September 27, 2016 Service Request No:R1608840

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 19, 2016
For your reference, these analyses have been assigned our service request number **R1608840.**

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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ALS Group USA, Corp.
dba ALS Environmental

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

Service Request:R1608840
Date Received:08/18/16 - 08/19/16

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

Five water samples were received for analysis at ALS Environmental on 08/18-19/2016. 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-1002L	Lab ID: R1608840-001					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chloride	150		10	20	mg/L	9056A

CLIENT ID: PY-2003L	Lab ID: R1608840-002					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chloride	158		10	20	mg/L	9056A

CLIENT ID: PY-2004L	Lab ID: R1608840-003					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chloride	160		10	20	mg/L	9056A

CLIENT ID: PY-3002L	Lab ID: R1608840-004					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chloride	157		10	20	mg/L	9056A

CLIENT ID: PY-7008/080416A	Lab ID: R1608840-005					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chloride	47.4		1.0	2.0	mg/L	9056A

Sample Receipt Information

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: ALS Environmental - Canada **Service Request:**R1608840
Project: Picatinny Arsenal

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1608840-001	PY-1002L	7/27/2016	1953
R1608840-002	PY-2003L	7/28/2016	1700
R1608840-003	PY-2004L	7/28/2016	1700
R1608840-004	PY-3002L	7/29/2016	1525
R1608840-005	PY-7008/080416A	7/3/2016	1200

ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD

REFERENCE COC NO.: T2-002-GEL-Audit

PAGE 1 OF 1

Bill To: CBI Federal Services
Accounts Payable

Project Name/No: Picatinny Arsenal
Sample Team Member: J. McGee, G. Britt, D. Jarvis, G. Ward
Project Manager: Berani Halley
Purchase Order No.:
Required Report Date: **Normal**

Sample Shipment Date: **8/03/2016**
Laboratory Destination: GEL via ALS-NY
Laboratory Contact: Ancy Sebastian
Project Contact/Phone: Joyce McGee 865-850-7306
Carrier Waybill No.: **Lab Courier**

Report To: CBI Federal Services
Joyce McGee
2410 Cherahala Drive
Knoxville, TN 37932

Sample Number	Analytical QC	Sample Type/ Description	Date/Time Collected	Container Type	Pre-servative	Requested Testing Program	Sample Notes / Expectations	Disposal Record
PY-7008		**Chloride Audit sample**	8/03/2016 1200	Vial	None	Chloride	Sample coming directly from supplier	
This sample is being sent directly from the supplier to GEL. Report results as PY-7008								

Special Instructions:

Possible Hazard Identification:
Non-haz: ___ Flammable: x Poison B: ___ Unknown: X

Sample Disposal:
Return to Client: ___ Disposal by Lab: X Archive: ___

Turnaround Time:
Normal: X Rush: ___

Level of QC Required:
I. ___ II. ___ III. ___ Project Specific: X (talk to A. Sebastian)

1. Relinquished by: J. McGee, CB&I Federal Services Date: ___ Time: ___
1. Received by: Date: ___ Time: ___
2. Relinquished by: Date: ___ Time: ___
2. Received by: Date: ___ Time: ___

Comments: **If samples not received in good condition contact Joyce McGee (865)-850-7306 immediately.**

5766
IS shelved w/

R1608840
ALS Environmental - Canada
Picatinny Arsenal

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ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD

R16080026

REFERENCE COC NO.: T1-001-GEL

PAGE 1 OF 2

Bill To: CBI Federal Services
Accounts Payable

Project Name/No: Picatinny Arsenal
Sample Team Member: J.McGee, G. Britt, D. Jarvis
Project Manager: Berani Halley
Purchase Order No.:
Required Report Date: **Normal**

Sample Shipment Date: **7/29/2016**
Laboratory Destination: GEL via ALS-NY
Laboratory Contact: Ancy Sebastian
Project Contact/Phone: Joyce McGee 865-850-7306
Carrier Waybill No.: **Lab Courier**

Report To: CBI Federal Services
Joyce McGee
2410 Cherahala Drive
Knoxville, TN 37932

Sample Number	Analytical QC	Sample Type/ Description	Date/Time Collected	Container Type	Pre-servative	Requested Testing Program	Sample Notes / Expectations	Disposal Record
PY-1002L, PY-1002S		Slurry Waste Feed (liquid and solid fractions)	7/27/2016 1953	250 mL WM jar	Cool, 4C	Total Chlorine	Use caution in handling solid material - explosive propellant when dry. Sample will settle into solid/liquid phases. Weigh solid and measure liquid amount. Report grams and mL of each separately as "S" (solid) and "L" (liquid	
PY-1008		Auxiliary Fuel	7/27/2016 1940	250-mL Amber Boston Round	Cool, 4C	Total Chlorine	Flammable, handle w care	
PY-2003L, PY-2003S		Slurry Waste Feed (liquid and solid fractions)	7/28/2016 1700	250 mL WM jar	Cool, 4C	Total Chlorine	Use caution in handling solid material - explosive propellant when dry. Sample will settle into solid/liquid phases.	
PY-2004L, PY-2004S		Slurry Waste Feed (liquid and solid fractions)	7/28/2016 1700	500-mL WM Glass	Cool, 4C	Total Chlorine	Weigh solid and measure liquid amount. Report grams and mL of each separately as "S" (solid) and "L" (liquid	
PY-2013		Auxiliary Fuel	7/28/2016 1715	250-mL Amber Boston Round	Cool, 4C	Total Chlorine	Flammable, handle w care	

Special Instructions:

R1608840 5
ALS Environmental - Canada
Picatinny Arsenal

Possible Hazard Identification:
Non-haz: ___ Flammable: X Poison B: ___ Unknown: X

Sample Disposal:
Return to Client: ___ Dispo

Turnaround Time:
Normal: X Rush: ___

Level of QC Required:
I. ___ II. ___ III. ___ Project Specific: X (talk to A. Sebastian)

1. Relinquished by: J. McGee, CB&I Federal Services — Date: 7/29/16 Time: 2100
1. Received by: Greg Boydell — Date: 29-JULY-16 Time: 21:00
2. Relinquished by: ALS — Date: 8/1/16 Time: 1524
2. Received by: — Date: 7/30/16 Time: 1345

Comments: **If samples not received in good condition contact Joyce McGee (865)-850-7306 immediately.** Recd By: Joyce 8/2/16 9:15

Released by: [illegible] 8/2/16 1400

R1608006 Reference COC Number: **T1-001-GEL**

ANALYSIS REQUEST AND CHAIN-OF-CUSTODY RECORD (Cont.)

Project Name/No.: Picatinny Arsenal

Laboratory Destination: ALS-TUS

Sample Number	Analy QC	Sample Type/ Description	Date/Time Collected	Container Type	Pre-servative	Requested Testing Program	Sample Notes / Expectations	Disposal Record
PY-2014		Auxiliary Fuel	7/28/2016 1715	250-mL Amber Boston Round	Cool, 4C	Total Chlorine	Flammable, handle w care	
PY-3002L, PY-3002S		Slurry Waste Feed (liquid and solid fractions)	7/29/2016 1525	250 mL WM jar	Cool, 4C	Total Chlorine	Use caution in handling solid material - explosive propellant when dry. Sample will settle into solid/liquid phases. Weigh solid and measure liquid amount. Report grams and mL of each separately as "S" (solid) and "L" (liquid	
PY-3008		Auxiliary Fuel	7/29/2016 1535	250-mL Amber Boston Round	Cool, 4C	Total Chlorine	Flammable, handle w care	

JEM 7/29/16

Received: [signature]

Gregory O. Esmerian

ALS 8-19-16 09:15

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ALS Environmental - Canada
Picatinny Arsenal

R1608840
ALS Environmental - Canada
Picatinny Arsenal

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Cooler Receipt and Preservation Check Form

Project/Client Stericycle Folder Number R1608790.

Cooler received on 8-19-16 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: 8-19-16 Time: 09:18 ID: IR#5 IR#6 From: Temp Blank Sample Bottle

Observed Temp (°C)	24.7						
Correction Factor (°C)	Ø						
Corrected Temp (°C)	24.7						
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 8-19-16 at 09:22
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown: Date: 8-19-16 Time: 12:50 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	**	**						

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

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: Client Bottles

Other Comments:

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

PC Secondary Review: 8/22/16

*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:** R1608840
Project: Picatinny Arsenal

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1608840-001.01					
	9056A				
		8/22/2016	1150	SMO / GESMERIAN	
		8/22/2016	1152	R-002 / GESMERIAN	
		9/1/2016	1016	In Lab / NMANSEN	
		9/1/2016	1700	R-002 / KMENGS	
R1608840-002.01					
	9056A				
		8/22/2016	1150	SMO / GESMERIAN	
		8/22/2016	1152	R-002 / GESMERIAN	
		9/1/2016	1016	In Lab / NMANSEN	
		9/1/2016	1700	R-002 / KMENGS	
R1608840-003.01					
	9056A				
		8/22/2016	1150	SMO / GESMERIAN	
		8/22/2016	1152	R-002 / GESMERIAN	
		9/1/2016	1017	In Lab / NMANSEN	
		9/1/2016	1700	R-002 / KMENGS	
R1608840-004.01					
	9056A				
		8/22/2016	1150	SMO / GESMERIAN	
		8/22/2016	1152	R-002 / GESMERIAN	
		9/1/2016	1017	In Lab / NMANSEN	
		9/1/2016	1700	R-002 / KMENGS	
R1608840-005.01					
	9056A				
		8/23/2016	1123	SMO / GESMERIAN	
		8/23/2016	1323	R-002 / GESMERIAN	
		9/1/2016	1018	In Lab / NMANSEN	
		9/1/2016	1700	R-002 / KMENGS	

Miscellaneous Forms

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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: R1608840

Sample Name: PY-1002L
Lab Code: R1608840-001
Sample Matrix: Water
Date Collected: 07/27/16
Date Received: 08/19/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A		NMANSEN

Sample Name: PY-2003L
Lab Code: R1608840-002
Sample Matrix: Water
Date Collected: 07/28/16
Date Received: 08/19/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A		NMANSEN

Sample Name: PY-2004L
Lab Code: R1608840-003
Sample Matrix: Water
Date Collected: 07/28/16
Date Received: 08/19/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A		NMANSEN

Sample Name: PY-3002L
Lab Code: R1608840-004
Sample Matrix: Water
Date Collected: 07/29/16
Date Received: 08/19/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A		NMANSEN

Sample Name: PY-7008/080416A
Lab Code: R1608840-005
Sample Matrix: Water
Date Collected: 07/3/16
Date Received: 08/18/16

Analysis Method	Extracted/Digested By	Analyzed By
9056A		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

ALS Environmental—Rochester Laboratory
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General Chemistry

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:53
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-1002L	**Basis:**	NA
Lab Code:	R1608840-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**150**	mg/L	20	100	09/08/16 21:10	*

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-2003L	**Basis:**	NA
Lab Code:	R1608840-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**158**	mg/L	20	100	09/08/16 21:25	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-2004L	**Basis:**	NA
Lab Code:	R1608840-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**160**	mg/L	20	100	09/08/16 22:55	*

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/29/16 15:25
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-3002L	**Basis:**	NA
Lab Code:	R1608840-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**157**	mg/L	20	100	09/09/16 00:10	*

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/03/16 12:00
Sample Matrix:	Water	**Date Received:**	08/18/16 09:20
Sample Name:	PY-7008/080416A	**Basis:**	NA
Lab Code:	R1608840-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**47.4**	mg/L	2.0	10	09/08/16 22:40	*

QC Summary Forms

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General Chemistry

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1608840-MB1		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	0.20 U	mg/L	0.20	1	09/08/16 11:45	

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1608840-MB2		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	0.20 U	mg/L	0.20	1	09/08/16 20:55	

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QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/29/16
Sample Matrix:	Water	**Date Received:**	08/19/16
		Date Analyzed:	09/9/16

Duplicate Matrix Spike Summary
Chloride

Sample Name:	PY-3002L	**Units:**	mg/L
Lab Code:	R1608840-004	**Basis:**	NA
Analysis Method:	9056A		

		Matrix Spike R1608840-004MS			Duplicate Matrix Spike R1608840-004DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Chloride	157	363	200	103	365	200	104	80-120	<1	15

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

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

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

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

Service Request: R1608840
Date Analyzed: 09/08/16

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1608840-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	9056A	2.08	2.00	104	80-120

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QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Analyzed:**	09/08/16
Sample Matrix:	Water		

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1608840-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	9056A	2.11	2.00	105	80-120

Client: ALS Environmental - Canada **Service Request:**R1608840
Project: Picatinny Arsenal

Continuing Calibration Blank (CCB) Summary
Chloride

Analysis Method: 9056A **Units:**mg/L

	Analysis Lot	Lab Code	Date Analyzed	MRL	Result	Q
CCB1	513531	RQ1610721-02	09/08/16 11:45	0.20	0.20	U
CCB2	513531	RQ1610721-06	09/08/16 14:46	0.20	0.20	U
CCB3	513531	RQ1610721-08	09/08/16 20:55	0.20	0.20	U
CCB4	513531	RQ1610721-10	09/08/16 23:55	0.20	0.20	U
CCB5	513535	RQ1610724-02	09/08/16 20:55	0.20	0.20	U
CCB6	513535	RQ1610724-06	09/08/16 23:55	0.20	0.20	U
CCB7	513535	RQ1610724-10	09/09/16 02:56	0.20	0.20	U

Client: ALS Environmental - Canada **Service Request:** R1608840
Project: Picatinny Arsenal

Continuing Calibration Verification (CCV) Summary

Chloride

Analysis Method: 9056A **Units:** mg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	513531	RQ1610721-01	09/08/16 11:30	4.00	3.91	98	90-110
CCV2	513531	RQ1610721-05	09/08/16 14:31	4.00	3.95	99	90-110
CCV3	513531	RQ1610721-07	09/08/16 20:40	4.00	3.97	99	90-110
CCV4	513531	RQ1610721-09	09/08/16 23:40	4.00	4.04	101	90-110
CCV5	513535	RQ1610724-01	09/08/16 20:40	4.00	3.97	99	90-110
CCV6	513535	RQ1610724-05	09/08/16 23:40	4.00	4.04	101	90-110
CCV7	513535	RQ1610724-09	09/09/16 02:41	4.00	3.98	99	90-110

Raw Data

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General Chemistry

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/27/16 19:53
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-1002L	**Basis:**	NA
Lab Code:	R1608840-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**150**	mg/L	20	100	09/08/16 21:10	*

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-2003L	**Basis:**	NA
Lab Code:	R1608840-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**158**	mg/L	20	100	09/08/16 21:25	*

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/28/16 17:00
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-2004L	**Basis:**	NA
Lab Code:	R1608840-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**160**	mg/L	20	100	09/08/16 22:55	*

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/29/16 15:25
Sample Matrix:	Water	**Date Received:**	08/19/16 09:15
Sample Name:	PY-3002L	**Basis:**	NA
Lab Code:	R1608840-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**157**	mg/L	20	100	09/09/16 00:10	*

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Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	R1608840
Project:	Picatinny Arsenal	**Date Collected:**	07/03/16 12:00
Sample Matrix:	Water	**Date Received:**	08/18/16 09:20
Sample Name:	PY-7008/080416A	**Basis:**	NA
Lab Code:	R1608840-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	9056A	**47.4**	mg/L	2.0	10	09/08/16 22:40	*

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513513 **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
RQ1610719-01	Bromide	CCV		Water	1.91 mg/L	10 mL	1.91 mg/L	1					9/8/16 11:30:43	N	I
RQ1610719-01	Chloride	CCV		Water	3.91 mg/L	10 mL	3.91 mg/L	1					9/8/16 11:30:43	N	I
RQ1610719-01	Nitrate as Nitrogen	CCV		Water	1.92 mg/L	10 mL	1.92 mg/L	1					9/8/16 11:30:43	N	I
RQ1610719-01	Nitrite as Nitrogen	CCV		Water	2.03 mg/L	10 mL	2.03 mg/L	1					9/8/16 11:30:43	N	I
RQ1610719-01	Sulfate	CCV		Water	3.70 mg/L	10 mL	3.70 mg/L	1					9/8/16 11:30:43	N	I
RQ1610719-02	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/8/16 11:45:43	N	I
RQ1610719-02	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 11:45:43	N	I
RQ1610719-02	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 11:45:43	N	I
RQ1610719-02	Nitrite as Nitrogen	CCB		Water	-0.03 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/8/16 11:45:43	N	I
RQ1610719-02	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 11:45:43	N	I
RQ1610719-03	Bromide	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.09	0.10			9/8/16 11:45:43	N	I
RQ1610719-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.1	0.20			9/8/16 11:45:43	N	I
RQ1610719-03	Nitrate as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 11:45:43	N	I
RQ1610719-03	Nitrite as Nitrogen	MB		Water	-0.03 mg/L	10 mL	0.10 mg/L U	1	0.01	0.10			9/8/16 11:45:43	N	I
RQ1610719-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 11:45:43	N	I
RQ1610719-04	Bromide	LCS		Water	0.99 mg/L	10 mL	0.993 mg/L	1	0.04	0.10	99		9/8/16 12:00:47	N	I
RQ1610719-04	Chloride	LCS		Water	2.08 mg/L	10 mL	2.08 mg/L	1	0.10	0.20	104		9/8/16 12:00:47	N	I
RQ1610719-04	Nitrate as Nitrogen	LCS		Water	1.05 mg/L	10 mL	1.05 mg/L	1	0.05	0.10	105		9/8/16 12:00:47	N	I
RQ1610719-04	Nitrite as Nitrogen	LCS		Water	1.00 mg/L	10 mL	0.999 mg/L	1	0.007	0.10	100		9/8/16 12:00:47	N	I
RQ1610719-04	Sulfate	LCS		Water	2.05 mg/L	10 mL	2.05 mg/L	1	0.02	0.20	102		9/8/16 12:00:47	N	I
RQ1610719-05	Bromide	CCV		Water	1.94 mg/L	10 mL	1.94 mg/L	1					9/8/16 14:31:15	N	I
RQ1610719-05	Chloride	CCV		Water	3.95 mg/L	10 mL	3.95 mg/L	1					9/8/16 14:31:15	N	I
RQ1610719-05	Nitrate as Nitrogen	CCV		Water	1.93 mg/L	10 mL	1.93 mg/L	1					9/8/16 14:31:15	N	I
RQ1610719-05	Nitrite as Nitrogen	CCV		Water	2.04 mg/L	10 mL	2.04 mg/L	1					9/8/16 14:31:15	N	I
RQ1610719-05	Sulfate	CCV		Water	3.68 mg/L	10 mL	3.68 mg/L	1					9/8/16 14:31:15	N	I
RQ1610719-06	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/8/16 14:46:19	N	I
RQ1610719-06	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 14:46:19	N	I
RQ1610719-06	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 14:46:19	N	I
RQ1610719-06	Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/8/16 14:46:19	N	I
RQ1610719-06	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 14:46:19	N	I
R1609333-008	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/8/16 16:47:57	N	I
R1609333-008	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.07	1.0			9/8/16 16:47:57	N	I
R1609333-008	Chloride	N/A		Water	138.22 mg/L	10 mL	138 mg/L	100	10	20			9/8/16 17:03:01	N	I
R1609530-001	Sulfate	N/A		Water	62.91 mg/L	10 mL	62.9 mg/L	10	0.2	2.0			9/8/16 18:39:48	N	II
R1609530-001	Bromide	N/A		Water	48.79 mg/L	10 mL	49 mg/L	100	4	10			9/8/16 18:54:50	N	II
R1609530-001	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1 ~~10~~ mg/L U	~~100~~ 10	5	10		18:39:48	9/8/16 ~~18:54:50~~	N	II

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

9/11/16

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513513 **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
R1609530-001	Chloride	N/A		Water	9105.22 mg/L	10 mL	9110 mg/L	1000	100	200			9/8/16 19:09:54	N	II
R1609520-001	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/8/16 19:24:55	N	I
R1609520-001	Chloride	N/A		Water	2944.88 mg/L	10 mL	2940 mg/L	1000	100	200			9/8/16 19:55:02	N	I
R1609518-002	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/8/16 20:10:06	N	IV
R1609518-002	Chloride	N/A		Water	9.23 mg/L	10 mL	9.2 mg/L	10	1.0	2.0			9/8/16 20:10:06	N	IV
R1609518-002	Nitrate as Nitrogen	N/A		Water	0.43 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/8/16 20:10:06	N	IV
R1609518-003	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/8/16 20:25:10	N	IV
R1609518-003	Chloride	N/A		Water	40.94 mg/L	10 mL	40.9 mg/L	10	1.0	2.0			9/8/16 20:25:10	N	IV
R1609518-003	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/8/16 20:25:10	N	IV
R1609518-003	Sulfate	N/A		Water	11.20 mg/L	10 mL	11.2 mg/L	10	0.2	2.0			9/8/16 20:25:10	N	IV
RQ1610719-07	Bromide	CCV		Water	1.93 mg/L	10 mL	1.93 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610719-07	Chloride	CCV		Water	3.97 mg/L	10 mL	3.97 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610719-07	Nitrate as Nitrogen	CCV		Water	1.91 mg/L	10 mL	1.91 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610719-07	Nitrite as Nitrogen	CCV		Water	2.05 mg/L	10 mL	2.05 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610719-07	Sulfate	CCV		Water	3.64 mg/L	10 mL	3.64 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610719-08	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/8/16 20:55:14	N	IV
RQ1610719-08	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 20:55:14	N	IV
RQ1610719-08	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 20:55:14	N	IV
RQ1610719-08	Nitrite as Nitrogen	CCB		Water	-0.03 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/8/16 20:55:14	N	IV
RQ1610719-08	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 20:55:14	N	IV
R1609518-004	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/8/16 21:40:24	N	IV
R1609518-004	Chloride	N/A		Water	30.35 mg/L	10 mL	30.4 mg/L	10	1.0	2.0			9/8/16 21:40:24	N	IV
R1609518-004	Nitrate as Nitrogen	N/A		Water	0.01 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/8/16 21:40:24	N	IV
R1609518-004	Sulfate	N/A		Water	73.59 mg/L	10 mL	73.6 mg/L	10	0.2	2.0			9/8/16 21:40:24	N	IV
RQ1610719-09	Bromide	MS	R1609518-004	Water	9.51 mg/L	10 mL	9.5 mg/L	10	0.4	1.0	95		9/8/16 21:55:27	N	IV
RQ1610719-09	Chloride	MS	R1609518-004	Water	49.72 mg/L	10 mL	49.7 mg/L	10	1.0	2.0	97		9/8/16 21:55:27	N	IV
RQ1610719-09	Nitrate as Nitrogen	MS	R1609518-004	Water	10.15 mg/L	10 mL	10.1 mg/L	10	0.5	1.0	101		9/8/16 21:55:27	N	IV
RQ1610719-09	Sulfate	MS	R1609518-004	Water	86.49 mg/L	10 mL	86.5 mg/L	10	0.2	2.0	65*		9/8/16 21:55:27	N	IV
RQ1610719-10	Bromide	DMS	R1609518-004	Water	9.44 mg/L	10 mL	9.4 mg/L	10	0.4	1.0	94	<1	9/8/16 22:10:29	N	IV
RQ1610719-10	Chloride	DMS	R1609518-004	Water	49.61 mg/L	10 mL	49.6 mg/L	10	1.0	2.0	96	<1	9/8/16 22:10:29	N	IV
RQ1610719-10	Nitrate as Nitrogen	DMS	R1609518-004	Water	10.00 mg/L	10 mL	10.0 mg/L	10	0.5	1.0	100	1	9/8/16 22:10:29	N	IV
RQ1610719-10	Sulfate	DMS	R1609518-004	Water	87.22 mg/L	10 mL	87.2 mg/L	10	0.2	2.0	68*	<1	9/8/16 22:10:29	N	IV
RQ1610719-11	Bromide	CCV		Water	1.99 mg/L	10 mL	1.99 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610719-11	Chloride	CCV		Water	4.04 mg/L	10 mL	4.04 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610719-11	Nitrate as Nitrogen	CCV		Water	1.98 mg/L	10 mL	1.98 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610719-11	Nitrite as Nitrogen	CCV		Water	2.09 mg/L	10 mL	2.09 mg/L	1					9/8/16 23:40:45	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:** 513513 **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
RQ1610719-11	Sulfate	CCV		Water	3.69 mg/L	10 mL	3.69 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610719-12	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/8/16 23:55:49	N	IV
RQ1610719-12	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 23:55:49	N	IV
RQ1610719-12	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 23:55:49	N	IV
RQ1610719-12	Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/8/16 23:55:49	N	IV
RQ1610719-12	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 23:55:49	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:** 513531 **Method/Testcode:** 9056A/Chloride

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610721-01	Chloride	CCV		Water	3.91 mg/L	10 mL	3.91 mg/L	1					9/8/16 11:30:43	N	IV
RQ1610721-02	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 11:45:43	N	IV
RQ1610721-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.1	0.20			9/8/16 11:45:43	N	IV
RQ1610721-04	Chloride	LCS		Water	2.08 mg/L	10 mL	2.08 mg/L	1	0.10	0.20	104		9/8/16 12:00:47	N	IV
RQ1610721-05	Chloride	CCV		Water	3.95 mg/L	10 mL	3.95 mg/L	1					9/8/16 14:31:15	N	IV
RQ1610721-06	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 14:46:19	N	IV
RQ1610721-07	Chloride	CCV		Water	3.97 mg/L	10 mL	3.97 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610721-08	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 20:55:14	N	IV
R1608840-001	Chloride	N/A		Water	149.74 mg/L	10 mL	150 mg/L	100	10	20			9/8/16 21:10:17	N	IV
R1608840-002	Chloride	N/A		Water	158.43 mg/L	10 mL	158 mg/L	100	10	20			9/8/16 21:25:21	N	IV
RQ1610721-09	Chloride	CCV		Water	4.04 mg/L	10 mL	4.04 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610721-10	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 23:55:49	N	IV

9/11/16

# 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:** 513535 **Method/Testcode:** 9056A/Chloride

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1610724-01	Chloride	CCV		Water	3.97 mg/L	10 mL	3.97 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610724-02	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 20:55:14	N	IV
RQ1610724-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.1	0.20			9/8/16 20:55:14	N	IV
RQ1610724-04	Chloride	LCS		Water	2.11 mg/L	10 mL	2.11 mg/L	1	0.10	0.20	105		9/8/16 22:25:32	N	IV
R1608840-005	Chloride	N/A		Water	47.36 mg/L	10 mL	47.4 mg/L	10	1.0	2.0			9/8/16 22:40:35	N	IV
R1608840-003	Chloride	N/A		Water	160.08 mg/L	10 mL	160 mg/L	100	10	20			9/8/16 22:55:37	N	IV
RQ1610724-05	Chloride	CCV		Water	4.04 mg/L	10 mL	4.04 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610724-06	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 23:55:49	N	IV
R1608840-004	Chloride	N/A		Water	157.16 mg/L	10 mL	157 mg/L	100	10	20			9/9/16 00:10:52	N	IV
RQ1610724-07	Chloride	MS	R1608840-004	Water	363.13 mg/L	10 mL	363 mg/L	100	10	20	103		9/9/16 00:25:53	N	IV
RQ1610724-08	Chloride	DMS	R1608840-004	Water	365.27 mg/L	10 mL	365 mg/L	100	10	20	104	<1	9/9/16 00:40:57	N	IV
R1609116-003	Chloride	N/A		Water	158.66 mg/L	10 mL	159 mg/L	100	10	20			9/9/16 00:56:00	N	IV
R1609116-005	Chloride	N/A		Water	159.35 mg/L	10 mL	159 mg/L	100	10	20			9/9/16 01:11:01	N	IV
R1609116-007	Chloride	N/A		Water	157.44 mg/L	10 mL	157 mg/L	100	10	20			9/9/16 01:26:05	N	IV
R1609116-009	Chloride	N/A		Water	155.68 mg/L	10 mL	156 mg/L	100	10	20			9/9/16 01:41:08	N	IV
R1609116-011	Chloride	N/A		Water	154.67 mg/L	10 mL	155 mg/L	100	10	20			9/9/16 01:56:10	N	IV
RQ1610724-09	Chloride	CCV		Water	3.98 mg/L	10 mL	3.98 mg/L	1					9/9/16 02:41:18	N	IV
RQ1610724-10	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/9/16 02:56:22	N	IV

