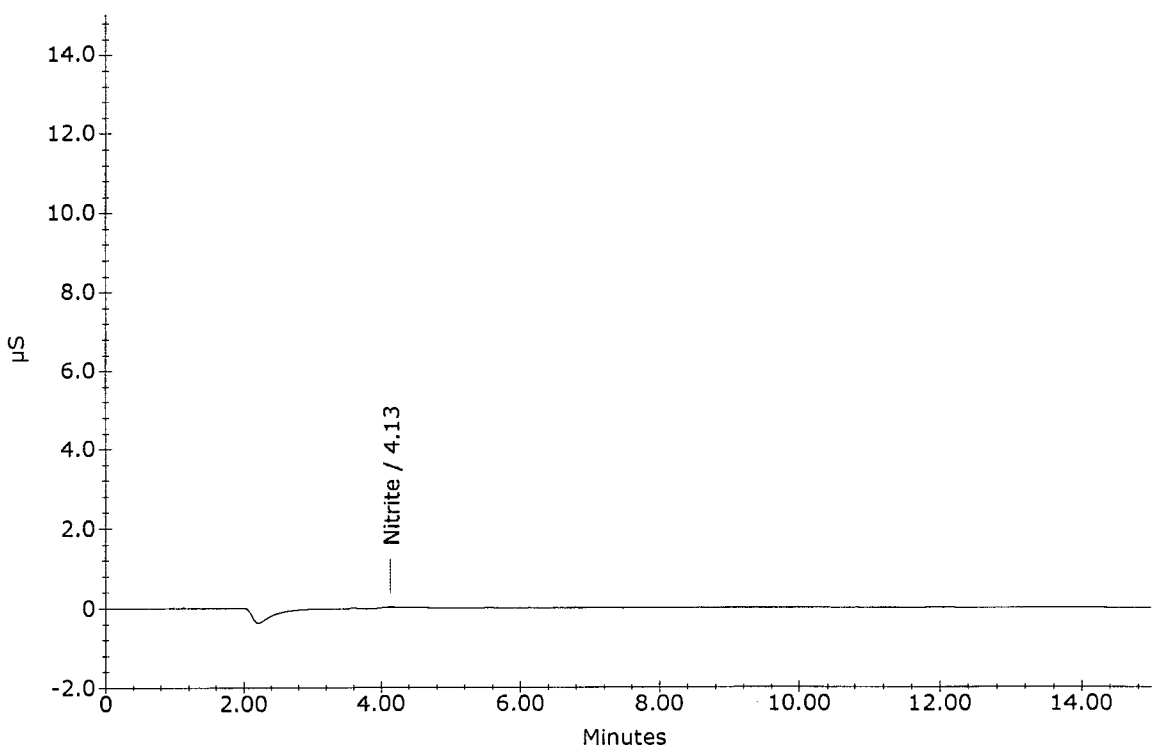
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.13	Nitrite Sulfate	-0.033	1860

CCB



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Sample Name : LCS
Data File Name : ...\912_063.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:39:59 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

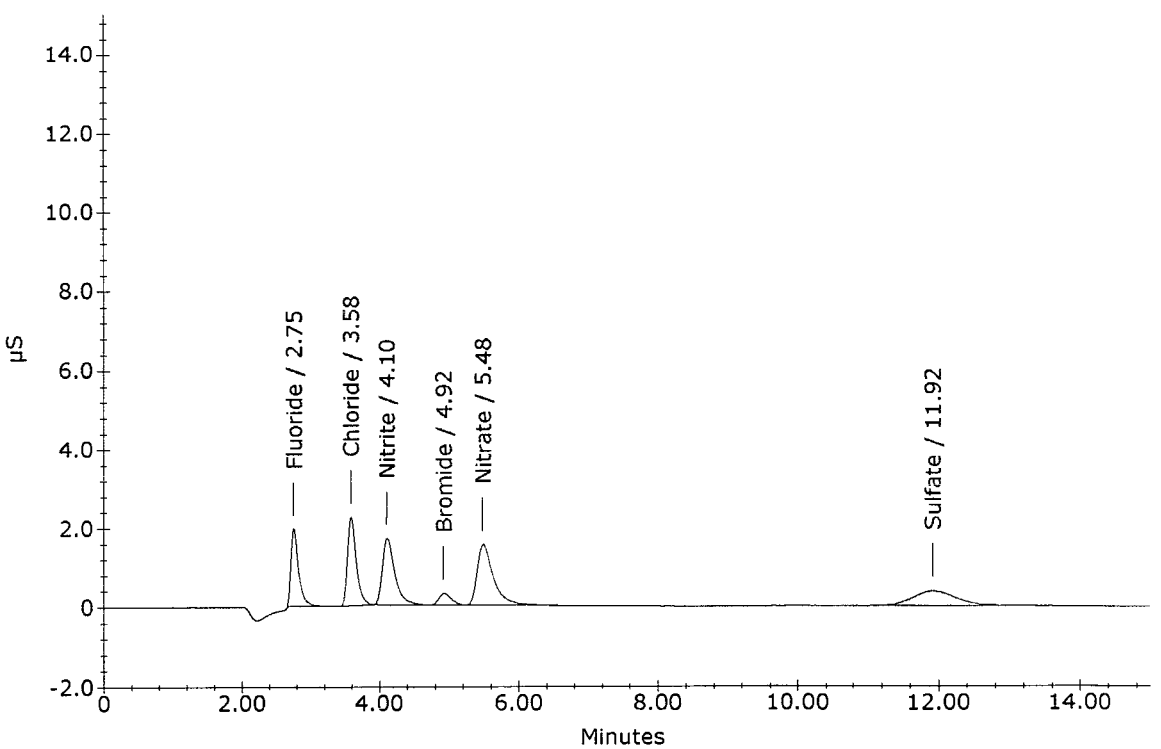
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.75	Fluoride	0.957	153861
2	3.58	Chloride	2.183	200404
3	4.10	Nitrite	1.007	210804
4	4.92	Bromide	1.031	35434
5	5.48	Nitrate	1.083	247286
6	11.92	Sulfate	2.066	159146

LCS



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Sample Name : R1608766-016
Data File Name : ...\912_064.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/12/16 11:55:03 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

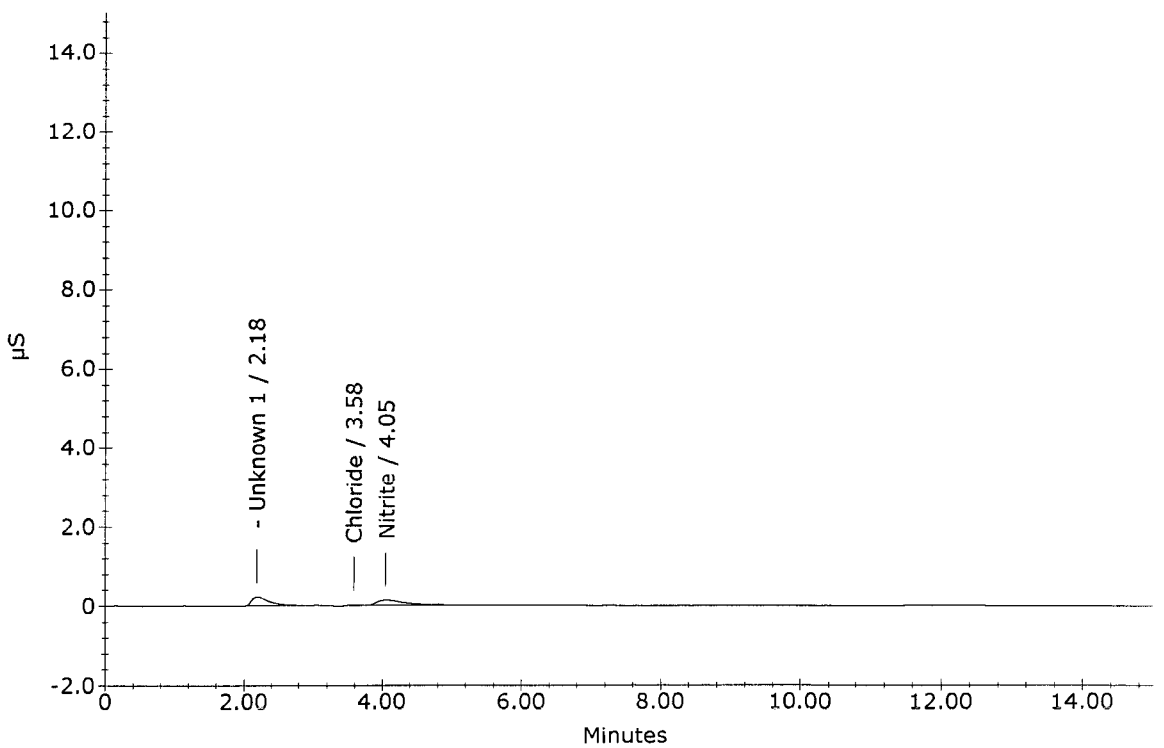
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.58	Chloride	-0.004	2317
3	4.05	Nitrite	0.120	32212

R1608766-016



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Sample Name : R1608766-017
Data File Name : ...\912_065.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 12:10:06 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : %CL

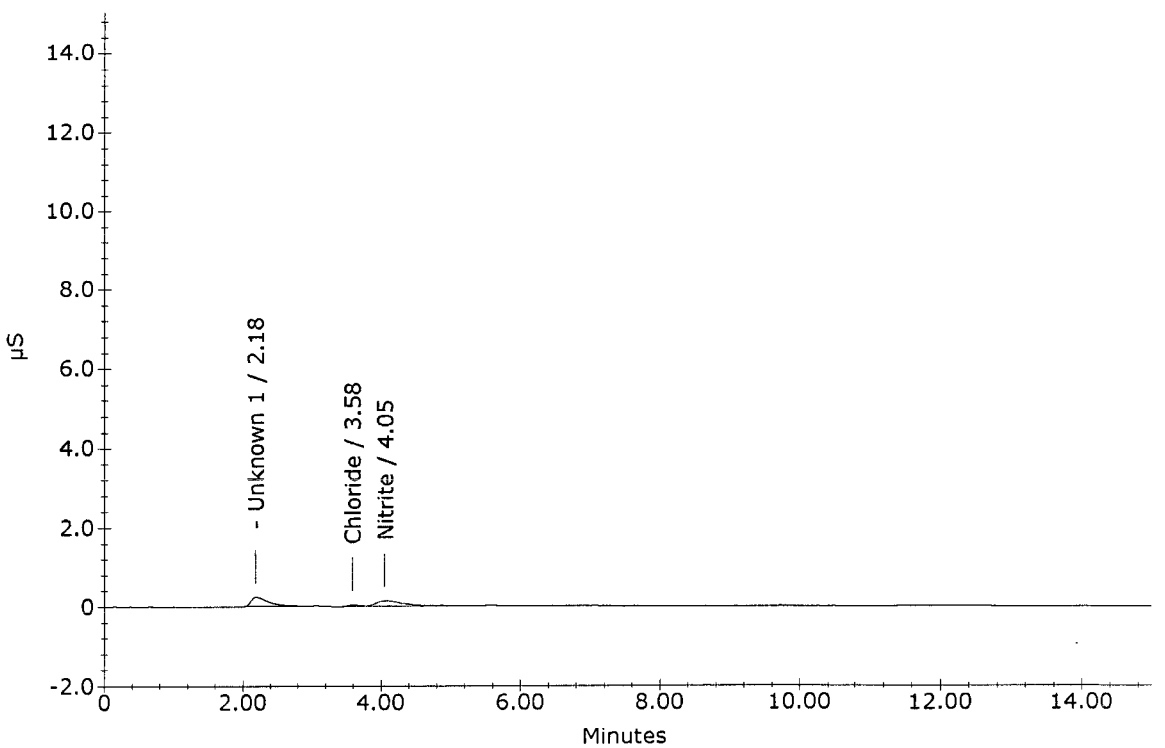
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.58	Chloride	0.006	3249
3	4.05	Nitrite	0.119	32039

R1608766-017



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Sample Name : R1609295-001
Data File Name : ...\912_066.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 12:25:07 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

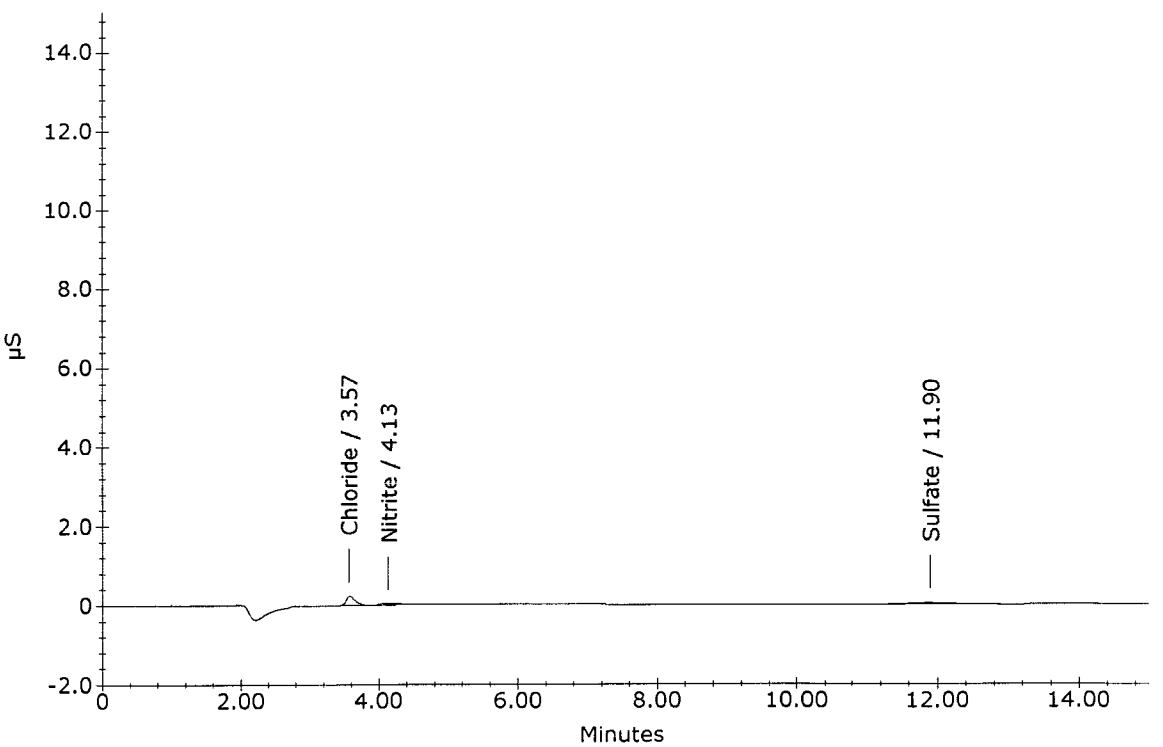
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.57	Chloride	0.207	21074
2	4.13	Nitrite	-0.015	5370
3	11.90	Sulfate	0.113	12584

R1609295-001



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Sample Name : R1609295-001 MS
Data File Name : ...\912_067.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 12:40:11 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

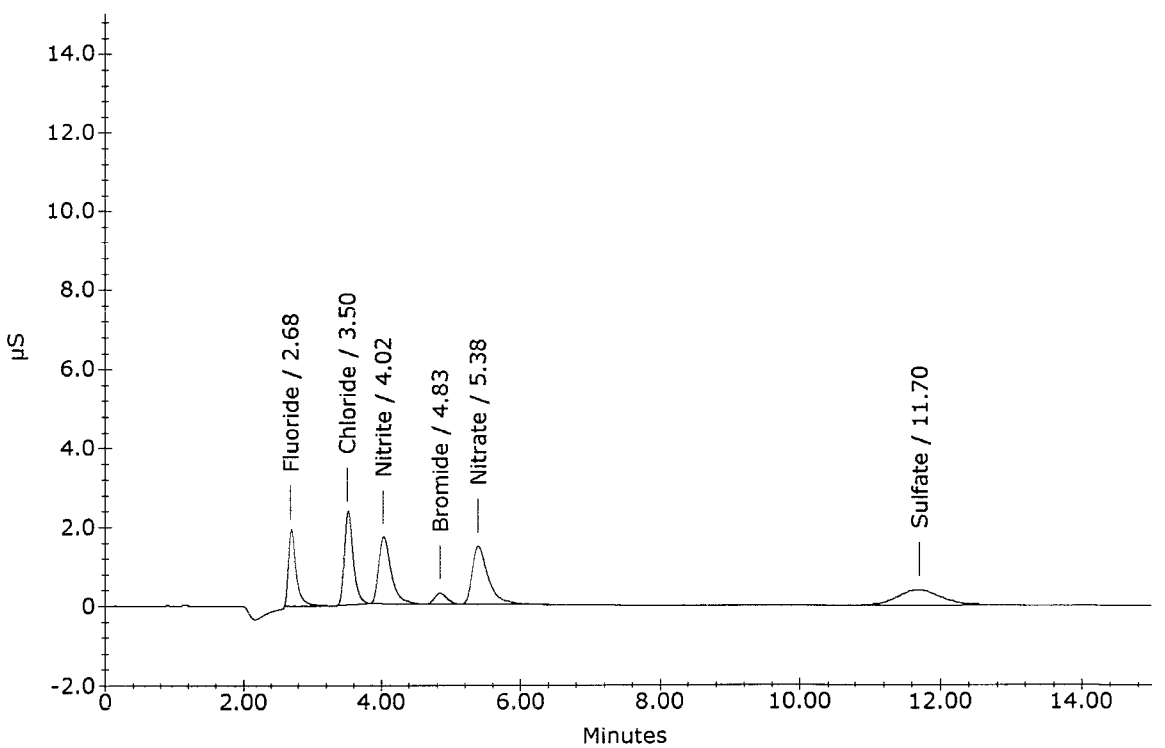
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.68	Fluoride	0.938	150666
2	3.50	Chloride	2.267	208216
3	4.02	Nitrite	1.000	209489
4	4.83	Bromide	0.976	33569
5	5.38	Nitrate	1.025	234026
6	11.70	Sulfate	2.115	162825

R1609295-001 MS



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Sample Name : R1609295-001 MSD
Data File Name : ...\912_068.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 12:55:14 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

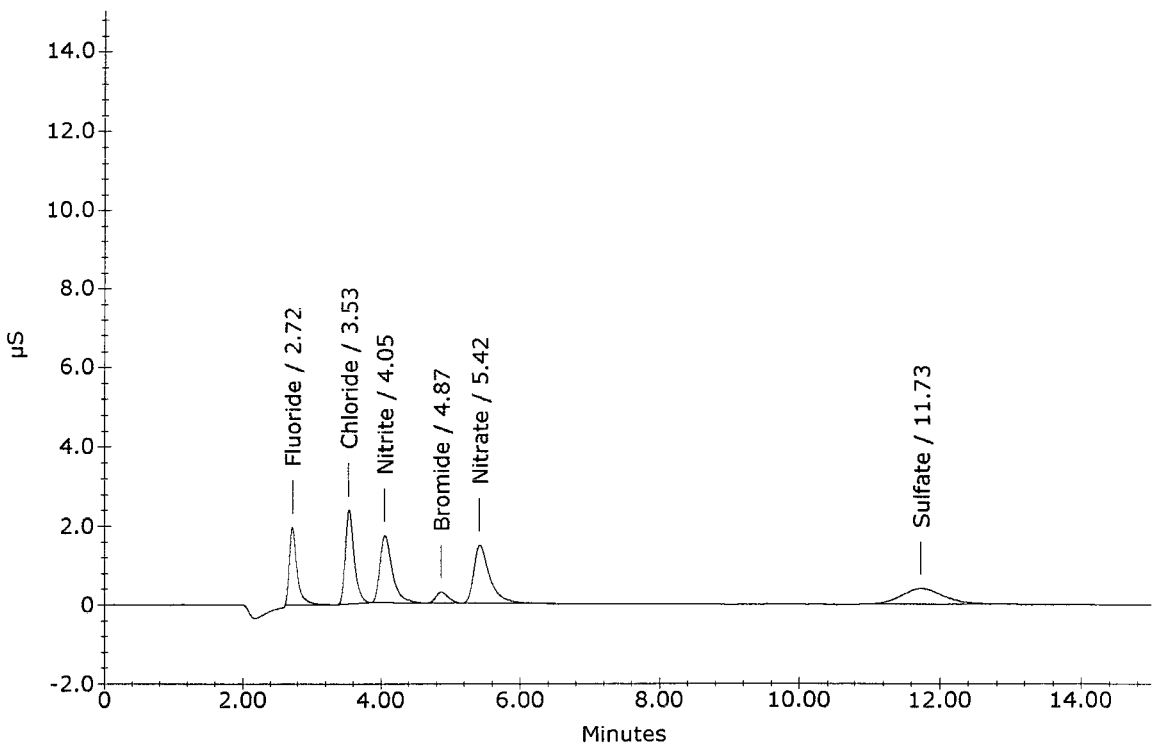
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	0.963	154719
2	3.53	Chloride	2.283	209619
3	4.05	Nitrite	1.004	210285
4	4.87	Bromide	0.976	33583
5	5.42	Nitrate	1.031	235350
6	11.73	Sulfate	2.135	164317

R1609295-001 MSD



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Sample Name : R1609295-003
Data File Name : ...\912_069.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 1:10:19 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

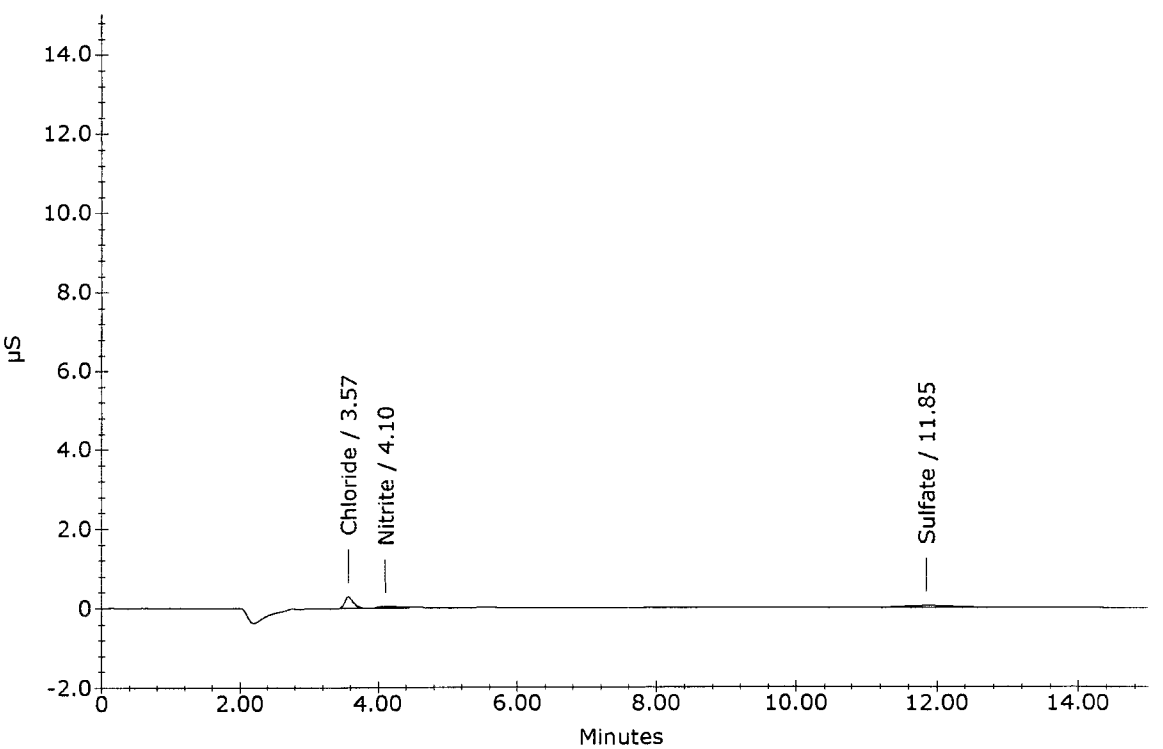
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.57	Chloride	0.260	25807
2	4.10	Nitrite	-0.009	6717
3	11.85	Sulfate	0.138	14471

R1609295-003



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Sample Name : R1609402-001
Data File Name : ...\912_070.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 1:25:22 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