9/11/16

# 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:** 513537 **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
RQ1610727-01	Bromide	CCV		Water	1.93 mg/L	10 mL	1.93 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610727-01	Chloride	CCV		Water	3.97 mg/L	10 mL	3.97 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610727-01	Nitrate as Nitrogen	CCV		Water	1.91 mg/L	10 mL	1.91 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610727-01	Nitrite as Nitrogen	CCV		Water	2.05 mg/L	10 mL	2.05 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610727-01	Sulfate	CCV		Water	3.64 mg/L	10 mL	3.64 mg/L	1					9/8/16 20:40:12	N	IV
RQ1610727-02	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/8/16 20:55:14	N	IV
RQ1610727-02	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 20:55:14	N	IV
RQ1610727-02	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 20:55:14	N	IV
RQ1610727-02	Nitrite as Nitrogen	CCB		Water	-0.03 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/8/16 20:55:14	N	IV
RQ1610727-02	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 20:55:14	N	IV
RQ1610727-03	Bromide	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.09	0.10			9/8/16 20:55:14	N	IV
RQ1610727-03	Chloride	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.1	0.20			9/8/16 20:55:14	N	IV
RQ1610727-03	Nitrate as Nitrogen	MB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 20:55:14	N	IV
RQ1610727-03	Nitrite as Nitrogen	MB		Water	-0.03 mg/L	10 mL	0.10 mg/L U	1	0.01	0.10			9/8/16 20:55:14	N	IV
RQ1610727-03	Sulfate	MB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 20:55:14	N	IV
RQ1610727-04	Bromide	LCS		Water	1.01 mg/L	10 mL	1.01 mg/L	1	0.04	0.10	101		9/8/16 22:25:32	N	IV
RQ1610727-04	Chloride	LCS		Water	2.11 mg/L	10 mL	2.11 mg/L	1	0.10	0.20	105		9/8/16 22:25:32	N	IV
RQ1610727-04	Nitrate as Nitrogen	LCS		Water	1.06 mg/L	10 mL	1.06 mg/L	1	0.05	0.10	106		9/8/16 22:25:32	N	IV
RQ1610727-04	Nitrite as Nitrogen	LCS		Water	1.00 mg/L	10 mL	0.996 mg/L	1	0.007	0.10	100		9/8/16 22:25:32	N	IV
RQ1610727-04	Sulfate	LCS		Water	1.99 mg/L	10 mL	1.99 mg/L	1	0.02	0.20	100		9/8/16 22:25:32	N	IV
R1609396-016	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/8/16 23:10:41	N	IV
R1609396-016	Chloride	N/A		Water	84.55 mg/L	10 mL	84.5 mg/L	10	1.0	2.0			9/8/16 23:10:41	N	IV
R1609396-016	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/8/16 23:10:41	N	IV
R1609396-016	Sulfate	N/A		Water	59.41 mg/L	10 mL	59.4 mg/L	10	0.2	2.0			9/8/16 23:10:41	N	IV
R1609396-017	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/8/16 23:25:43	N	IV
R1609396-017	Chloride	N/A		Water	1.56 mg/L	10 mL	2.0 mg/L U	10	1.0	2.0			9/8/16 23:25:43	N	IV
R1609396-017	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/8/16 23:25:43	N	IV
RQ1610727-05	Bromide	CCV		Water	1.99 mg/L	10 mL	1.99 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610727-05	Chloride	CCV		Water	4.04 mg/L	10 mL	4.04 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610727-05	Nitrate as Nitrogen	CCV		Water	1.98 mg/L	10 mL	1.98 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610727-05	Nitrite as Nitrogen	CCV		Water	2.09 mg/L	10 mL	2.09 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610727-05	Sulfate	CCV		Water	3.69 mg/L	10 mL	3.69 mg/L	1					9/8/16 23:40:45	N	IV
RQ1610727-06	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/8/16 23:55:49	N	IV
RQ1610727-06	Chloride	CCB		Water	-0.02 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/8/16 23:55:49	N	IV
RQ1610727-06	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/8/16 23:55:49	N	IV
RQ1610727-06	Nitrite as Nitrogen	CCB		Water	-0.01 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/8/16 23:55:49	N	IV

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

9/11/16

Analytical Results Summary

Instrument Name: R-IC-06 **Analyst:** NMANSEN **Analysis Lot:** 513537 **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
RQ1610727-06	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/8/16 23:55:49	N	IV
R1609396-018	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/9/16 02:11:13	N	IV
R1609396-018	Chloride	N/A		Water	0.94 mg/L	10 mL	2.0 mg/L U	10	1.0	2.0			9/9/16 02:11:13	N	IV
R1609396-018	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 02:11:13	N	IV
R1609396-019	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/9/16 02:26:16	N	IV
R1609396-019	Chloride	N/A		Water	11.35 mg/L	10 mL	11.4 mg/L	10	1.0	2.0			9/9/16 02:26:16	N	IV
R1609396-019	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 02:26:16	N	IV
R1609396-019	Sulfate	N/A		Water	5.76 mg/L	10 mL	5.8 mg/L	10	0.2	2.0			9/9/16 02:26:16	N	IV
RQ1610727-07	Bromide	CCV		Water	1.95 mg/L	10 mL	1.95 mg/L	1					9/9/16 02:41:18	N	IV
RQ1610727-07	Chloride	CCV		Water	3.98 mg/L	10 mL	3.98 mg/L	1					9/9/16 02:41:18	N	IV
RQ1610727-07	Nitrate as Nitrogen	CCV		Water	1.94 mg/L	10 mL	1.94 mg/L	1					9/9/16 02:41:18	N	IV
RQ1610727-07	Nitrite as Nitrogen	CCV		Water	2.05 mg/L	10 mL	2.05 mg/L	1					9/9/16 02:41:18	N	IV
RQ1610727-07	Sulfate	CCV		Water	3.67 mg/L	10 mL	3.67 mg/L	1					9/9/16 02:41:18	N	IV
RQ1610727-08	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/9/16 02:56:22	N	IV
RQ1610727-08	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/9/16 02:56:22	N	IV
RQ1610727-08	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/9/16 02:56:22	N	IV
RQ1610727-08	Nitrite as Nitrogen	CCB		Water	-0.03 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/9/16 02:56:22	N	IV
RQ1610727-08	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/9/16 02:56:22	N	IV
R1609396-022	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/9/16 03:11:24	N	IV
R1609396-022	Chloride	N/A		Water	1.14 mg/L	10 mL	2.0 mg/L U	10	1.0	2.0			9/9/16 03:11:24	N	IV
R1609396-022	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 03:11:24	N	IV
~~R1609396-022~~	~~Sulfate~~	~~N/A~~		~~Water~~	~~136.69 mg/L~~	~~10 mL~~	~~137 mg/L~~	~~10~~	~~0.2~~	~~2.0~~			~~9/9/16 03:11:24~~	~~N~~	~~IV~~
RQ1610727-09	Bromide	MS	R1609396-022	Water	9.61 mg/L	10 mL	9.6 mg/L	10	0.4	1.0	96		9/9/16 03:26:26	N	IV
RQ1610727-09	Chloride	MS	R1609396-022	Water	21.23 mg/L	10 mL	21.2 mg/L	10	1.0	2.0	106		9/9/16 03:26:26	N	IV
RQ1610727-09	Nitrate as Nitrogen	MS	R1609396-022	Water	10.17 mg/L	10 mL	10.2 mg/L	10	0.5	1.0	102		9/9/16 03:26:26	N	IV
~~RQ1610727-09~~	~~Sulfate~~	~~MS~~	~~R1609396-022~~	~~Water~~	~~154.06 mg/L~~	~~10 mL~~	~~154 mg/L~~	~~10~~	~~0.2~~	~~2.0~~	~~87*~~		~~9/9/16 03:26:26~~	~~N~~	~~IV~~
RQ1610727-10	Bromide	DMS	R1609396-022	Water	9.77 mg/L	10 mL	9.8 mg/L	10	0.4	1.0	98	2	9/9/16 03:41:30	N	IV
RQ1610727-10	Chloride	DMS	R1609396-022	Water	21.39 mg/L	10 mL	21.4 mg/L	10	1.0	2.0	107	<1	9/9/16 03:41:30	N	IV
RQ1610727-10	Nitrate as Nitrogen	DMS	R1609396-022	Water	10.25 mg/L	10 mL	10.3 mg/L	10	0.5	1.0	103	<1	9/9/16 03:41:30	N	IV
~~RQ1610727-10~~	~~Sulfate~~	~~DMS~~	~~R1609396-022~~	~~Water~~	~~154.90 mg/L~~	~~10 mL~~	~~155 mg/L~~	~~10~~	~~0.2~~	~~2.0~~	~~91~~	~~<1~~	~~9/9/16 03:41:30~~	~~N~~	~~IV~~
R1609396-023	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/9/16 03:56:33	N	IV
R1609396-023	Chloride	N/A		Water	1.92 mg/L	10 mL	2.0 mg/L U	10	1.0	2.0			9/9/16 03:56:33	N	IV
R1609396-023	Nitrate as Nitrogen	N/A		Water	0.67 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 03:56:33	N	IV
R1609396-024	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/9/16 04:11:34	N	IV
R1609396-024	Chloride	N/A		Water	0.56 mg/L	10 mL	2.0 mg/L U	10	1.0	2.0			9/9/16 04:11:34	N	IV
R1609396-024	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 04:11:34	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:** 513537 **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
R1609396-024	Sulfate	N/A		Water	83.64 mg/L	10 mL	83.6 mg/L	10	0.2	2.0			9/9/16 04:11:34	N	IV
R1609396-020	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/9/16 04:41:41	N	IV
R1609396-020	Chloride	N/A		Water	13.19 mg/L	10 mL	13.2 mg/L	10	1.0	2.0			9/9/16 04:41:41	N	IV
R1609396-020	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 04:41:41	N	IV
R1609396-020	Sulfate	N/A		Water	12.86 mg/L	10 mL	12.9 mg/L	10	0.2	2.0			9/9/16 04:41:41	N	IV
R1609396-021	Bromide	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.4	1.0			9/9/16 04:56:43	N	IV
R1609396-021	Chloride	N/A		Water	1.70 mg/L	10 mL	2.0 mg/L U	10	1.0	2.0			9/9/16 04:56:43	N	IV
R1609396-021	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 04:56:43	N	IV
~~R1609396-021~~	~~Sulfate~~	~~N/A~~		~~Water~~	~~271.05 mg/L~~	~~10 mL~~	~~271 mg/L~~	~~10~~	~~0.2~~	~~2.0~~			~~9/9/16 04:56:43~~	~~N~~	~~IV~~
R1609534-001	Nitrate as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.5	1.0			9/9/16 05:11:46	N	I
R1609534-001	Nitrite as Nitrogen	N/A		Water	0.00 mg/L	10 mL	1.0 mg/L U	10	0.07	1.0			9/9/16 05:11:46	N	I
R1609534-002	Nitrate as Nitrogen	N/A		Water	11.39 mg/L	10 mL	11.4 mg/L	10	0.5	1.0			9/9/16 05:26:49	N	I
R1609534-002	Nitrite as Nitrogen	N/A		Water	-0.09 mg/L	10 mL	1.0 mg/L U	10	0.07	1.0			9/9/16 05:26:49	N	I
RQ1610727-11	Bromide	CCV		Water	2.01 mg/L	10 mL	2.01 mg/L	1					9/9/16 05:41:52	N	I
RQ1610727-11	Chloride	CCV		Water	4.08 mg/L	10 mL	4.08 mg/L	1					9/9/16 05:41:52	N	I
RQ1610727-11	Nitrate as Nitrogen	CCV		Water	1.99 mg/L	10 mL	1.99 mg/L	1					9/9/16 05:41:52	N	I
RQ1610727-11	Nitrite as Nitrogen	CCV		Water	2.11 mg/L	10 mL	2.11 mg/L	1					9/9/16 05:41:52	N	I
RQ1610727-11	Sulfate	CCV		Water	3.78 mg/L	10 mL	3.78 mg/L	1					9/9/16 05:41:52	N	I
RQ1610727-12	Bromide	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.04	0.10			9/9/16 05:56:55	N	I
RQ1610727-12	Chloride	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.10	0.20			9/9/16 05:56:55	N	I
RQ1610727-12	Nitrate as Nitrogen	CCB		Water	0.00 mg/L	10 mL	0.10 mg/L U	1	0.05	0.10			9/9/16 05:56:55	N	I
RQ1610727-12	Nitrite as Nitrogen	CCB		Water	-0.04 mg/L	10 mL	0.10 mg/L U	1	0.007	0.10			9/9/16 05:56:55	N	I
RQ1610727-12	Sulfate	CCB		Water	0.00 mg/L	10 mL	0.20 mg/L U	1	0.02	0.20			9/9/16 05:56:55	N	I

CMJ 9/11/16

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

Schedule File: C:\PeakNet\Schedule\IC#6\6-090816.sch

Line	Sample	Sample Type	Level	Method	Data File	Dilution	Comment
1	CCV	Sample		6-070616.met	908_001.dxd	1	300.0/9056A/26A
2	CCB	Sample		6-070616.met	908_002.dxd	1	300.0/9056A/26A
3	CCV	Sample		6-070616.met	908_a003.dxd	1	300.0/9056A/26A
4	CCB	Sample		6-070616.met	908_a004.dxd	1	300.0/9056A/26A
5	LCS	Sample		6-070616.met	908_005.dxd	1	300.0/9056A/26A
6	R1609169-002	Sample		6-070616.met	908_006.dxd	1	300.0 F
7	R1609169-002 MS	Sample		6-070616.met	908_007.dxd	1	300.0 F
8	R1609169-002 MSD	Sample		6-070616.met	908_008.dxd	1	300.0 F
9	R1609169-003	Sample		6-070616.met	908_009.dxd	10	300.0 F
10	R1609771-001	Sample		6-070616.met	908_010.dxd	10	300.0 F
11	R1609255-001	Sample		6-070616.met	908_011.dxd	1	300.0 F
12	B325 FE	Sample		6-070616.met	908_012.dxd	1	300.0 F
13	B325 FE	Sample		6-070616.met	908_013.dxd	10	300.0 N
14	N2 SPLITTER BAY	Sample		6-070616.met	908_014.dxd	10	300.0 N
15	CCV	Sample		6-070616.met	908_015.dxd	1	300.0/9056A/26A
16	CCB	Sample		6-070616.met	908_016.dxd	1	300.0/9056A/26A
17	R1609333-008	Sample		6-070616.met	908_017.dxd	10	300.0 CNN
18	R1609333-008	Sample		6-070616.met	908_018.dxd	100	300.0 CNN
19	WWTP	Sample		6-070616.met	908_019.dxd	10	300.0 CBNS
20	WWTP	Sample		6-070616.met	908_020.dxd	100	300.0 CBNS
21	WWTP	Sample		6-070616.met	908_021.dxd	1000	300.0 CBNS
22	RAW LEACHATE	Sample		6-070616.met	908_022.dxd	10	300.0 CBNS
23	RAW LEACHATE	Sample		6-070616.met	908_023.dxd	100	300.0 CBNS
24	RAW LEACHATE	Sample		6-070616.met	908_024.dxd	1000	300.0 CBNS
25	SEC III PRR	Sample		6-070616.met	908_025.dxd	10	300.0 CBNS
26	MAIN. GARAGE TAP	Sample		6-070616.met	908_026.dxd	10	300.0 CBNS
27	CCV	Sample		6-070616.met	908_027.dxd	1	300.0/9056A/26A
28	CCB	Sample		6-070616.met	908_028.dxd	1	300.0/9056A/26A
29	R1608841-001	Sample		6-070616.met	908_029.dxd	100	%CL
30	R1608841-002	Sample		6-070616.met	908_030.dxd	100	%CL
31	SEC IV PP	Sample		6-070616.met	908_031.dxd	10	300.0 CBNS
32	SEC IV PP MS	Sample		6-070616.met	908_032.dxd	10	300.0 CBNS
33	SEC IV PP MSD	Sample		6-070616.met	908_033.dxd	10	300.0 CBNS
34	LCS	Sample		6-070616.met	908_034.dxd	1	300.0/9056A/26A
35	R1608840-005	Sample		6-070616.met	908_035.dxd	10	%CL
36	R1608840-003	Sample		6-070616.met	908_036.dxd	100	%CL
37	NS-4S	Sample		6-070616.met	908_037.dxd	10	300.0 CBNS
38	NS-4D-03	Sample		6-070616.met	908_038.dxd	10	300.0 CBNS
39	CCV	Sample		6-070616.met	908_039.dxd	1	300.0/9056A/26A
40	CCB	Sample		6-070616.met	908_040.dxd	1	300.0/9056A/26A
41	R1608840-004	Sample		6-070616.met	908_041.dxd	100	%CL
42	R1608840-004 MS	Sample		6-070616.met	908_042.dxd	100	%CL
43	R1608840-004 MSD	Sample		6-070616.met	908_043.dxd	100	%CL
44	R1609116-003	Sample		6-070616.met	908_044.dxd	100	%CL
45	R1609116-005	Sample		6-070616.met	908_045.dxd	100	%CL
46	R1609116-007	Sample		6-070616.met	908_046.dxd	100	%CL
47	R1609116-009	Sample		6-070616.met	908_047.dxd	100	%CL
48	R1609116-011	Sample		6-070616.met	908_048.dxd	100	%CL
49	GW-1S	Sample		6-070616.met	908_049.dxd	10	300.0 CBNS
50	GW-1D	Sample		6-070616.met	908_050.dxd	10	300.0 CBNS
51	CCV	Sample		6-070616.met	908_051.dxd	1	300.0/9056A/26A
52	CCB	Sample		6-070616.met	908_052.dxd	1	300.0/9056A/26A
53	NS-3S	Sample		6-070616.met	908_053.dxd	10	300.0 CBNS
54	NS-3S MS	Sample		6-070616.met	908_054.dxd	10	300.0 CBNS
55	NS-3S MSD	Sample		6-070616.met	908_055.dxd	10	300.0 CBNS
56	NS-2S	Sample		6-070616.met	908_056.dxd	10	300.0 CBNS
57	NS-2D	Sample		6-070616.met	908_057.dxd	10	300.0 CBNS
58	FINAL EFFLUENT	Sample		6-070616.met	908_058.dxd	10	300.0 CBNS
59	GW-2DA	Sample		6-070616.met	908_059.dxd	10	300.0 CBNS
60	NS-3D	Sample		6-070616.met	908_060.dxd	10	300.0 CBNS
61	ONEONTA INFLUEN	Sample		6-070616.met	908_061.dxd	10	300.0 NN
62	ONEONTA EFFLUEN	Sample		6-070616.met	908_062.dxd	10	300.0 NN
63	CCV	Sample		6-070616.met	908_063.dxd	1	300.0/9056A/26A
64	CCB	Sample		6-070616.met	908_064.dxd	1	300.0/9056A/26A
65	END	Sample		shutdown.met	908	1	300.0/9056A/26A

Default Method Path: C:\PEAKNET\METHODS\IC#6\DI METHODS
Default Data Path: C:\PEAKNET\DATA\IC#6\090816
Comment:

IC#6 300.0/9056A/26A 9/8/16 NM Fred + Ferb

Sample Dilutions

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

Analyst: NM
Instrument: IC#6

Date 9/8/16
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

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Rochester, NY 14623

Sample Name : CCV
Data File Name : ...\908_A003.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 11:30:43 AM

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

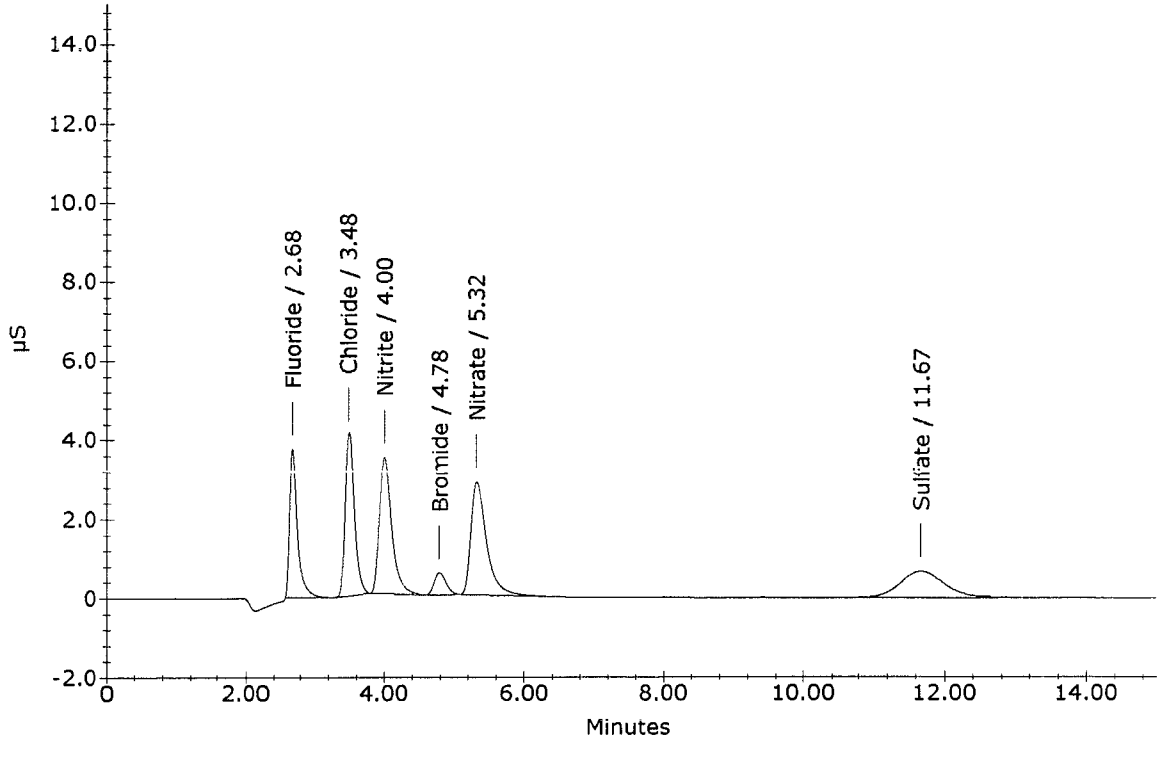
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.68	Fluoride	1.815	297069
2	3.48	Chloride	3.913	364150
3	4.00	Nitrite	2.032	422349
4	4.78	Bromide	1.914	65452
5	5.32	Nitrate	1.916	443702
6	11.67	Sulfate	3.704	282438

CCV



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Sample Name : CCB
Data File Name : ...\908_A004.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 11:45:43 AM

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

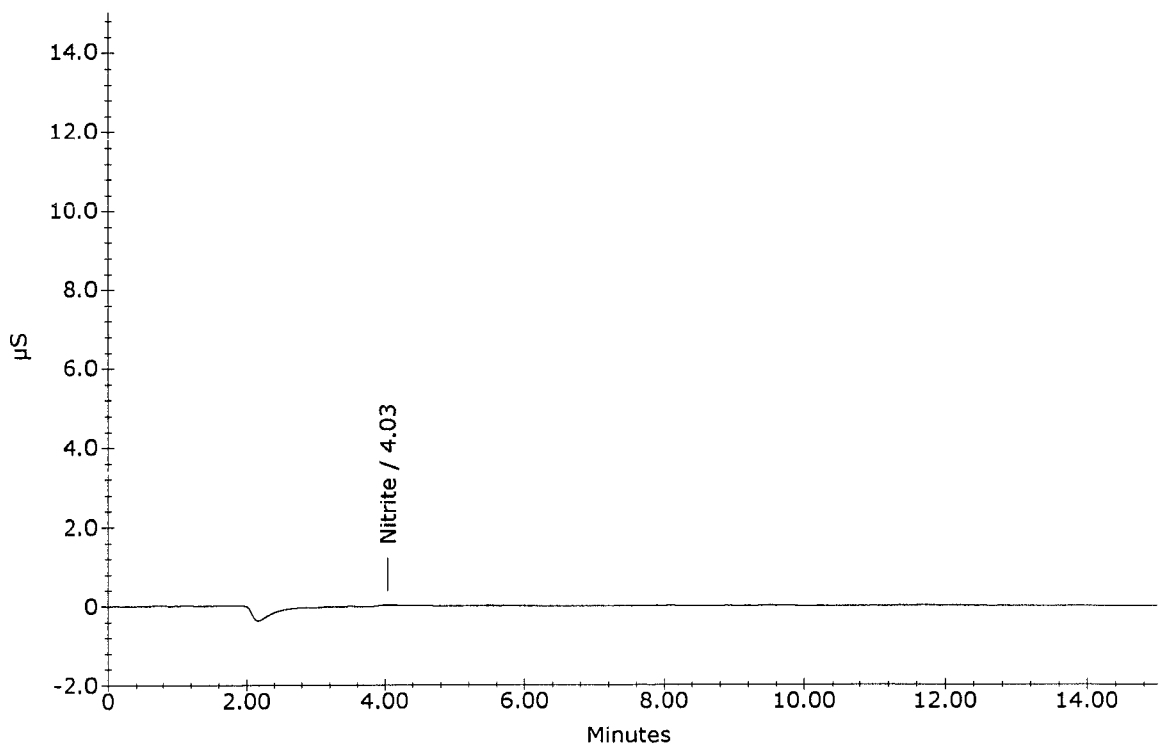
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	4.03	Nitrite	-0.030	2543

CCB



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Sample Name : LCS
Data File Name : ...\908_005.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 12:00:47 PM

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

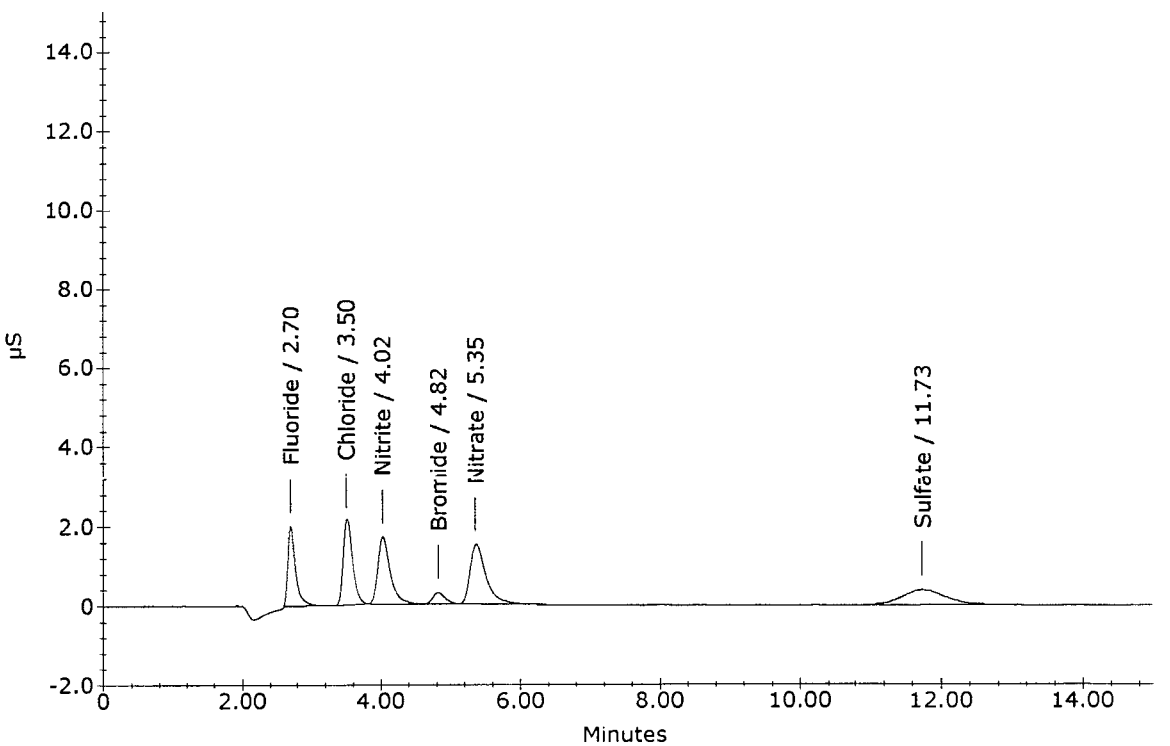
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	0.974	156617
2	3.50	Chloride	2.083	191147
3	4.02	Nitrite	0.999	209236
4	4.82	Bromide	0.993	34153
5	5.35	Nitrate	1.049	239353
6	11.73	Sulfate	2.050	157962

LCS



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Sample Name : CCV
Data File Name : ...\908_015.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 2:31:15 PM

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

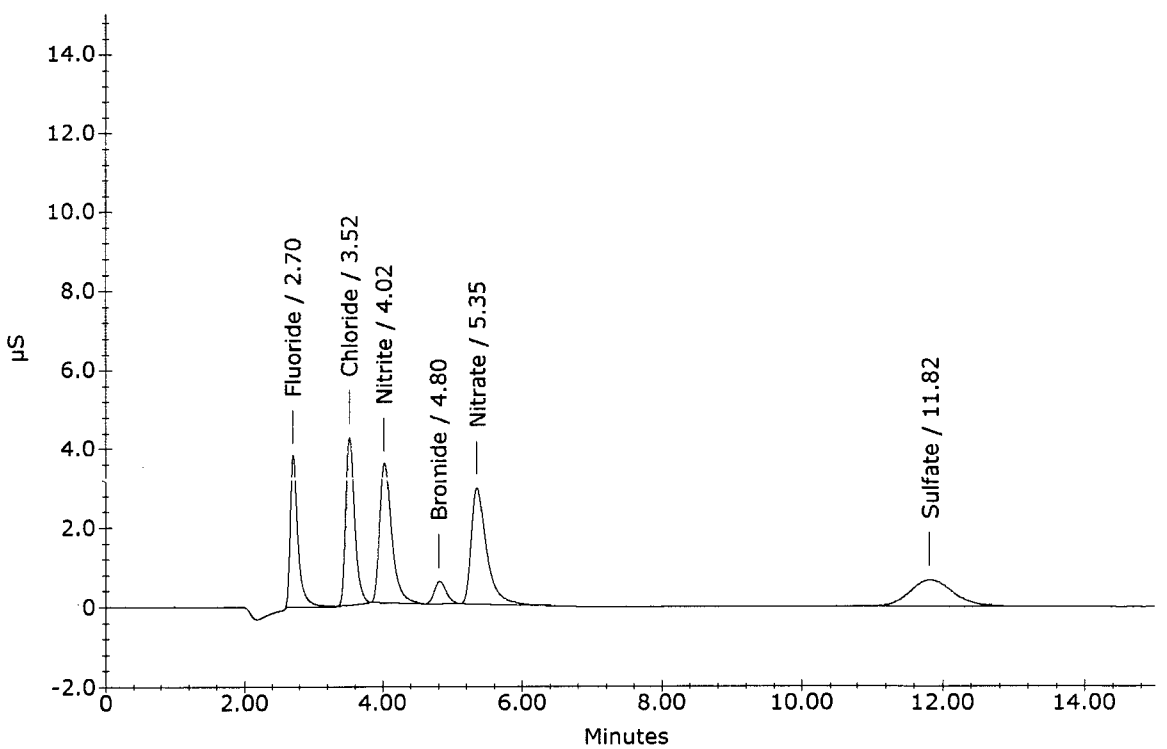
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.70	Fluoride	1.802	294999
2	3.52	Chloride	3.950	367727
3	4.02	Nitrite	2.044	424680
4	4.80	Bromide	1.941	66364
5	5.35	Nitrate	1.931	447325
6	11.82	Sulfate	3.681	280683