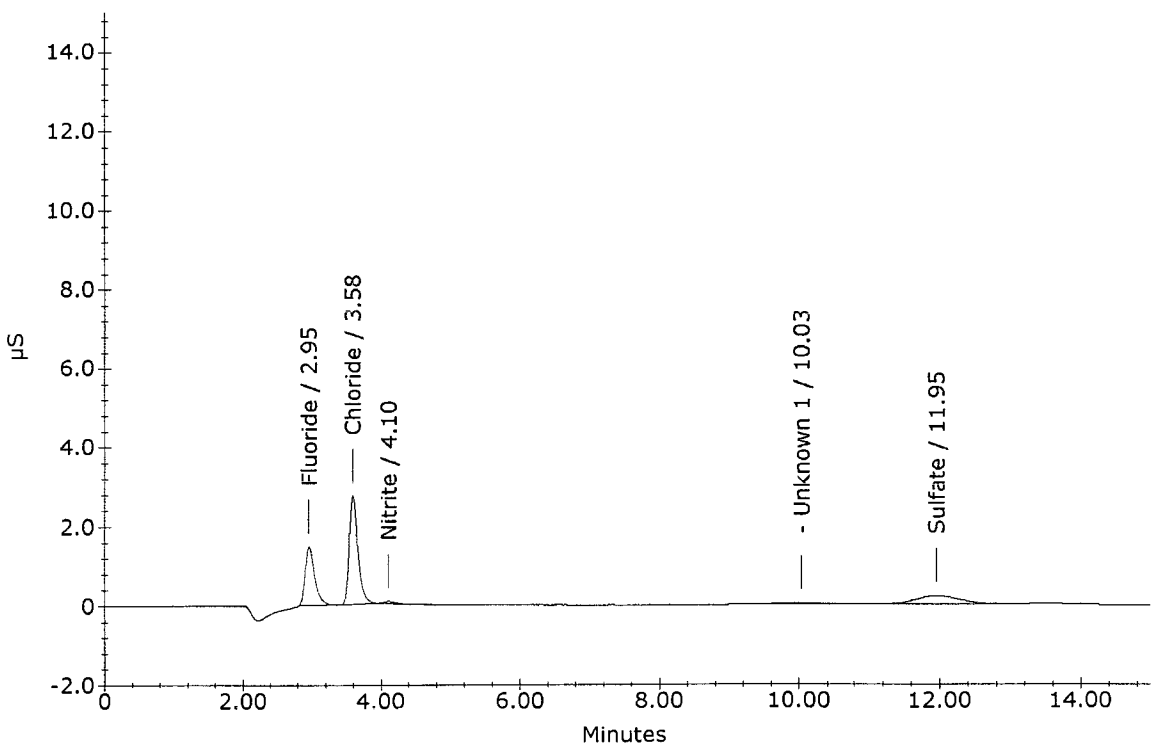
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.95	Fluoride	87.625	140510
2	3.58	Chloride	263.831	242828
3	4.10	Nitrite	-2.071	4299
5	11.95	Sulfate	120.006	94107

R1609402-001



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Sample Name : R1609402-002
Data File Name : ...\912_071.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 1:40:24 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

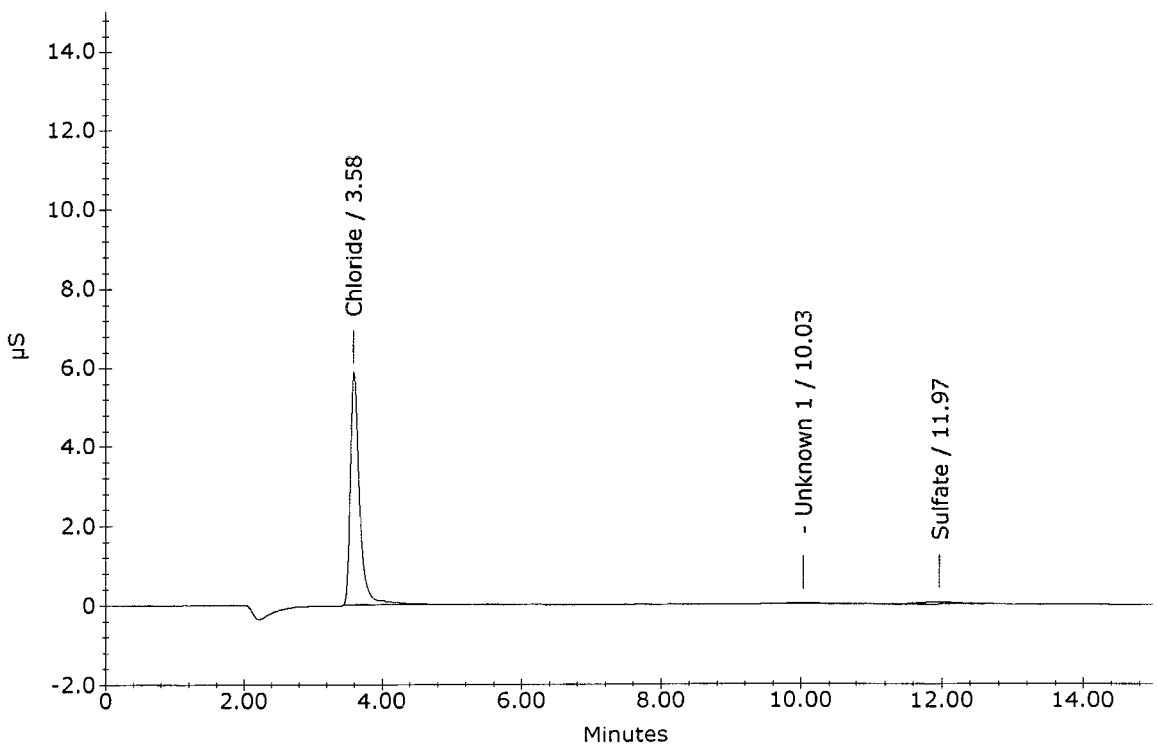
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.58	Chloride	579.569	550456
3	11.97	Sulfate	28.144	25224

R1609402-002



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Sample Name : R1609402-004
Data File Name : ...\912_072.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 1:55:26 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

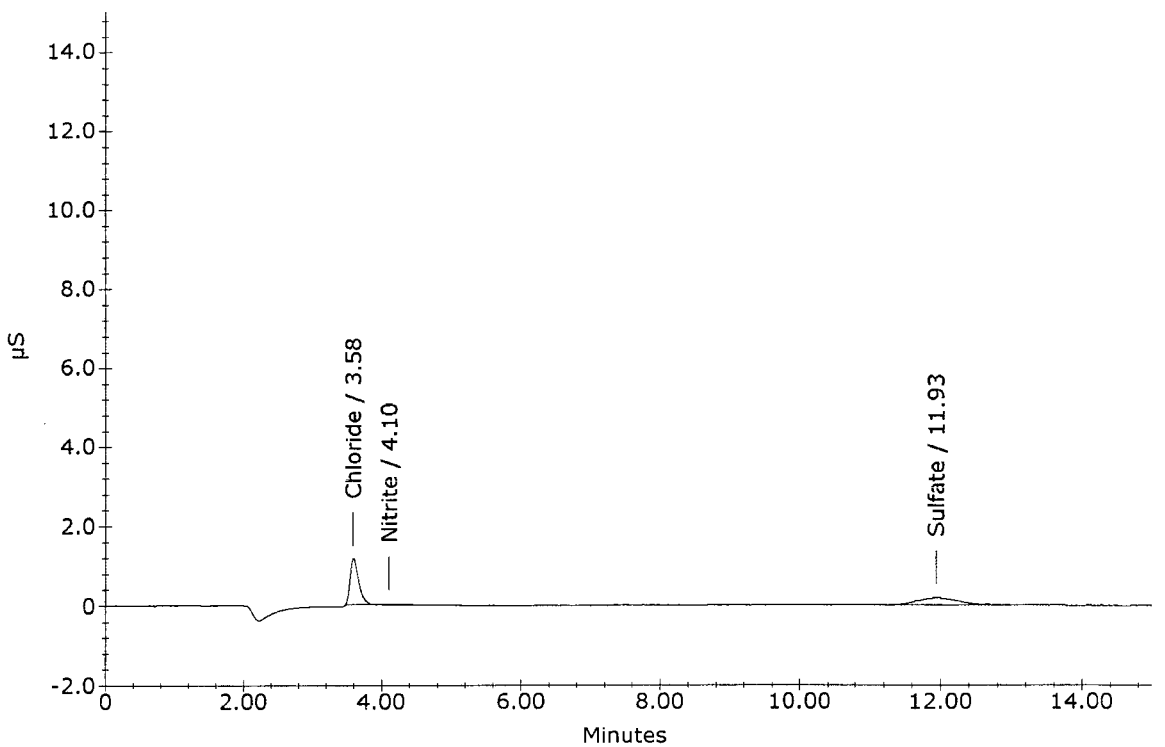
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.58	Chloride	112.065	103013
2	4.10	Nitrite	-1.805	4826
3	11.93	Sulfate	95.252	75534

R1609402-004



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Sample Name : CCV
Data File Name : ...\912_073.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 2:10:30 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

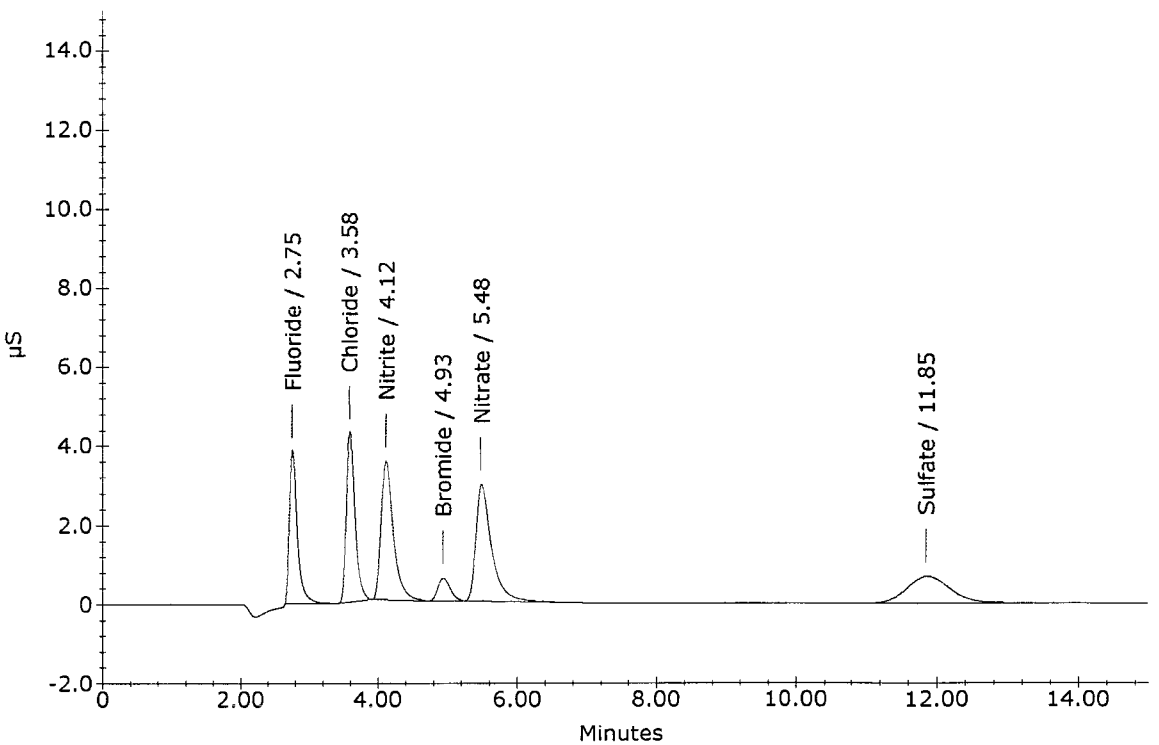
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.75	Fluoride	1.856	304088
2	3.58	Chloride	4.074	379663
3	4.12	Nitrite	2.077	431685
4	4.93	Bromide	2.008	68666
5	5.48	Nitrate	1.992	461913
6	11.85	Sulfate	3.764	286982

CCV



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Sample Name : CCB
Data File Name : ...\912_074.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 2:25:33 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

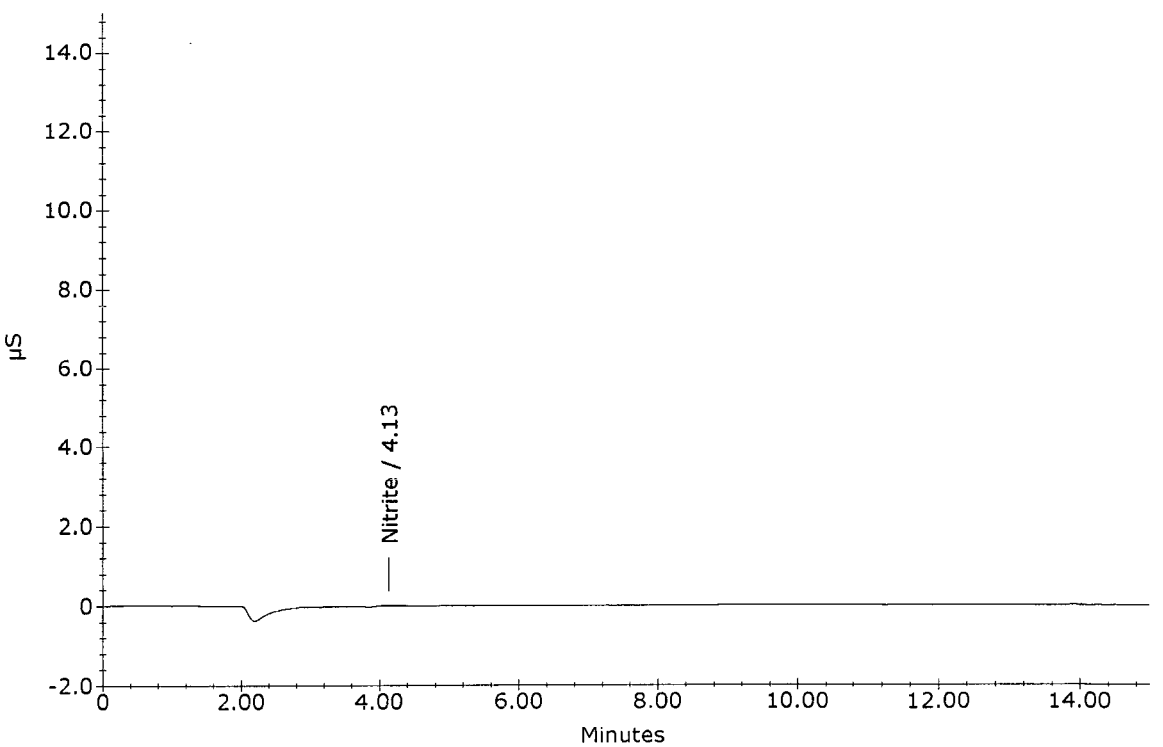
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.13	Nitrite	-0.034	1718

CCB



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Sample Name : R1609295-007
Data File Name : ...\912_075.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 2:40:35 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

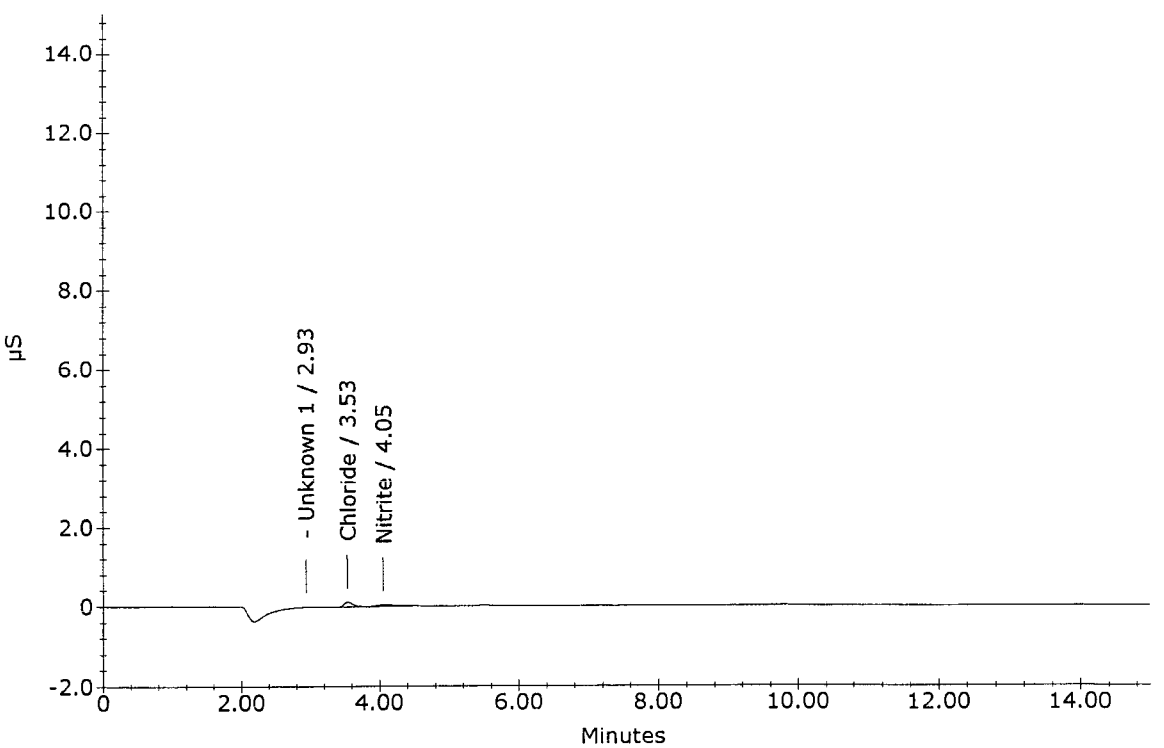
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.53	Chloride	0.090	10713
3	4.05	Nitrite	-0.006	7181

R1609295-007



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Sample Name : R1609295-008
Data File Name : ...\912_076.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 2:55:38 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

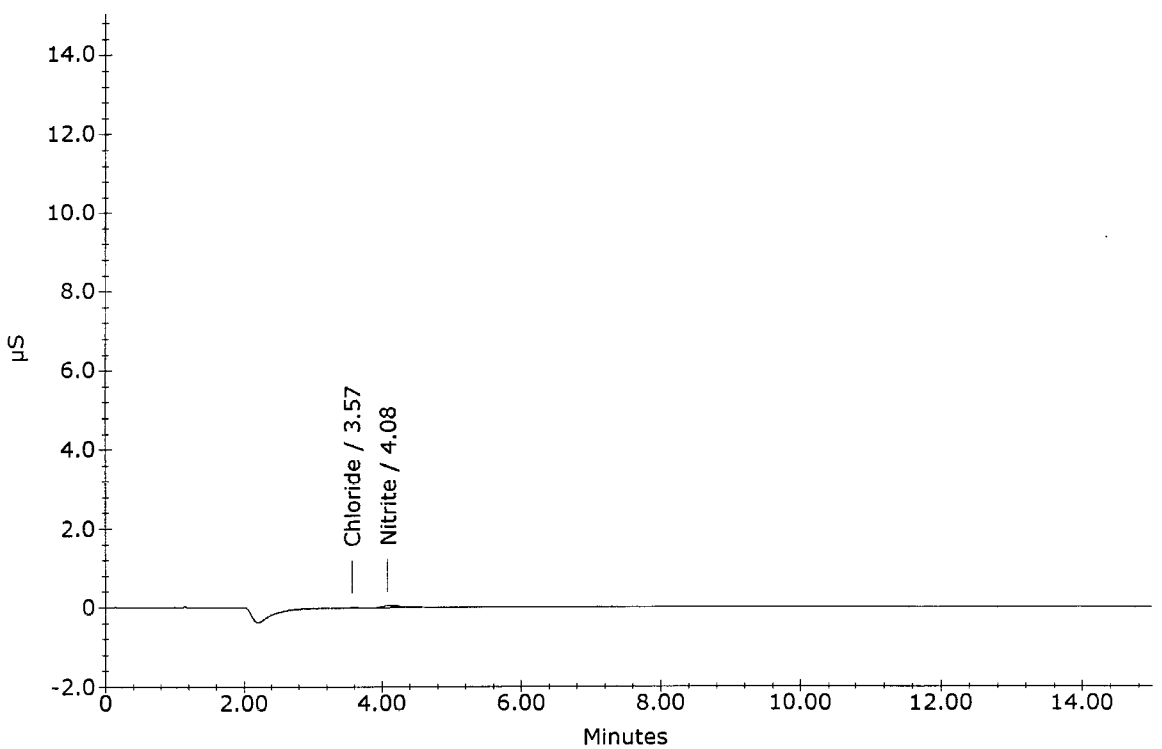
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.57	Chloride	-0.011	1720
2	4.08	Nitrite	0.002	8717

R1609295-008



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Sample Name : R1609296-007
Data File Name : ...\912_077.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 3:10:41 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

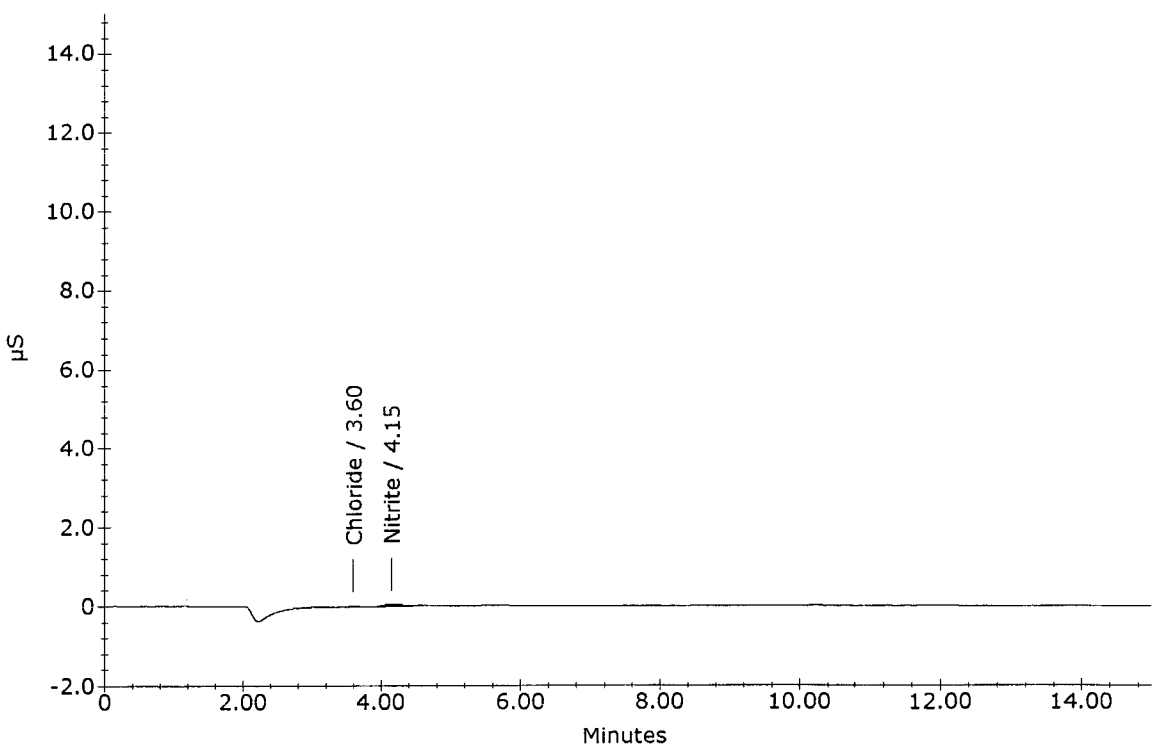
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.60	Chloride	-0.010	1821
2	4.15	Nitrite	-0.004	7683

R1609296-007



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Sample Name : R1609296-008
Data File Name : ...\912_078.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 3:25:44 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

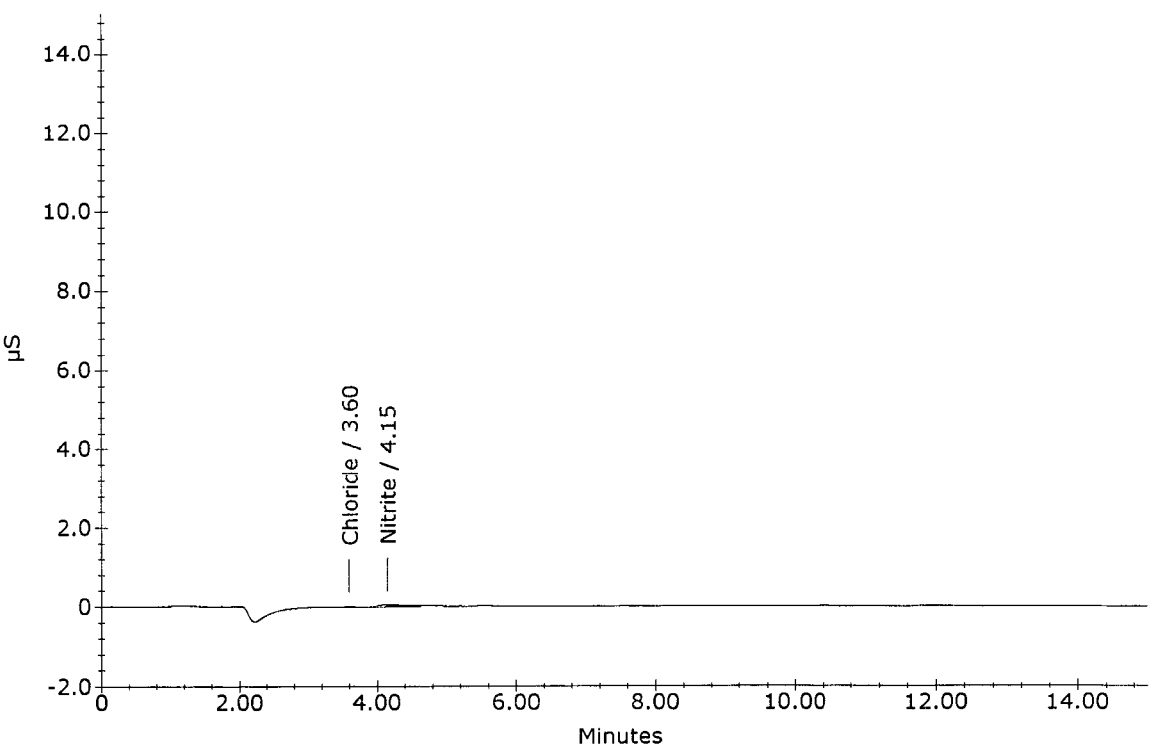
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.60	Chloride	-0.012	1616
2	4.15	Nitrite	0.005	9422

R1609296-008



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Sample Name : R1609295-005
Data File Name : ...\912_079.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 3:40:46 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

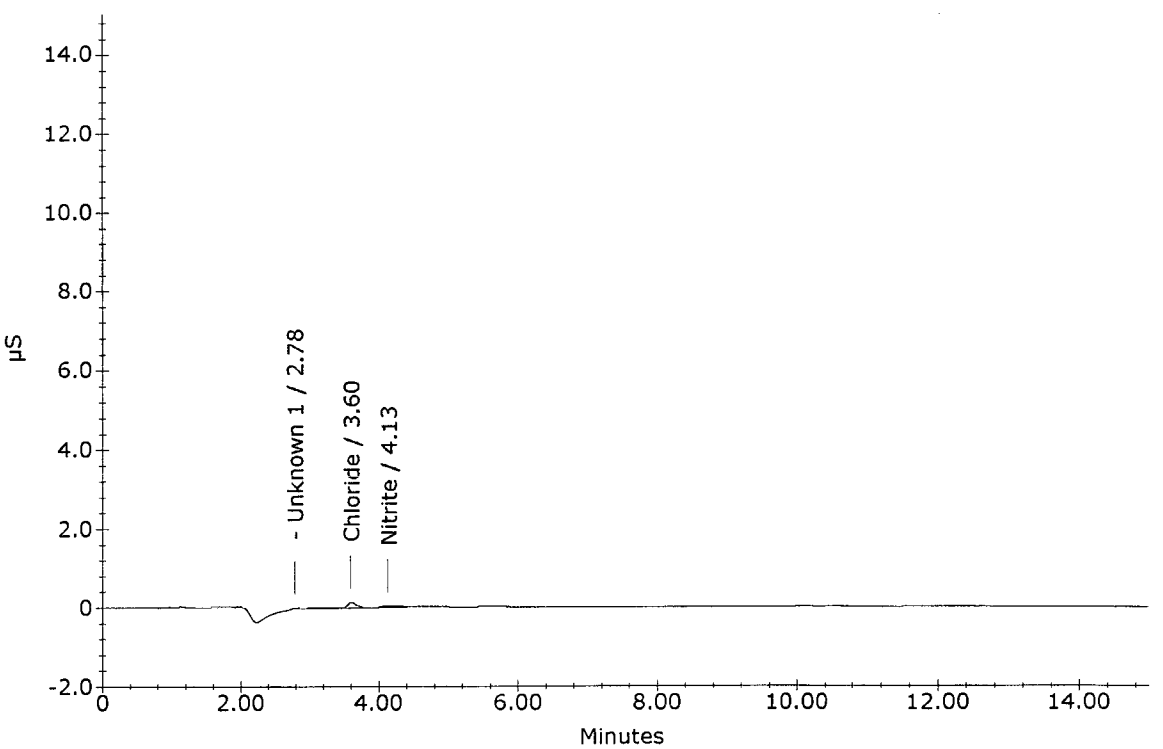
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.60	Chloride	0.114	12823
3	4.13	Nitrite	-0.005	7367

R1609295-005



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Sample Name : R1609296-001
Data File Name : ...\912_080.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 3:55:48 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

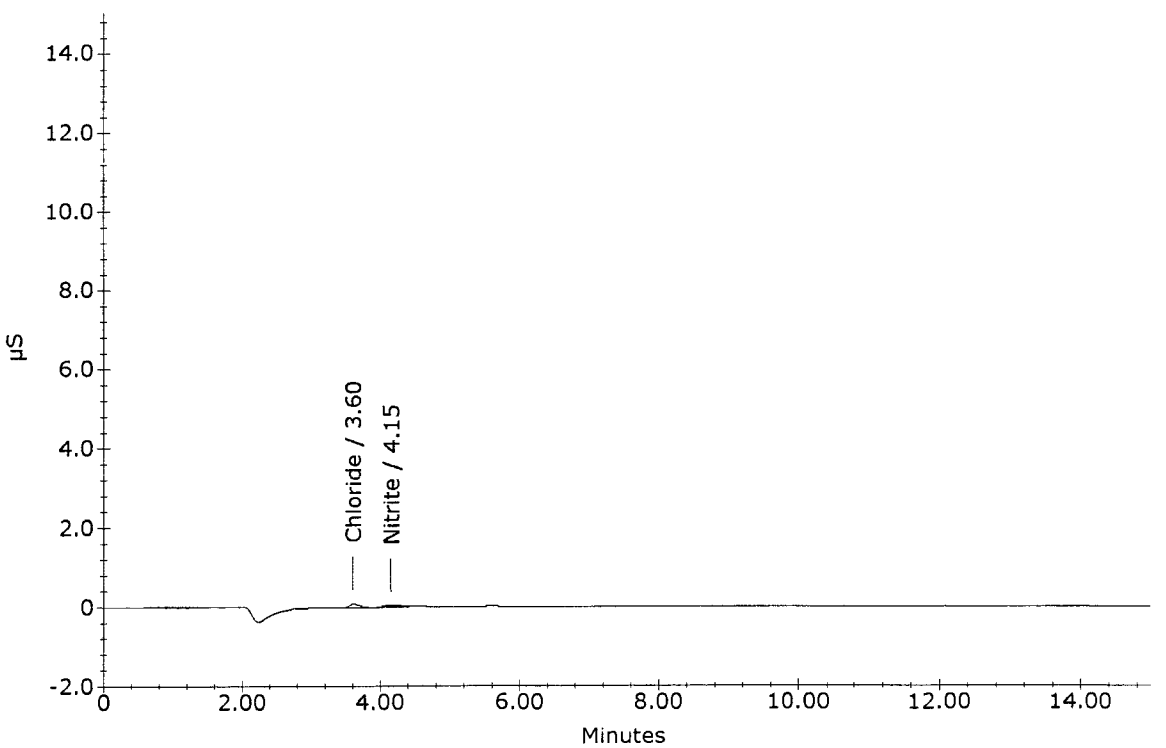
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.60	Chloride	0.069	8852
2	4.15	Nitrite	-0.009	6669

R1609296-001



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Sample Name : R1609296-003
Data File Name : ...\912_081.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 4:10:52 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

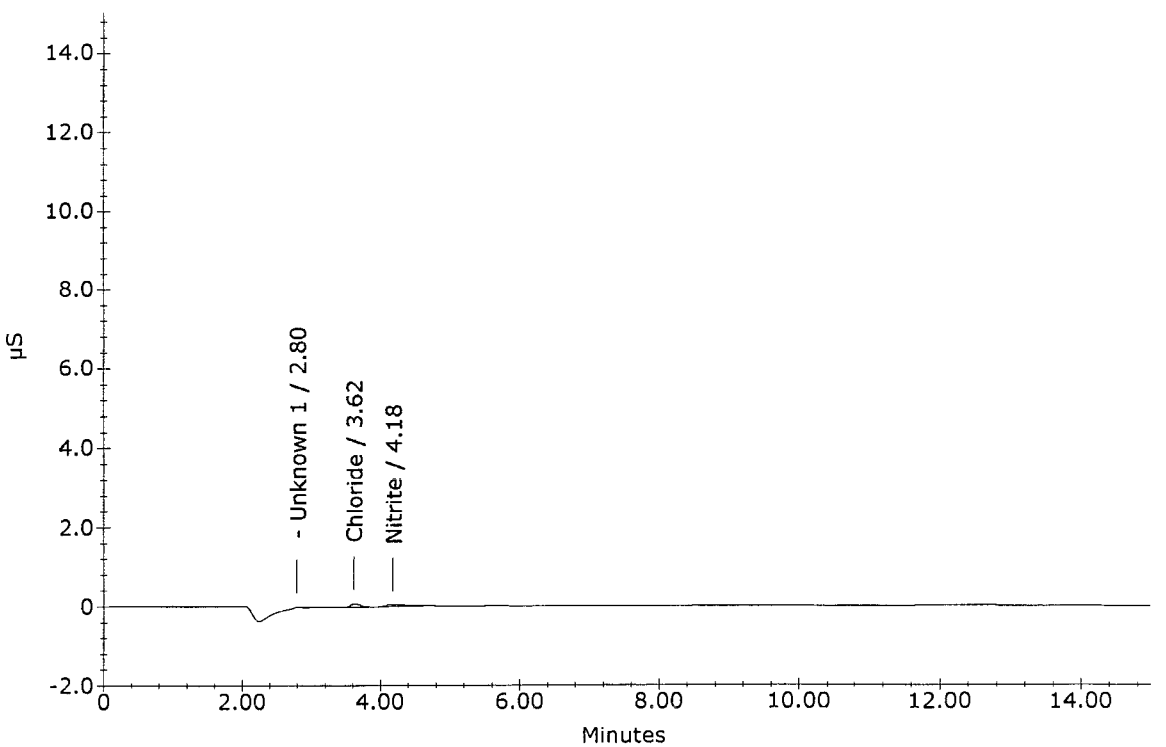
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	3.62	Chloride	0.062	8229
3	4.18	Nitrite	0.001	8523

R1609296-003



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Sample Name : R1609296-005
Data File Name : ...\912_082.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 4:25:54 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 26A FC

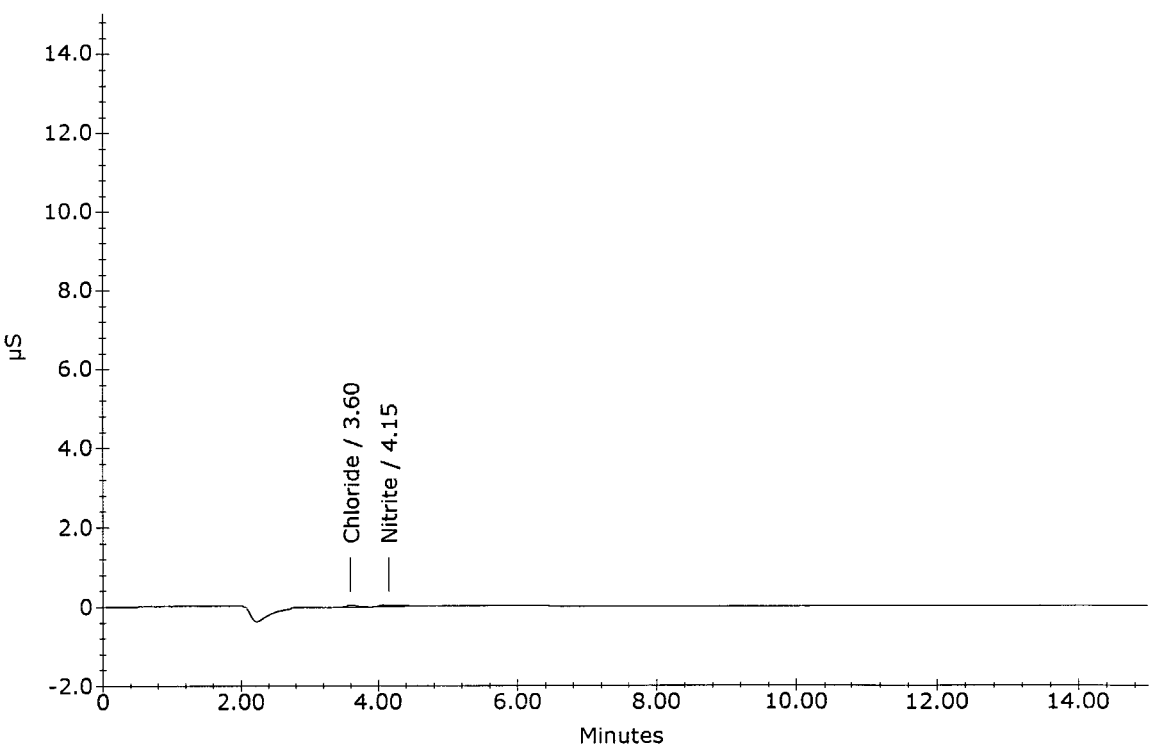
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.60	Chloride	0.016	4134
2	4.15	Nitrite	0.002	8884

R1609296-005



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Sample Name : R1609402-005
Data File Name : ...\912_083.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 4:40:56 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

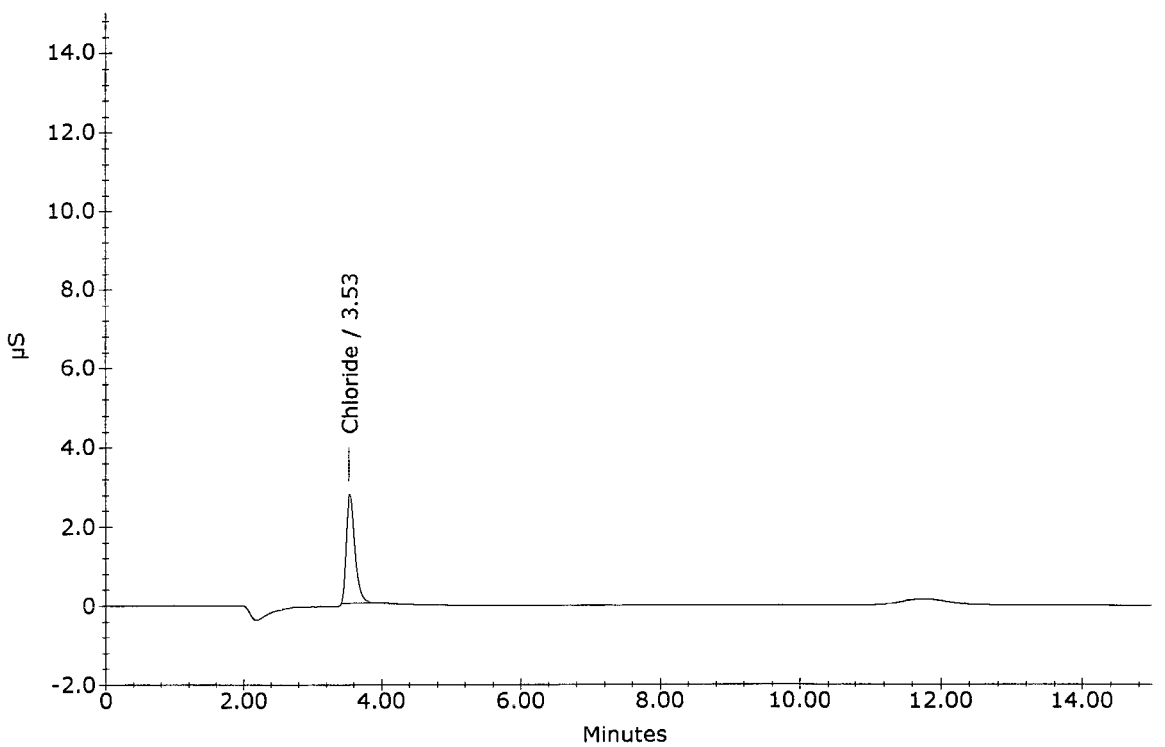
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.53	Chloride	260.289	239510

R1609402-005



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Sample Name : R1609402-007
Data File Name : ...\912_084.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 4:56:00 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : 300.0 C

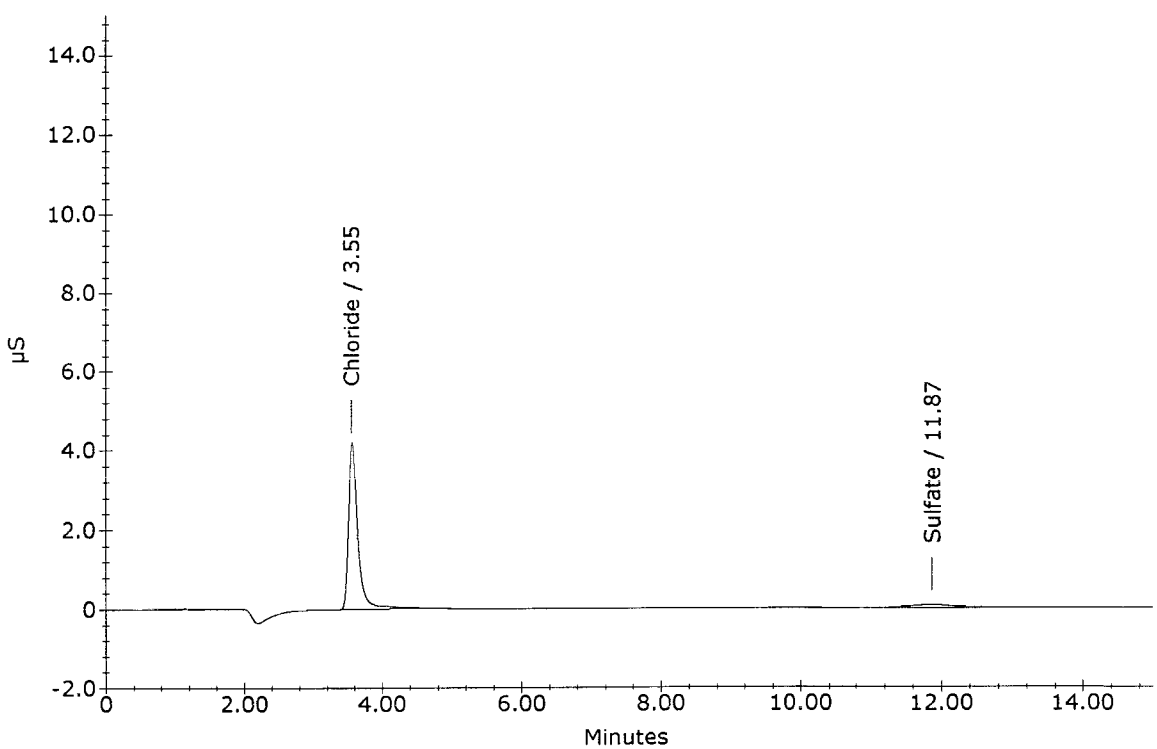
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.55	Chloride	426.297	398076
2	11.87	Sulfate	37.603	32312

R1609402-007



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Sample Name : CCV
Data File Name : ...\912_085.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 5:11:03 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

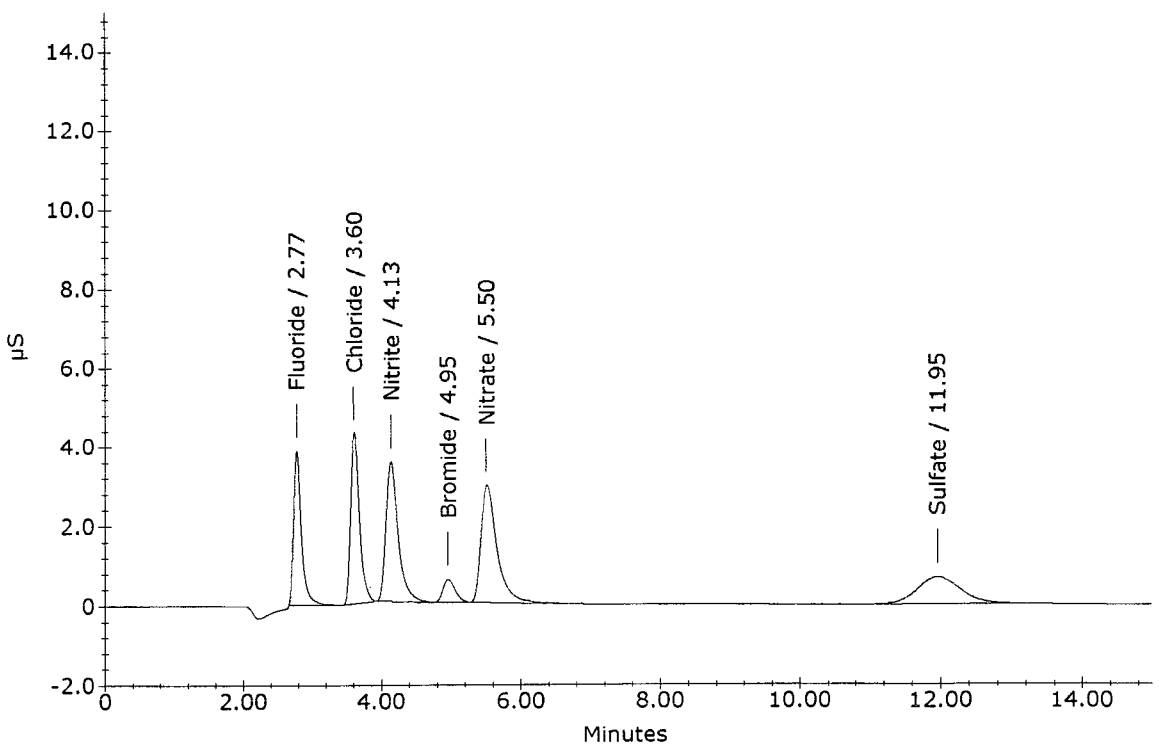
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.77	Fluoride	1.873	306921
2	3.60	Chloride	4.104	382600
3	4.13	Nitrite	2.091	434522
4	4.95	Bromide	2.024	69213
5	5.50	Nitrate	2.006	465356
6	11.95	Sulfate	3.808	290248

CCV



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Sample Name : CCB
Data File Name : ...\912_086.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 5:26:04 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

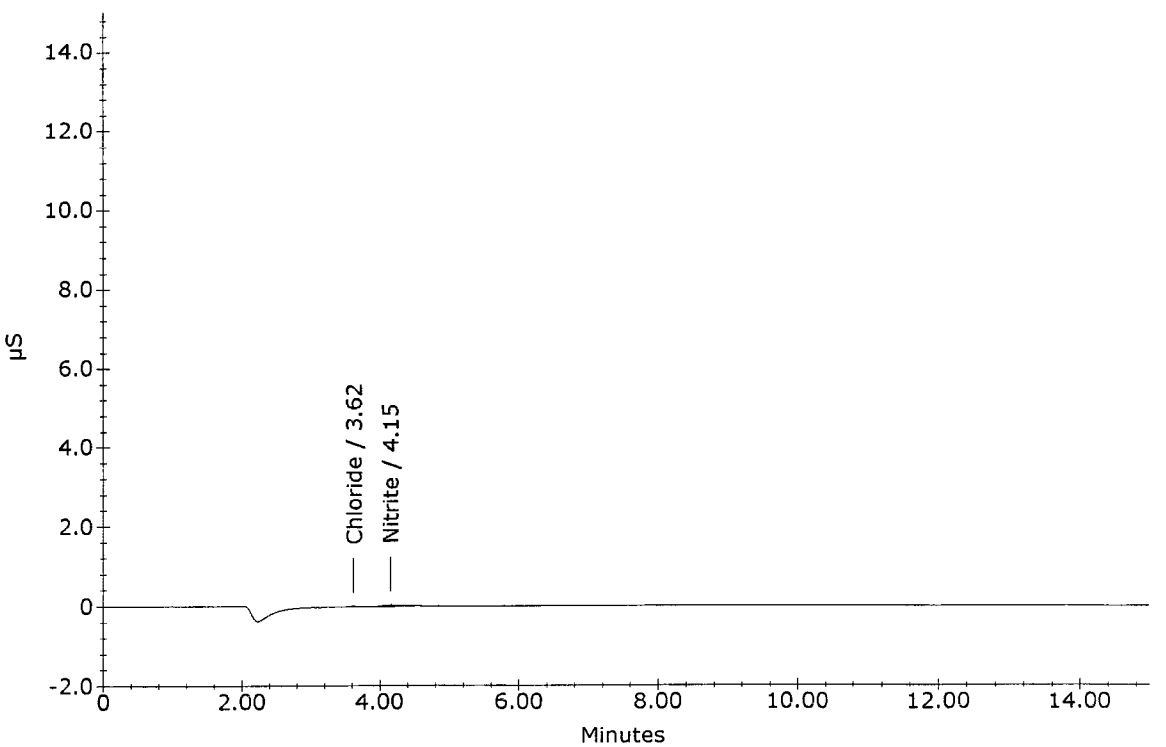
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.62	Chloride	-0.016	1303
2	4.15	Nitrite	-0.000	8343