CCV



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Sample Name : CCB
Data File Name : ...\908_016.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 2:46:19 PM

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

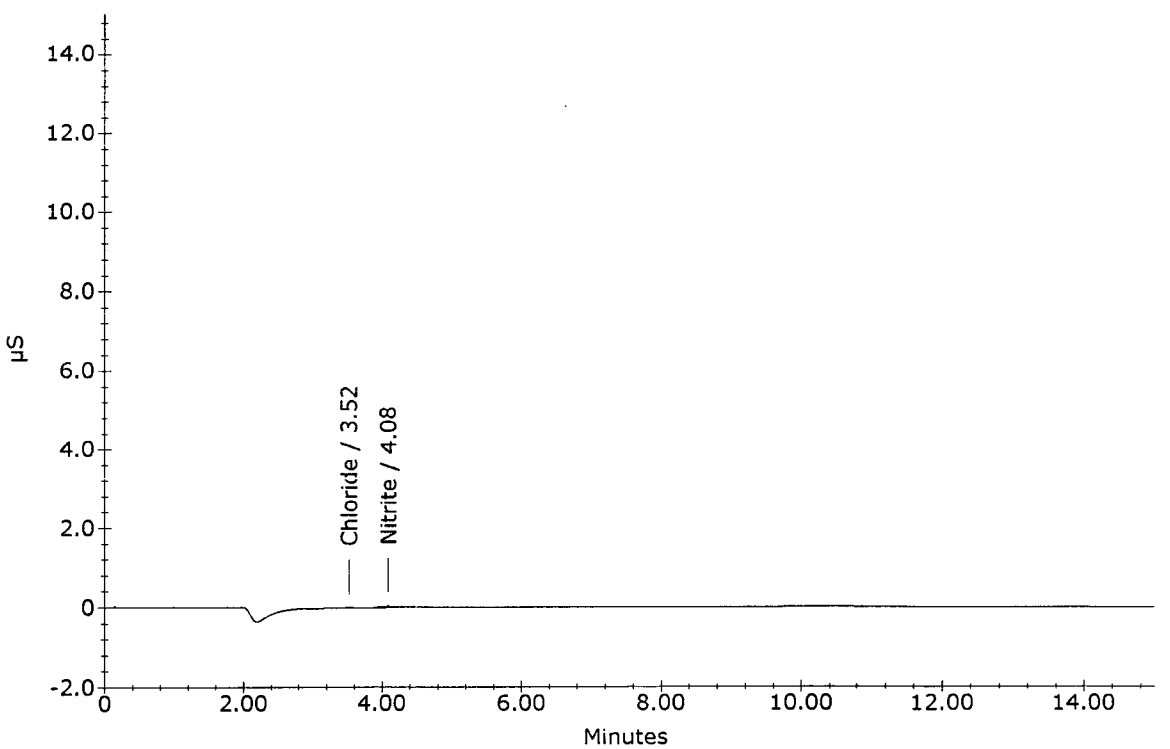
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	3.52	Chloride	-0.004	2384
2	4.08	Nitrite	-0.007	6987

CCB



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Sample Name : R1609333-008
Data File Name : ...\908_017.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 4:47:57 PM

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

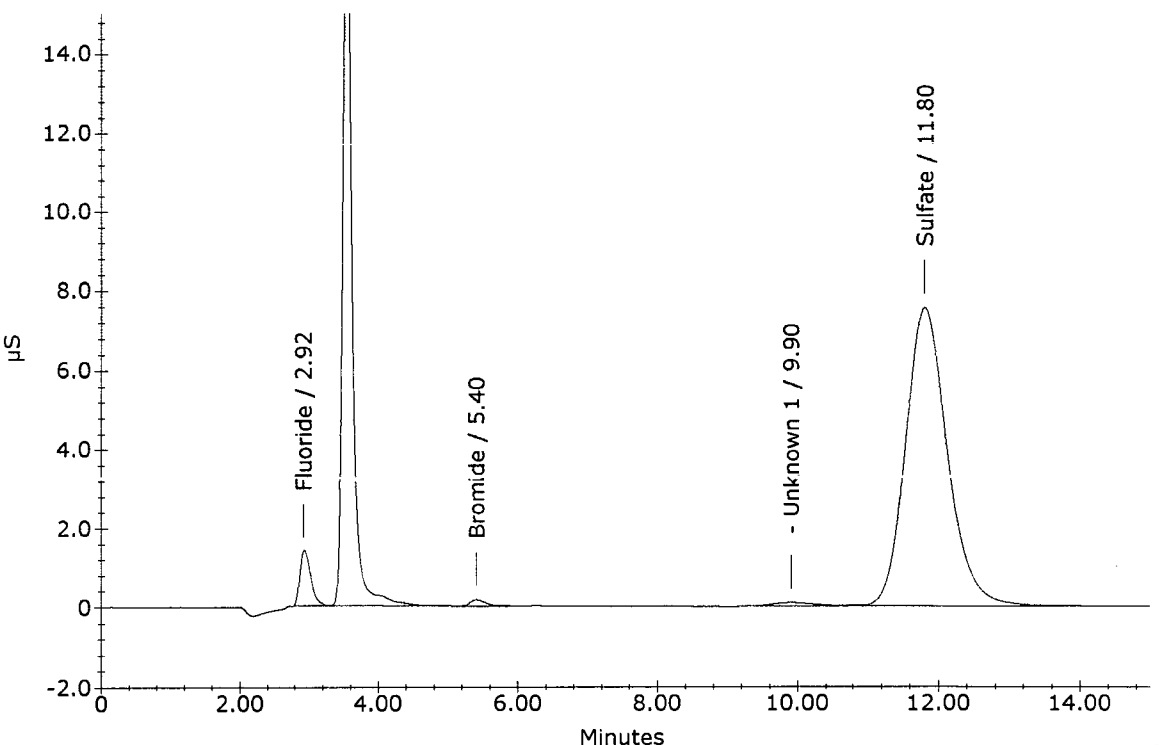
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.92	Fluoride	9.050	145244
2	3.53	Chloride 1/100	151.483	1666048
3	5.40	Bromide	7.757	26774
5	11.80	Sulfate	395.831	3079843

R1609333-008



Reprocessed - Before W.P.
Br/NO3
NM 9/9/16

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

Sample Name : R1609333-008
Data File Name : ...\908_017.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 4:47:57 PM

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

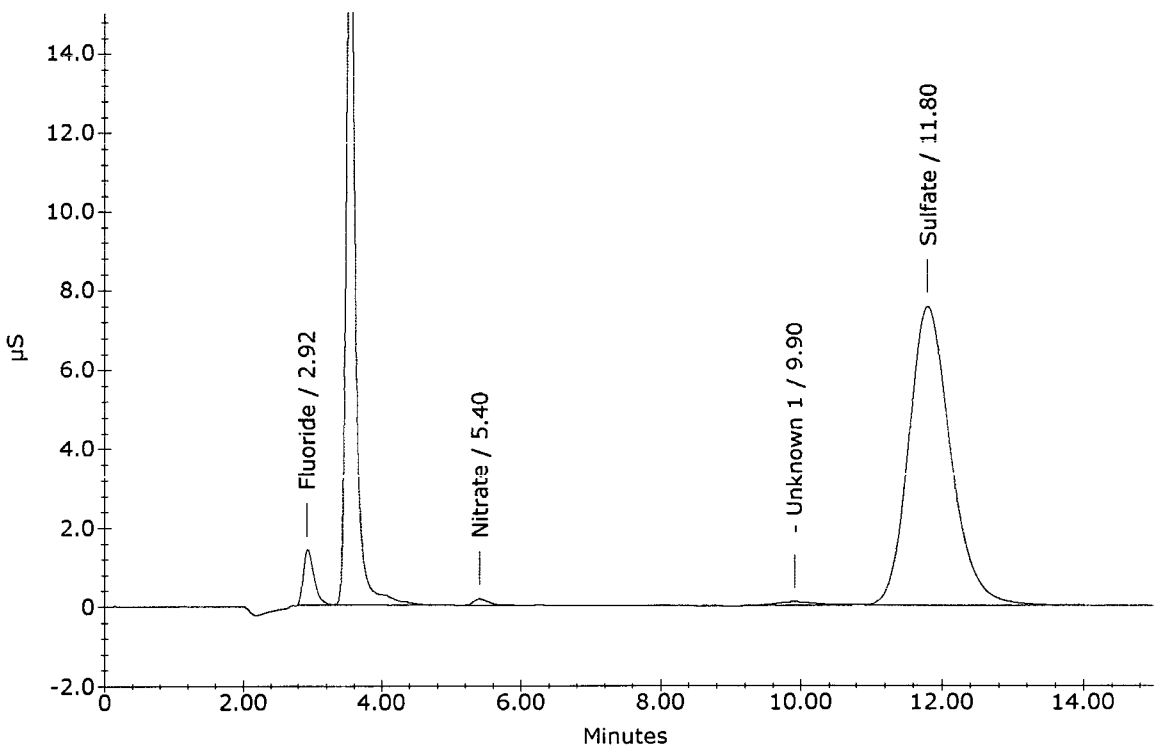
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.92	Fluoride	9.050	145244
2	3.53	Chloride 1/100	151.483	1666048
		Nitrite		
		Bromide		
3	5.40	Nitrate	1.126	26774
5	11.80	Sulfate	395.831	3079843

R1609333-008



Reprocessed - After W.P.
Br/NO3

NM 9/9/16

CN 9/11/16

Ion Chromatography Analytical Report
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Sample Name : R1609333-008
Data File Name : ...\908_018.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 5:03:01 PM

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

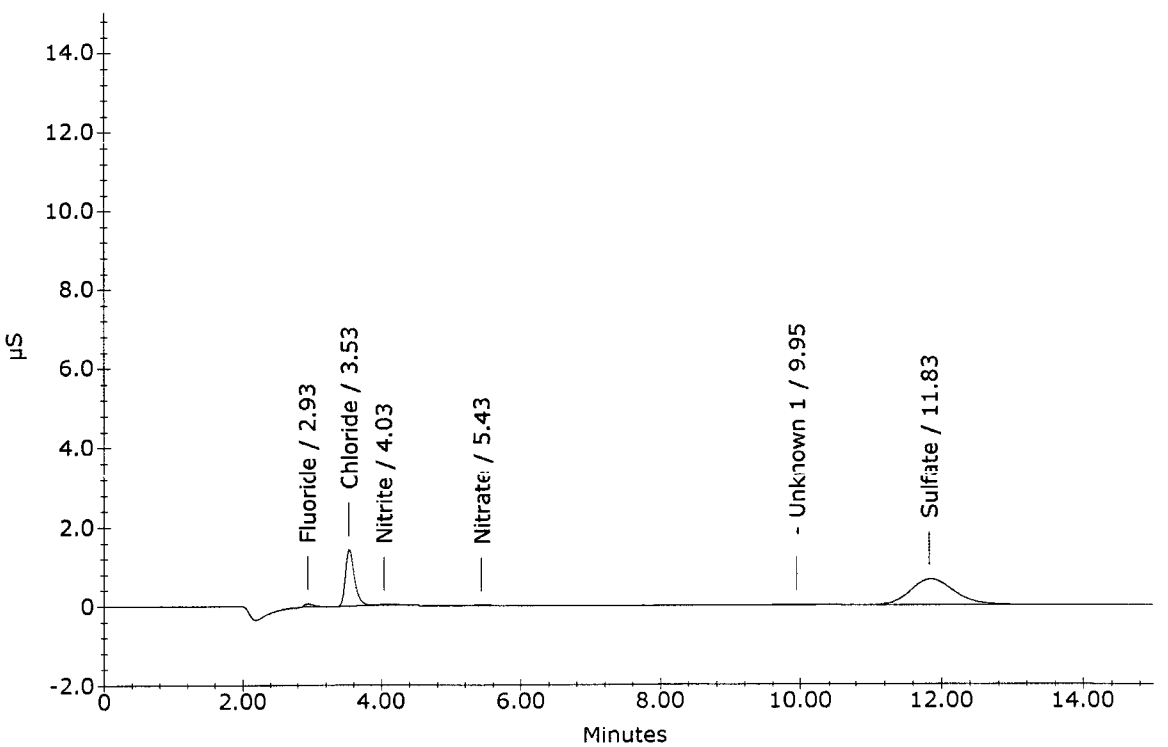
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.93	Fluoride	4.753	6028
2	3.53	Chloride	138.221	126774
3	4.03	Nitrite 1/10	-2.152	4137
4	5.43	Nitrate	0.211	2167
6	11.83	Sulfate	359.712	274379

R1609333-008



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Sample Name : WWTP R1609530-001
Data File Name : ...\908_019.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 6:39:48 PM

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

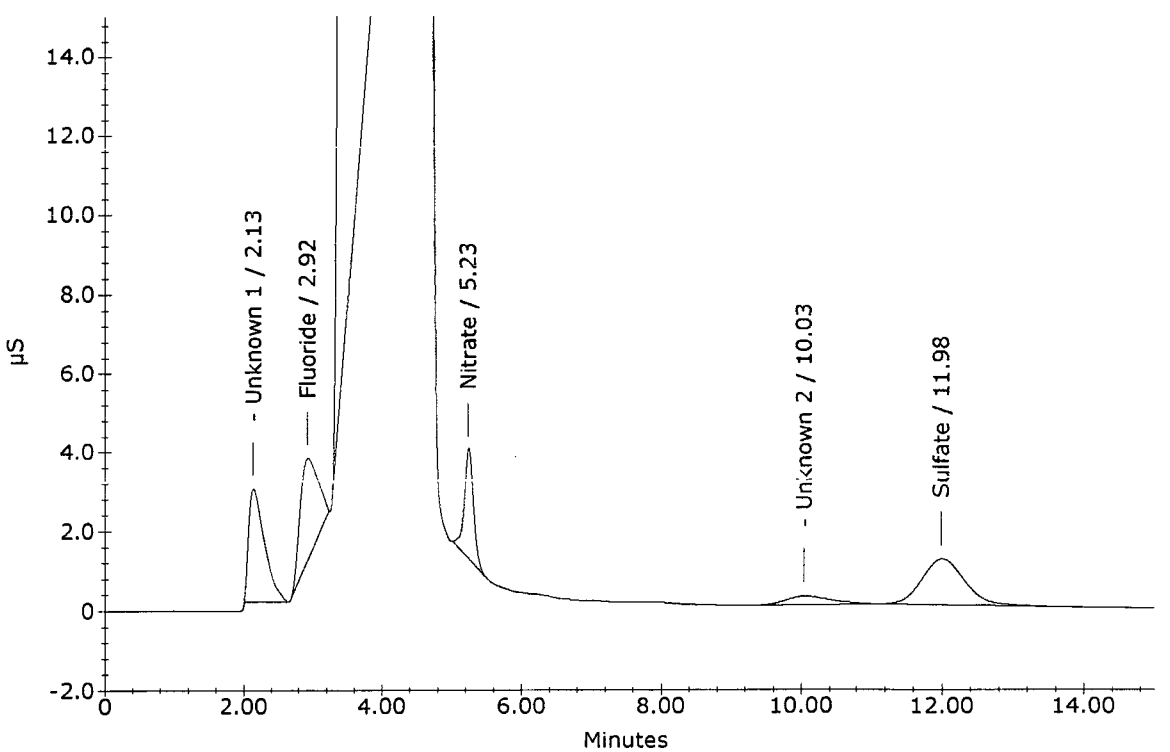
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.92	Fluoride		27.006	449488
3	3.88	Chloride	1/1000	-126450.920	102211770
4	4.70	Bromide	1/100	296.984	1044080
5	5.23	Nitrate	1/100	11.096	253486
7	11.98	Sulfate		62.911	477906

WWTP



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Sample Name : WWTP R1609530-001
Data File Name : ...\908_020.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 6:54:50 PM

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

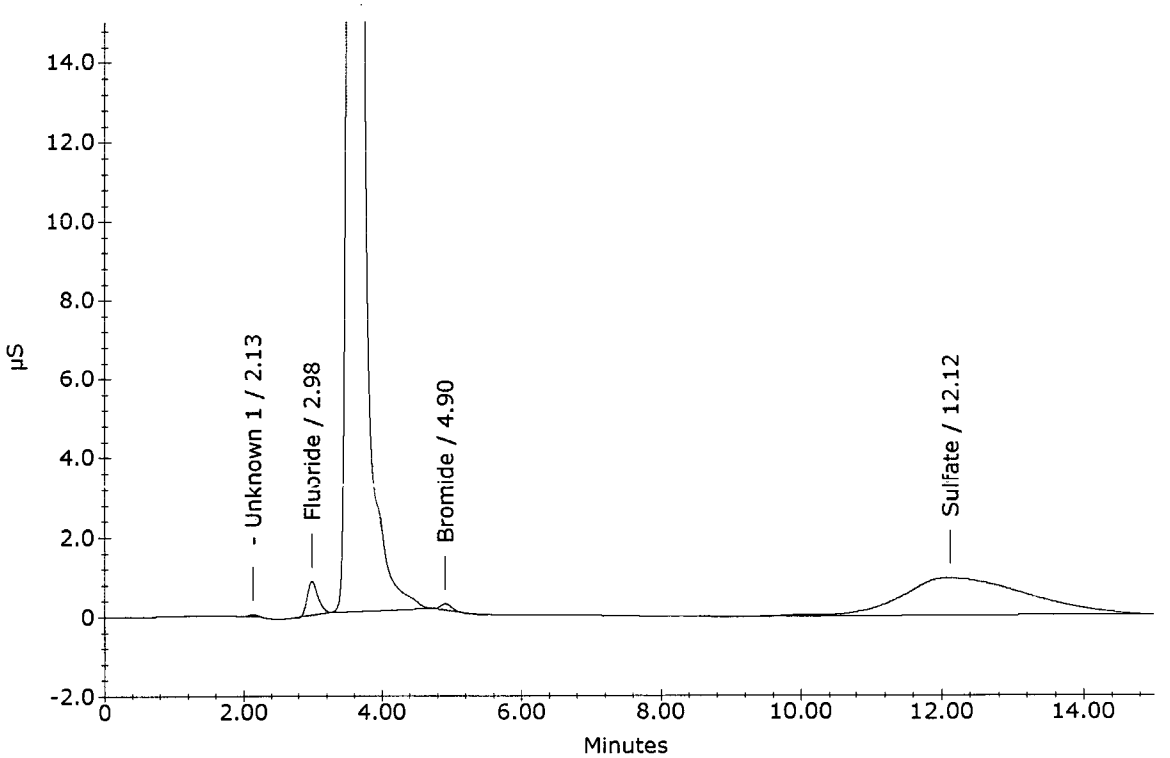
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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		56.661	89862
3	3.62	Chloride	1/1000	-4488.576	11512108
4	4.90	Bromide		48.790	17011
5	12.12	Sulfate	1/10	1503.316	1145265

WWTP



Ion Chromatography Analytical Report
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Sample Name : WWTP R1609530-001
Data File Name : ...\908_021.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 7:09:54 PM

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

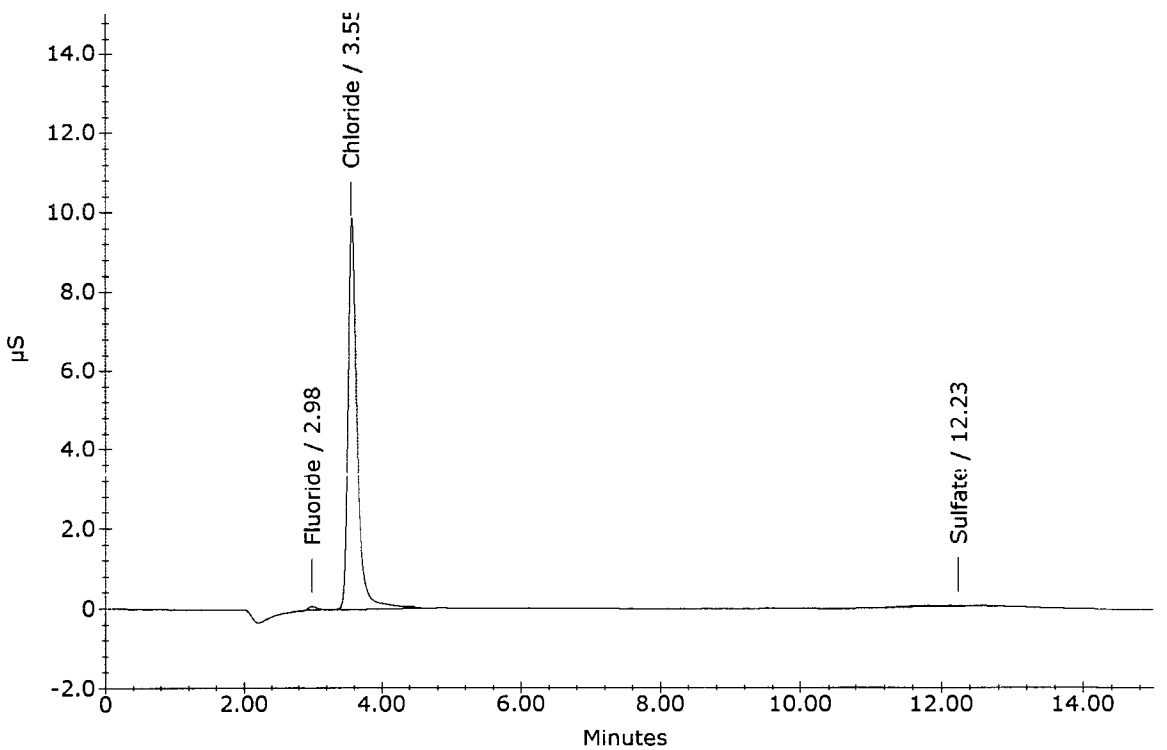
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.98	Fluoride	56.382	7446
2	3.55	Chloride	9105.218	902842
3	12.23	Sulfate 1/10	108.512	12270

WWTP



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Sample Name : RAW LEACHATE R1609520-001
Data File Name : ...\908_022.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 7:24:55 PM

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

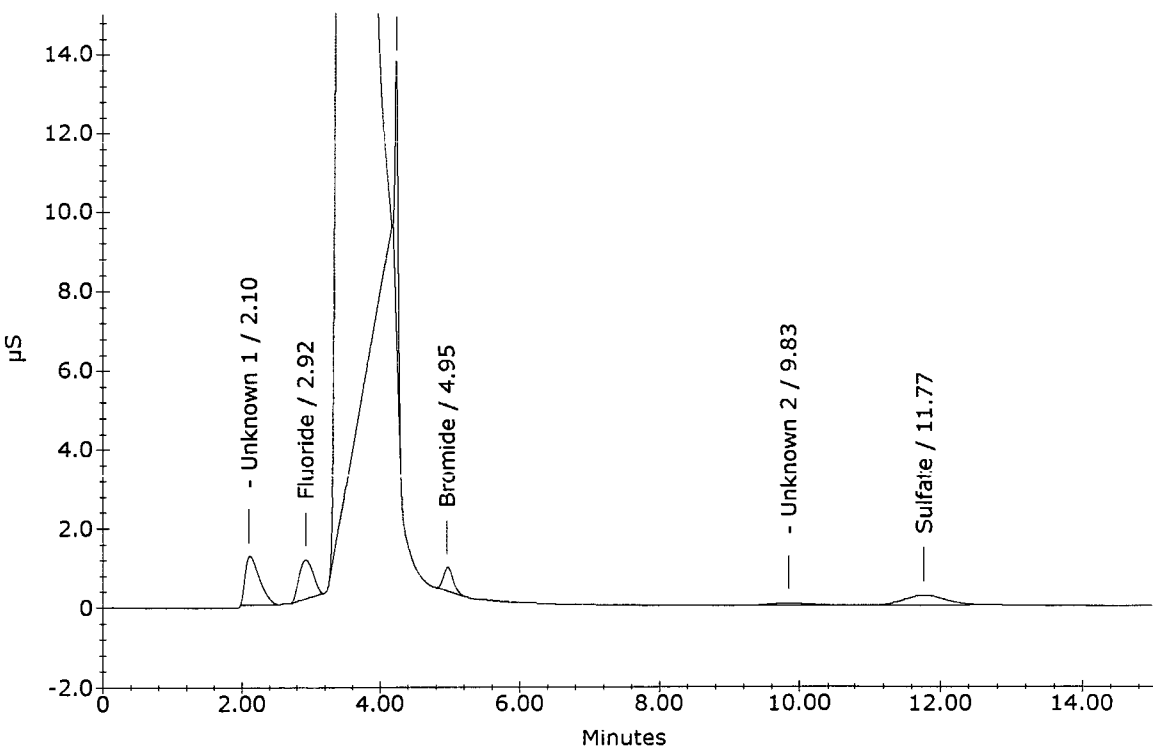
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : 300.0 ~~CBNS~~ CN NM 9/9/16

Peak Information : All Components

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area
2	2.92	Fluoride	8.541	136870
3	3.65	Chloride 1/1000	-10465.033	32750386
4	4.23	Nitrite	9.804	205445
5	4.95	Bromide	16.800	57499
7	11.77	Sulfate	12.689	99273

RAW LEACHATE



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Sample Name : RAW LEACHATE R1609520-001
Data File Name : ...\908_023.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 7:39:59 PM

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

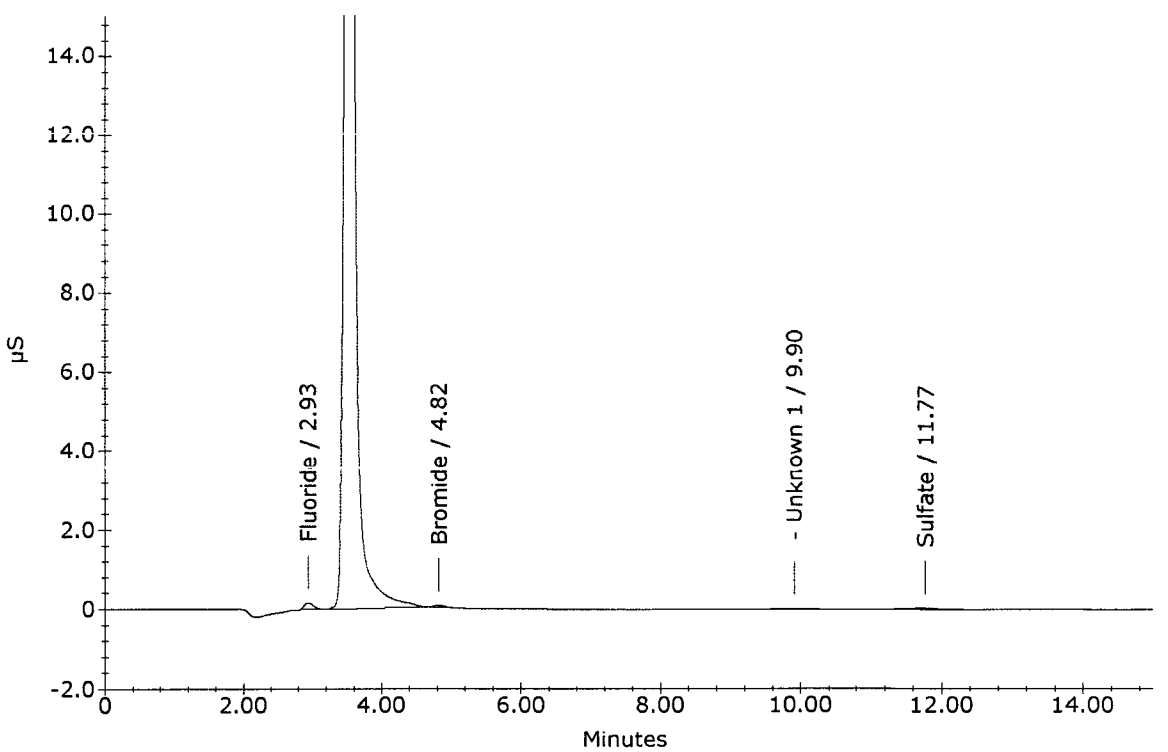
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.93	Fluoride		10.107	14614
2	3.52	Chloride	1/1000	2288.176	3288547
3	4.82	Bromide	1/10	12.430	4684
5	11.77	Sulfate	1/10	7.637	9863

RAW LEACHATE



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Sample Name : RAW LEACHATE R1609520-001
Data File Name : ...\908_024.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 7:55:02 PM

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

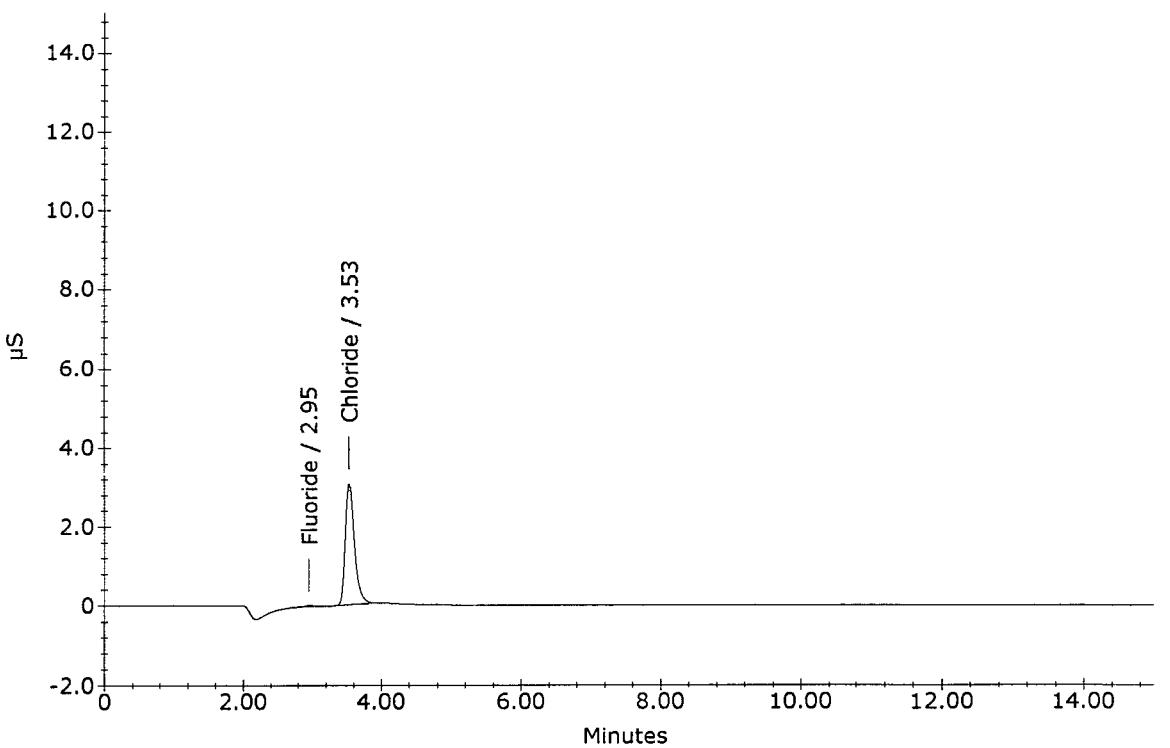
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	15.109	835
2	3.53	Chloride	2944.883	271663

RAW LEACHATE



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Sample Name : SEC III PRR R1609518-002
Data File Name : ...\908_025.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 8:10:06 PM

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

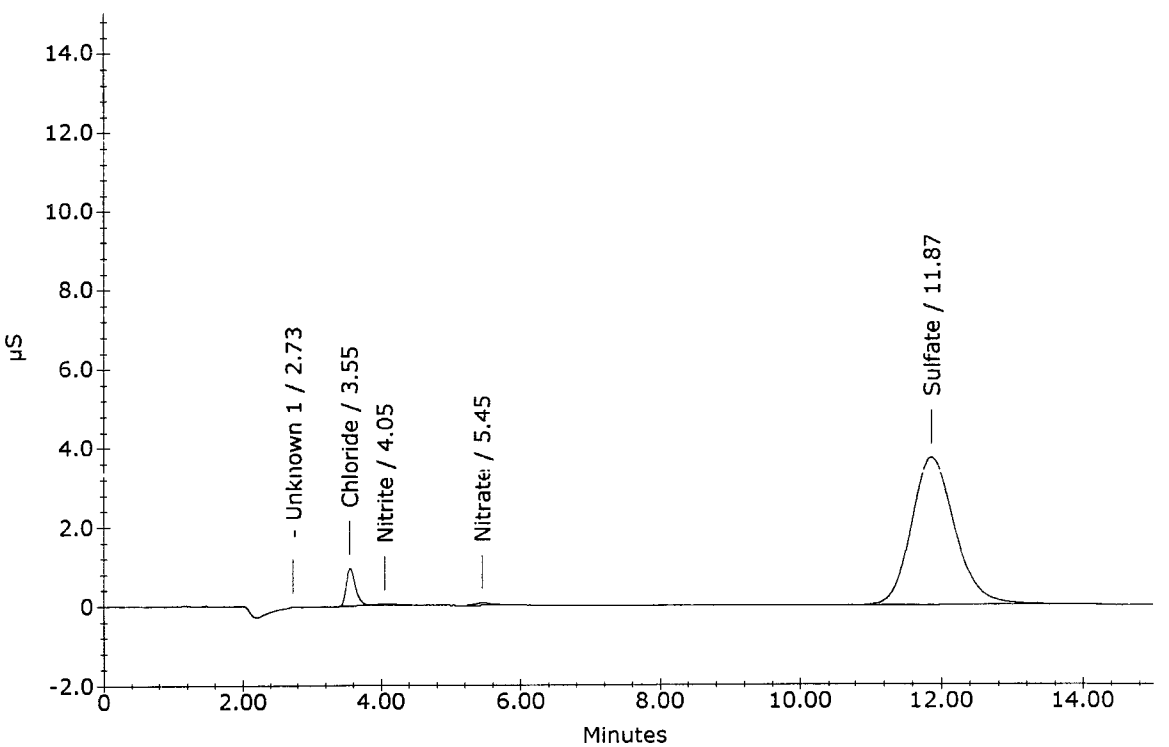
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	3.55	Chloride	9.230	85146
3	4.05	Nitrite	-0.059	7238
4	5.45	Nitrate	0.434	11348
5	11.87	Sulfate 1/100	204.234	1562177

SEC III PRR



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Sample Name : MAIN. GARAGE TAP R1609518-003
Data File Name : ...\908_026.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 8:25:10 PM

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

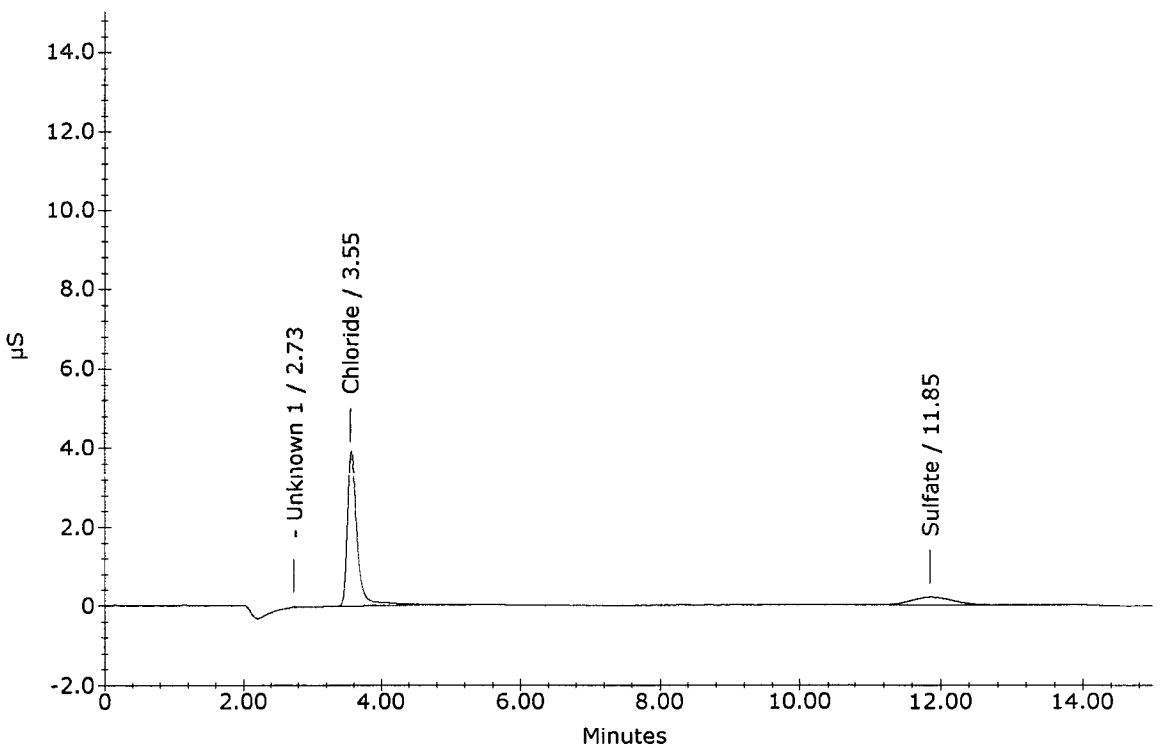
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	3.55	Chloride	40.939	381634
3	11.85	Sulfate	11.195	88065

MAIN. GARAGE TAP



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Sample Name : CCV
Data File Name : ...\908_027.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 8:40:12 PM

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

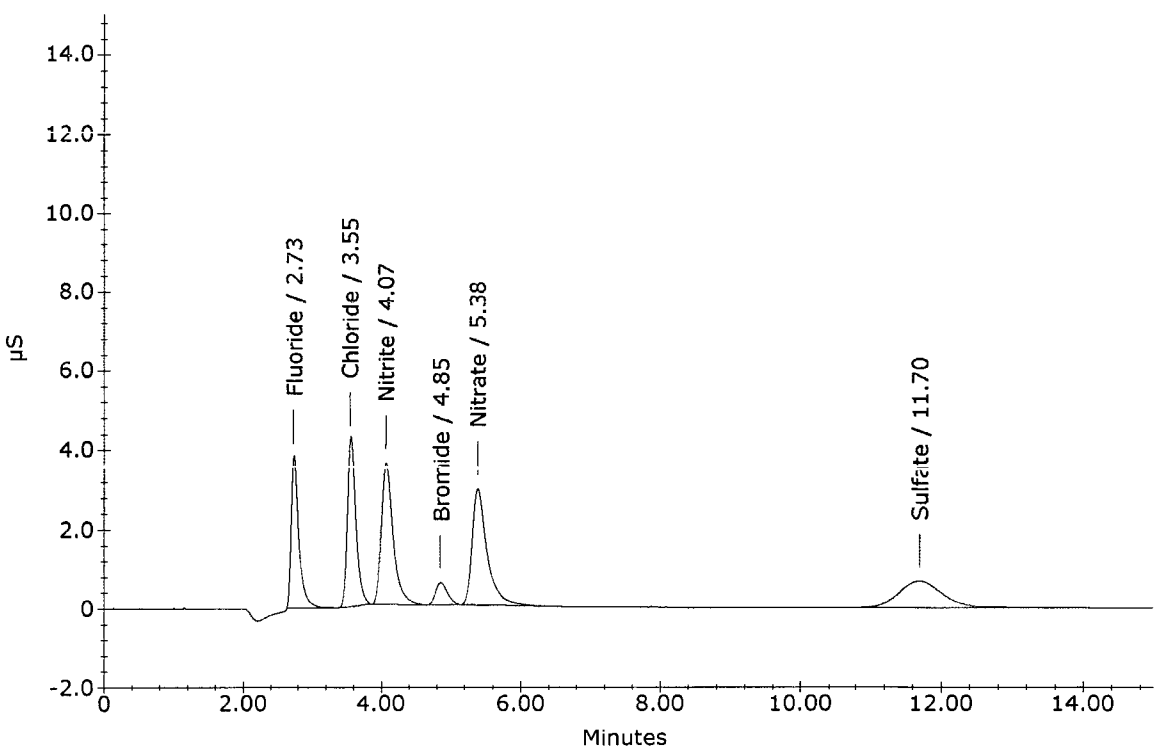
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	1.815	297198
2	3.55	Chloride	3.970	369640
3	4.07	Nitrite	2.053	426556
4	4.85	Bromide	1.932	66088
5	5.38	Nitrate	1.912	442589
6	11.70	Sulfate	3.639	277506

CCV



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Sample Name : CCB
Data File Name : ...\908_028.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 8:55:14 PM

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

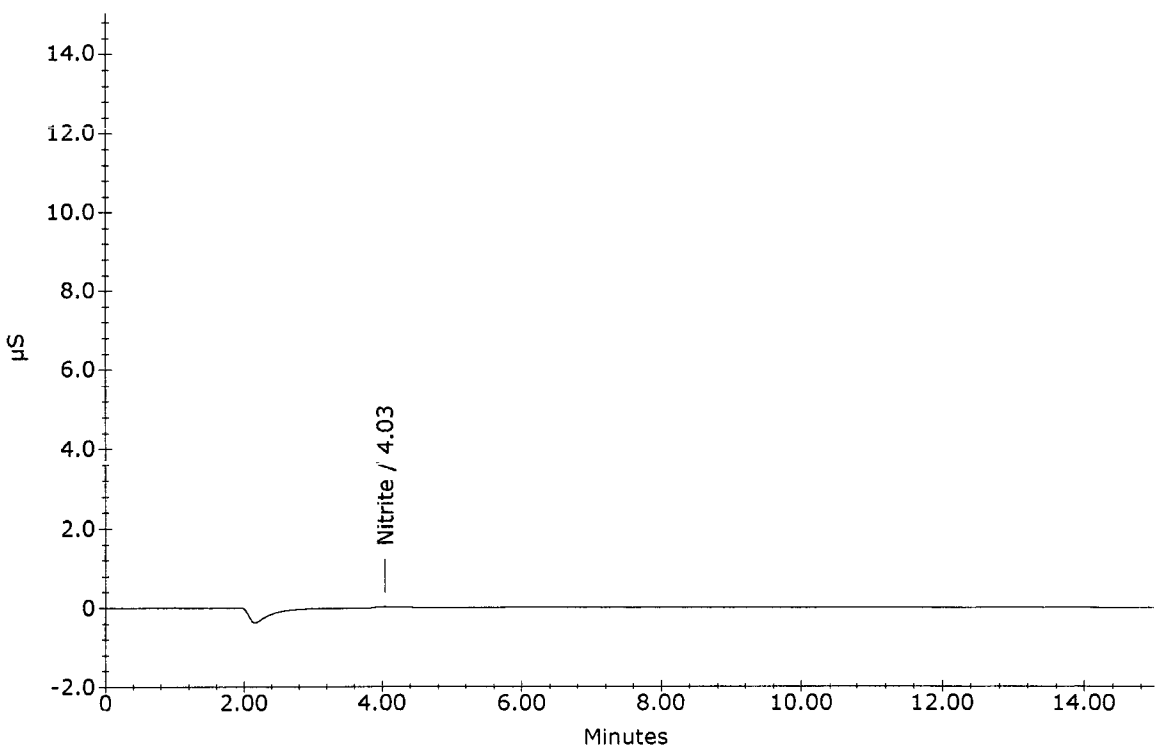
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	4.03	Nitrite	-0.033	1787

CCB



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Sample Name : R160~~8841~~8840-001 NM 9/9/16
Data File Name : ...\908_029.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 9:10:17 PM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

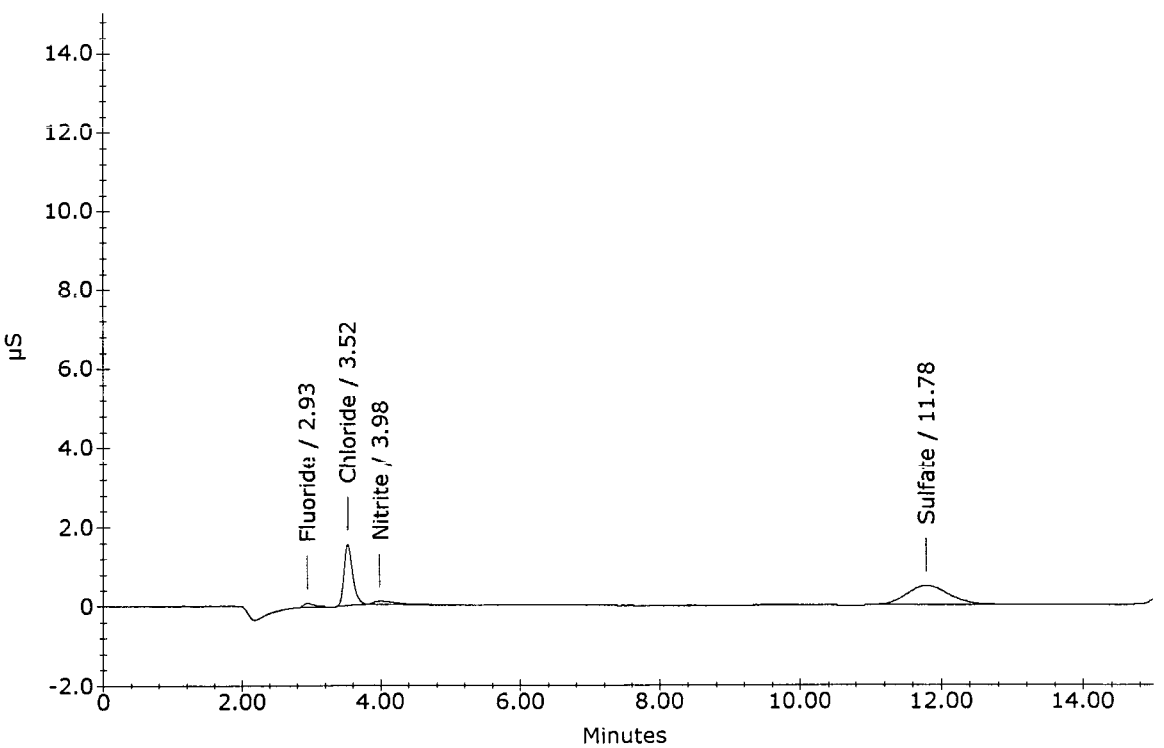
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.93	Fluoride	6.671	9103
2	3.52	Chloride	149.740	137281
3	3.98	Nitrite	3.190	14748
4	11.78	Sulfate	274.051	209869

R1608841-001



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Sample Name : R160~~8841~~8840-002 NM 9/9/16
Data File Name : ...\908_030.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 9:25:21 PM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

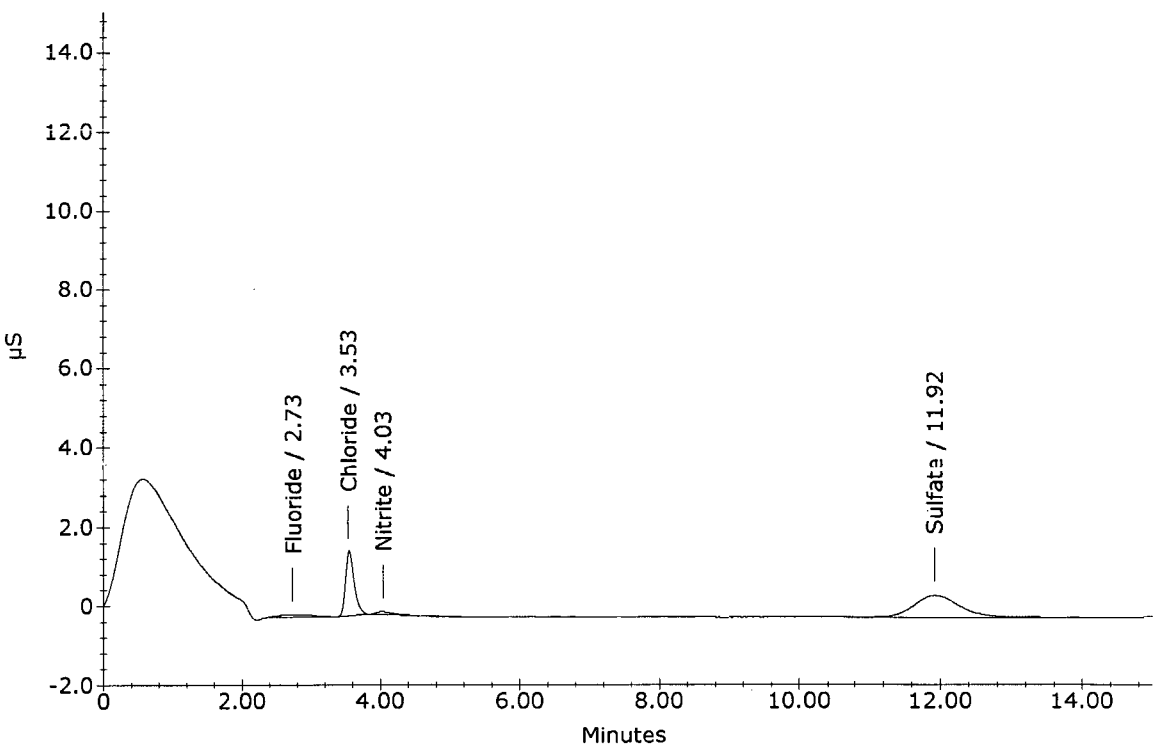
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.73	Fluoride	11.620	17044
2	3.53	Chloride	158.433	145228
3	4.03	Nitrite	1.551	11491
4	11.92	Sulfate	321.138	245317

R1608841-002



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Sample Name : SEC IV PP R1609518-004
Data File Name : ...\908_031.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 9:40:24 PM

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

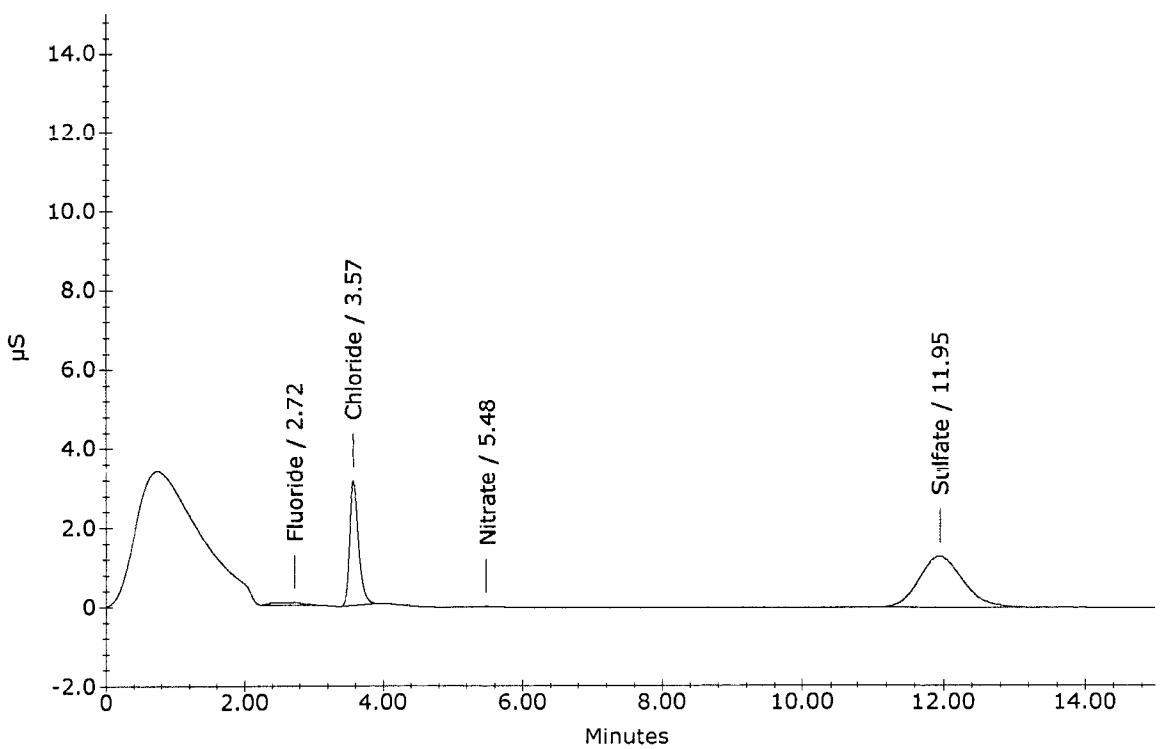
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	1.019	14743
2	3.57	Chloride	30.354	280212
3	5.48	Nitrate	0.011	1952
4	11.95	Sulfate	73.593	558884

SEC IV PP



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Sample Name : SEC IV PP MS
Data File Name : ...\908_032.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 9:55:27 PM

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

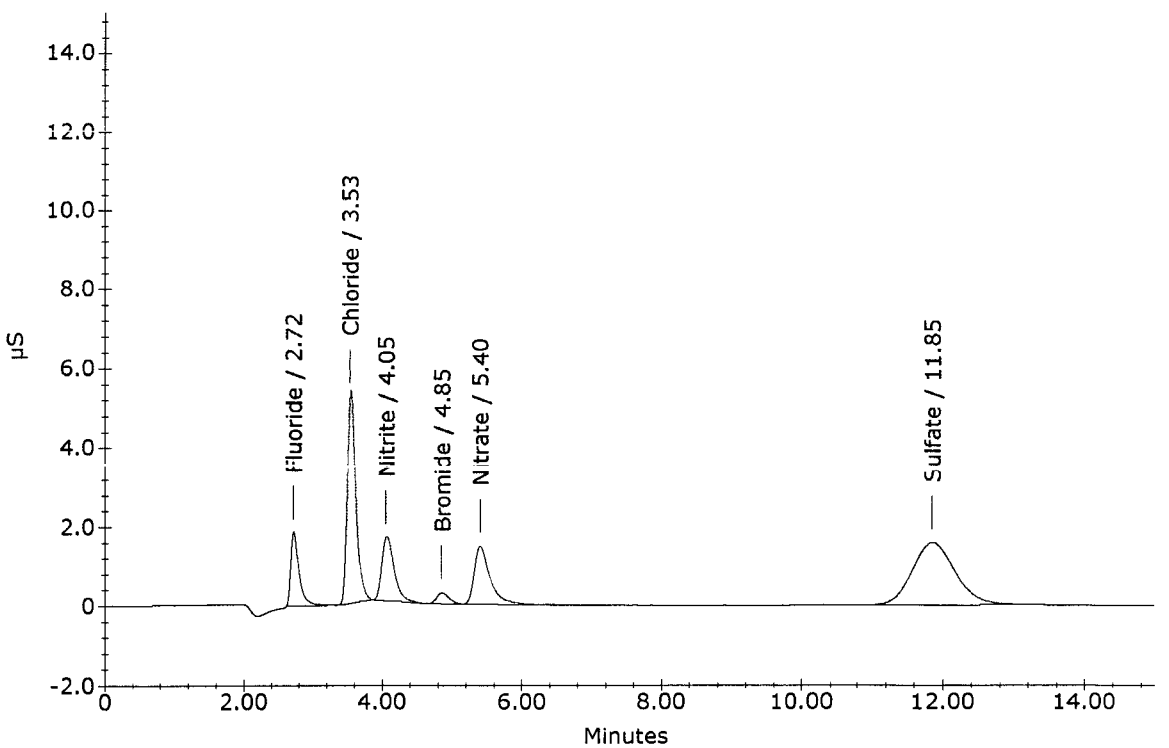
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	9.338	149973
2	3.53	Chloride	49.718	467789
3	4.05	Nitrite	9.434	197930
4	4.85	Bromide	9.512	32733
5	5.40	Nitrate	10.148	231550
6	11.85	Sulfate	86.494	656889

SEC IV PP MS



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Sample Name : SEC IV PP MSD
Data File Name : ...\908_033.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 10:10:29 PM

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

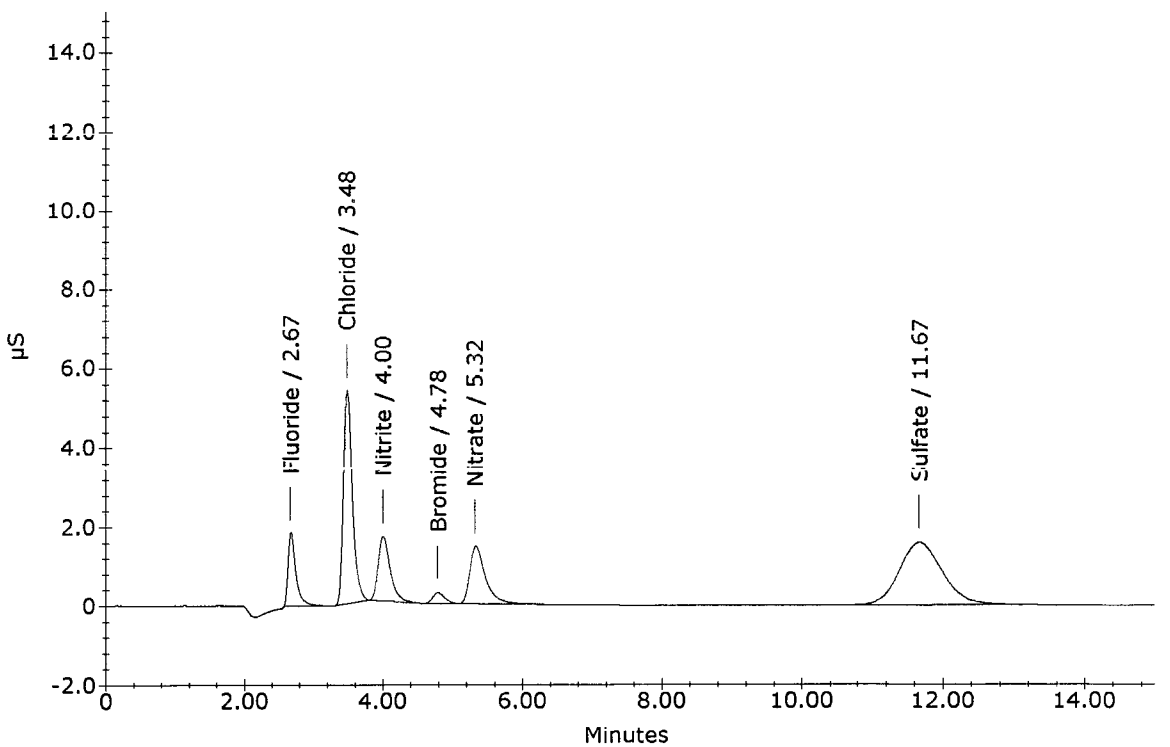
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	9.191	147554
2	3.48	Chloride	49.614	466757
3	4.00	Nitrite	9.377	196764
4	4.78	Bromide	9.443	32497
5	5.32	Nitrate	10.002	228188
6	11.67	Sulfate	87.219	662399