CCB



Ion Chromatography Analytical Report
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Sample Name : R1609~~534~~-001 9354 NM 9/13/16
Data File Name : ...\912_087.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 5:41:08 AM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 CBS

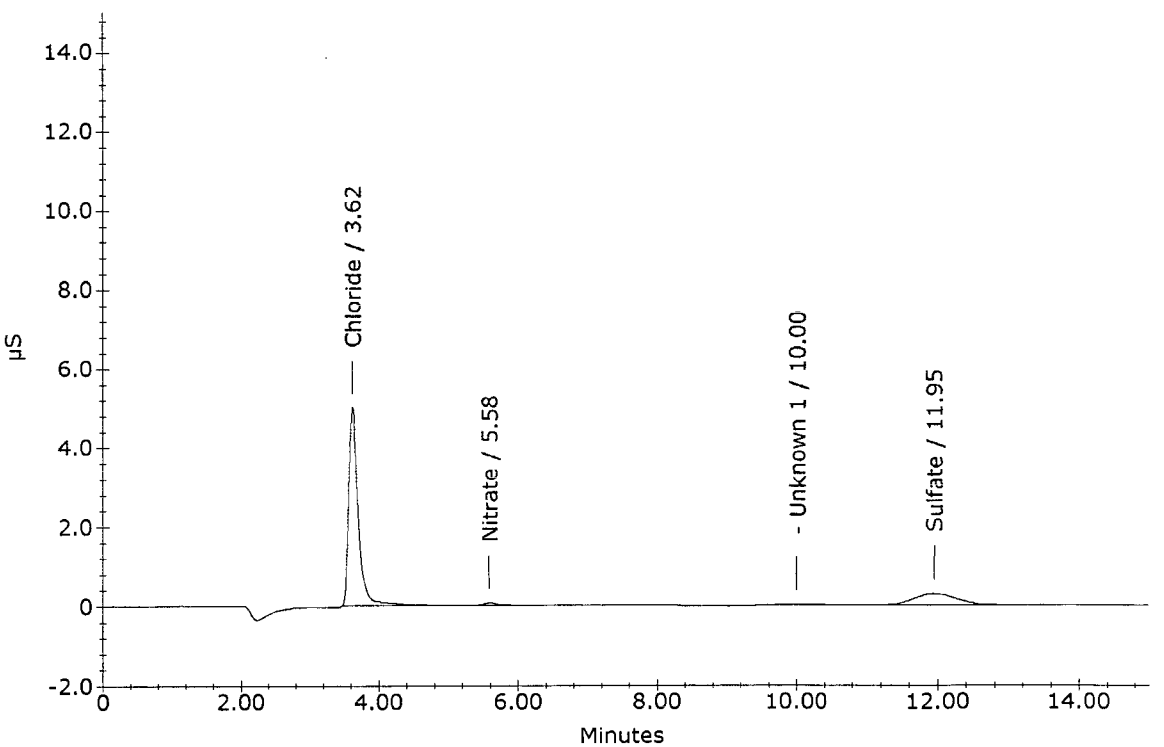
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	3.62	Chloride	51.244	482969
2	5.58	Nitrate	0.387	10293
4	11.95	Sulfate	16.712	129475

R1609534-001



Ion Chromatography Analytical Report
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9354

Sample Name : R1609534-001 MS NM 9/13/16
Data File Name : ...\912_088.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 5:56:11 AM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 CBS

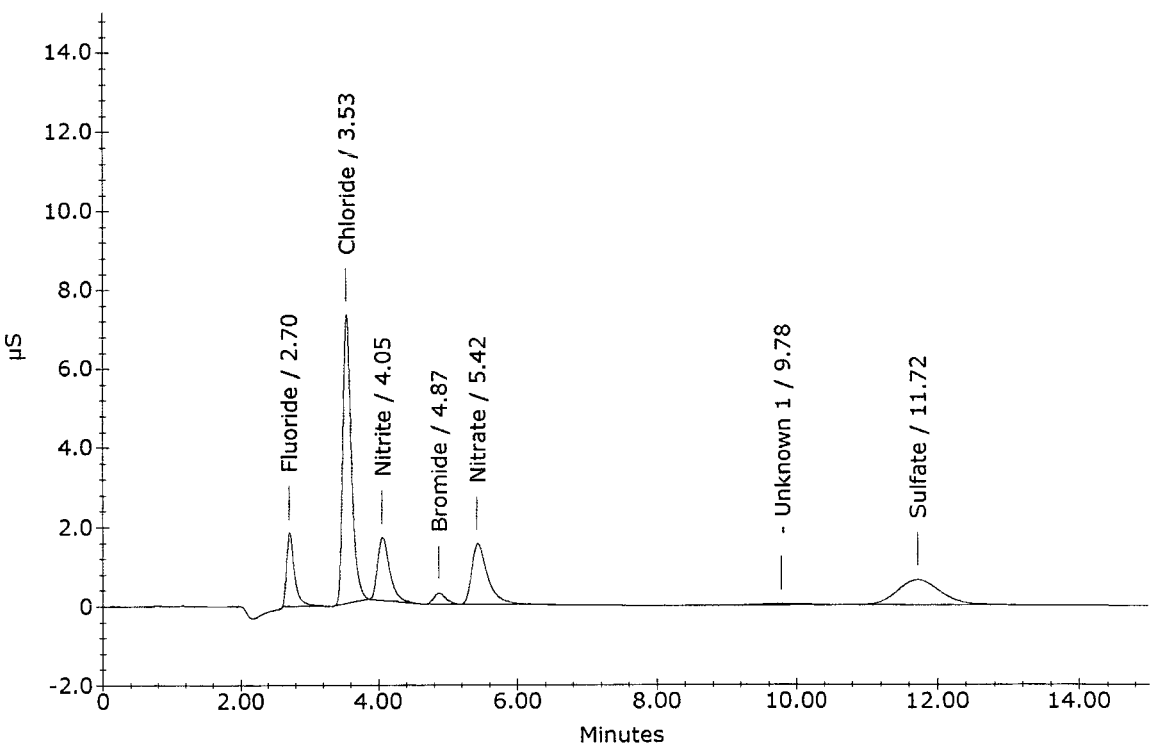
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.70	Fluoride	9.194	147605
2	3.53	Chloride	66.051	633488
3	4.05	Nitrite	9.074	190613
4	4.87	Bromide	9.543	32838
5	5.42	Nitrate	10.785	246287
7	11.72	Sulfate	35.333	269573

R1609534-001 MS



Ion Chromatography Analytical Report
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Sample Name : R1609~~534~~ 9354-001 MSD NM 9/13/16
Data File Name : ...\912_089.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 6:11:13 AM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 CBS

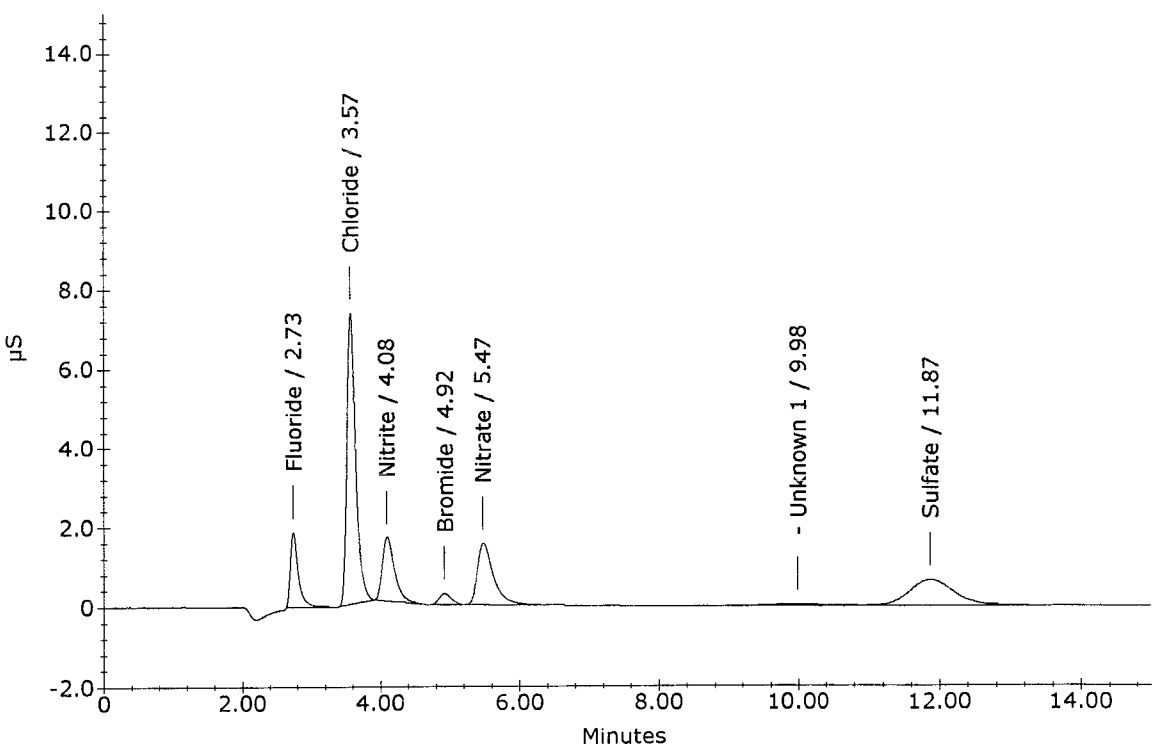
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	9.275	148944
2	3.57	Chloride	66.976	643099
3	4.08	Nitrite	9.172	192604
4	4.92	Bromide	9.767	33598
5	5.47	Nitrate	10.943	249948
7	11.87	Sulfate	36.198	276088

R1609534-001 MSD



Ion Chromatography Analytical Report
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Sample Name : R1609301-001
Data File Name : ...\912_090.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 6:26:16 AM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 9056A C

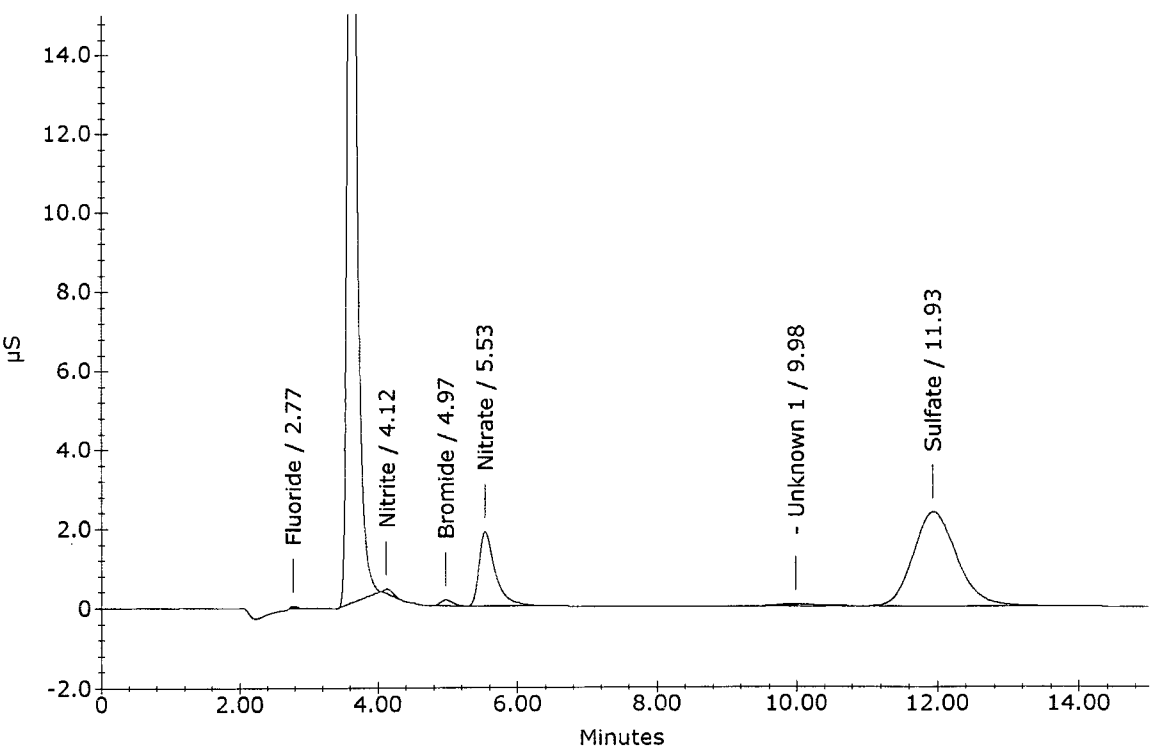
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name		Component Amount (mg/L)	Peak Area
1	2.77	Fluoride		0.300	3212
2	3.62	Chloride	1/100	199.294	2486746
3	4.12	Nitrite		0.099	10380
4	4.97	Bromide		5.190	18065
5	5.53	Nitrate		13.360	306248
7	11.93	Sulfate		132.940	1011646

R1609301-001



Ion Chromatography Analytical Report
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Sample Name : R1609301-002
Data File Name : ...\912_091.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 6:41:19 AM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 9056A C

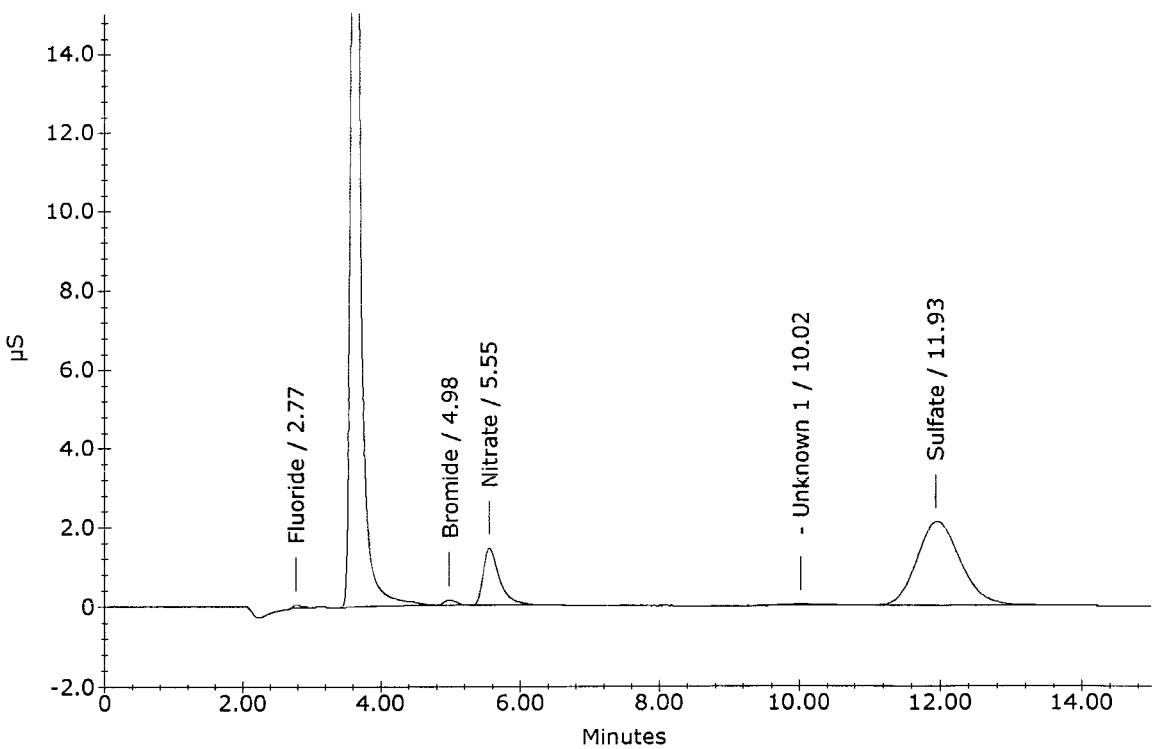
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.77	Fluoride	0.307	3326
2	3.62	Chloride 1/100	198.191	2463645
3	4.98	Bromide	4.618	16126
4	5.55	Nitrate	10.411	237625
6	11.93	Sulfate	119.465	908406

R1609301-002



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Sample Name : CCV
Data File Name : ...\912_092.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 6:56:22 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

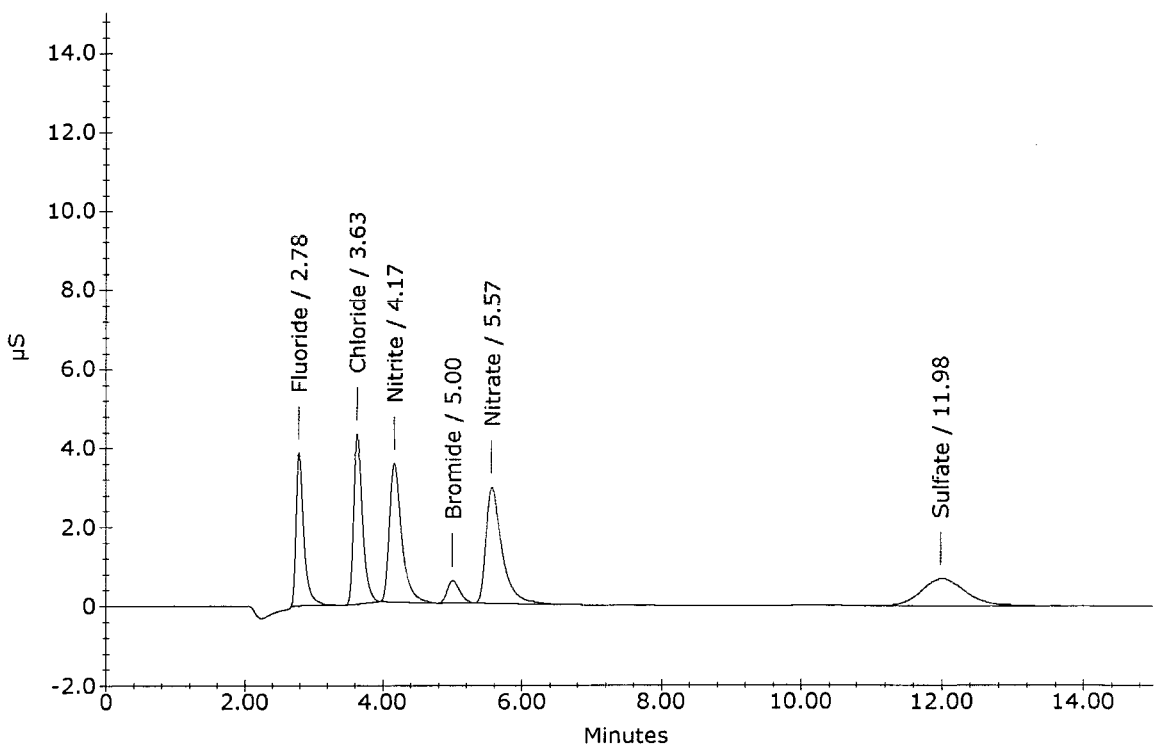
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.78	Fluoride	1.883	308647
2	3.63	Chloride	4.138	385942
3	4.17	Nitrite	2.105	437497
4	5.00	Bromide	2.035	69578
5	5.57	Nitrate	2.018	468046
6	11.98	Sulfate	3.830	291949

CCV



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Sample Name : CCB
Data File Name : ...\912_093.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/13/16 7:11:24 AM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

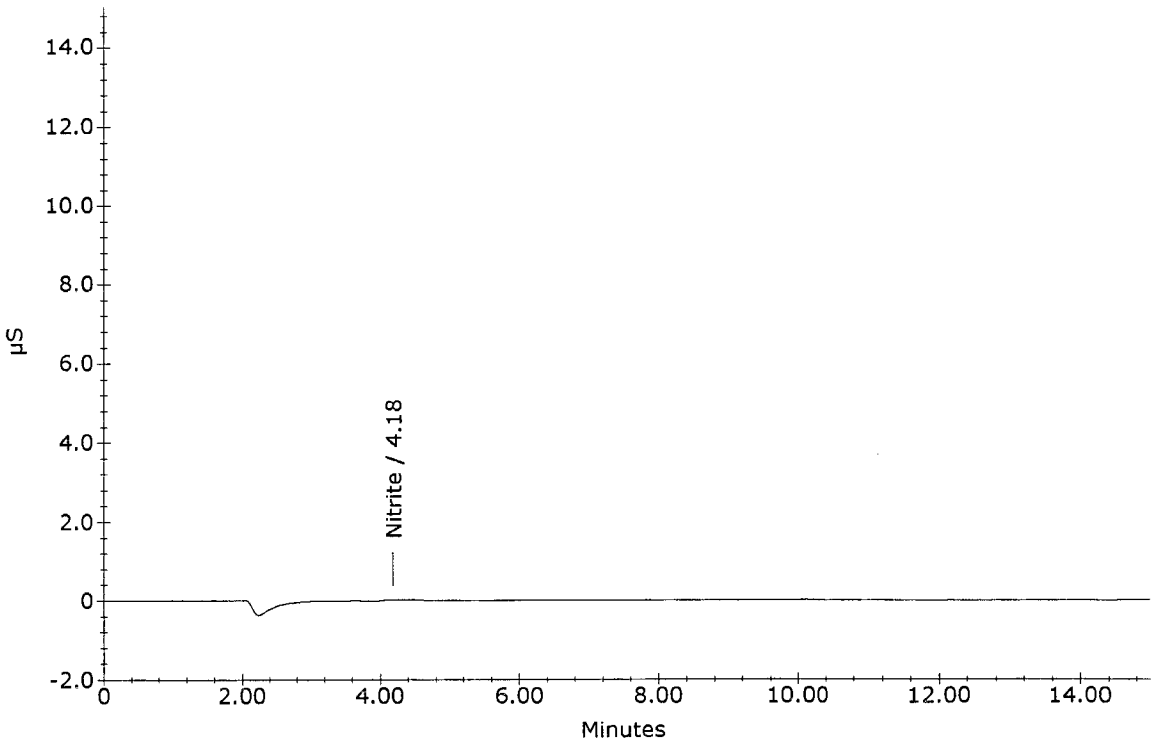
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.18	Nitrite	-0.032	2075

CCB



ALS Environmental

1575 Jefferson Road, Building 300, Suite 360, Rochester, New York 14623

Ion Chromatography Cover Sheet

Instrument: Dionex DX-120 Ion Chromatogram – IC # 6

Column: Dionex AS-14 (S/N 031295) and AG-14 (S/N 036895)

Analytical Column Installed: 01/31/13 Guard Column Installed: 01/31/13

Curve Date: 07/06/16 **Loop size:** 25 uL

Analyst: NM **Analysis Date:** 9/12/16

Are copy of LCS and CCV attached to run? YES / NO

Method Filename: 6-070616

Standards Prep Dates & Log ID's:

Std Type	*Prep Date*	*Log ID*		*Std Type*	*Prep Date*	*Log ID*
Calibration Intermediate	03/02/16	88473		Working Calibration Stds	07/06/16	WC157013D
LCS / MS Intermediate	08/01/16	174566		Working LCS/MS Standard	09/07/16	WC157088B
ICV Intermediate	05/24/16	172708		Working ICV Standard	07/06/16	WC157028M
CCV Intermediate	09/08/16	175560		Working CCV Standard	09/12/16	WC157032B

Original Retention Times for this method are based on Standard 6 and are as follows:

Fluoride: 2.72 Bromide: 4.92
Chloride: 3.57 Nitrate: 5.48
Nitrite: 4.10 Sulfate: 12.32

Additional Comments:

LCS Prep

(Stocks delivered using volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO_2 is needed, LCS must be prepared daily.)

(MS prepared fresh daily using same volume of intermediate stock added to 100mLs sample. MS not prepared volumetrically.)

Analyte	Calibration Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst / Date Prepped	Lot ID	Exp. Date	Matrix H_2SO_4 / NaOH / DI	H_2SO_4 / NaOH Lot #
F	WC157002A 174566	50	2.0	200	1.0	NM 9/7/16	A	9/14/16	H_2SO_4	85090
Cl		100			2.0	NM 9/7/16	B	9/14/16	DI	
NO_2		50			1.0	NM 9/8/16	C	9/15/16	NaOH	174940
Br		50			1.0		D			
NO_3		50			1.0		E			
OPO_4		50			1.0		F			
SO_4		100			2.0		G			
							H			
							I			
							J			
							K			
							L			
							M			
							N			
							O			
							P			
							Q			
							R			

ICV / CCV PREP

(A 1:1 dilution of the Reference Intermediate Stock is done daily.)