SEC IV PP MSD



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Sample Name : LCS
Data File Name : ...\908_034.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 10:25:32 PM

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

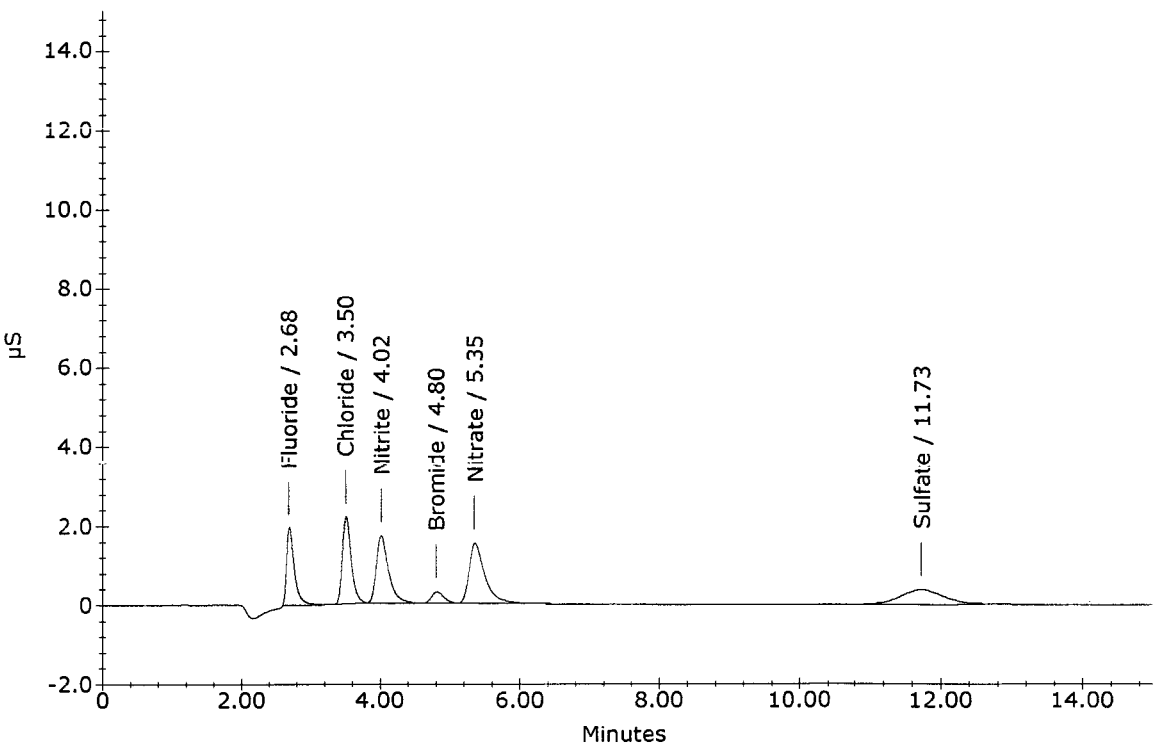
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.68	Fluoride	0.939	150765
2	3.50	Chloride	2.106	193259
3	4.02	Nitrite	0.996	208563
4	4.80	Bromide	1.007	34641
5	5.35	Nitrate	1.055	240835
6	11.73	Sulfate	1.991	153469

LCS



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Sample Name : R1608840-005
Data File Name : ...\908_035.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 10:40:35 PM

Dilution Factor : 10.00
Sample Type : Sample Analysis
Sample Comment : %CL

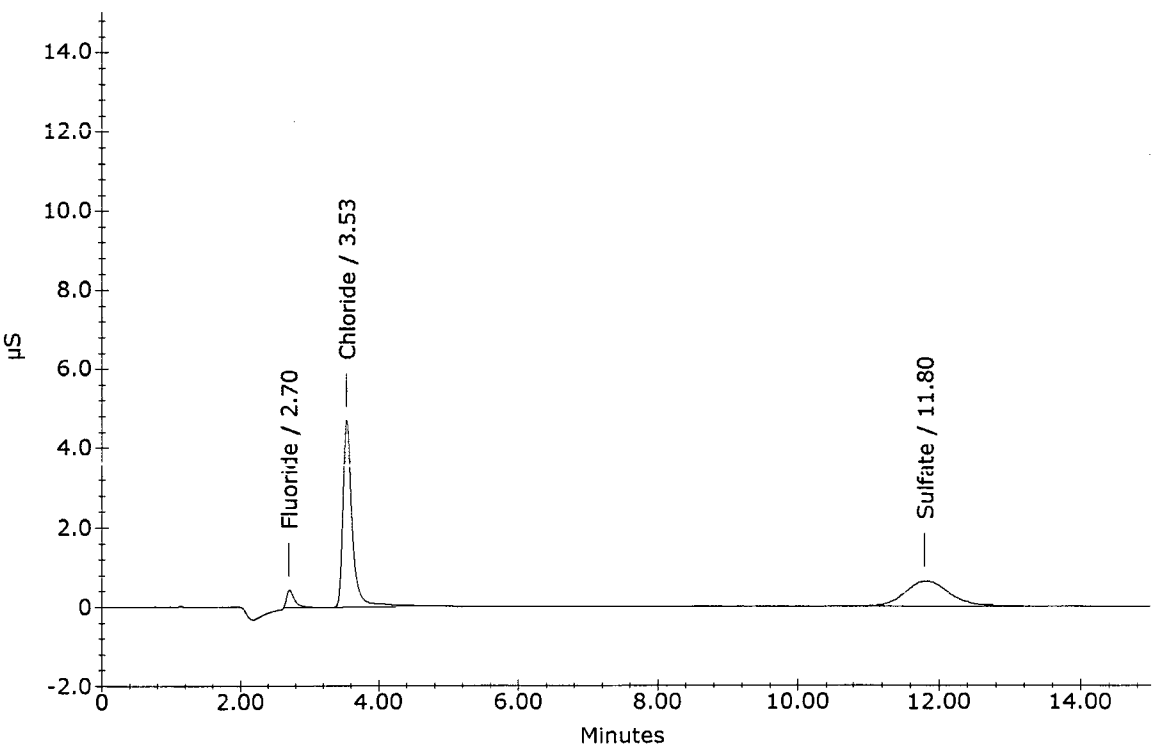
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.70	Fluoride	2.157	33040
2	3.53	Chloride	47.356	444417
3	11.80	Sulfate	35.333	269569

R1608840-005



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Sample Name : R1608840-003
Data File Name : ...\908_036.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 10:55:37 PM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

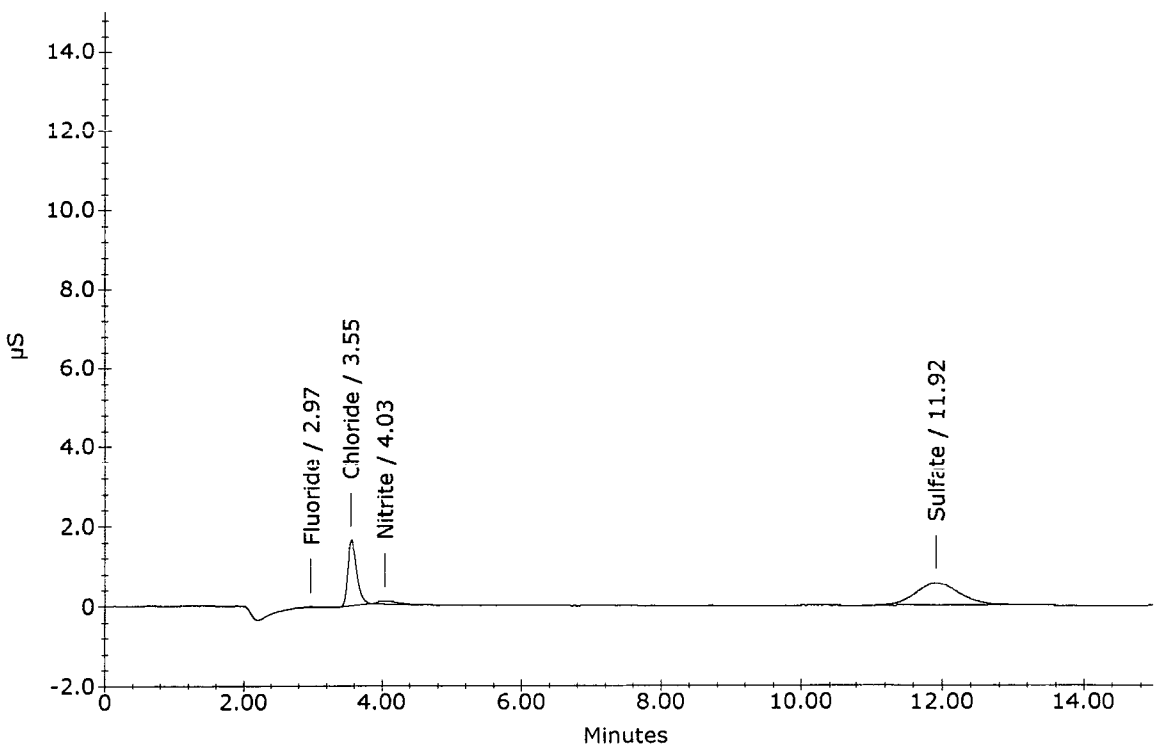
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.97	Fluoride	1.506	827
2	3.55	Chloride	160.081	146737
3	4.03	Nitrite	3.635	15631
4	11.92	Sulfate	321.455	245556

R1608840-003



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Sample Name : NS-4S R1609396-016
Data File Name : ...\908_037.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 11:10:41 PM

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

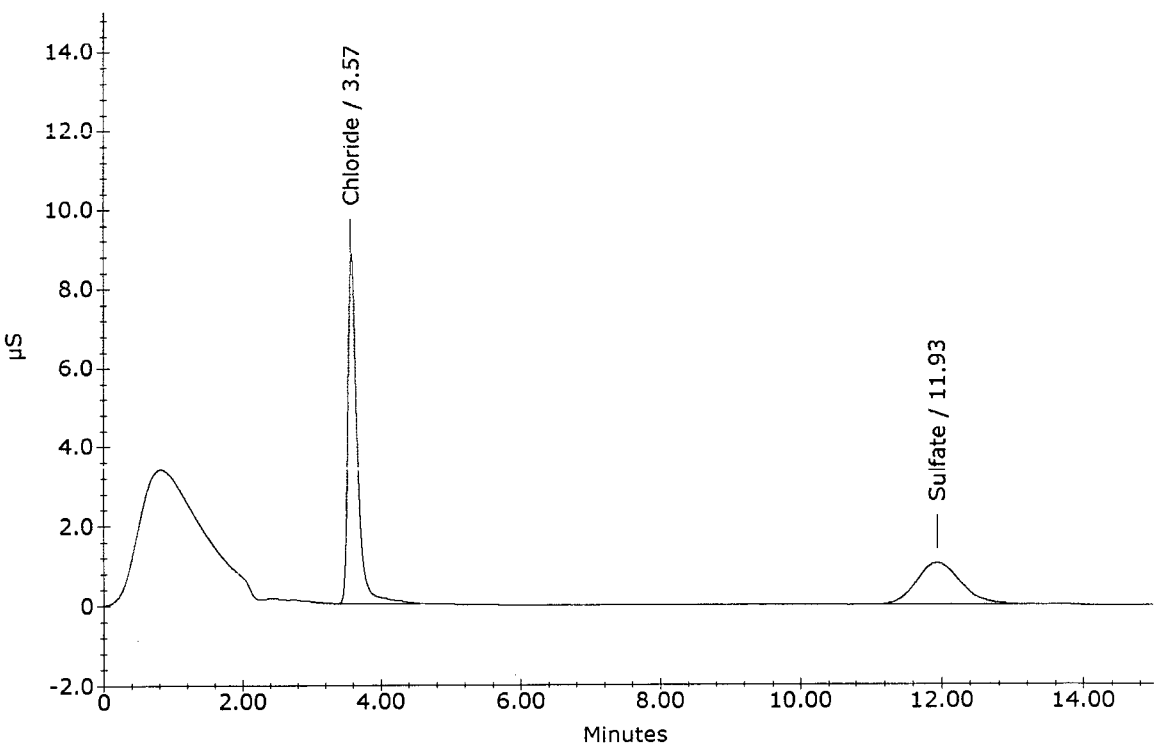
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	84.549	830753
2	11.93	Sulfate	59.412	451415

NS-4S



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Sample Name : NS-4D-03 R1609396-017
Data File Name : ...\908_038.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 11:25:43 PM

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

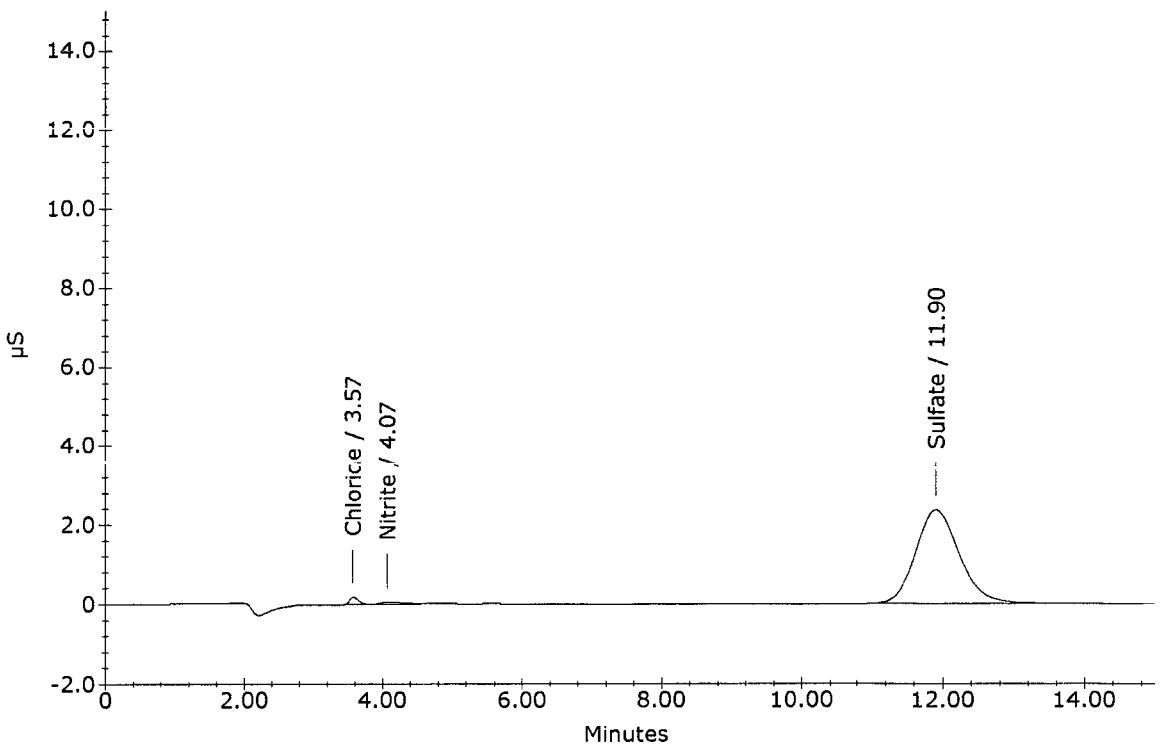
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	1.561	16537
2	4.07	Nitrite	0.240	13173
3	11.90	Bromide Sulfate 1/100	131.375	999642

NS-4D-03



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Sample Name : CCV
Data File Name : ...\908_039.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 11:40:45 PM

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

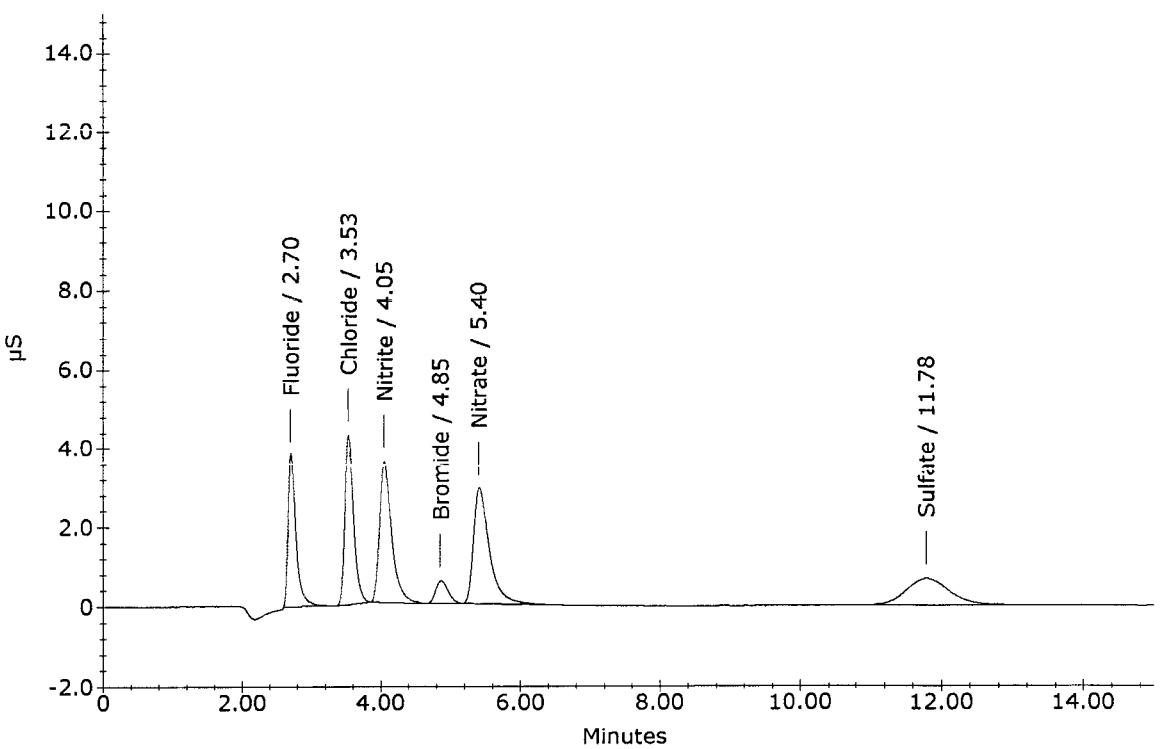
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	1.839	301167
2	3.53	Chloride	4.038	376243
3	4.05	Nitrite	2.093	435076
4	4.85	Bromide	1.991	68071
5	5.40	Nitrate	1.975	457870
6	11.78	Sulfate	3.691	281482

CCV



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Sample Name : CCB
Data File Name : ...\908_040.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/8/16 11:55:49 PM

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

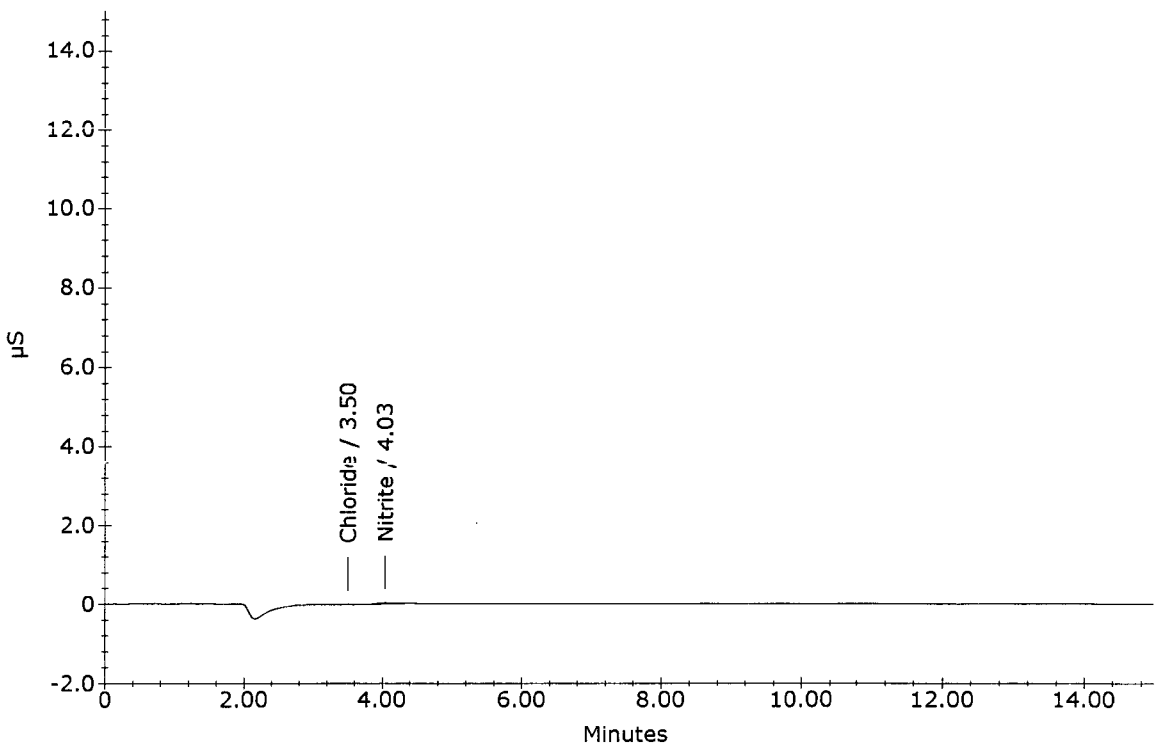
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	3.50	Chloride	-0.016	1263
2	4.03	Nitrite	-0.014	5637

CCB



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Sample Name : R1608840-004
Data File Name : ...\908_041.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 12:10:52 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

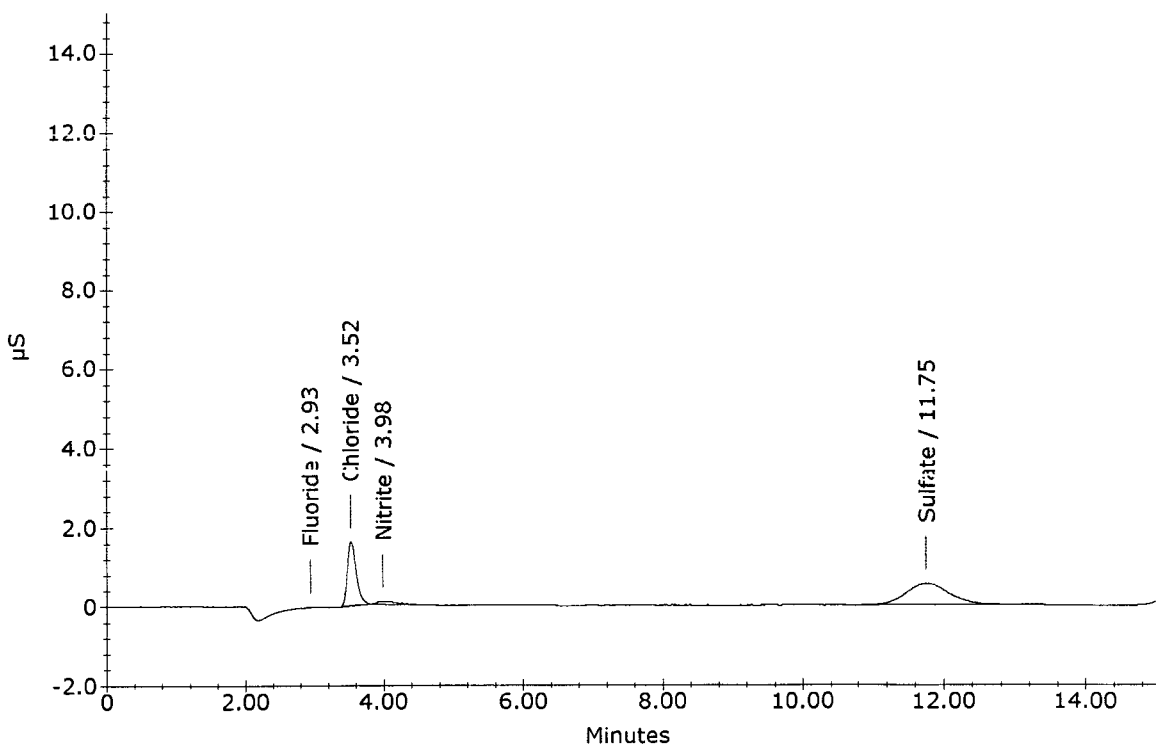
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.93	Fluoride	1.472	772
2	3.52	Chloride	157.160	144063
3	3.98	Nitrite	2.960	14291
4	11.75	Sulfate	307.118	234760

R1608840-004



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Sample Name : R1608840-004 MS
Data File Name : ...\908_042.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 12:25:53 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

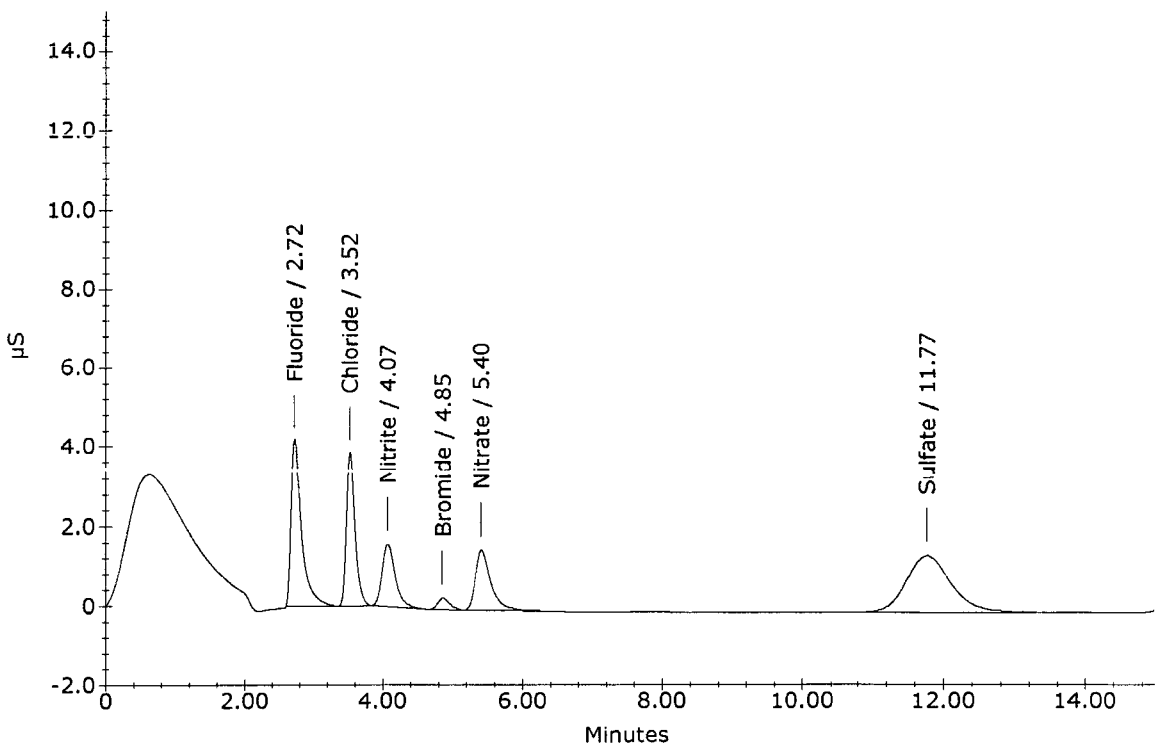
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.72	Fluoride	261.610	434748
2	3.52	Chloride	363.129	336988
3	4.07	Nitrite	100.337	210118
4	4.85	Bromide	96.740	33283
5	5.40	Nitrate	102.952	234957
6	11.77	Sulfate	812.473	617000

R1608840-004 MS



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Sample Name : R1608840-004 MSD
Data File Name : ...\908_043.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 12:40:57 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