Analyte	ICV / CCV Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst / Date Prepped	Lot ID	Exp. Date	Matrix H_2SO_4 / NaOH / DI	H_2SO_4 / NaOH Lot #
F	WC157003H	4.00	5.0	10.0	2.00	NM 9/8/16	A	9/9/16	DI	
Cl	(LIMS: 175560)	8.00			4.00	NM 9/12/16	B	9/13/16	DI	
NO_2		4.00			2.00		C			
Br		4.00			2.00		D			
NO_3		4.00			2.00		E			
OPO_4		4.00			2.00		F			
SO_4		8.00			4.00		G			
							H			
							I			
							J			
							K			
							L			
							M			
							N			
							O			
							P			
							Q			
							R			

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Sample Name : STANDARD 1
Data File Name : ...\706_001.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 12:31:33 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

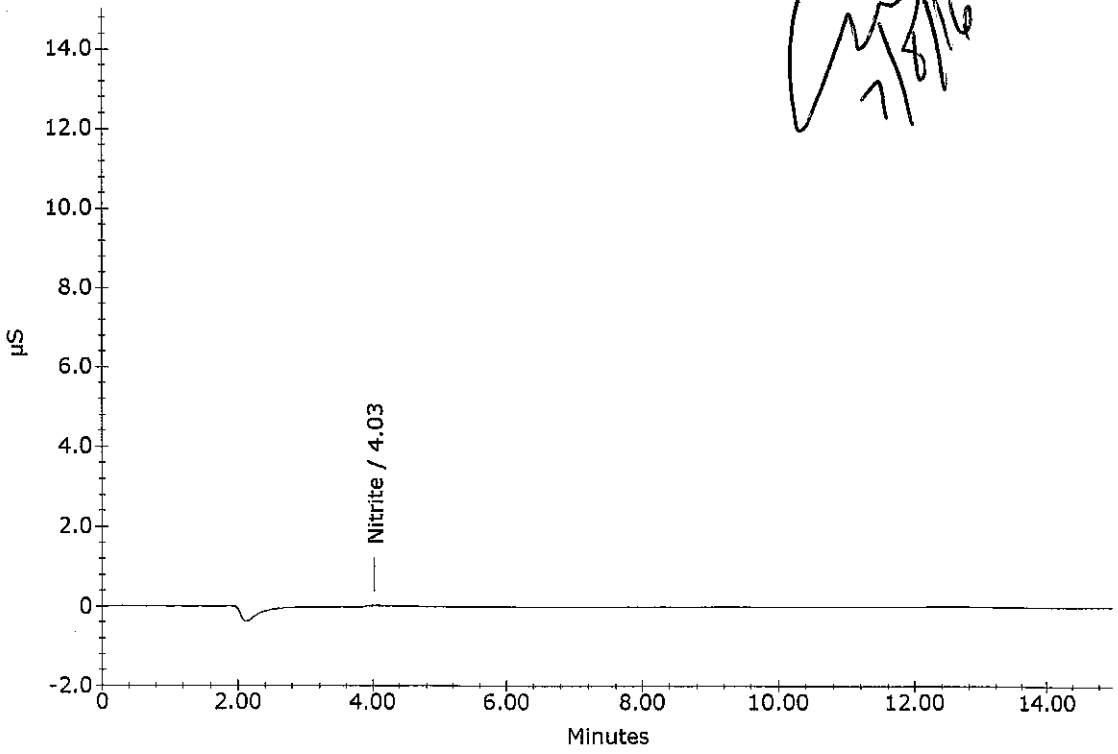
Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.03	Nitrite	0.000	2766

OK

7/8/16

STANDARD 1



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Sample Name : STANDARD 2
Data File Name : ...\706_002.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 12:46:39 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

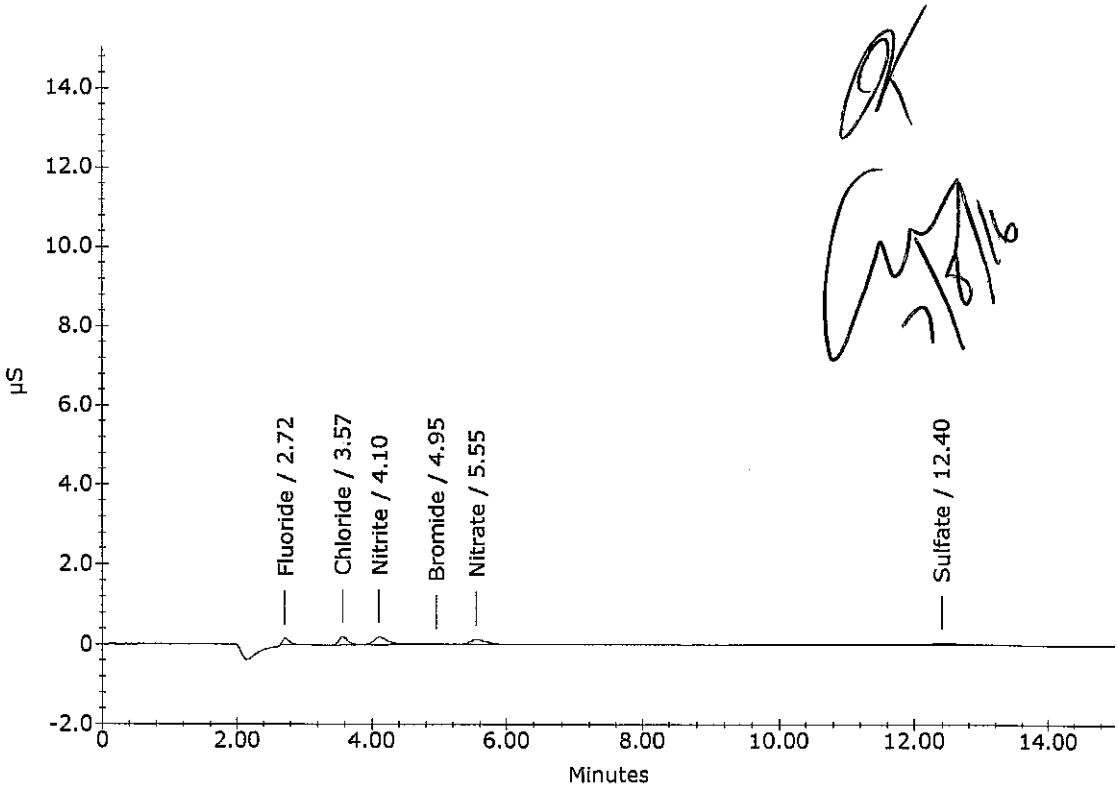
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	0.100	10303
2	3.57	Chloride	0.200	18134
3	4.10	Nitrite	0.100	27054
4	4.95	Bromide	0.100	3154
5	5.55	Nitrate	0.100	19890
6	12.40	Sulfate	0.200	14487

STANDARD 2



OK
7/8/16

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Sample Name : STANDARD 3
Data File Name : ...\706_003.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:01:40 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

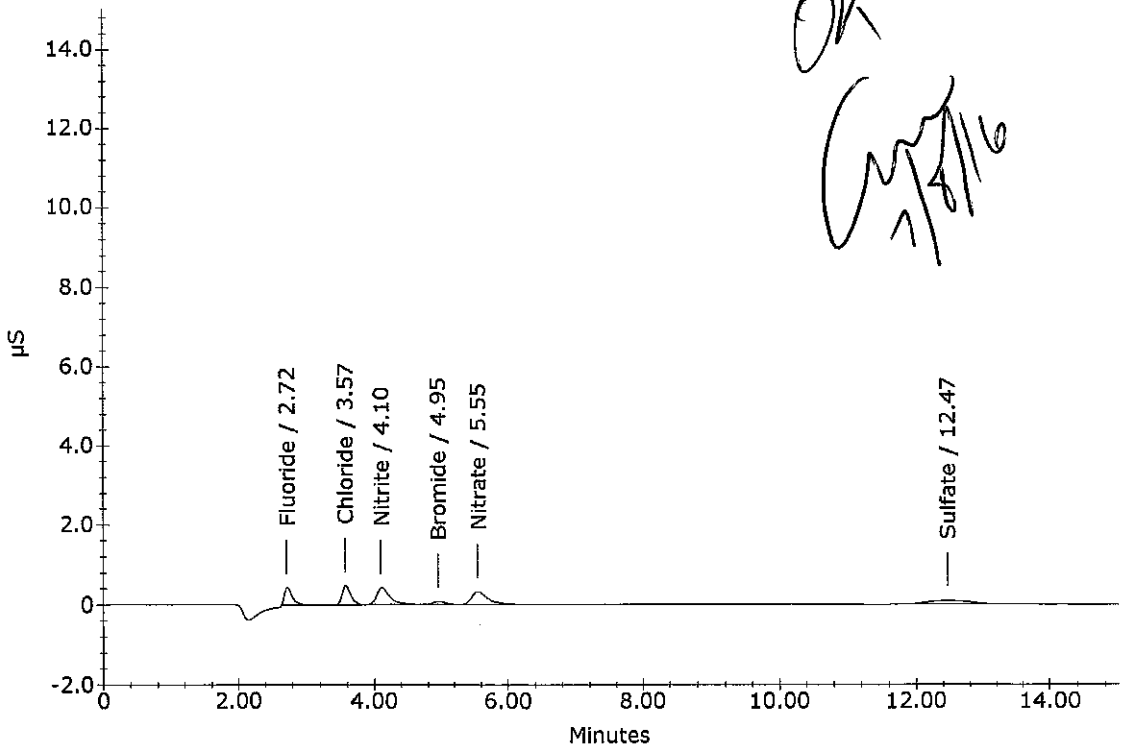
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	0.250	36165
2	3.57	Chloride	0.500	43193
3	4.10	Nitrite	0.250	56644
4	4.95	Bromide	0.250	8269
5	5.55	Nitrate	0.250	52897
6	12.47	Sulfate	0.500	37335

STANDARD 3



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Ion Chromatography Analytical Report
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Sample Name : STANDARD 4
Data File Name : ...\706_004.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:16:45 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

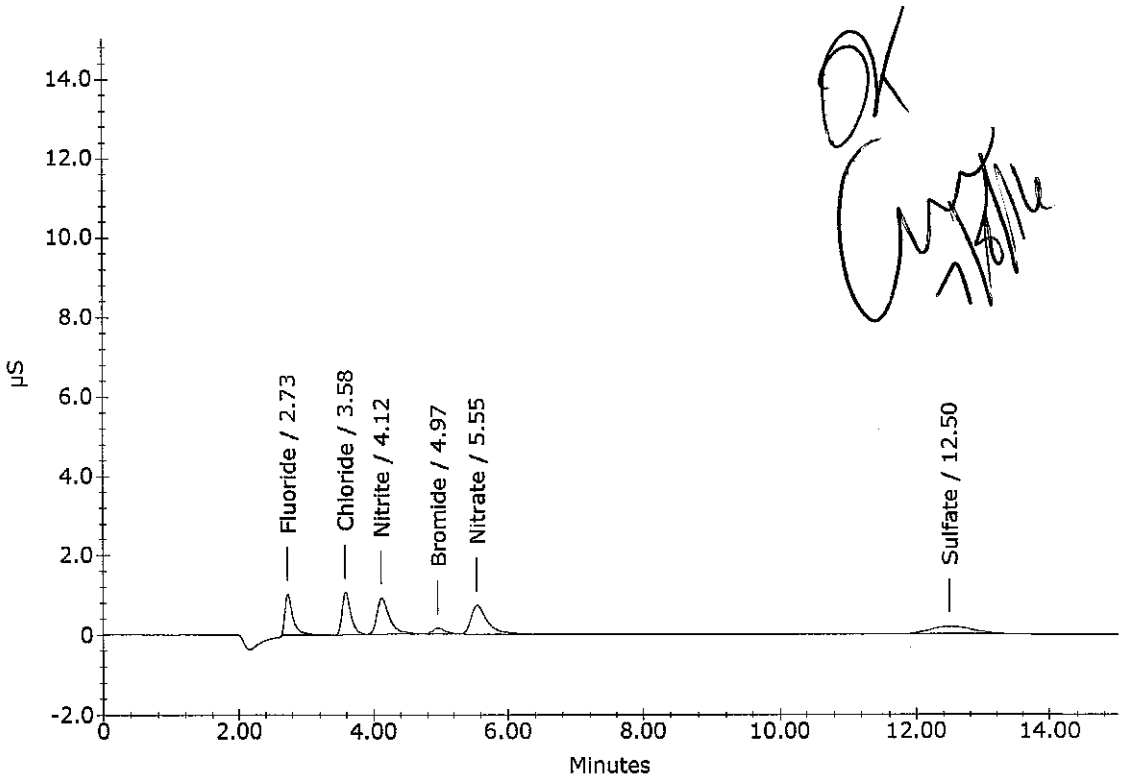
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	0.500	83856
2	3.58	Chloride	1.000	95914
3	4.12	Nitrite	0.500	115316
4	4.97	Bromide	0.500	18189
5	5.55	Nitrate	0.500	119376
6	12.50	Sulfate	1.000	84492

STANDARD 4



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Ion Chromatography Analytical Report
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Sample Name : STANDARD 5
Data File Name : ...\706_005.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:31:47 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

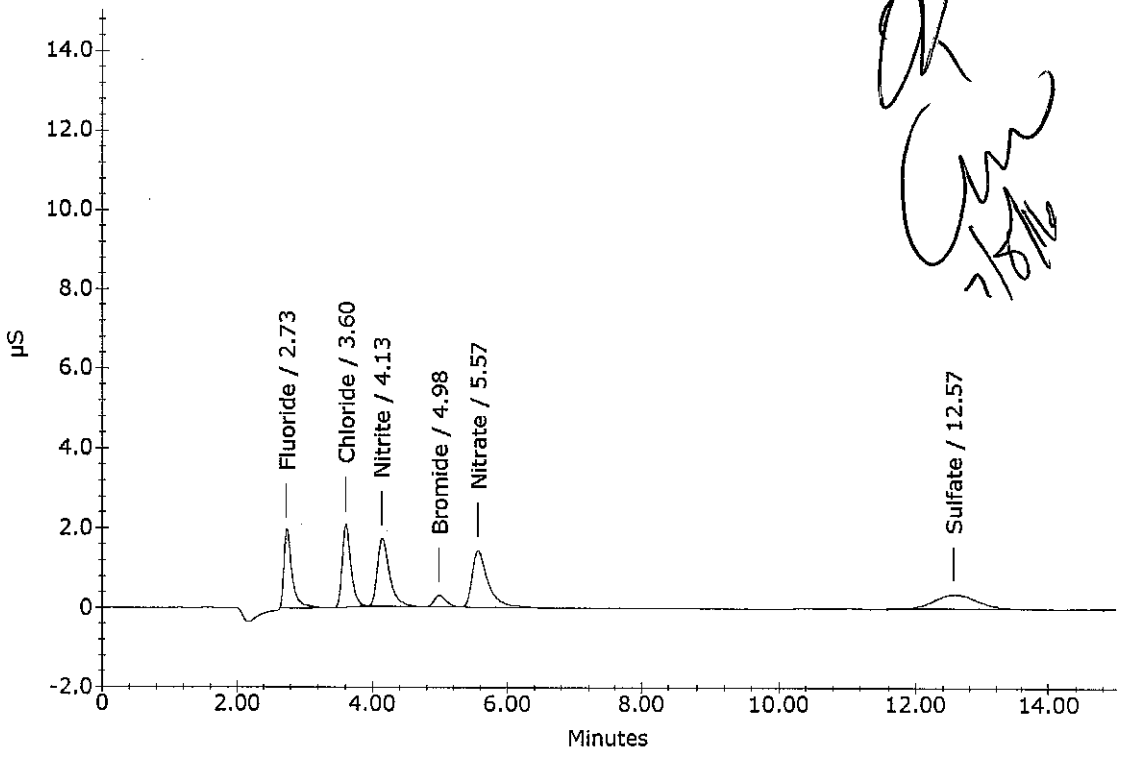
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.73	Fluoride	1.000	163850
2	3.60	Chloride	2.000	186492
3	4.13	Nitrite	1.000	214162
4	4.98	Bromide	1.000	35387
5	5.57	Nitrate	1.000	233674
6	12.57	Sulfate	2.000	162652

STANDARD 5



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Sample Name : STANDARD 6
Data File Name : ...\706_006.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:46:50 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

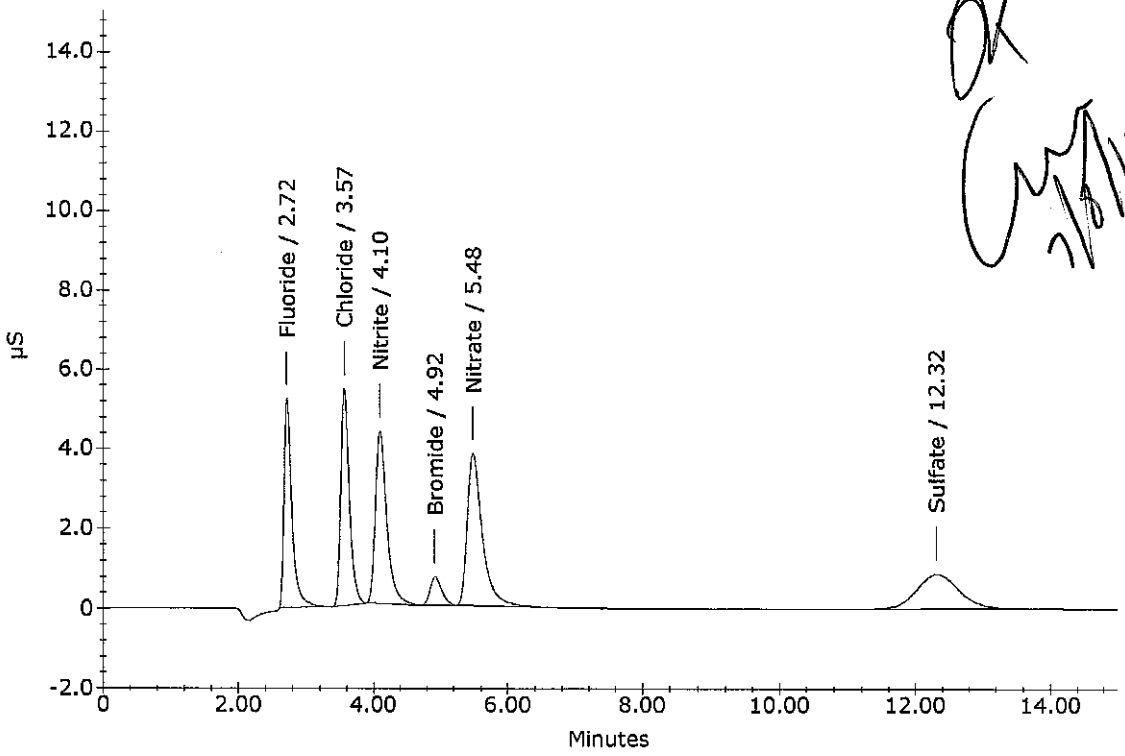
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	2.500	418208
2	3.57	Chloride	5.000	476088
3	4.10	Nitrite	2.500	521081
4	4.92	Bromide	2.500	86006
5	5.48	Nitrate	2.500	587986
6	12.32	Sulfate	5.000	376394

STANDARD 6



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Sample Name : STANDARD 7
Data File Name : ...\706_007.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 2:01:52 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

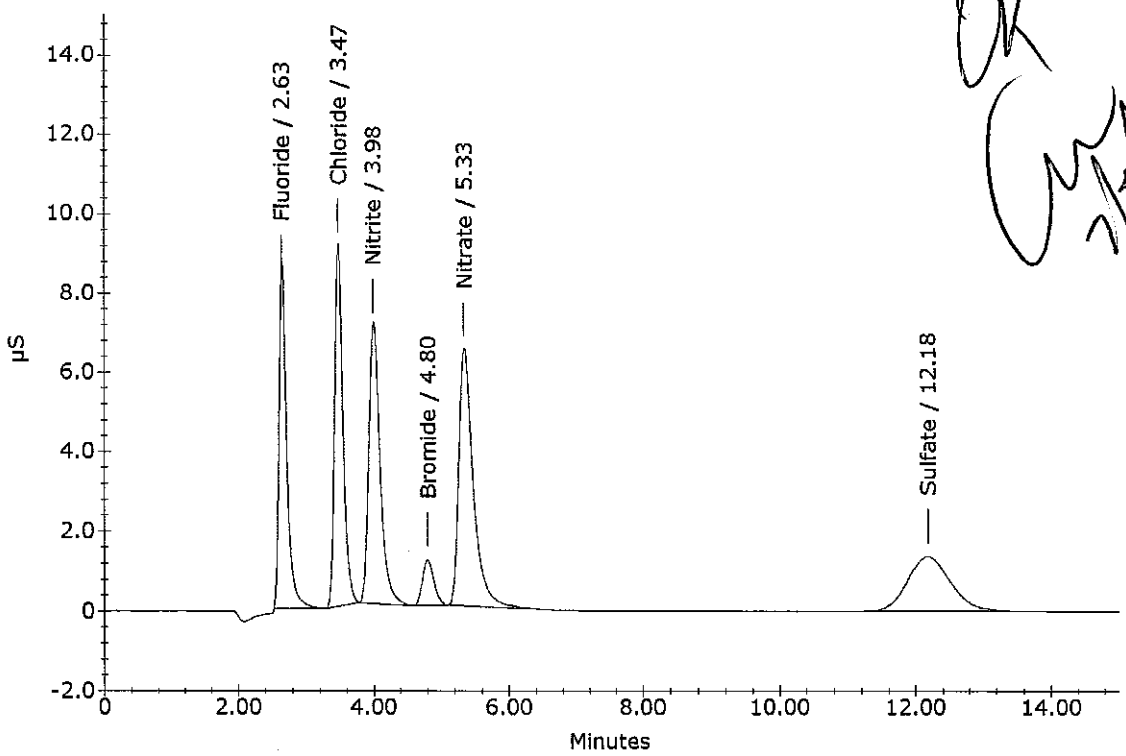
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.63	Fluoride	4.000	672002
2	3.47	Chloride	8.000	769272
3	3.98	Nitrite	4.000	835986
4	4.80	Bromide	4.000	134610
5	5.33	Nitrate	4.000	957507
6	12.18	Sulfate	8.000	603187

STANDARD 7



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Sample Name : STANDARD 8
Data File Name : ...\706_008.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 2:16:54 PM

Dilution Factor : 1.00
Sample Type : Calibration Update
Sample Comment : 300.0/9056A/26A

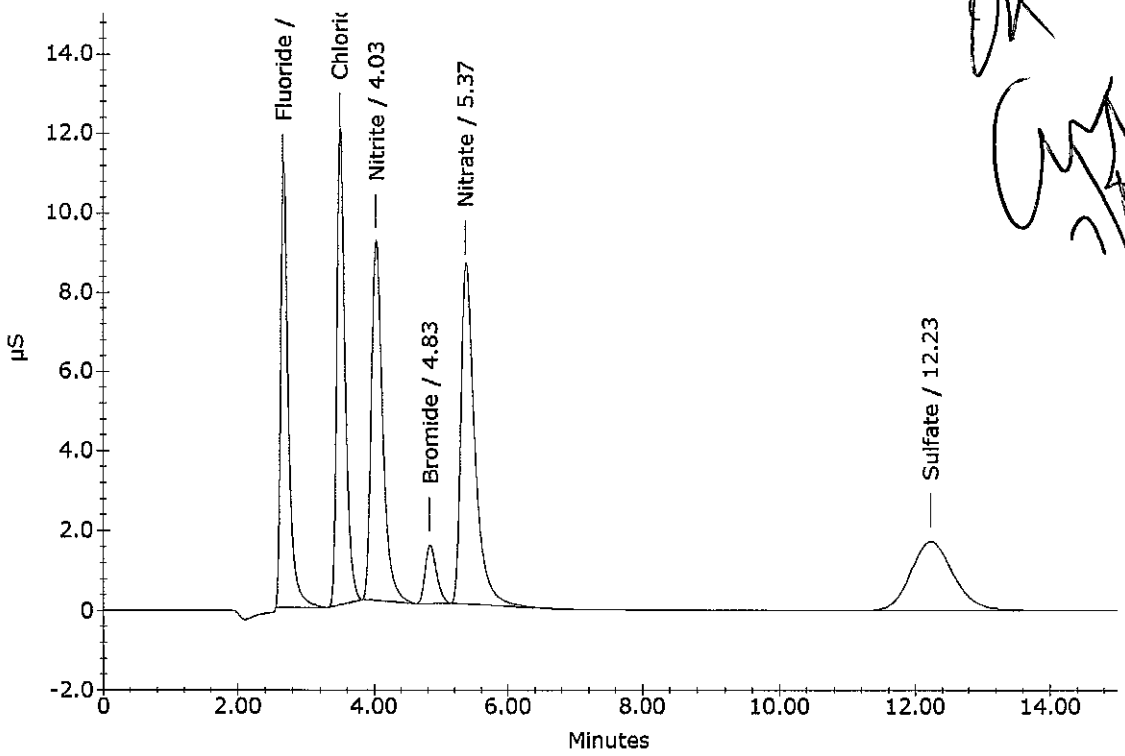
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.67	Fluoride	5.000	874049
2	3.50	Chloride	10.000	1010446
3	4.03	Nitrite	5.000	1074132
4	4.83	Bromide	5.000	171897
5	5.37	Nitrate	5.000	1246041
6	12.23	Sulfate	10.000	762955