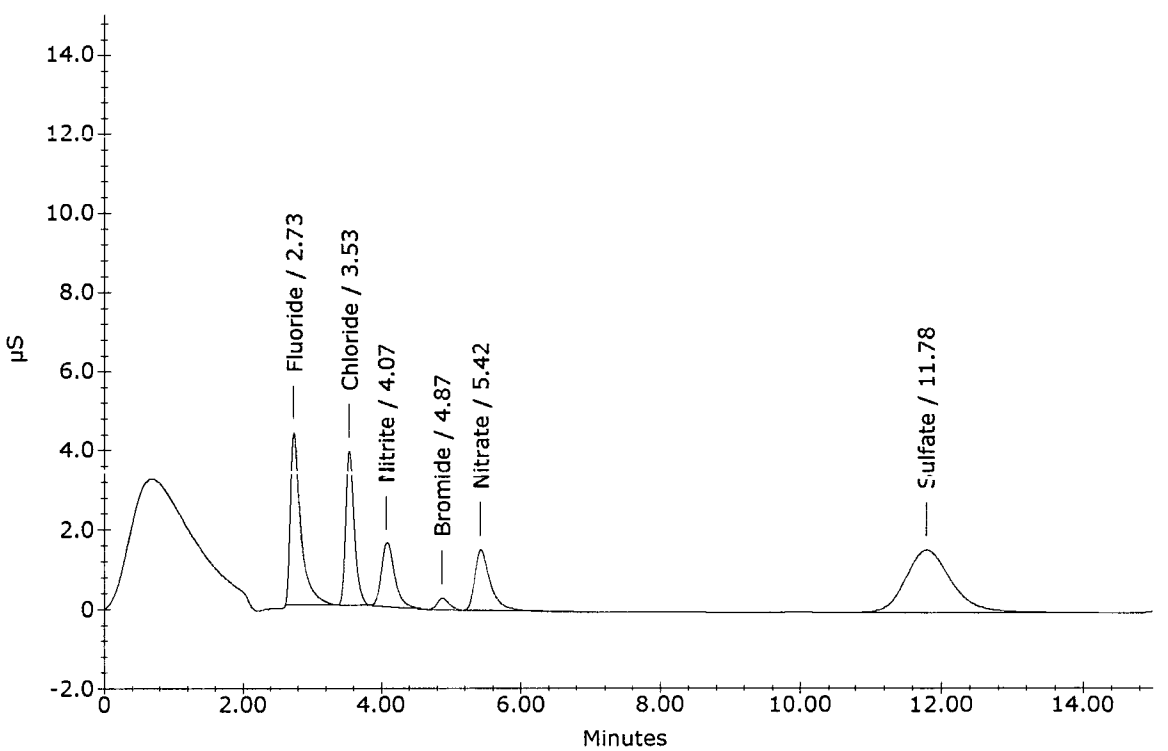
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.73	Fluoride	273.878	456159
2	3.53	Chloride	365.265	339039
3	4.07	Nitrite	102.575	214674
4	4.87	Bromide	97.937	33689
5	5.42	Nitrate	103.639	236546
6	11.78	Sulfate	897.159	681398

R1608840-004 MSD



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Sample Name : R1609116-003
Data File Name : ...\908_044.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 12:56:00 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

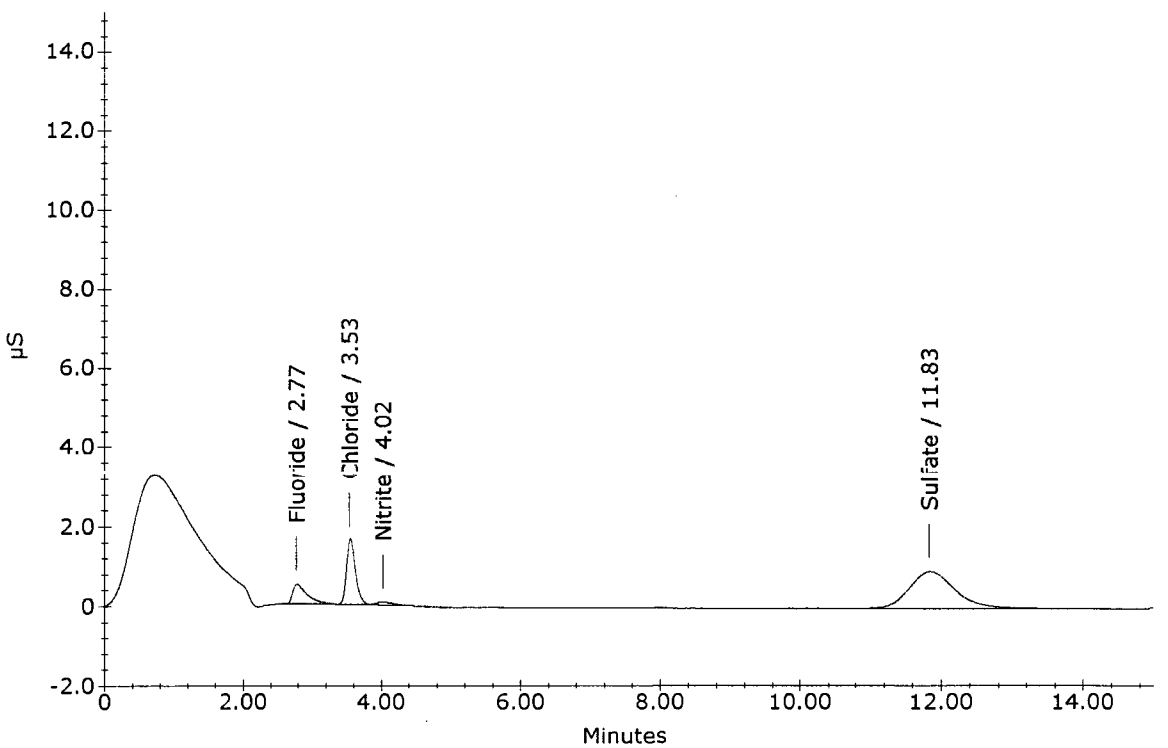
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.77	Fluoride	45.471	71677
2	3.53	Chloride	158.656	145432
3	4.02	Nitrite	0.899	10196
4	11.83	Sulfate	531.981	404413

R1609116-003



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Sample Name : R1609116-005
Data File Name : ...\908_045.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 1:11:01 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

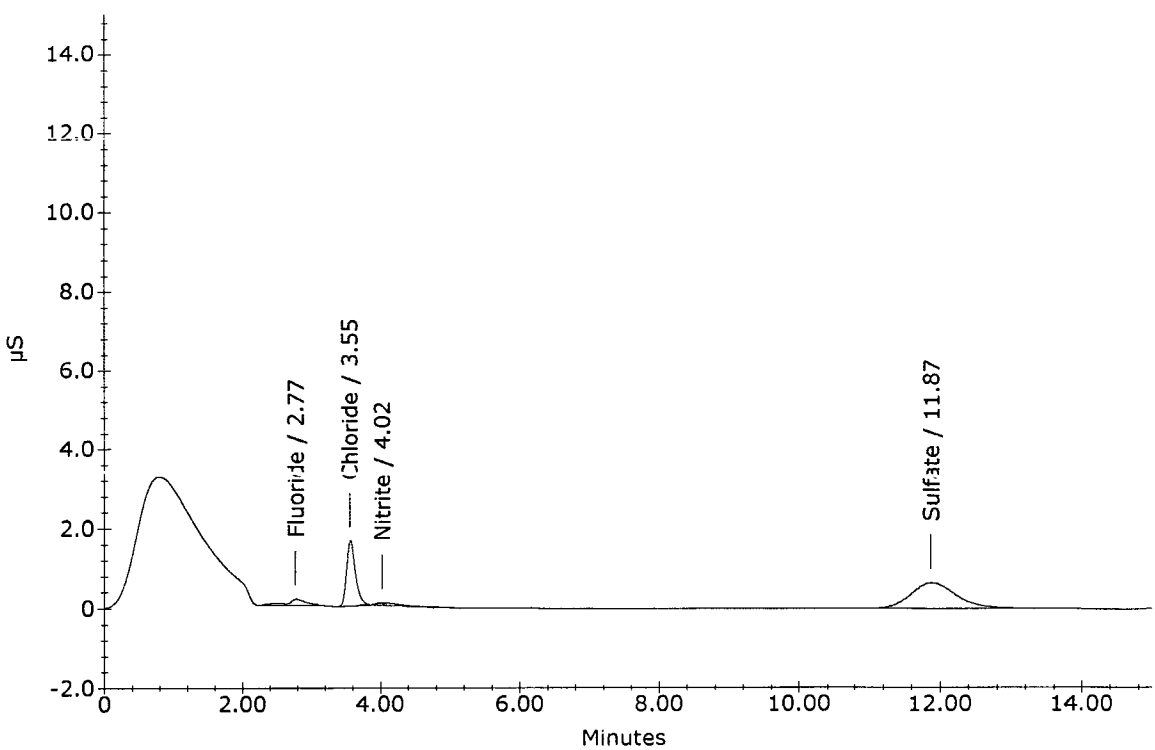
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	2.77	Fluoride	21.632	33144
2	3.55	Chloride	159.353	146071
3	4.02	Nitrite	0.381	9166
4	11.87	Sulfate	372.451	283982

R1609116-005



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Sample Name : R1609116-007
Data File Name : ...\908_046.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 1:26:05 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

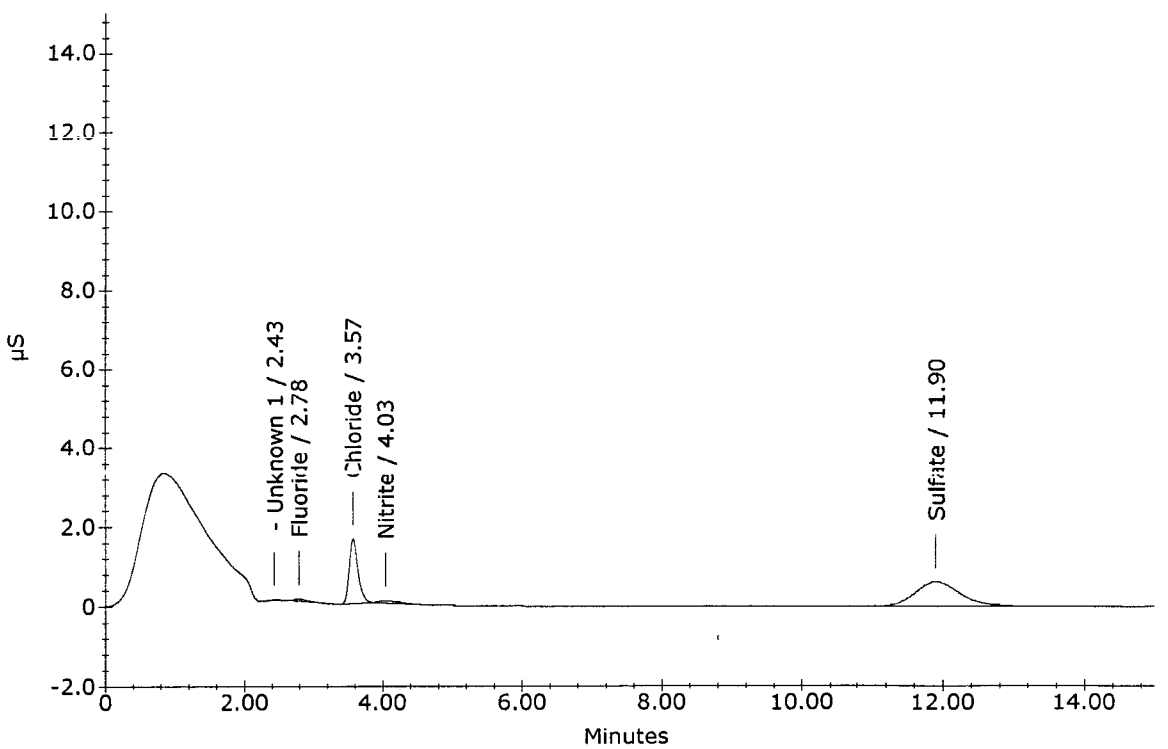
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.78	Fluoride	4.268	5251
3	3.57	Chloride	157.436	144316
4	4.03	Nitrite	0.761	9921
5	11.90	Sulfate	351.998	268566

R1609116-007



Ion Chromatography Analytical Report
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Sample Name : R1609116-009
Data File Name : ...\908_047.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 1:41:08 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

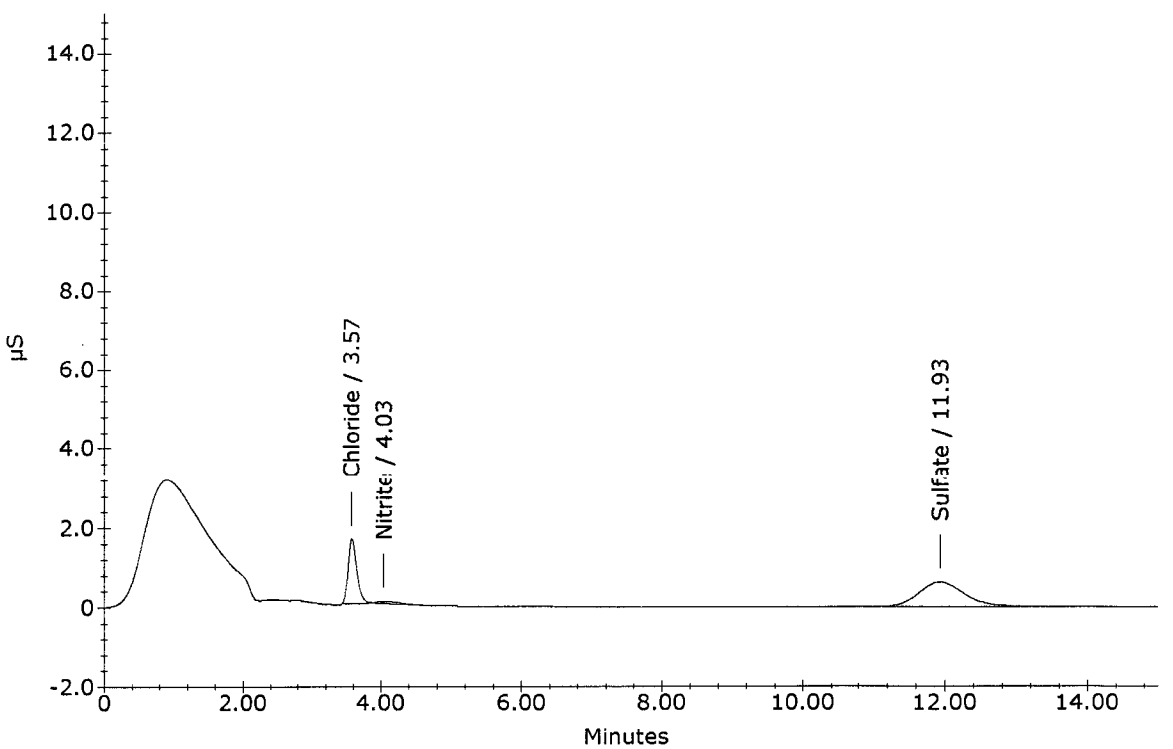
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	3.57	Chloride	155.679	142709
2	4.03	Nitrite	0.832	10063
3	11.93	Sulfate	357.751	272901

R1609116-009



Ion Chromatography Analytical Report
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Sample Name : R1609116-011
Data File Name : ...\908_048.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 1:56:10 AM

Dilution Factor : 100.00
Sample Type : Sample Analysis
Sample Comment : %CL

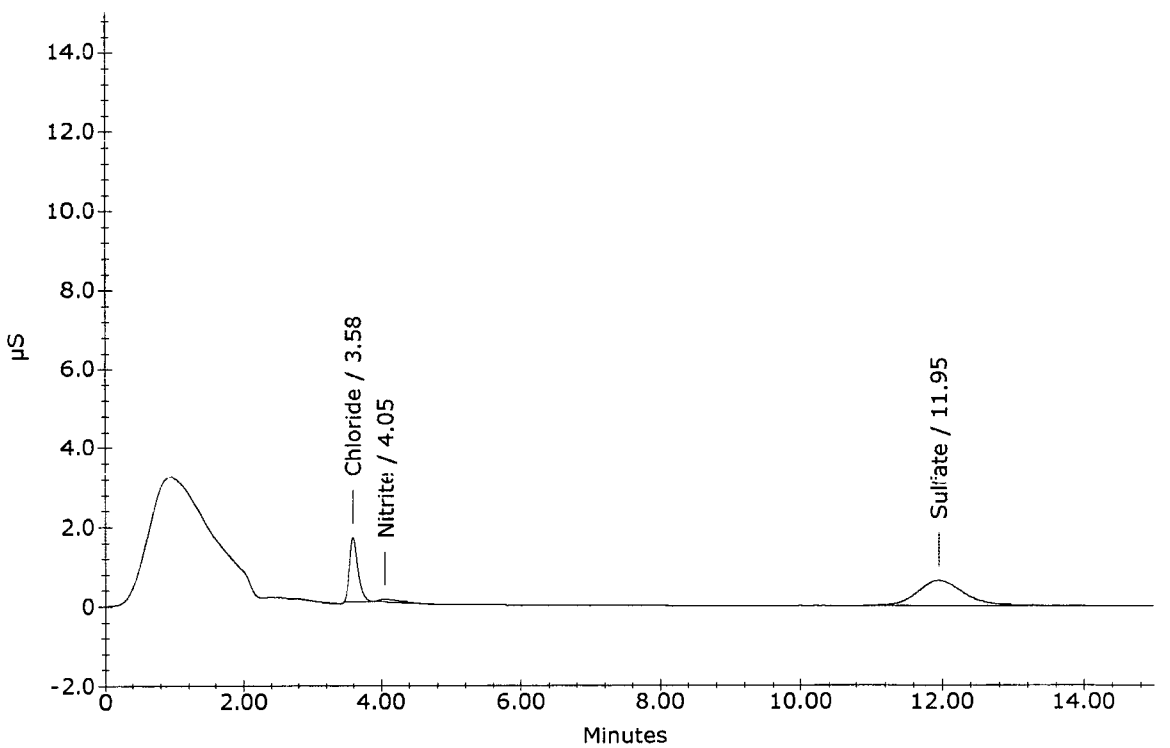
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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
1	3.58	Chloride	154.669	141786
2	4.05	Nitrite	2.597	13570
3	11.95	Sulfate	357.819	272952

R1609116-011



Ion Chromatography Analytical Report
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Sample Name : GW-1S R1609396-018
Data File Name : ...\908_049.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 2:11:13 AM

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

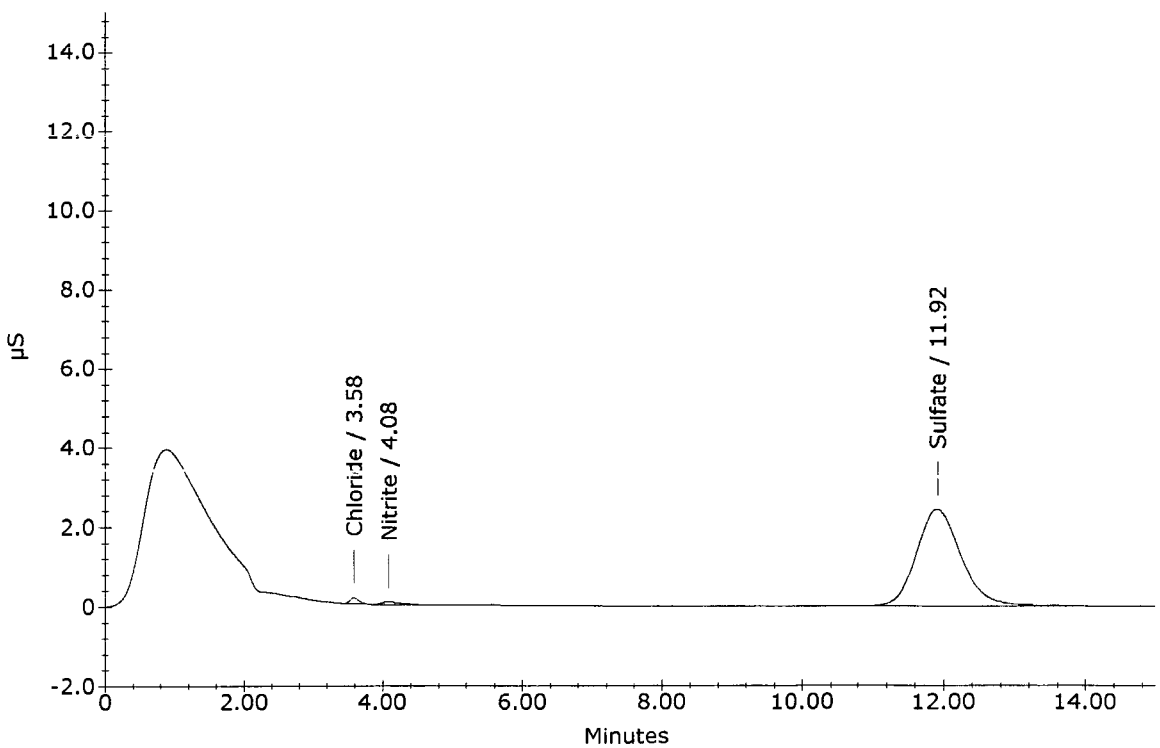
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	0.943	11054
2	4.08	Nitrite	0.335	15065
3	11.92	Sulfate 1/100	136.598	1039709

GW-1S



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Sample Name : GW-1D R1609396-019
Data File Name : ...\908_050.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 2:26:16 AM

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

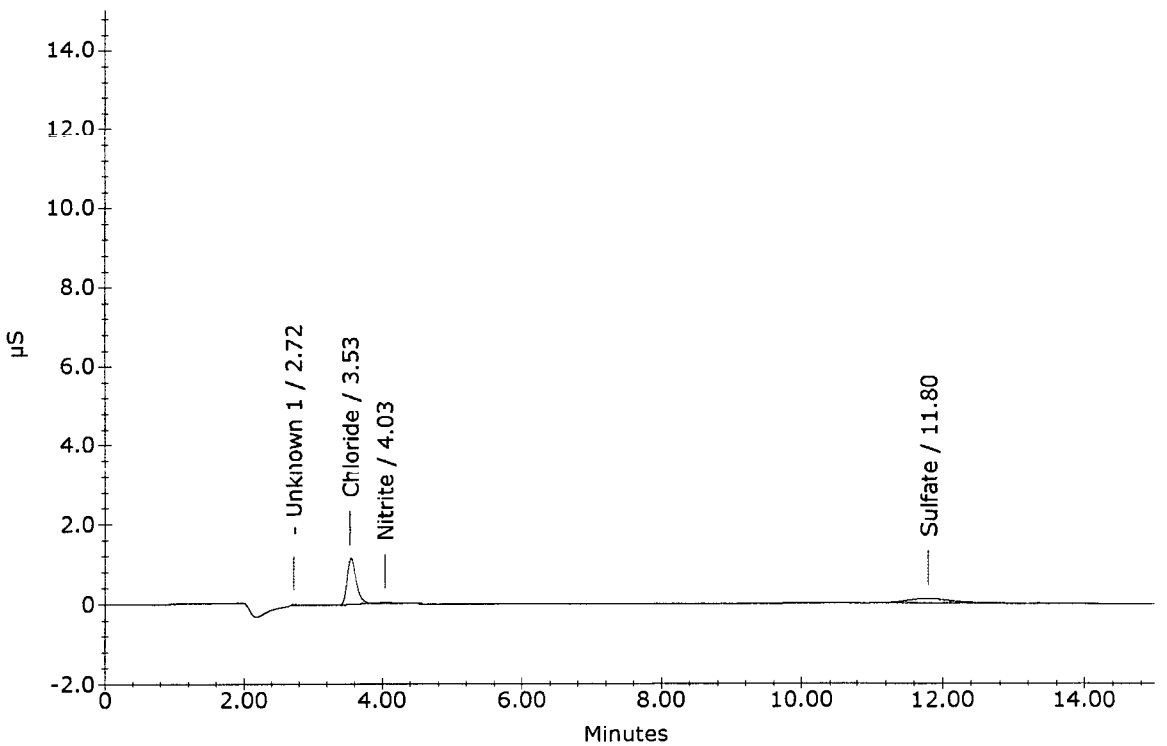
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	11.354	104350
3	4.03	Nitrite	-0.118	6059
4	11.80	Sulfate	5.758	47285

GW-1D



Ion Chromatography Analytical Report
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Sample Name : CCV
Data File Name : ...\908_051.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 2:41:18 AM

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

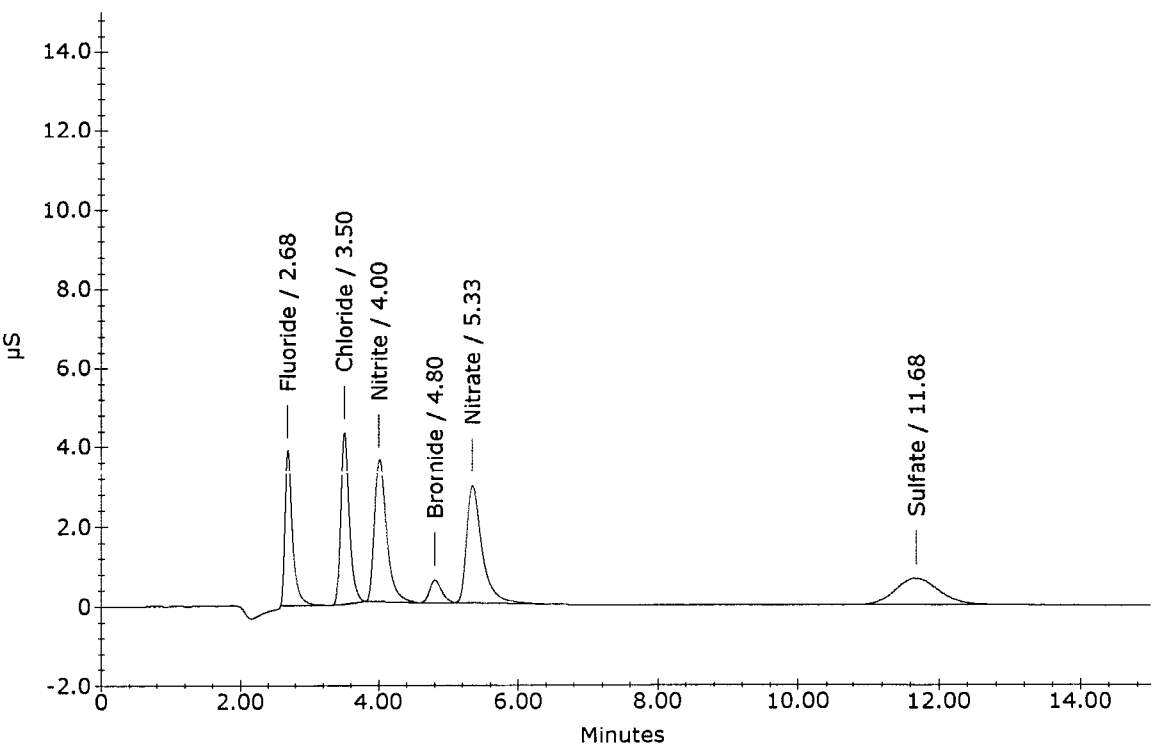
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	2.68	Fluoride	1.818	297629
2	3.50	Chloride	3.978	370403
3	4.00	Nitrite	2.054	426839
4	4.80	Bromide	1.945	66524
5	5.33	Nitrate	1.940	449472
6	11.68	Sulfate	3.669	279769

CCV



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Sample Name : CCB
Data File Name : ...\908_052.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 2:56:22 AM

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

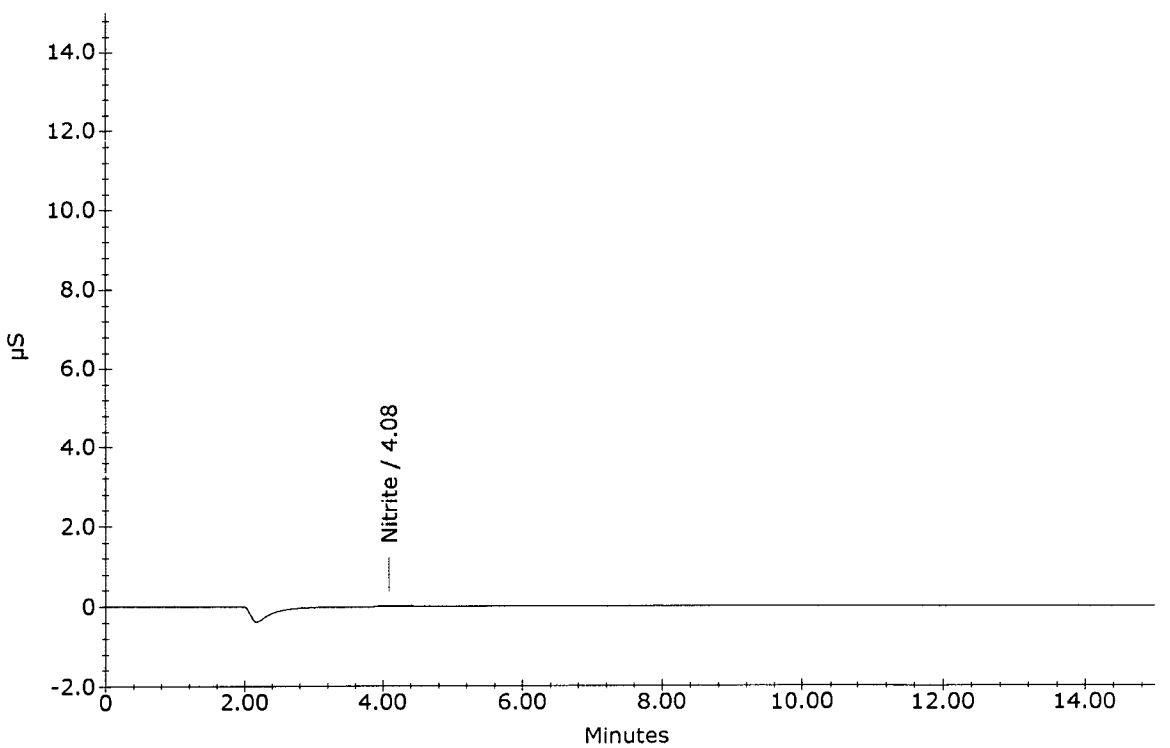
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	4.08	Chloride Nitrite	-0.030	2487

CCB



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Sample Name : NS-3S R1609396-022
Data File Name : ...\908_053.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 3:11:24 AM

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

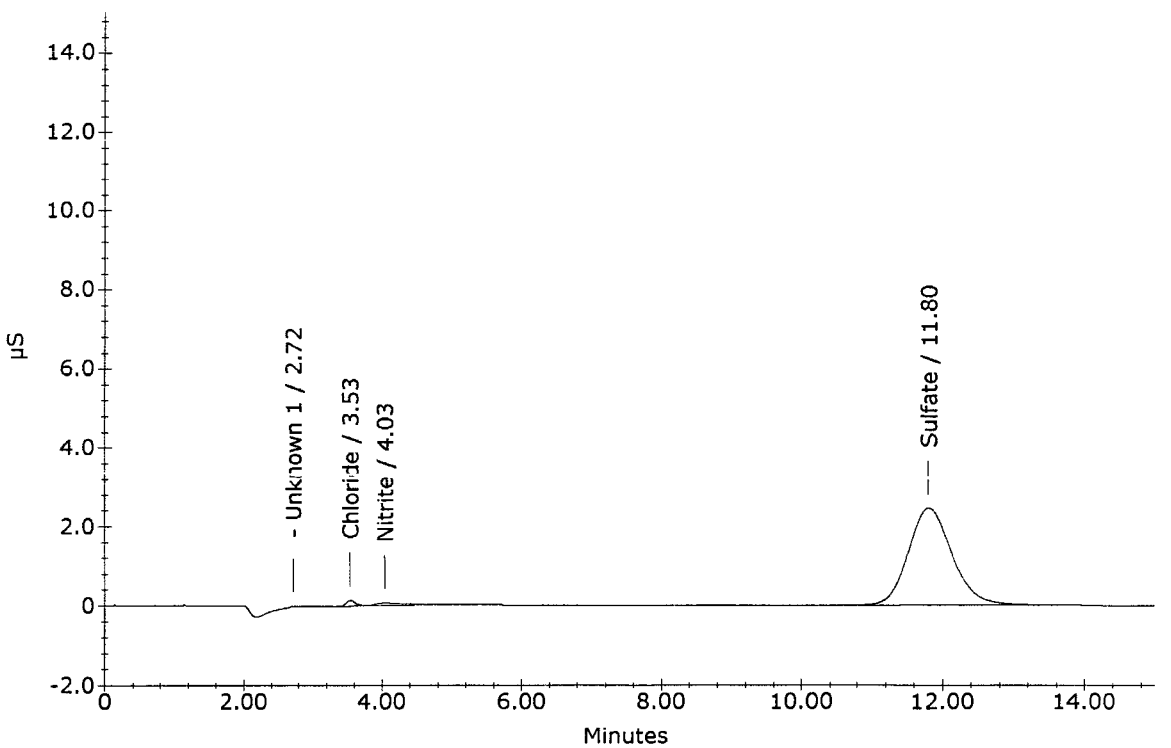
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	1.136	12765
3	4.03	Nitrite	0.326	14881
4	11.80	Sulfate 1/100	136.689	1040410

NS-3S



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Sample Name : NS-3S MS 9396-022
Data File Name : ...\908_054.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 3:26:26 AM

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

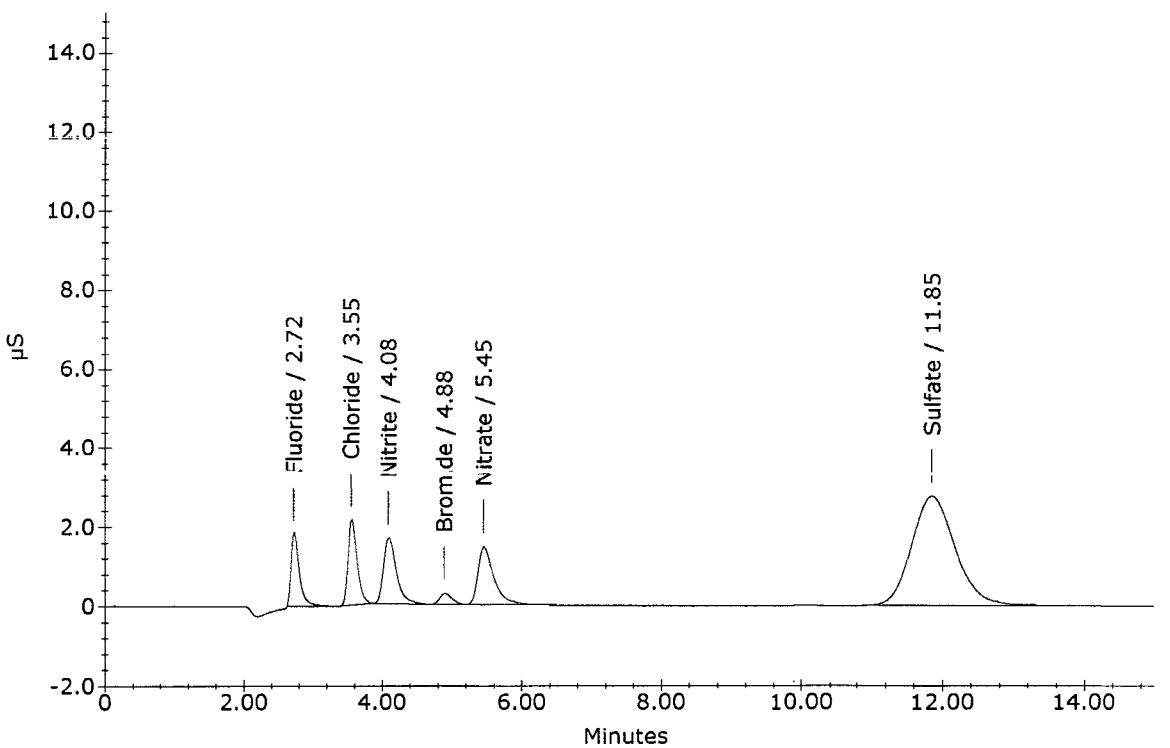
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	9.395	150923
2	3.55	Chloride	21.229	194807
3	4.08	Nitrite	10.128	212028
4	4.88	Bromide	9.605	33050
5	5.45	Nitrate	10.174	232163
6	11.85	Sulfate 1/100	154.059	1173956

NS-3S MS



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Sample Name : NS-3S MSD 9396-022
Data File Name : ...\908_055.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 3:41:30 AM

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

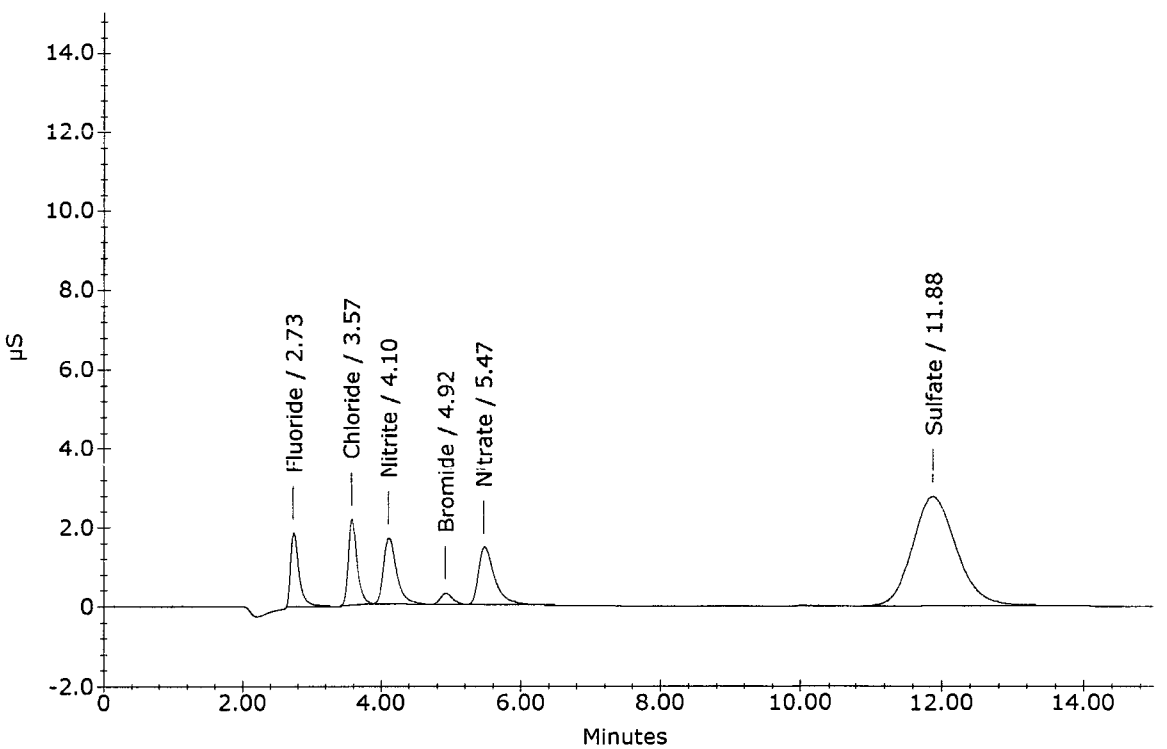
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	9.437	151602
2	3.57	Chloride	21.393	196333
3	4.10	Nitrite	10.196	213423
4	4.92	Bromide	9.774	33623
5	5.47	Nitrate	10.253	233988
6	11.88	Sulfate 1/100	154.902	1180452

NS-3S MSD



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Sample Name : NS-2S R1609396-023
Data File Name : ...\908_056.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 3:56:33 AM

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

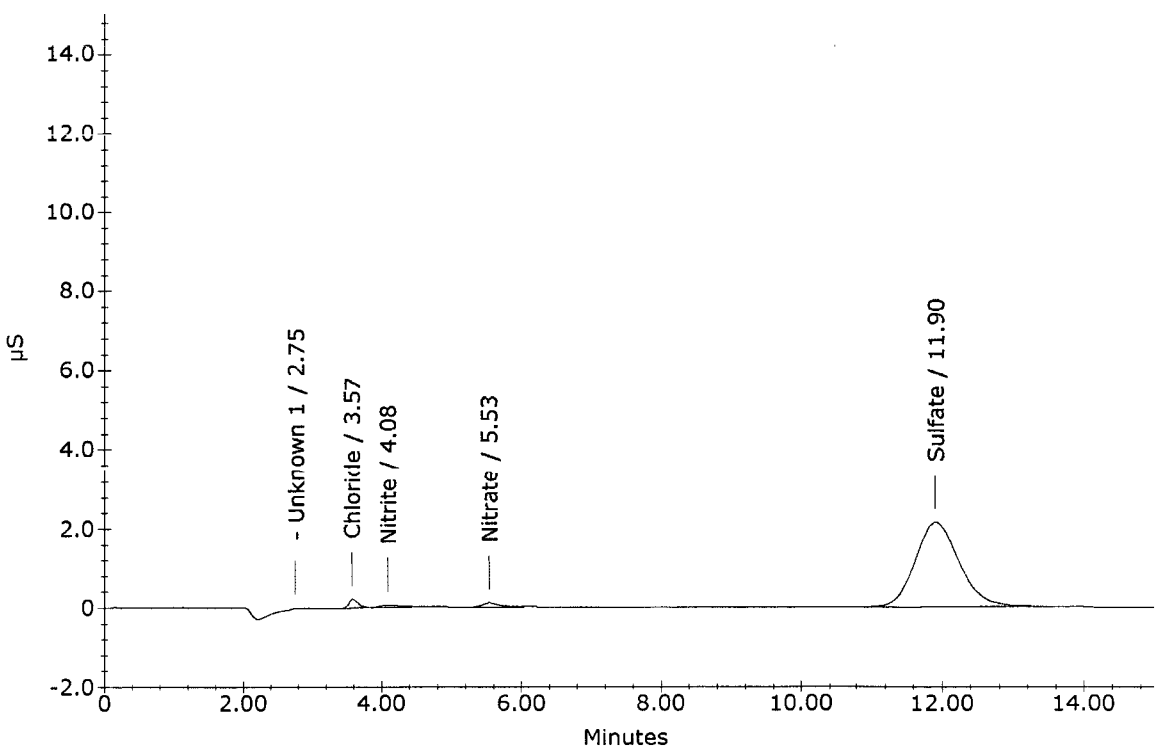
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	1.924	19756
3	4.08	Nitrite	0.164	11671
4	5.53	Nitrate	0.672	16641
5	11.90	Sulfate 1/100	120.139	913568

NS-2S



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Sample Name : NS-2D R1609396-024
Data File Name : ...\908_057.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 4:11:34 AM

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

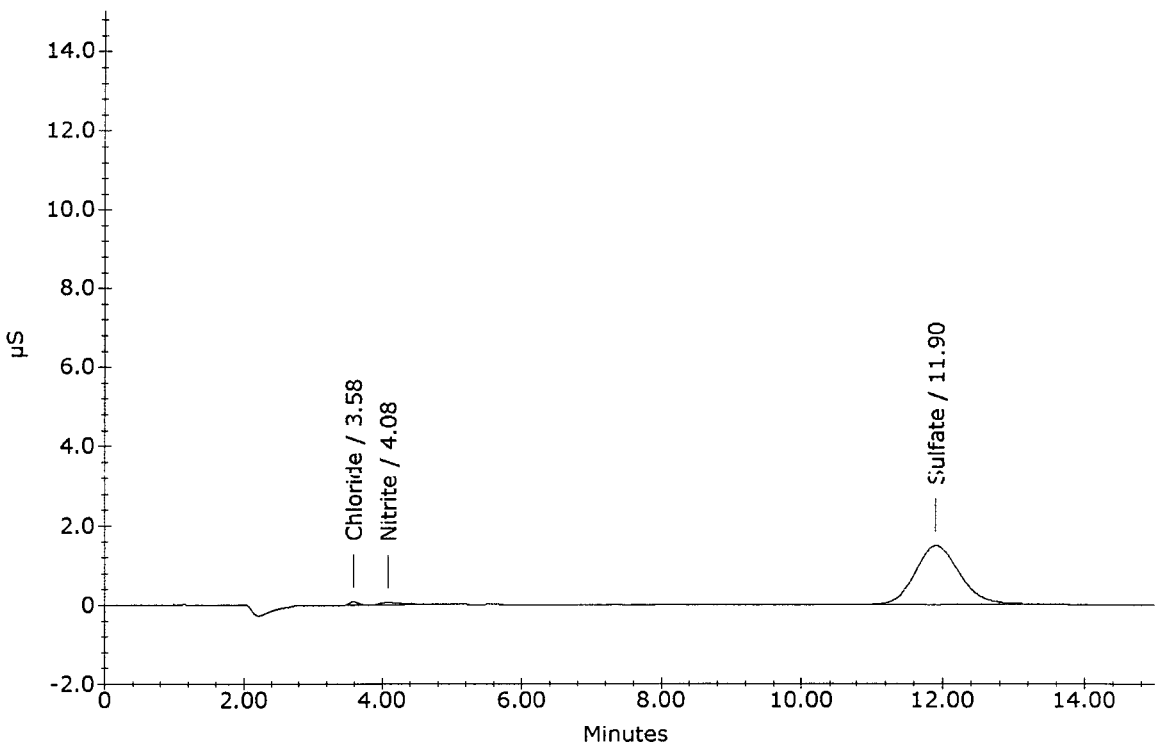
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	0.558	7645
2	4.08	Nitrite	0.244	13248
3	11.90	Sulfate	83.640	635183

NS-2D



Ion Chromatography Analytical Report
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Sample Name : FINAL EFFLUENT R1609521-001
Data File Name : ...\908_058.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 4:26:38 AM

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

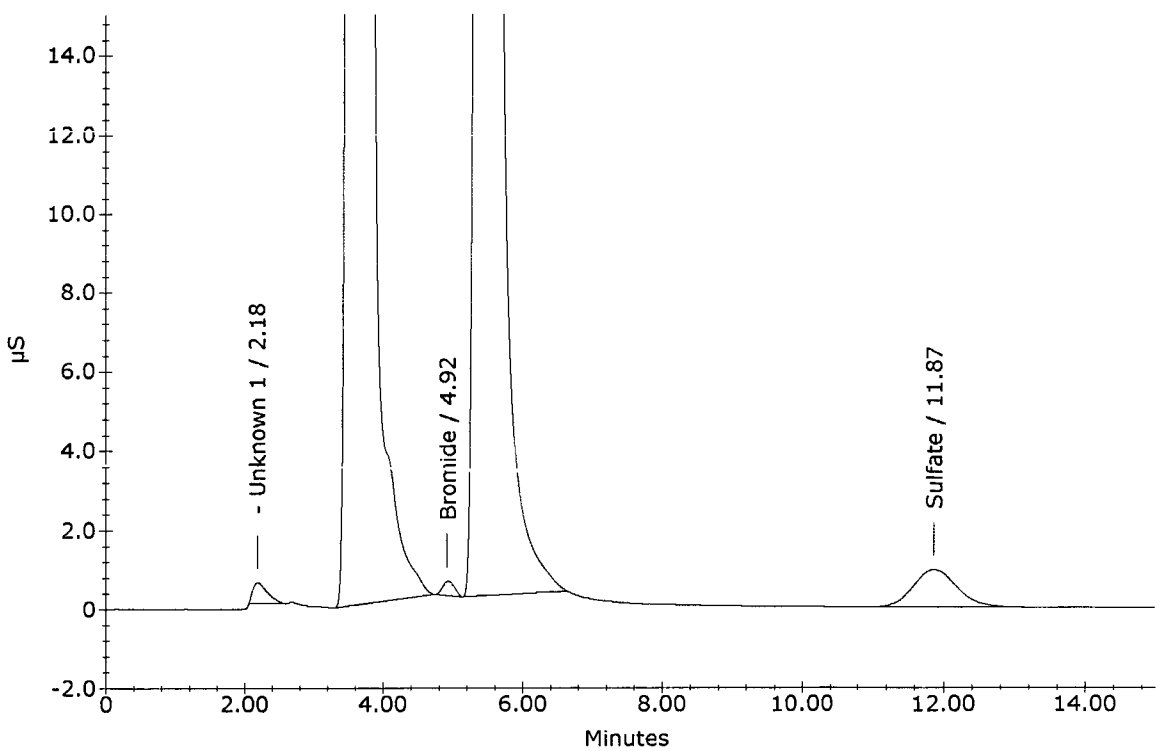
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	3.75	Chloride	1/1000	-13726.513	36798621
3	4.92	Bromide		12.572	43127
4	5.53	Nitrate	1/1000	-1368.167	26032687
5	11.87	Sulfate		52.667	400397

FINAL EFFLUENT



Ion Chromatography Analytical Report
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Sample Name : GW-2DA R1609396-020
Data File Name : ...\908_059.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 4:41:41 AM

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

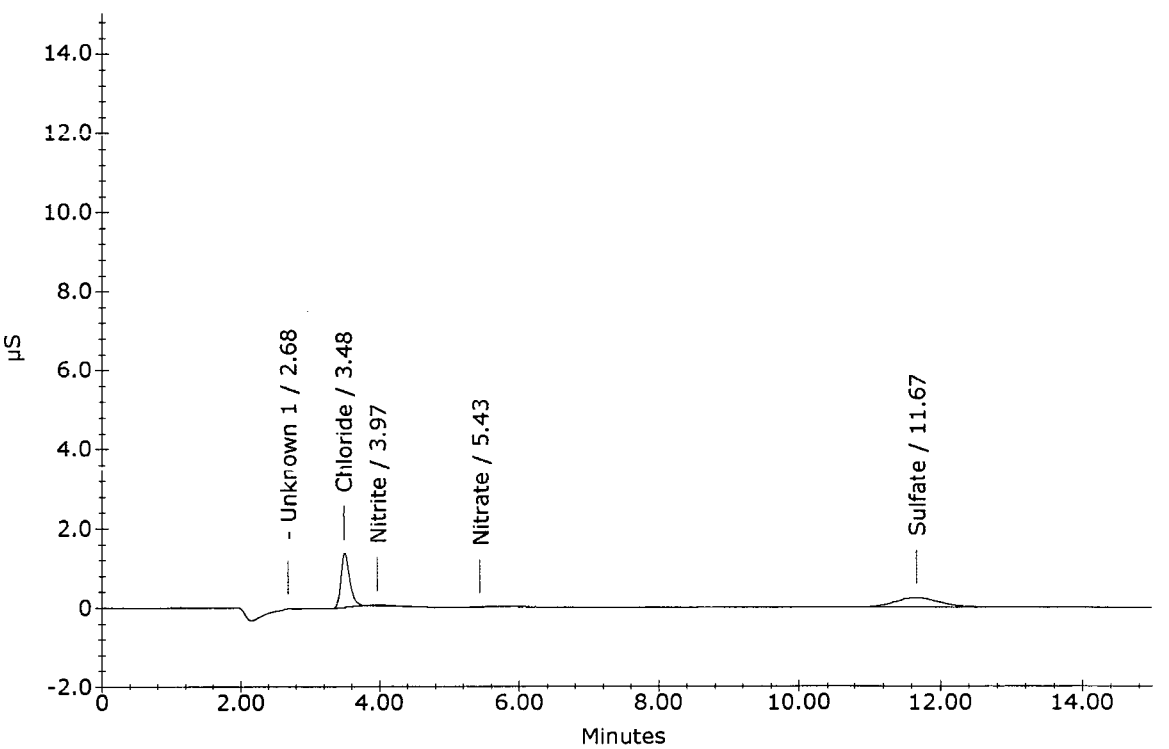
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	3.48	Chloride	13.190	121015
3	3.97	Nitrite	-0.082	6782
4	5.43	Nitrate	0.001	1726
5	11.67	Sulfate	12.860	100556

GW-2DA



Ion Chromatography Analytical Report
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Sample Name : NS-3D R1609396-021
Data File Name : ...\908_060.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 4:56:43 AM

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

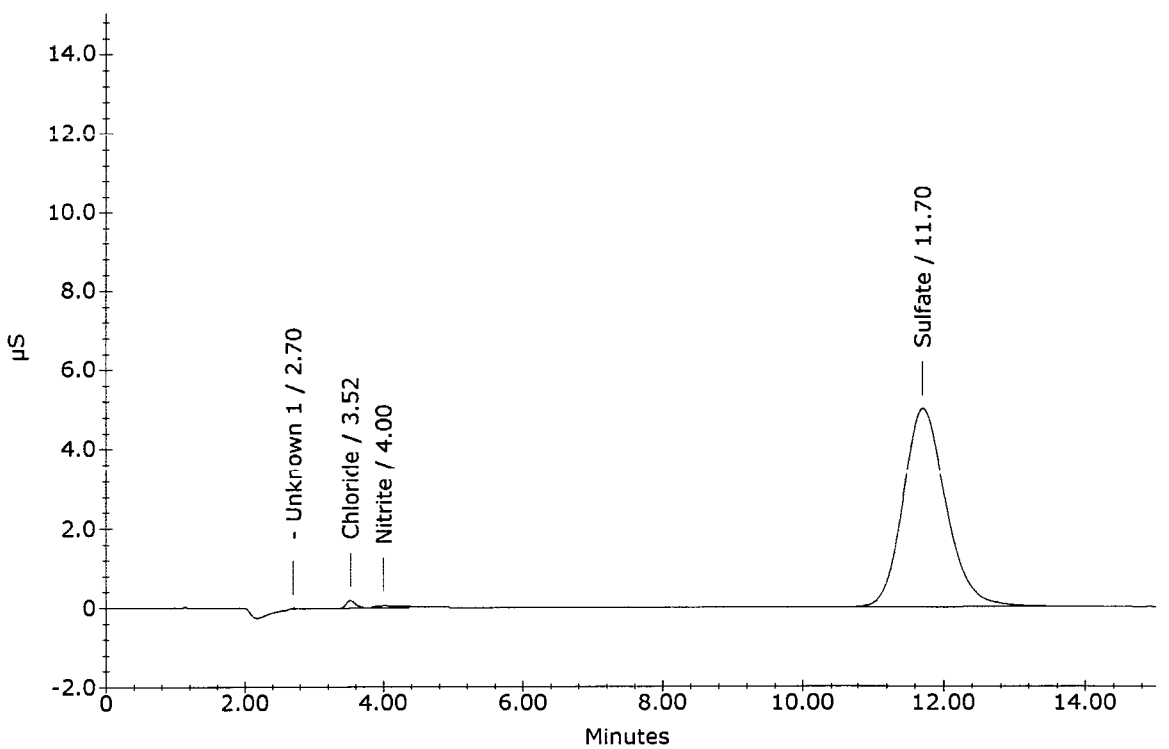
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	3.52	Chloride	1.699	17759
3	4.00	Nitrite	0.233	13039
4	11.70	Sulfate 1/100	271.045	2084917

NS-3D



Ion Chromatography Analytical Report
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Sample Name : ONEONTA INFLUENT R1609534-001
Data File Name : ...\908_061.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 5:11:46 AM

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

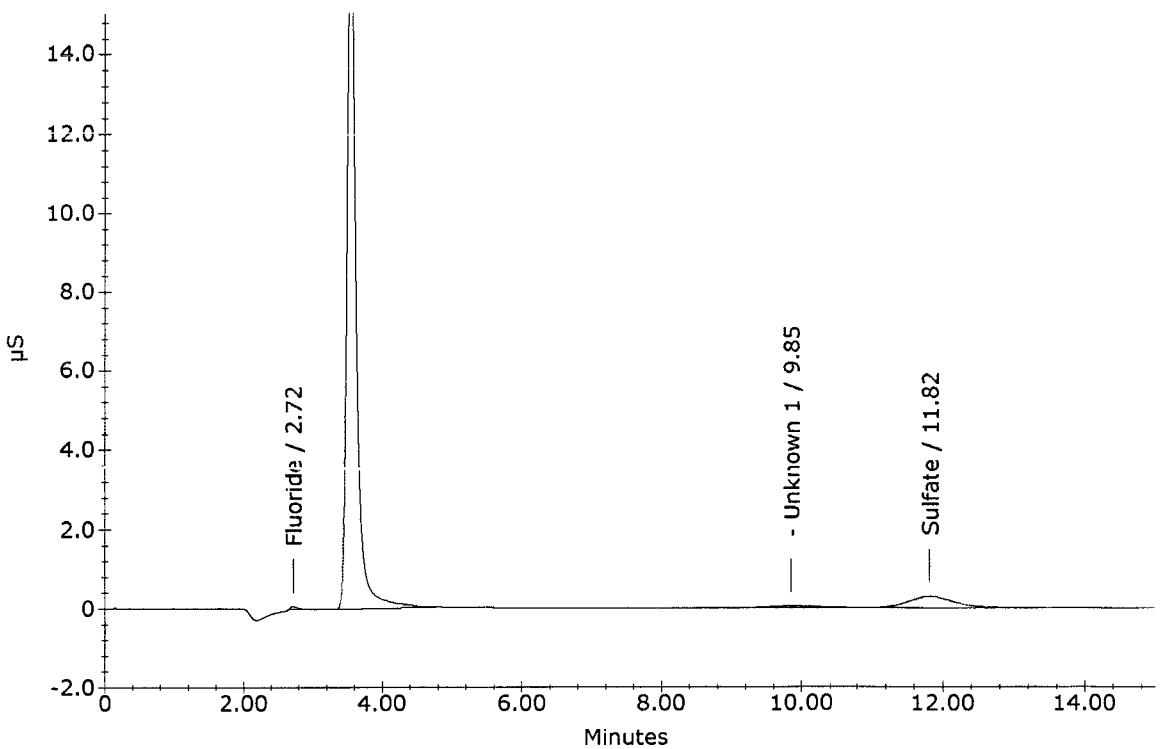
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	0.352	4058
2	3.53	Chloride	149.714	1640566
4	11.82	Sulfate	15.559	120819

ONEONTA INFLUENT



Ion Chromatography Analytical Report
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Sample Name : ONEONTA EFFLUENT R1609534-002
Data File Name : ...\908_062.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 5:26:49 AM

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

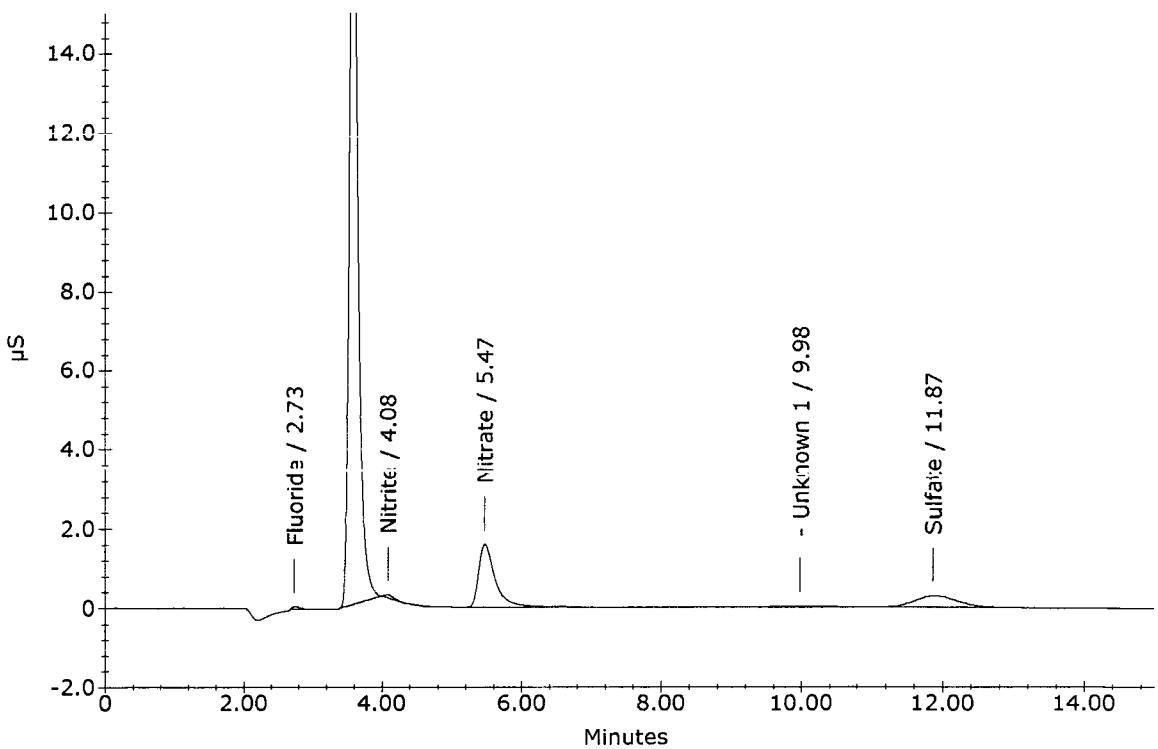
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	0.313	3420
2	3.57	Chloride	158.450	1768892
3	4.08	Nitrite	-0.091	6605
4	5.47	Nitrate	11.386	260227
6	11.87	Sulfate	16.422	127301