STANDARD 8



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Sample Name : ICV
Data File Name : ...\706_009.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 3:35:34 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

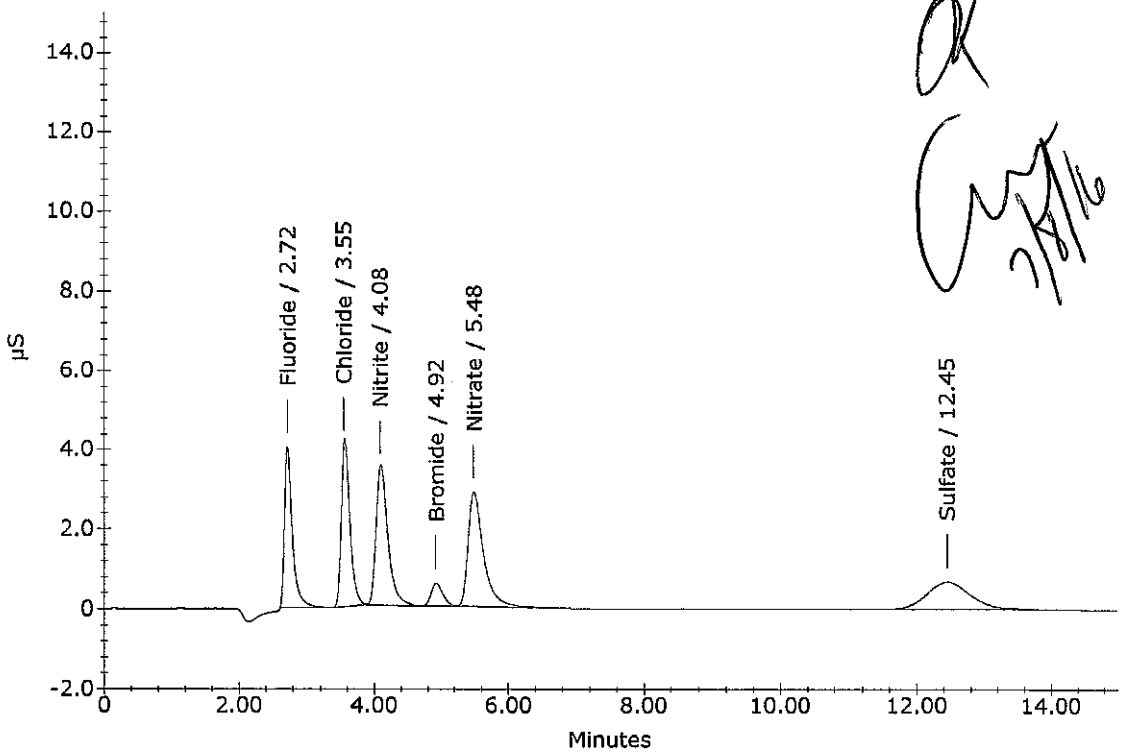
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	2.72	Fluoride	1.968	323066
2	3.55	Chloride	3.962	368879
3	4.08	Nitrite	2.064	428950
4	4.92	Bromide	2.018	68993
5	5.48	Nitrate	1.941	449583
6	12.45	Sulfate	3.976	303864

ICV



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Sample Name : ICB
Data File Name : ...\706_010.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 3:50:35 PM

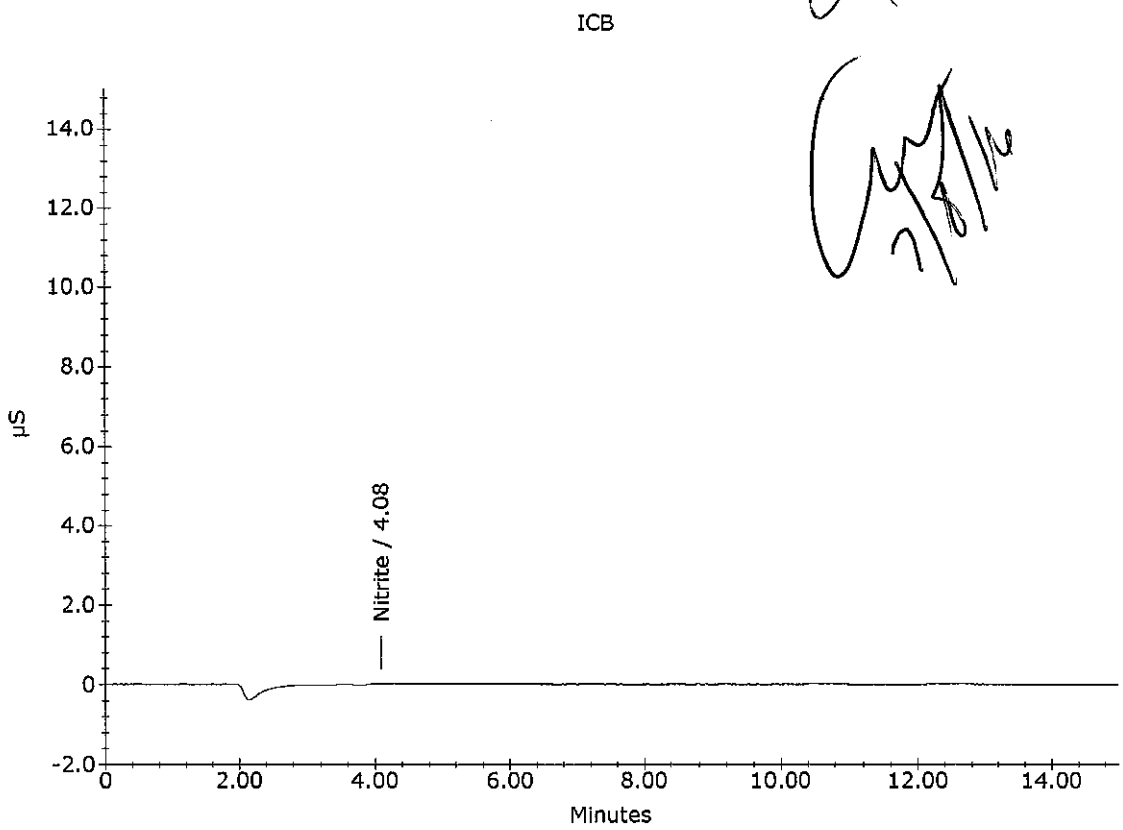
Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment : 300.0/9056A/26A

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
1	4.08	Nitrite	-0.022	3952



Method Report - 6-070616

Method Information : All Modules

System Name : IC # 6 (Right)
System Number : 1
Method Type : Ion Chromatography
Column : AS-14 / AG-14
Analyst :
Comment : Dionex DX-120 (IC #6)
Calibration 07.06.16

DX-120 Timed Events

Module Name : DX-120
Module Serial Number :
System Mode : Column
Column : A
Pump : On
SRS / Cell : On
Eluent Pressure : On
Pressure Unit : psi
TTL 1 Label : TTL 1
TTL 2 Label : TTL 2
Comment :

Time	Offset	Valve	TTL1	TTL2	AC	Collect
Init		Load	Low	Low	Off	
0.00	*	Inject	Low	Low	Off	Begin
12.80		Load	High	Low	Off	
15.00		Load	Low	Low	Off	

DX-120 Detector Parameters

Detector Type : DX-120
Data collection time (minutes) : 15.00
Data Collection Rate (Hz.) : 10.00
Real time plot scale maximum (µS) : 15.000
Real time plot scale minimum (µS) : -2.000

DX-120 Integration Parameters

Peak detection algorithm : Standard
Starting peak width (seconds) : 10.00
Peak threshold : 1.000000
Peak area reject (area counts) : 500.00
Reference peak area reject (area counts) : 1000.00

DX-120 Smoothing Parameters

Filter Type : No filter

DX-120 Report Data

Report Format File : C:\PeakNet\Report Design\100812.rpt
Print Sample Analysis : No
Print Calibration Update : No
Print Check Standard : No
System Suitability Tests :
No system suitability tests selected.

DX-120 Integration Data Events

Time	Description
0.00	Stop peak detection
1.85	Start peak detection
2.00	Force baseline at start of all peaks
2.00	Void volume treatment for this peak
2.40	Enable end of peak detection
3.00	Halve peak threshold
6.70	Stop peak detection
6.90	Don't end peaks on baseline penetration
8.10	Halve peak threshold
8.25	Start peak detection

DX-120 Calibration Parameters

External or internal calibration : EXTERNAL
Number of replicates for calibration : 1
Rejection : Manual
Level Weighting : Equal
Sample Weight : 1.000000
Calibration standard volume : 1.000000
Default sample volume : 1.000000
Amount units : mg/L
Replace retention time : Yes
Update response : Yes
Default dilution factor : 1.000000
Default response factor for unknown peaks : 0.000000
Calculate unknowns by area or height : Area

DX-120 Component = Fluoride Levels Table

Retention Time : 2.67 min
Amount units : mg/L
Replicate unit type : Area
Number of levels : 8
Number of replicates : 1

CM 7/8/16

Level	Amount	Replicate 1
1	0.00	~~16990.8~~ NO PEAK
2	0.10	10302.5 ✓
3	0.25	36164.6 ✓
4	0.50	83856.3 ✓
5	1.00	163850 ✓
6	2.50	418208 ✓
7	4.00	672002 ✓
8	5.00	874049 ✓

DX-120 Component = Chloride Levels Table

Retention Time : 3.50 min
Amount units : mg/L
Replicate unit type : Area
Number of levels : 8
Number of replicates : 1

CM 7/8/16

Level	Amount	Replicate 1
1	0.00	~~1125.9~~ NO PEAK
2	0.20	18134.5 ✓
3	0.50	43193.4 ✓
4	1.00	95913.7 ✓
5	2.00	186492 ✓
6	5.00	476088 ✓
7	8.00	769272 ✓
8	10.00	1.01045e+006 ✓

DX-120 Component = Nitrite Levels Table

Retention Time : 4.03 min
Amount units : mg/L
Replicate unit type : Area
Number of levels : 8
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	2765.55 ✓
2	0.10	27053.7 ✓
3	0.25	56644.1 ✓
4	0.50	115316 ✓
5	1.00	214162 ✓
6	2.50	521081 ✓
7	4.00	835986 ✓
8	5.00	1.07413e+006 ✓

DX-120 Component = Bromide Levels Table

Retention Time : 4.83 min
Amount units : mg/L
Replicate unit type : Area
Number of levels : 8
Number of replicates : 1

7/8/16

Level	Amount	Replicate 1
1	0.00	~~7638.35~~ NO PEAK
2	0.10	3154.45 ✓
3	0.25	8268.5 ✓
4	0.50	18189.3 ✓
5	1.00	35387 ✓
6	2.50	86006 ✓
7	4.00	134610 ✓
8	5.00	171897 ✓

DX-120 Component = Nitrate Levels Table

Retention Time : 5.37 min
Amount units : mg/L
Replicate unit type : Area
Number of levels : 8
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	~~1545.35~~ NO PEAK
2	0.10	19889.7 ✓
3	0.25	52897 ✓
4	0.50	119376 ✓
5	1.00	233674 ✓
6	2.50	587986 ✓
7	4.00	957507 ✓
8	5.00	1.24604e+006 ✓

7/8/16

DX-120 Component = Sulfate Levels Table

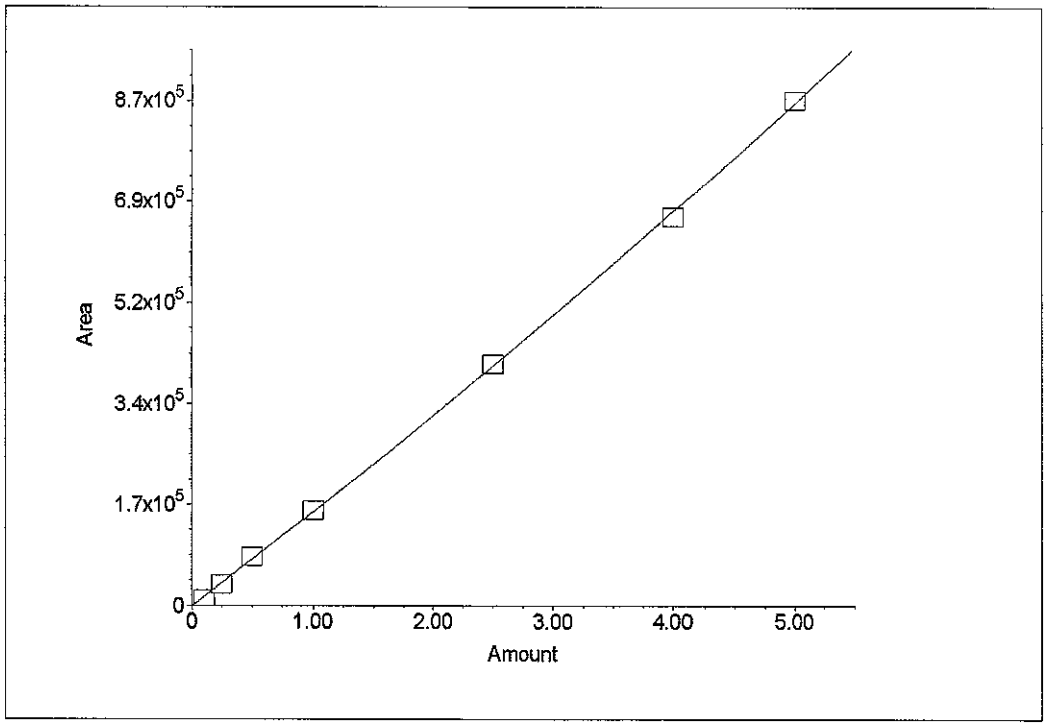
Retention Time : 12.23 min
Amount units : mg/L
Replicate unit type : Area
Number of levels : 8
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	~~11289.7~~ NO PEAK
2	0.20	14487.1 ✓
3	0.50	37335.3 ✓
4	1.00	84491.7 ✓
5	2.00	162652 ✓
6	5.00	376394 ✓
7	8.00	603187 ✓
8	10.00	762955 ✓

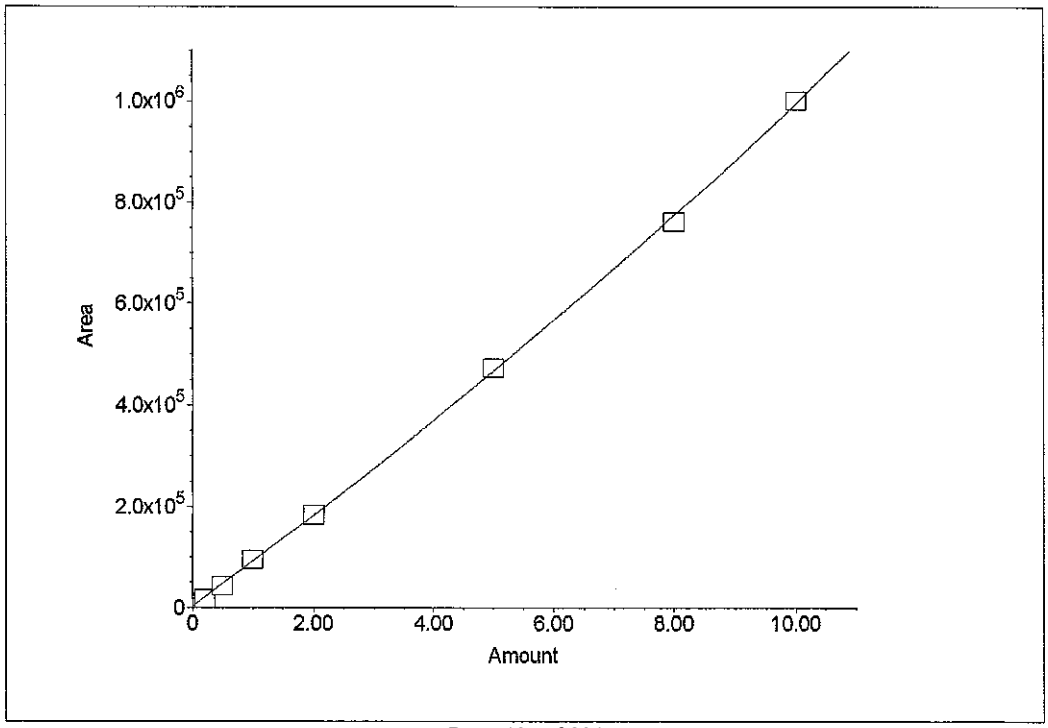
7/8/16

DX-120 XY Data Parameters

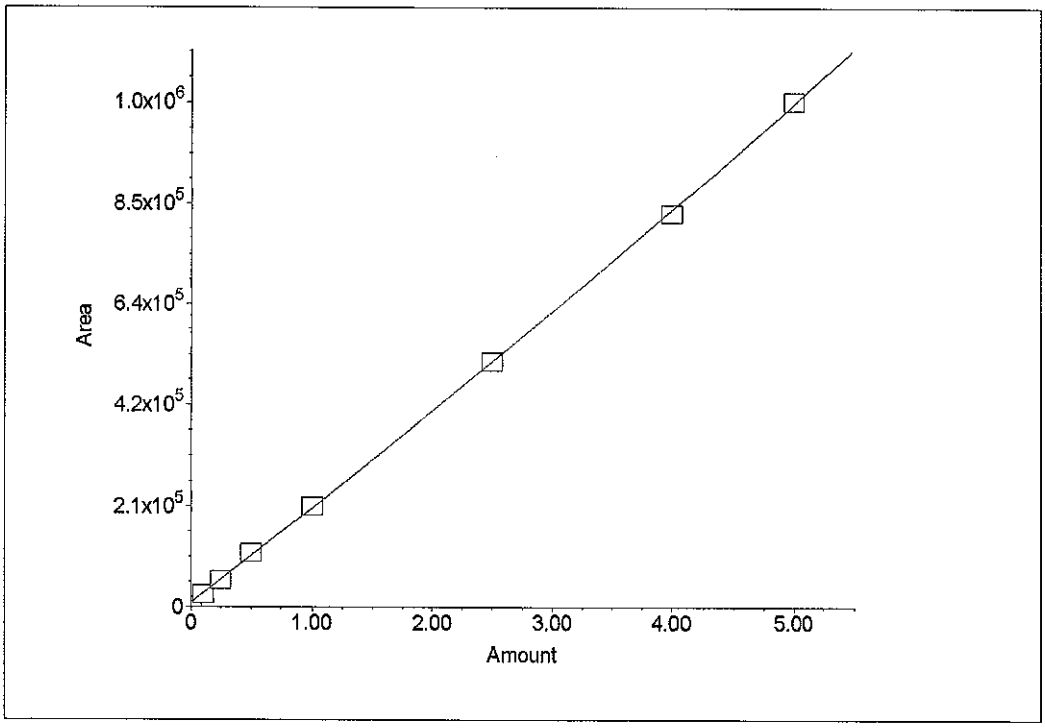
1. Component:Fluoride
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999733
Amt=-5.812781e-013*Resp²+
6.247471e-006*Resp+0.009894



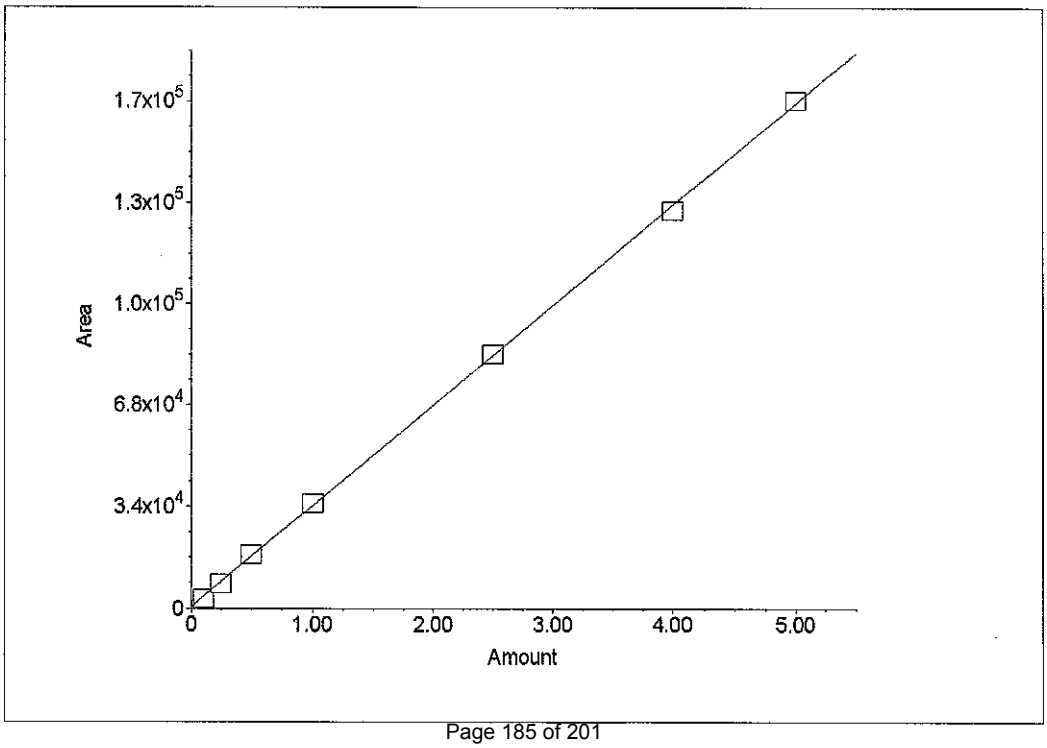
2. Component:Chloride
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999747
Amt=-1.321041e-012*Resp²+
1.131162e-005*Resp+-0.03058



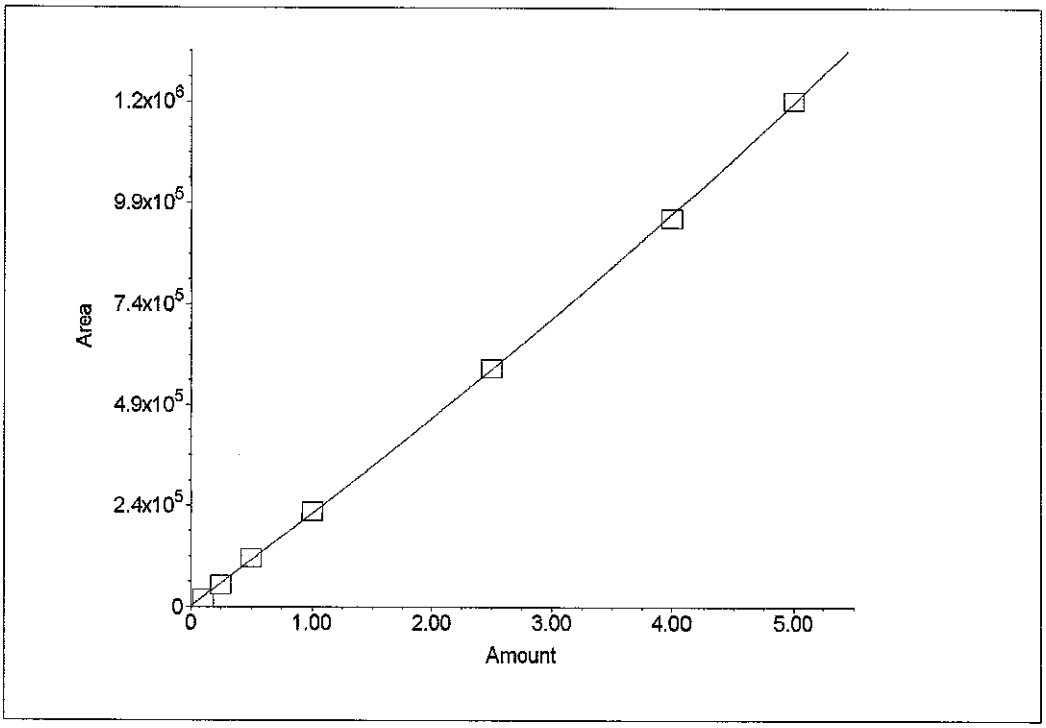
3. Component:Nitrite
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999818
Amt=-3.027512e-013*Resp^2+
5.040550e-006*Resp+-0.04237



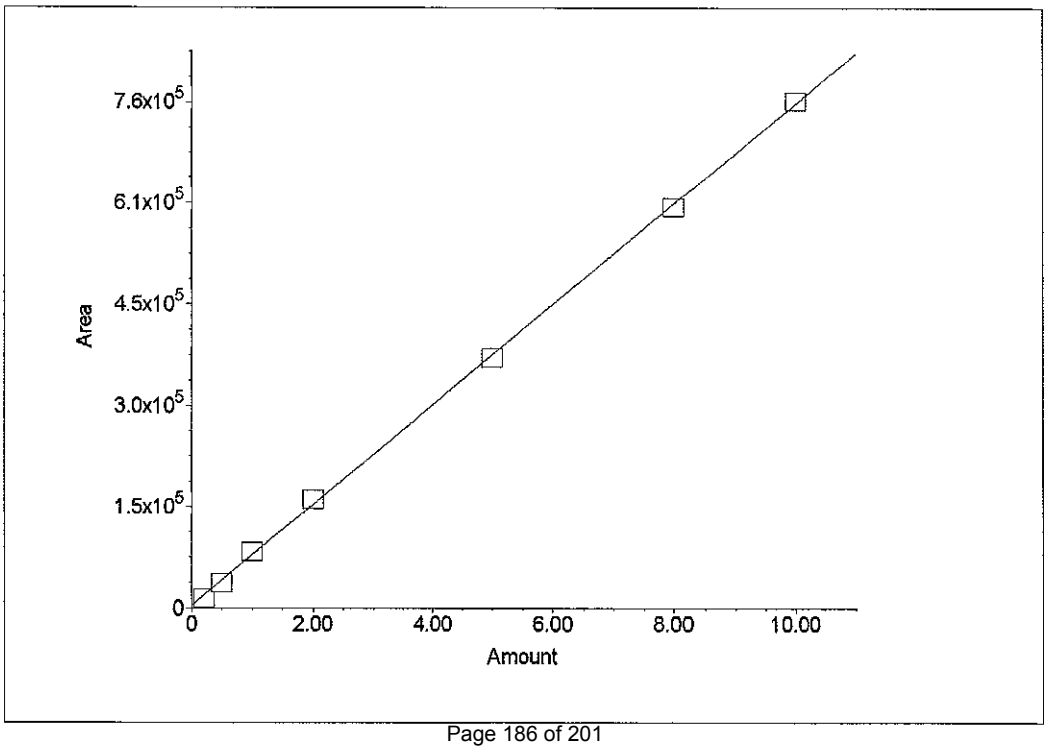
4. Component:Bromide
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999702
Amt=-1.016427e-012*Resp^2+
2.951914e-005*Resp+-0.01396



5. Component:Nitrate
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999824
Amt=-3.748220e-013*Resp^2+
4.502343e-006*Resp+-0.007646



6. Component:Sulfate
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999643
Amt=1.324e-005*Resp+-0.04625



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Sample Name : STANDARD 2
Data File Name : ...\706_002.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 12:46:39 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

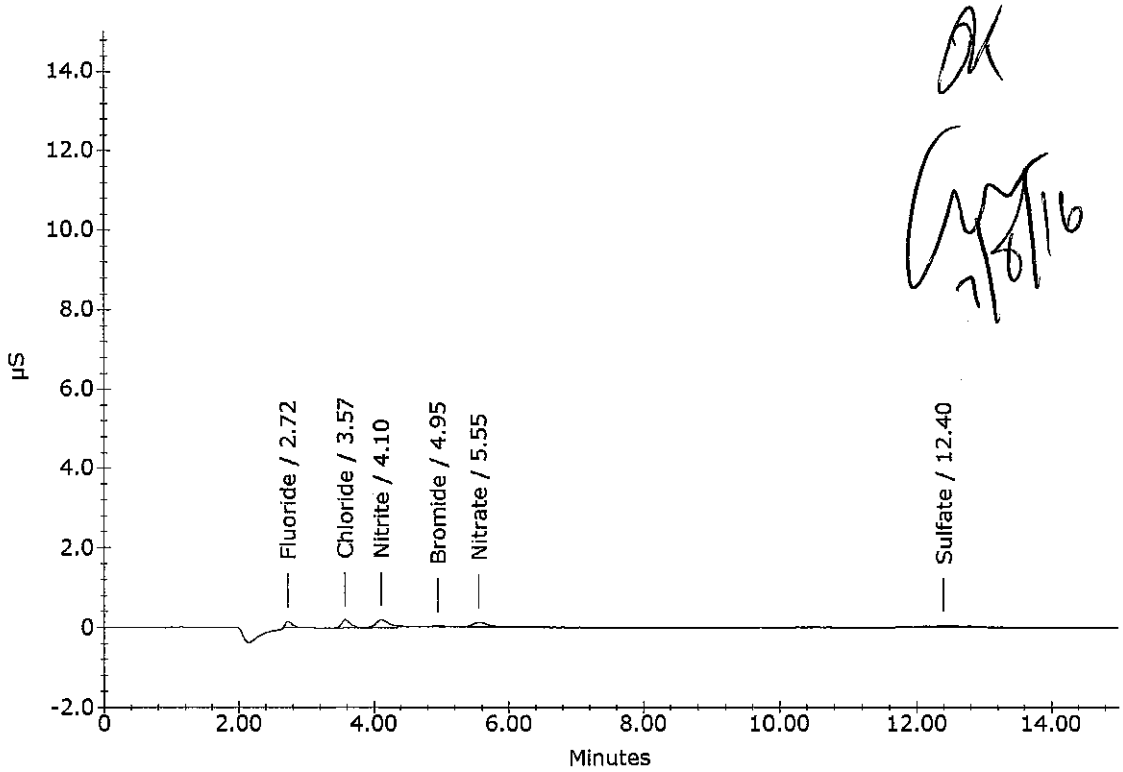
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	
1	2.72	Fluoride	0.074	10303	74.0%
2	3.57	Chloride	0.174	18134	87.0%
3	4.10	Nitrite	0.094	27054	94.0%
4	4.95	Bromide	0.079	3154	79.0%
5	5.55	Nitrate	0.082	19890	82.0%
6	12.40	Sulfate	0.146	14487	73.0%

STANDARD 2



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Sample Name : STANDARD 3
Data File Name : ...\706_003.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:01:40 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

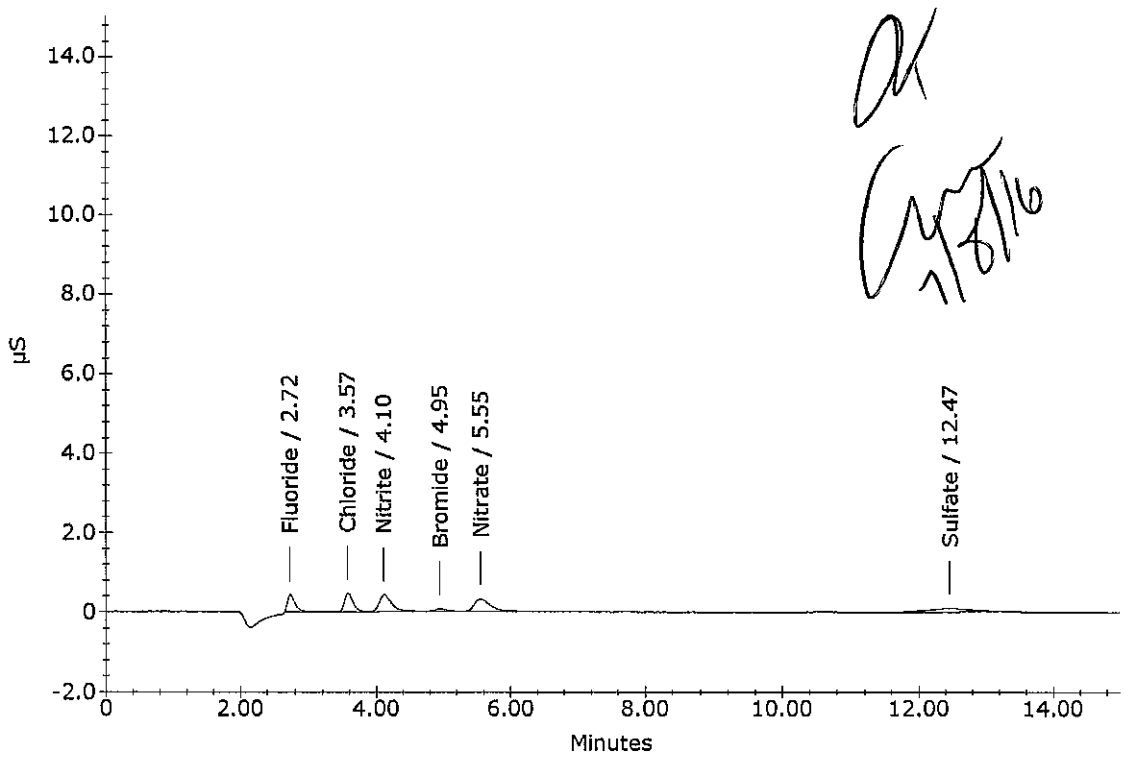
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	
1	2.72	Fluoride	0.235	36165	94.0%
2	3.57	Chloride	0.456	43193	91.2%
3	4.10	Nitrite	0.242	56644	96.8%
4	4.95	Bromide	0.230	8269	92.0%
5	5.55	Nitrate	0.229	52897	91.6%
6	12.47	Sulfate	0.448	37335	89.6%

STANDARD 3



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Sample Name : STANDARD 4
Data File Name : ...\706_004.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:16:45 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

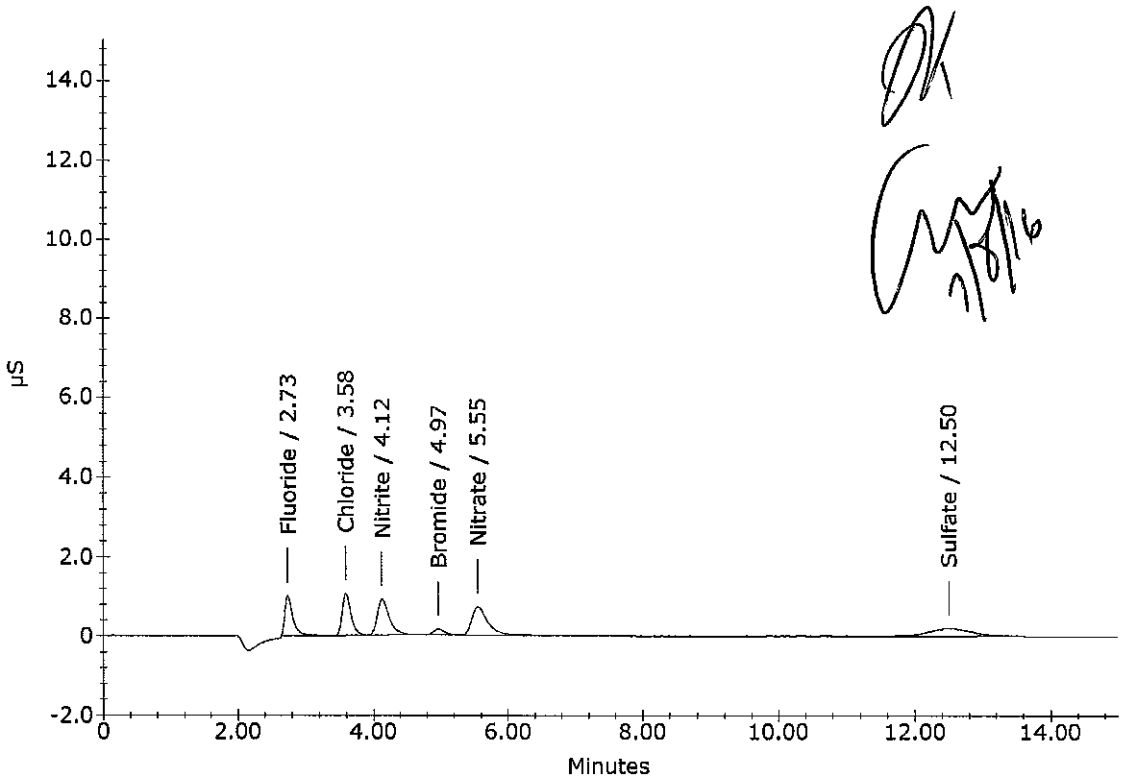
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	
1	2.73	Fluoride	0.530	83856	106%
2	3.58	Chloride	1.042	95914	104%
3	4.12	Nitrite	0.535	115316	107%
4	4.97	Bromide	0.523	18189	105%
5	5.55	Nitrate	0.524	119376	105%
6	12.50	Sulfate	1.072	84492	107%

STANDARD 4



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Sample Name : STANDARD 5
Data File Name : ...\706_005.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:31:47 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

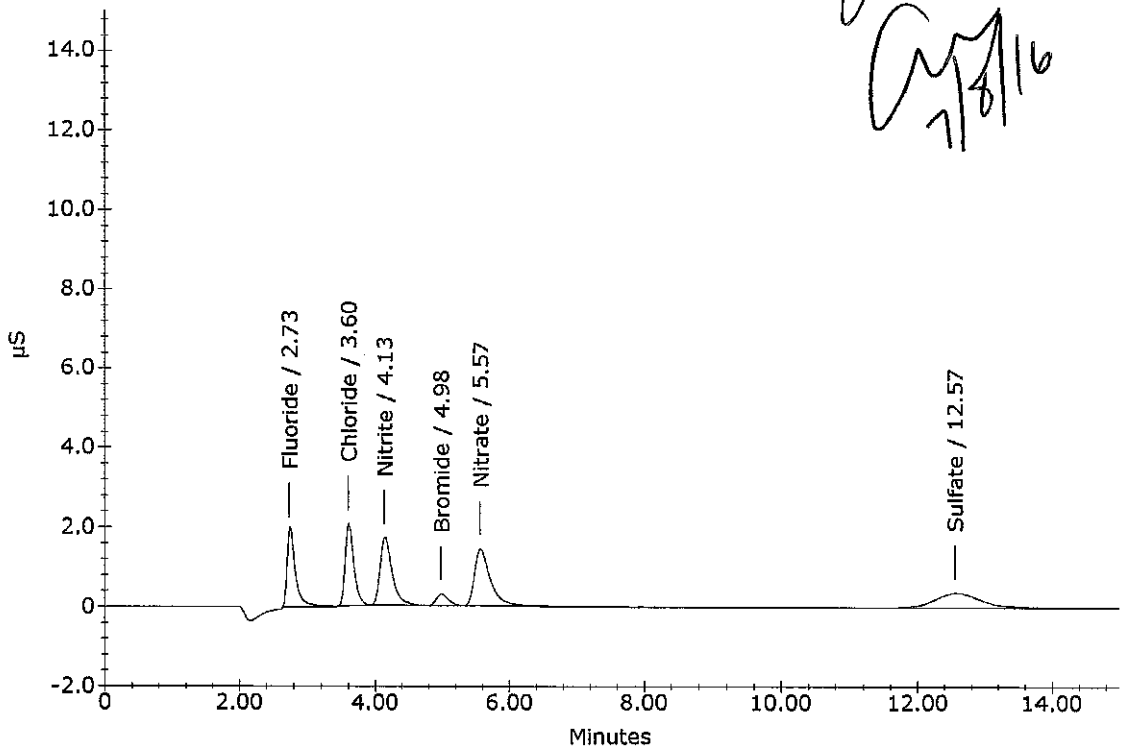
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	
1	2.73	Fluoride	1.018	163850	102%
2	3.60	Chloride	2.033	186492	102%
3	4.13	Nitrite	1.023	214162	102%
4	4.98	Bromide	1.029	35387	103%
5	5.57	Nitrate	1.024	233674	102%
6	12.57	Sulfate	2.107	162652	105%

STANDARD 5

OK
7/8/16



Ion Chromatography Analytical Report
Columbia Analytical Services * Now Part of the ALS Group
Rochester, NY 14623

Sample Name : STANDARD 6
Data File Name : ...\706_006.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:46:50 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

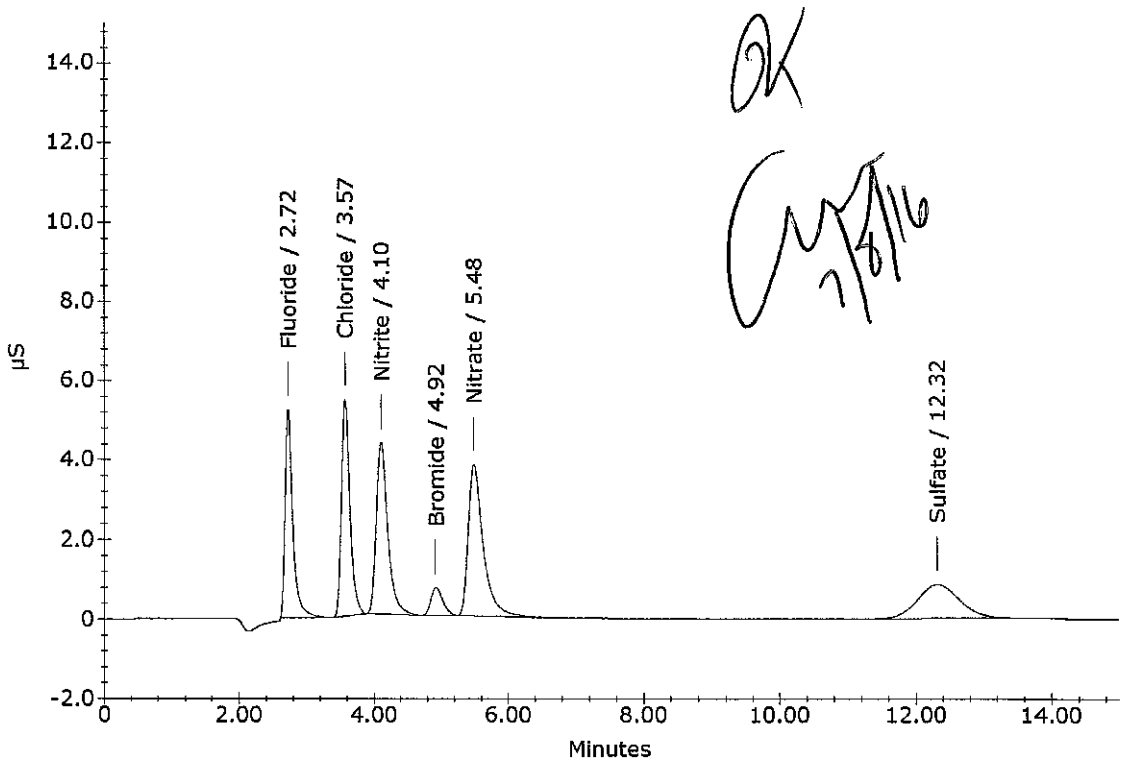
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	
1	2.72	Fluoride	2.521	418208	101%
2	3.57	Chloride	5.055	476088	101%
3	4.10	Nitrite	2.502	521081	100%
4	4.92	Bromide	2.517	86006	101%
5	5.48	Nitrate	2.510	587986	100%
6	12.32	Sulfate	4.936	376394	98.7%

STANDARD 6



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7/8/16

Ion Chromatography Analytical Report
Columbia Analytical Services * Now Part of the ALS Group
Rochester, NY 14623

Sample Name : STANDARD 7
Data File Name : ...\706_007.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 2:01:52 PM

Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

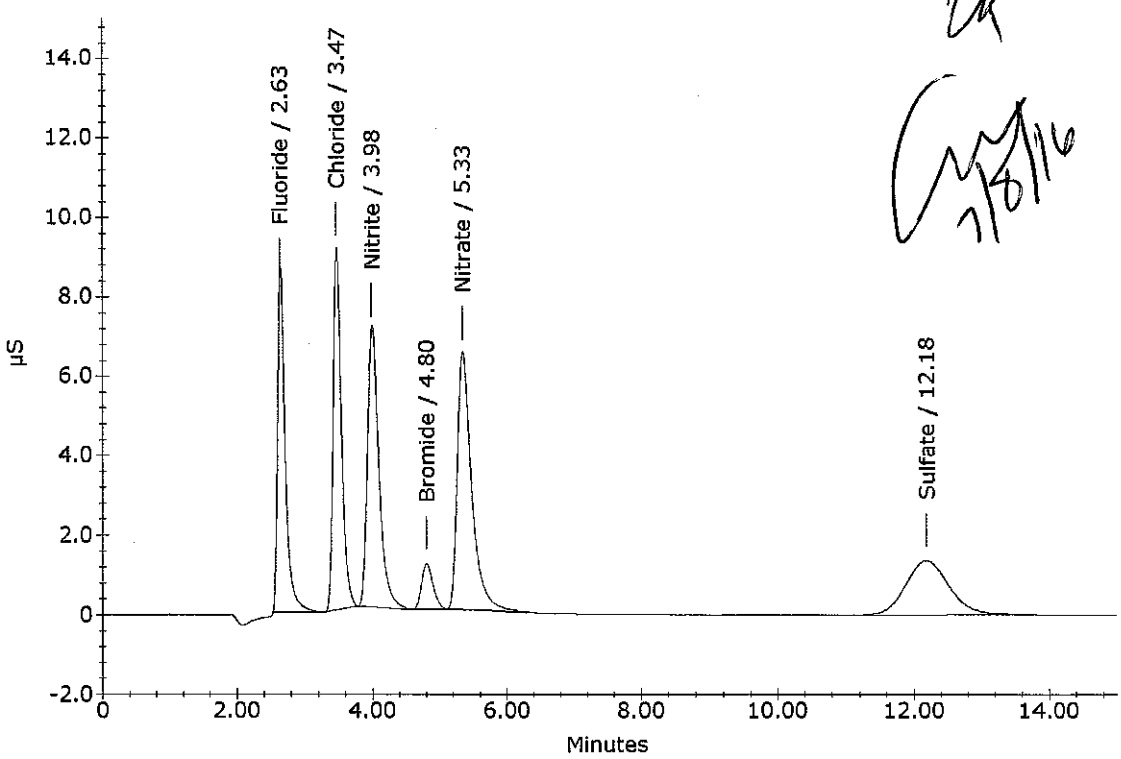
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	
1	2.63	Fluoride	3.946	672002	98.7%
2	3.47	Chloride	7.889	769272	98.6%
3	3.98	Nitrite	3.960	835986	99.0%
4	4.80	Bromide	3.941	134610	98.5%
5	5.33	Nitrate	3.960	957507	99.0%
6	12.18	Sulfate	7.938	603187	99.2%

STANDARD 7



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7/8/16

Ion Chromatography Analytical Report
Columbia Analytical Services * Now Part of the ALS Group
Rochester, NY 14623

Sample Name : STANDARD 8
Data File Name : ...\706_008.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 2:16:54 PM

Dilution Factor : 1.00
Sample Type : Sample Analysis
Sample Comment :

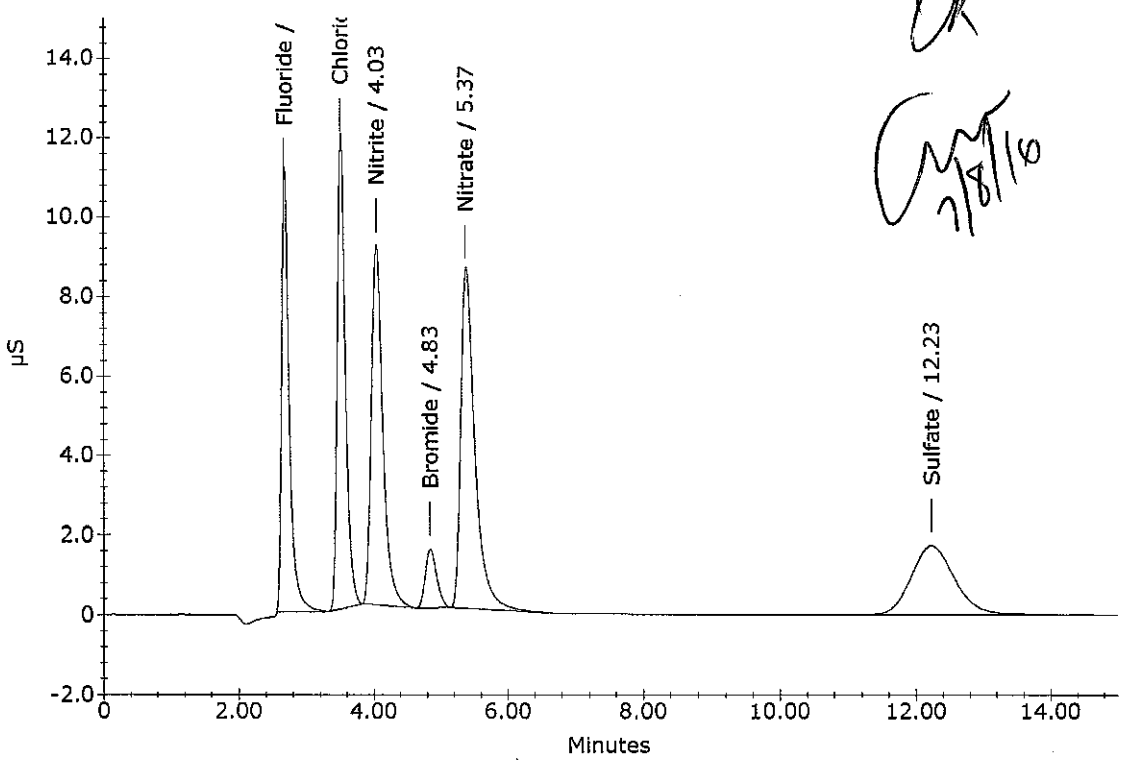
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	
1	2.67	Fluoride	5.026	874049	101%
2	3.50	Chloride	10.050	1010446	101%
3	4.03	Nitrite	5.023	1074132	101%
4	4.83	Bromide	5.030	171897	101%
5	5.37	Nitrate	5.021	1246041	101%
6	12.23	Sulfate	10.053	762955	101%

STANDARD 8



OK
7/8/16

ALS Environmental

1575 Jefferson Road, Building 300, Suite 360, Rochester, New York 14623

Ion Chromatography Cover Sheet

Instrument: Dionex DX-120 Ion Chromatogram – IC # 6

Column: Dionex AS-14 (S/N 031295) and AG-14 (S/N 036895)

Analytical Column Installed: 01/31/13 Guard Column Installed: 01/31/13

Curve Date: 07/06/16 **Loop size:** 25 uL

Analyst: CWoods **Analysis Date:** 7/6/16

Are copy of LCS and CCV attached to run? YES / NO

Method Filename: 6-070616

Pipets: Top FERB

Standards Prep Dates & Log ID's:

Std Type	*Prep Date*	*Log ID*		*Std Type*	*Prep Date*	*Log ID*
Calibration Intermediate	03/02/16	88473		Working Calibration Stds	07/06/16	WC157013D
LCS / MS Intermediate	03/02/16	88473		Working LCS/MS Standard	07/06/16	WC157086G
ICV Intermediate	05/24/16	172708		Working ICV Standard	07/06/16	WC157028M
CCV Intermediate	05/24/16	172708		Working CCV Standard	07/06/16	WC157028M

Original Retention Times for this method are based on Standard 6 and are as follows:

Fluoride: 2.72 Bromide: 4.92
Chloride: 3.57 Nitrate: 5.48
Nitrite: 4.10 Sulfate: 12.32

Additional Comments:

CALIBRATION INTERMEDIATE STOCK PREP
(Used for Calibration and LCS and MS)

Analyte	Standard Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Lims ID
F	83832	1000	10	200	50	NM	3/2/16	A	8/19/16	88473
Cl	86943	1000	20		100			B		
NO2	86945	1000	10		50			C		
Br	83833	1000	10		50			D		
NO3	86946	1000	10		50			E		
OPO4	—	1000	10		50			F		
SO4	86944	1000	20		100			G		

ICV / CCV INTERMEDIATE STOCK PREP

Analyte	ICV/CCV Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst	Date Prepped	Lot ID	Exp. Date	Lims ID
F	WC140055C	1000	4.0	1000	4.00	NM	3/2/16	H	8/29/16	88474
Cl	87465	1000	8.0		8.00	amw	4/18/16	I	8/29/16	171751
NO2	87466	1000	4.0		4.00	NM	5/24/16	J	8/29/16	172708
Br	WC140105E	1000	4.0		4.00			K		
NO3	87467	1000	4.0		4.00			L		
OPO4	—	1000	4.0		4.00			M		
SO4	87468	1000	8.0		8.00			N		

CALIBRATION STANDARDS PREP

(Stocks delivered using volumetric glassware and brought to volume with DI Water. Expire after 7 days.)

Std #	mLs Intermediate Stock	Final Vol. mLs	Final Std. Conc. (mg/L) F	Cl	NO_2	Br	NO_3	OPO_4	SO_4	Calibration Intermediate Stock ID	Analyst / Date Prepped	Lot ID	Exp. Date	Matrix H_2SO_4/NaOH/DI	H_2SO_4 / NaOH Lot #
8	10.0	100	5.0	10.0	5.0	5.0	5.0	5.0	10.0	WC157001A	4/18/16	A	4/25/16	DI	
7	8.0	100	4.0	8.0	4.0	4.0	4.0	4.0	8.0	WC157001A	CM 5/24/16	B	5/31/16	DI	
6	5.0	100	2.5	5.0	2.5	2.5	2.5	2.5	5.0	WC157001A	CM 5/30/16	C	6/5/16	DI	
5	2.0	100	1.0	2.0	1.0	1.0	1.0	1.0	2.0	(LIMS 88473) WC157001A	CM 7/6/16	D	7/13/16	DI	
4	1.0	100	0.5	1.0	0.5	0.5	0.5	0.5	1.0			E			
3	0.5	100	0.25	0.50	0.25	0.25	0.25	0.25	0.50			F			
2	0.2	100	0.10	0.20	0.10	0.10	0.10	0.10	0.20			G			
1	0.0	100	0.0	0.00	0.0	0.0	0.0	0.0	0.00			H			
												I			
												J			
												K			
												L			
												M			
												N			
												O			
												P			
												Q			

LCS Prep

(Stocks delivered using volumetric glassware and brought to volume with DI. LCS expires after 7 days; if NO_2 is needed, LCS must be prepared daily.)

(MS prepared fresh daily using same volume of intermediate stock added to 100mLs sample. MS not prepared volumetrically.)

Analyte	Calibration Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst / Date Prepped	Lot ID	Exp. Date	Matrix H_2SO_4 / NaOH / DI	H_2SO_4 / NaOH Lot #
F	88473	50	2.0	200	1.0	CMW 6/27/16	A	7/4/16	DI	
Cl		100			2.0	CMW 6/28/16	B	7/5/16	DI	
NO_2		50			1.0	CMW 6/29/16	C	6/30/16	DI	
Br		50			1.0	CMW 6/30/16	D	7/7/16	DI	
NO_3		50			1.0	CMW 7/1/16	E	7/8/16	DI	
OPO_4		50			1.0	CMW 7/5/16	F	7/12/16	DI	
SO_4		100			2.0	CMW 7/6/16	G	7/13/16	DI	
						CMW 7/7/16	H	7/14/16	DI	
						CMW 7/8/16	I	7/15/16	DI	
							J			
							K			
							L			
							M			
							N			
							O			
							P			
							Q			
							R			

ICV / CCV PREP

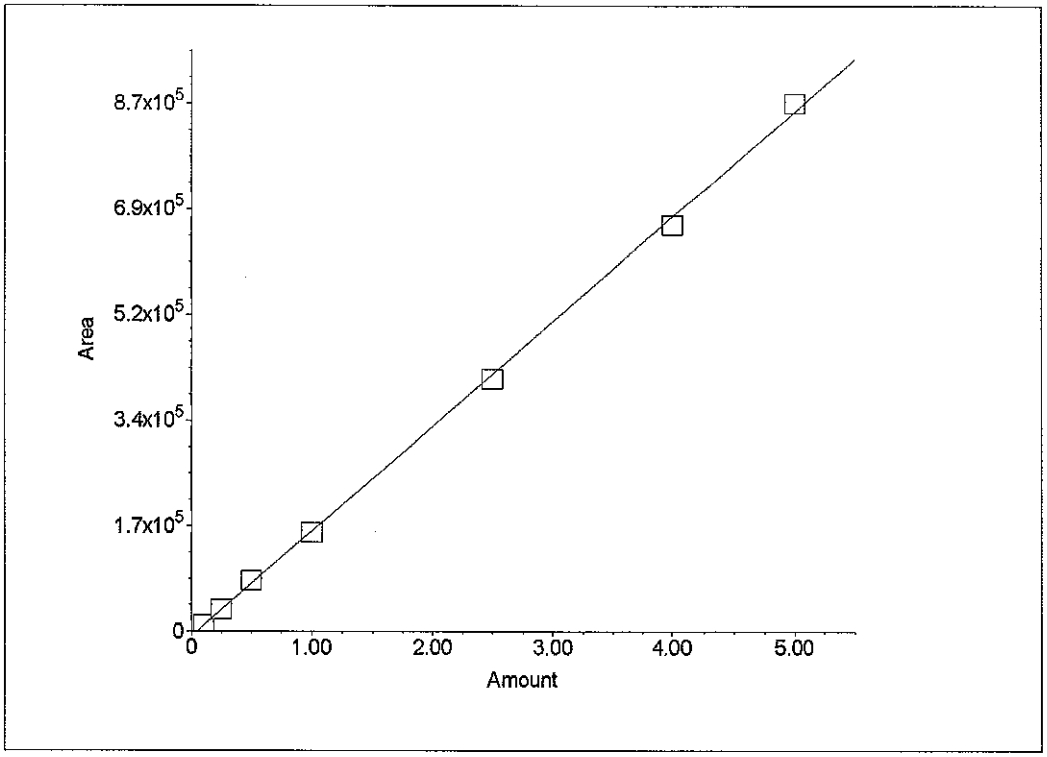
(A 1:1 dilution of the Reference Intermediate Stock is done daily.)

Analyte	ICV / CCV Intermediate Stock ID	Conc. mg/L	mLs Stock	Final Vol. mL	Final Conc. mg/L	Analyst / Date Prepped	Lot ID	Exp. Date	Matrix H_2SO_4 / NaOH / DI	H_2SO_4 / NaOH Lot #
F	WC1570015 LMS:172768	4.00	5.0	10.0	2.00	CMW 6/20/16	A	6/21/16	DI	
Cl		8.00			4.00	CMW 6/21/16	B	6/22/16	DI	
NO_2		4.00			2.00	CMW 6/21/16	C	6/22/16	H_2SO_4	83090
Br		4.00			2.00	CMW 6/22/16	D	6/23/16	DI	
NO_3		4.00			2.00	CMW 6/23/16	E	6/24/16	DI	
OPO_4		4.00			2.00	CMW 6/24/16	F	6/25/16	DI	
SO_4		8.00			4.00	CMW 6/27/16	G	6/28/16	DI	
						CMW 6/28/16	H	6/29/16	DI	
						CMW 6/29/16	I	6/30/16	DI	
						CMW 6/30/16	J	7/1/16	DI	
						CMW 7/1/16	K	7/2/16	DI	
						CMW 7/5/16	L	7/6/16	DI	
						CMW 7/6/16	M	7/7/16	DI	
						CMW 7/7/16	N	7/8/16	DI	
						CMW 7/8/16	O	7/9/16	DI	
							P			
							Q			
							R			

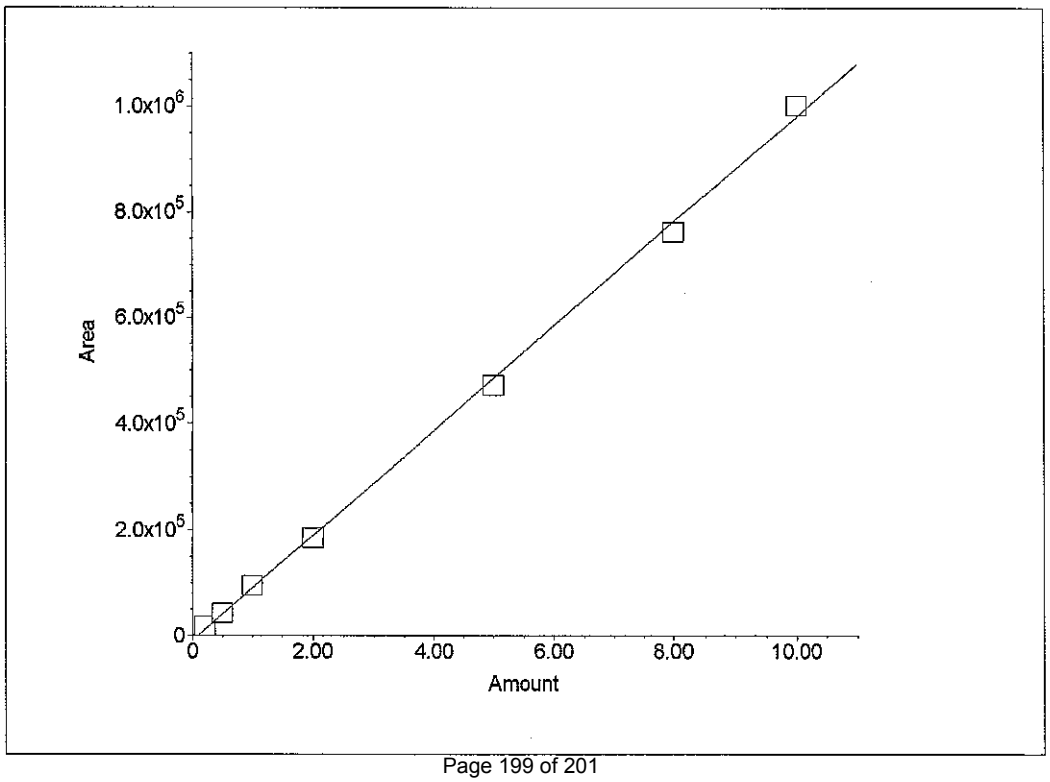
1. Component:Fluoride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999291
Amt=5.756e-006*Resp+0.05007

Linearity Check Only

7/8/16



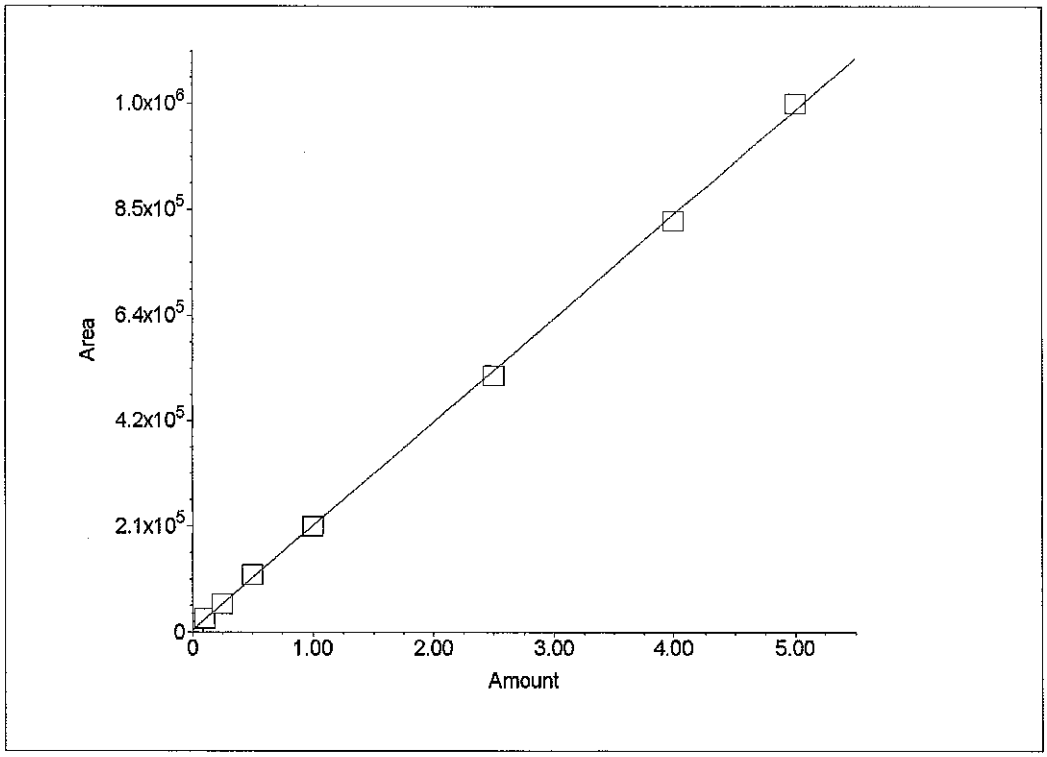
2. Component:Chloride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998743
Amt=1.002e-005*Resp+0.09445



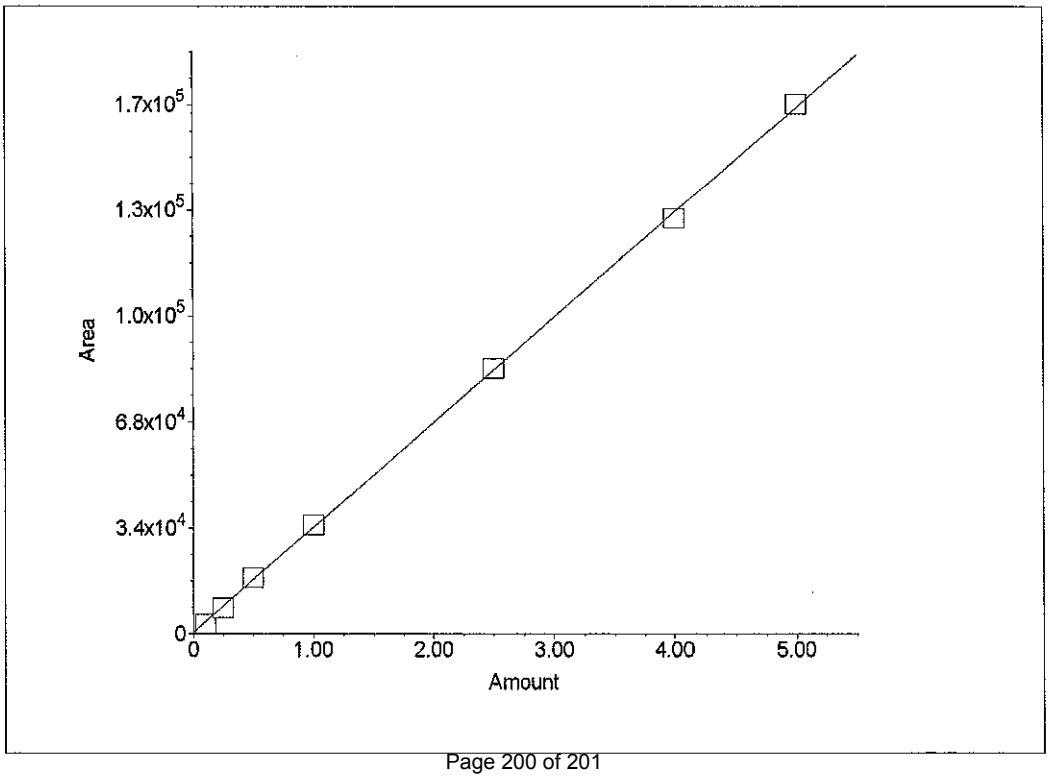
3. Component:Nitrite
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999557
Amt=4.732e-006*Resp+-0.01518

Linearity Check Only

7/8/16

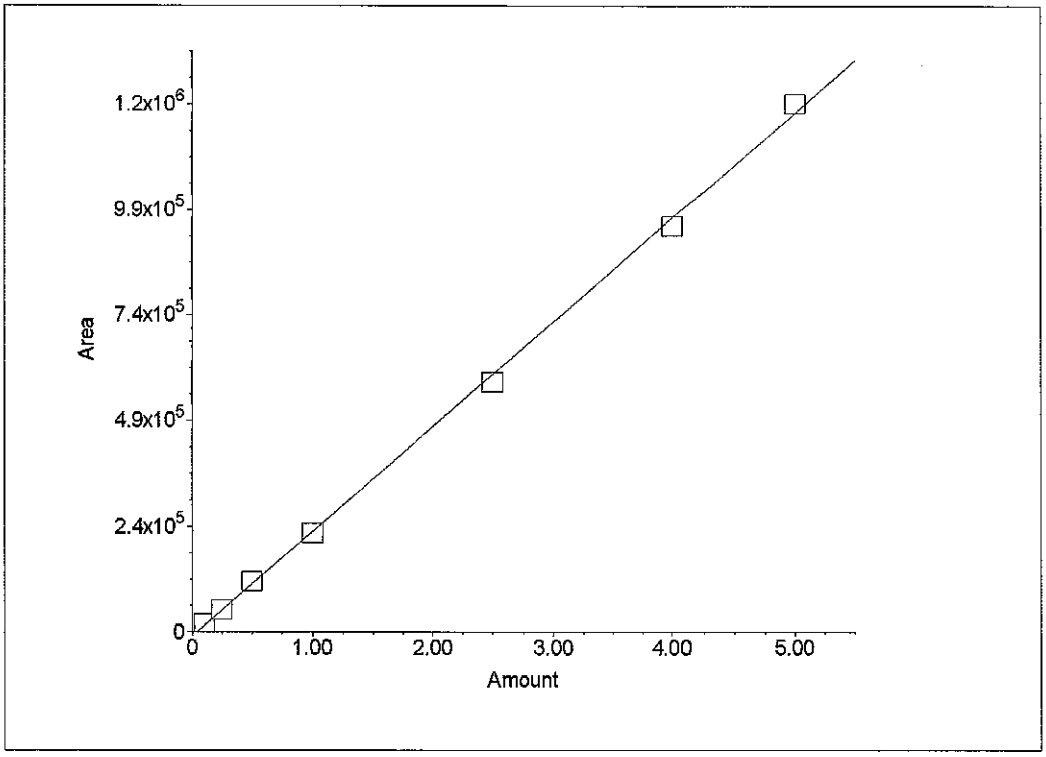
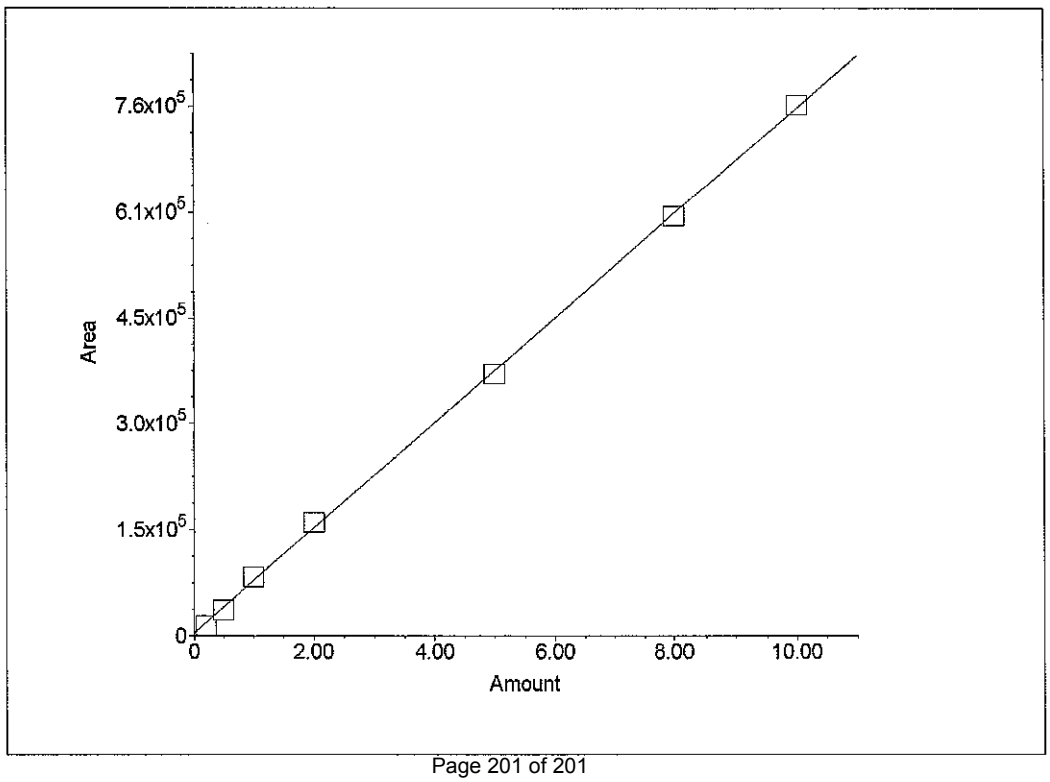


4. Component:Bromide
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999700
Amt=2.935e-005*Resp+-0.01106



5. Component:Nitrate
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999076
Amt=4.049e-006*Resp+0.04611

Linearity Check Only



6. Component:Sulfate
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999643
Amt=1.324e-005*Resp+-0.04625