ONEONTA EFFLUENT



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Sample Name : CCV
Data File Name : ...\908_063.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 5:41:52 AM

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

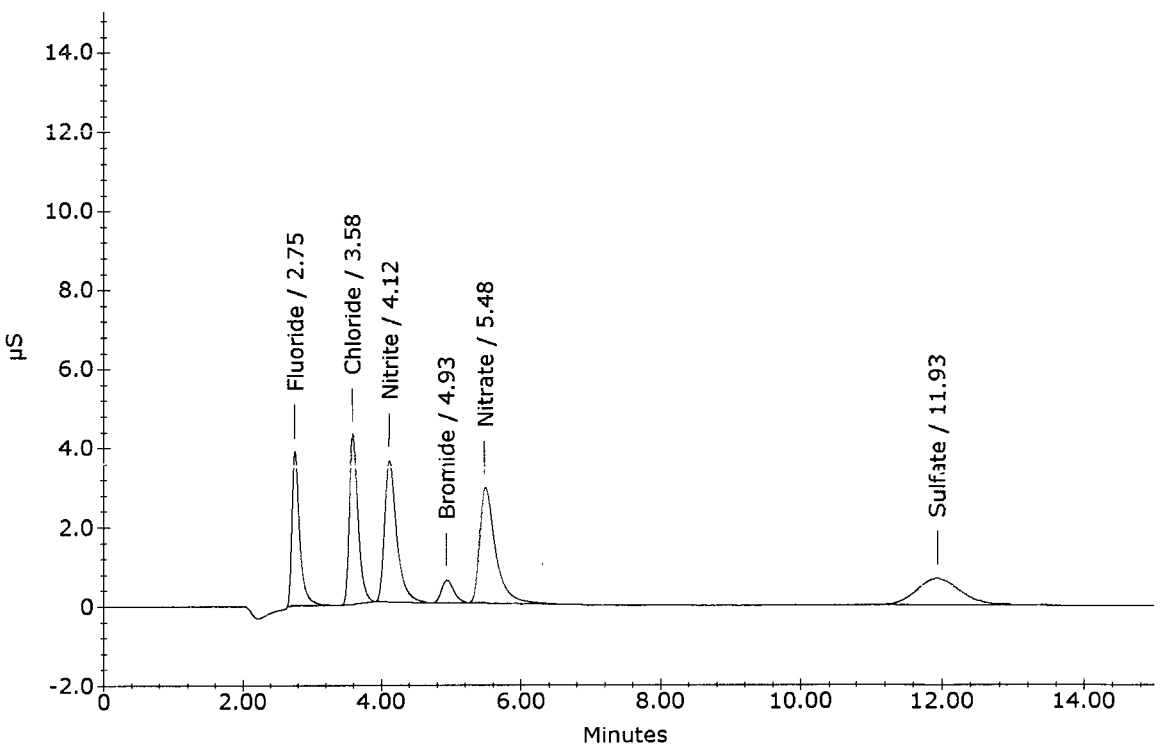
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	1.866	305785
2	3.58	Chloride	4.081	380409
3	4.12	Nitrite	2.108	438128
4	4.93	Bromide	2.013	68832
5	5.48	Nitrate	1.987	460655
6	11.93	Sulfate	3.776	287838

CCV



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Sample Name : CCB
Data File Name : ...\908_064.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 9/9/16 5:56:55 AM

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

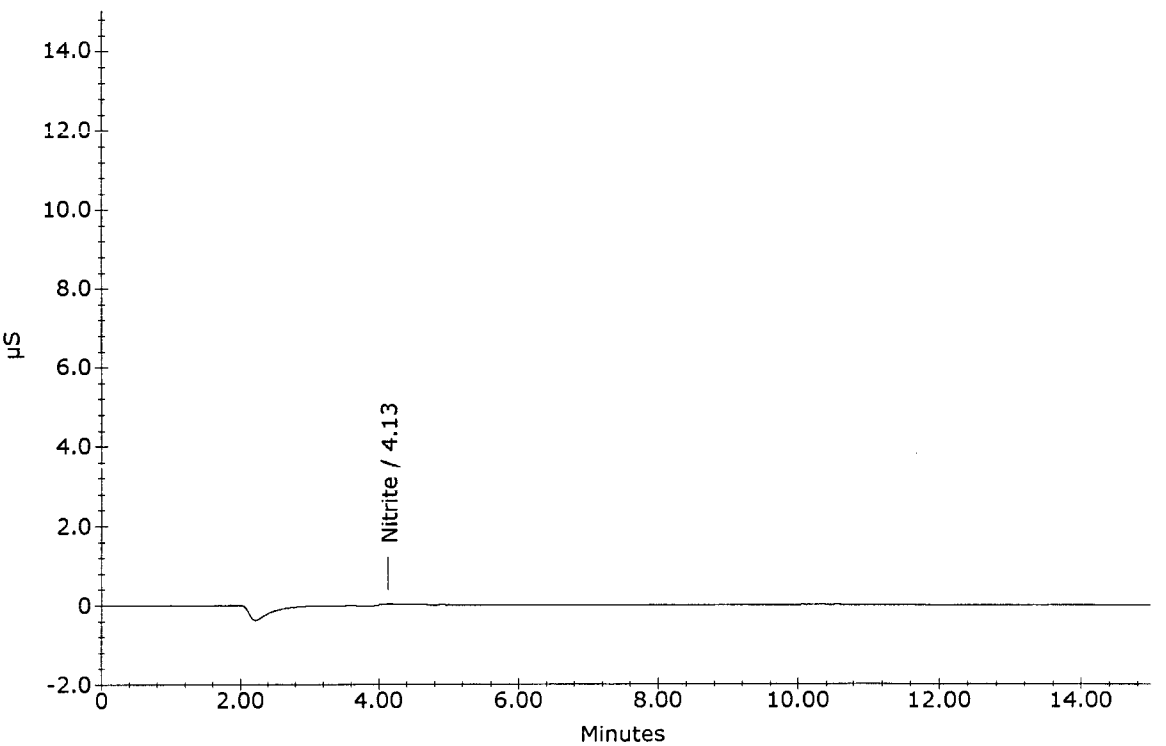
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	-0.037	1043

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:** 9/8/16

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	09/07/16	WC157032A

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		B			
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			

Ion Chromatography Analytical Report
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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

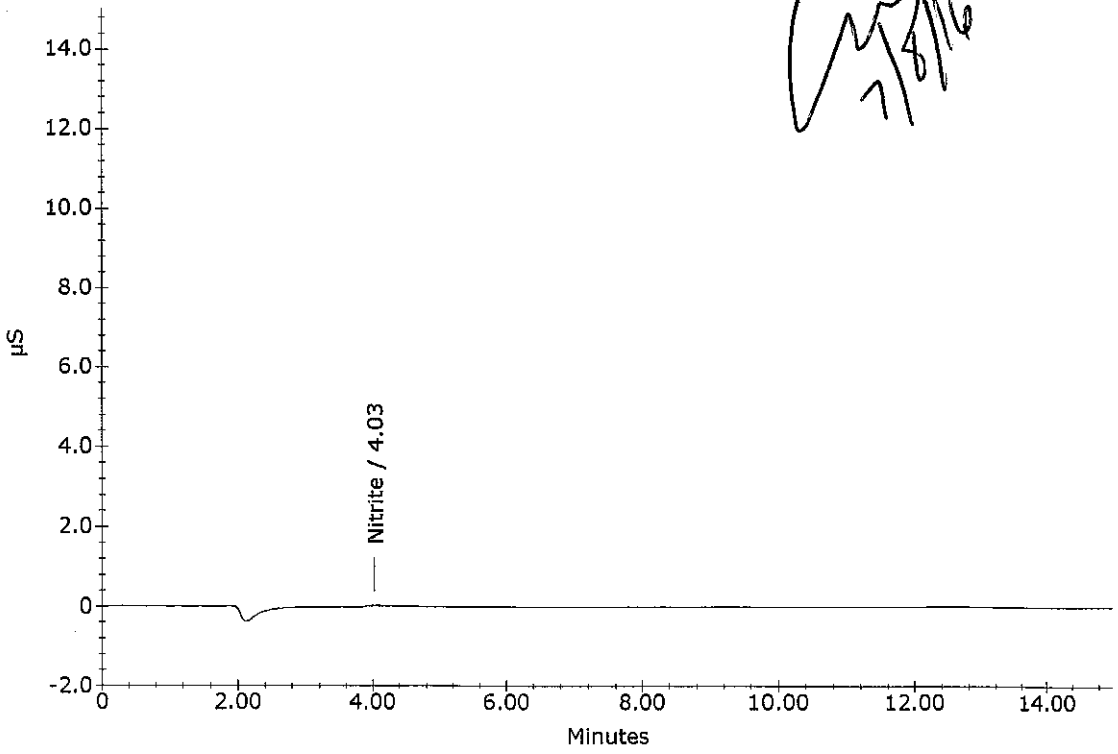
Peak Information : All Components

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

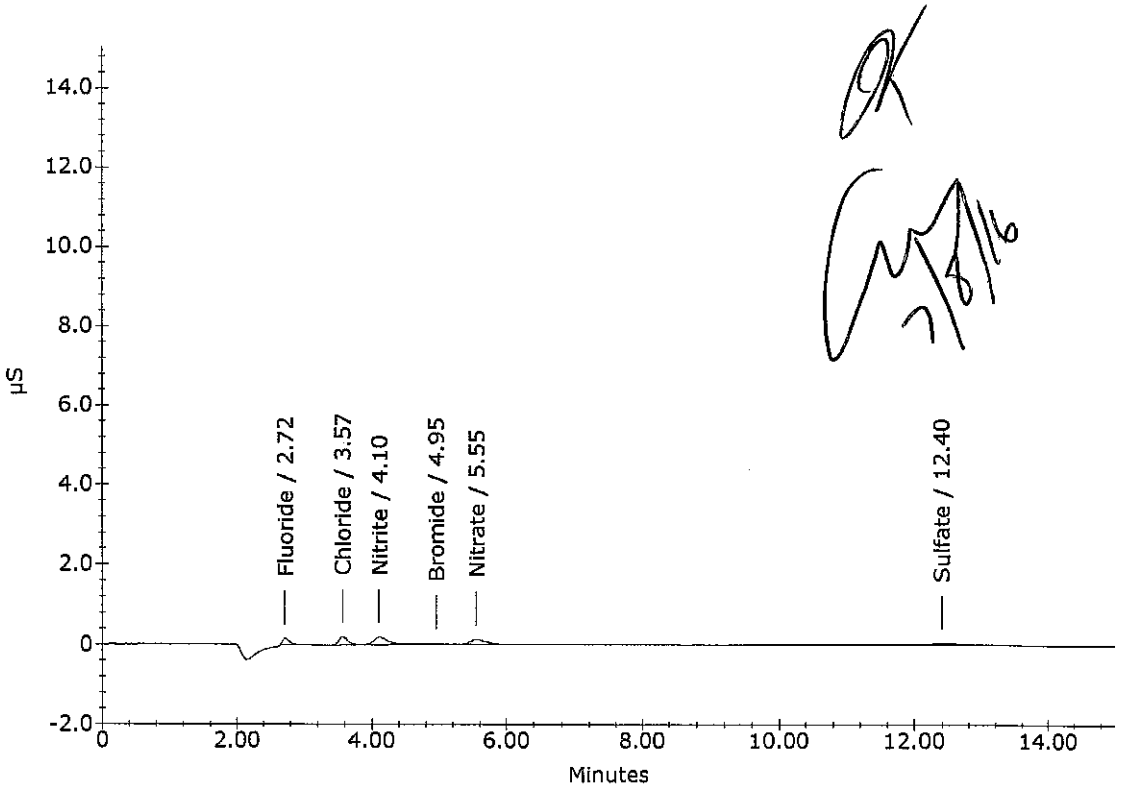
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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



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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

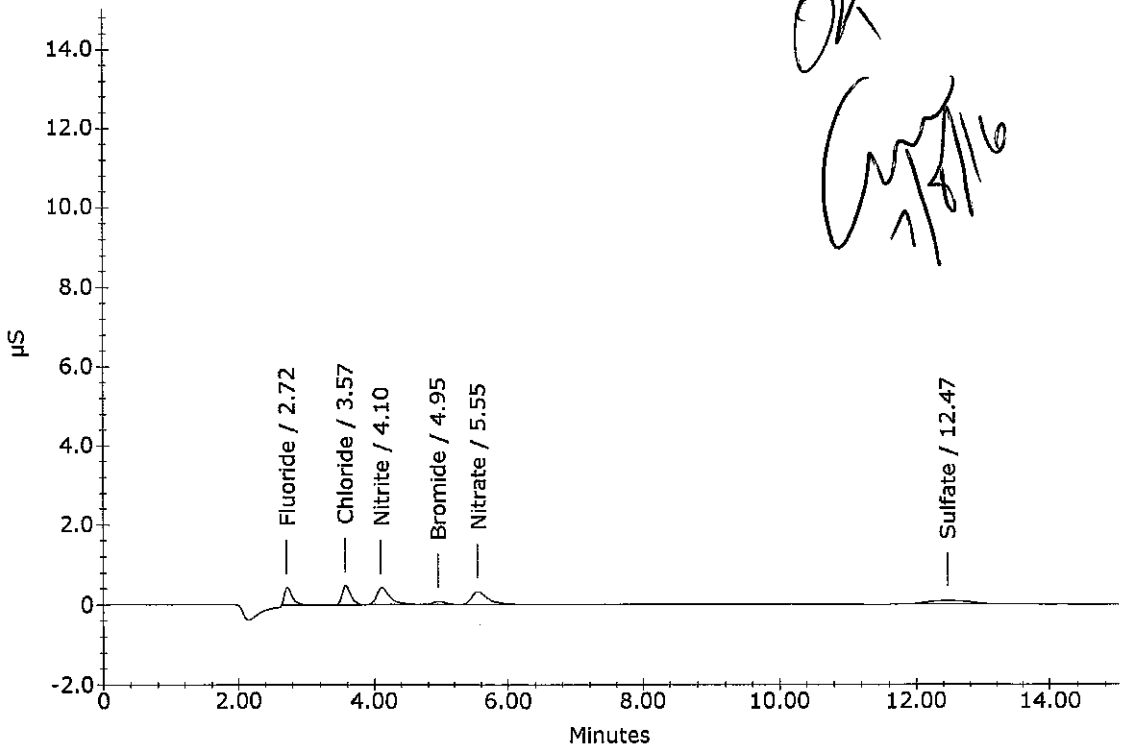
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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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7/6/16

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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

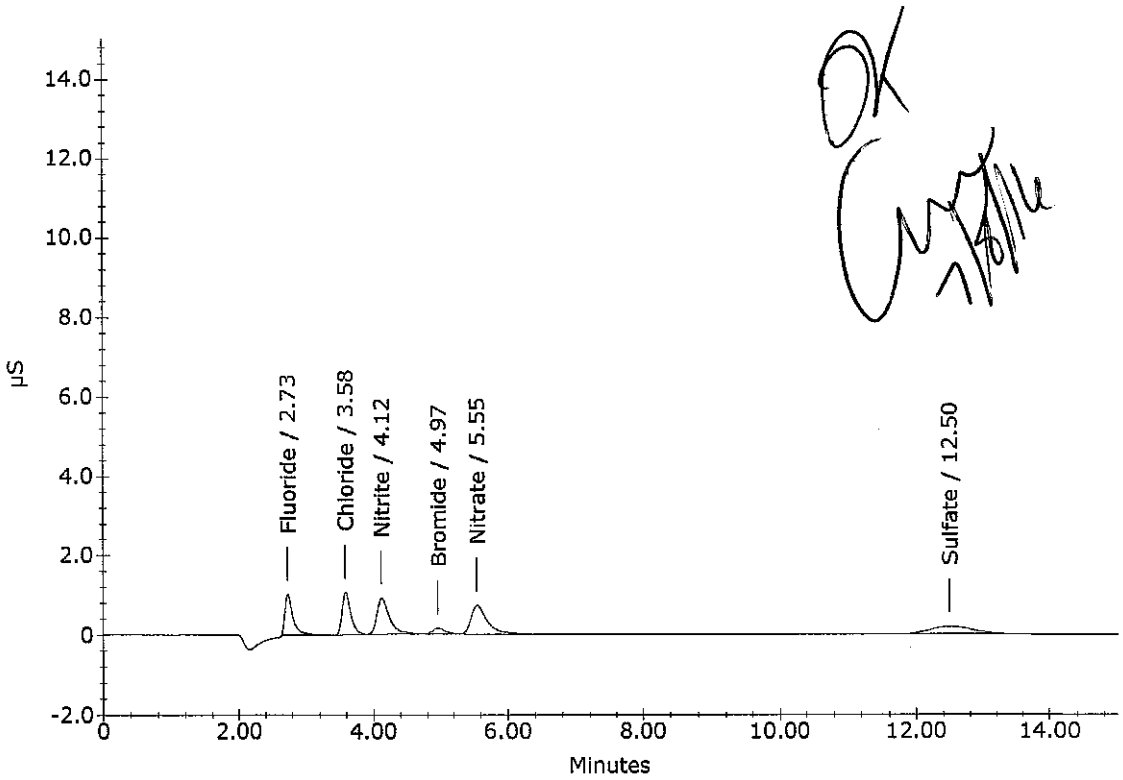
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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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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

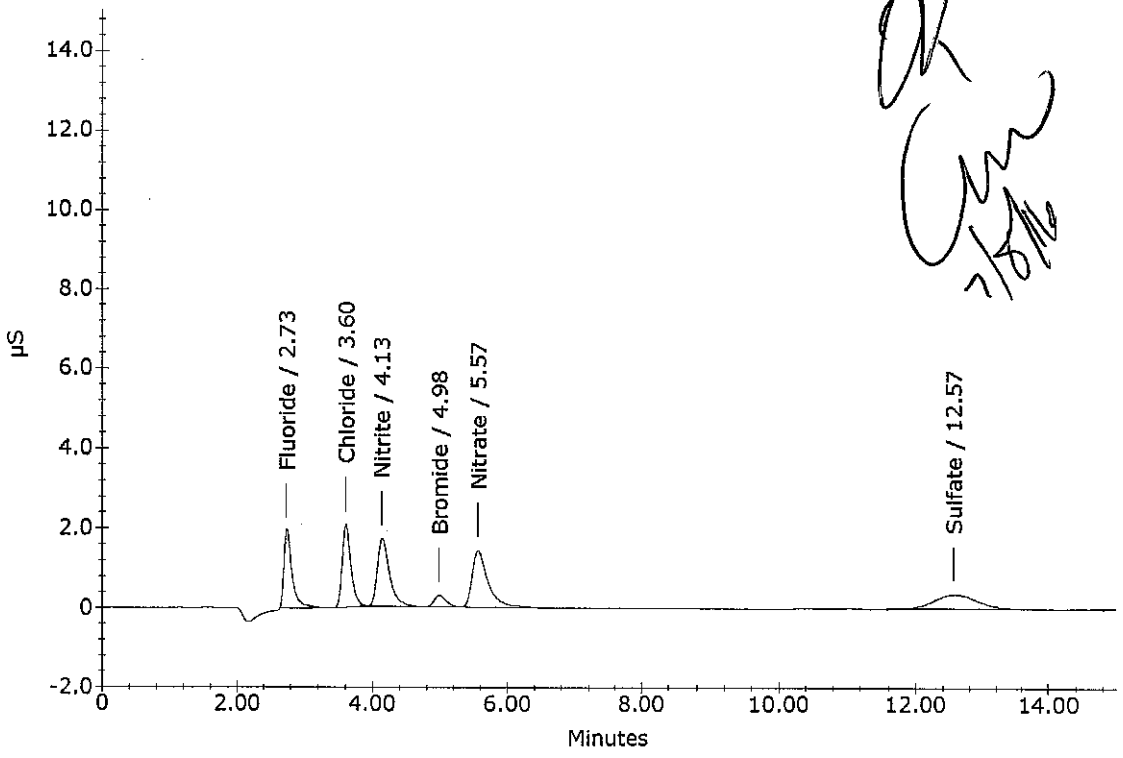
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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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Ion Chromatography Analytical Report
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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

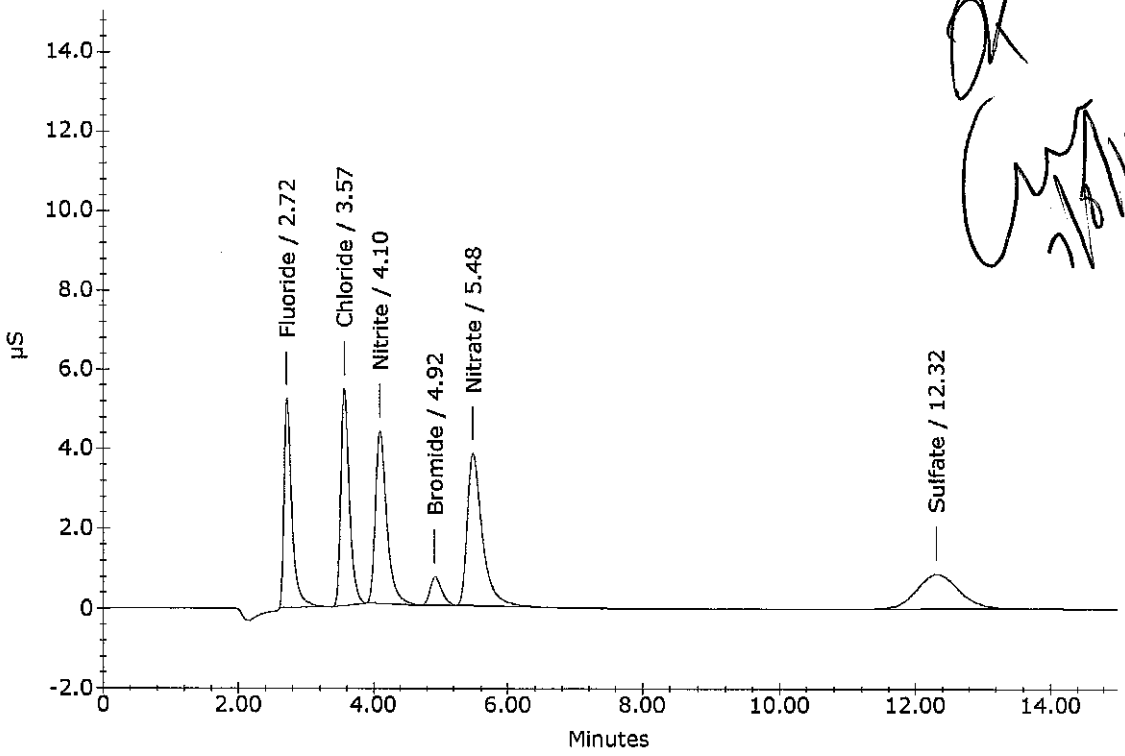
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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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7/8/16

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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

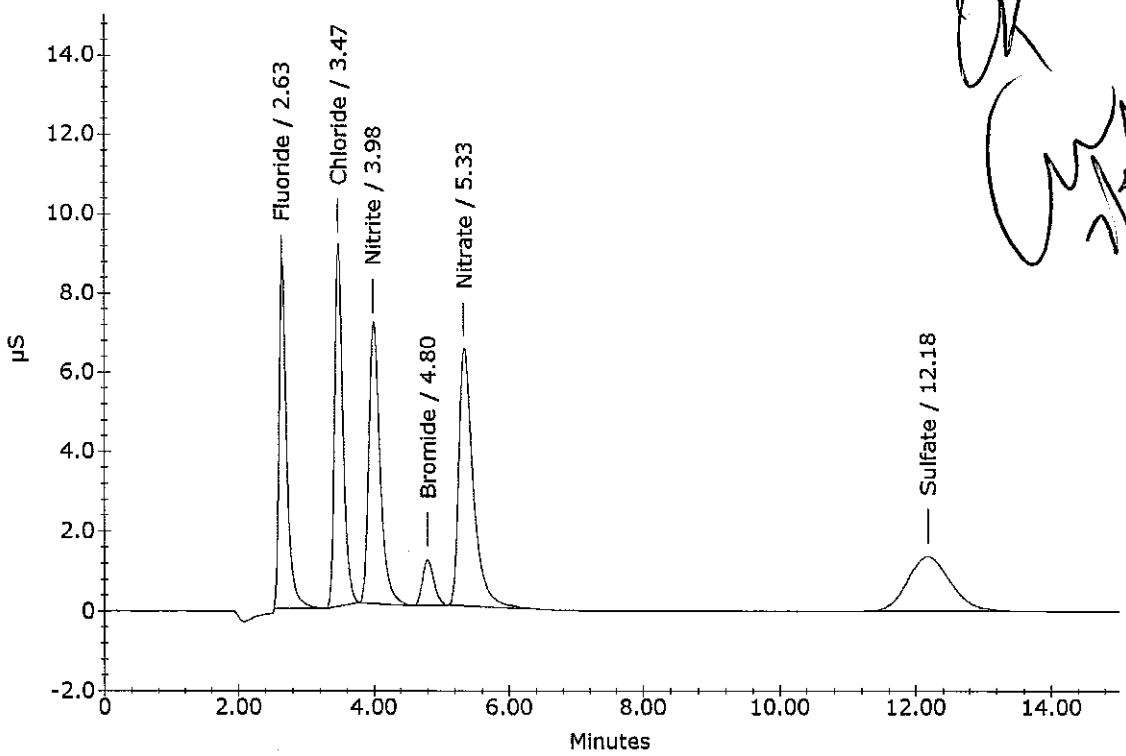
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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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7/8/16

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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

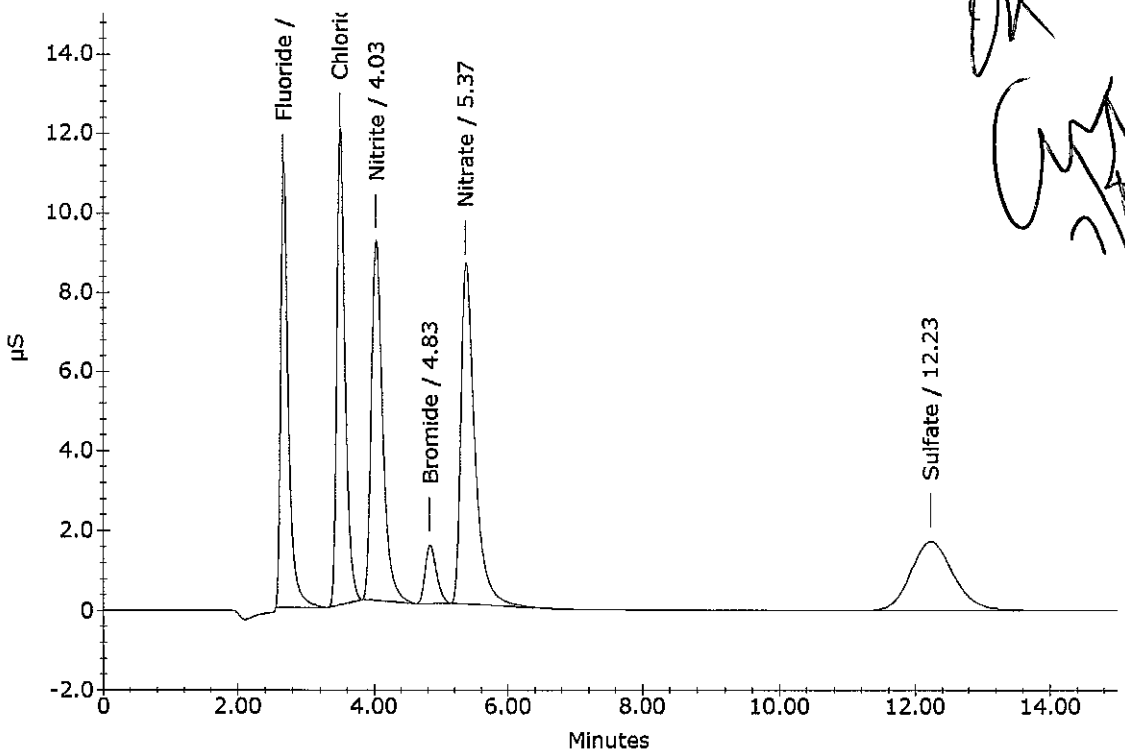
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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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7/6/16

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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

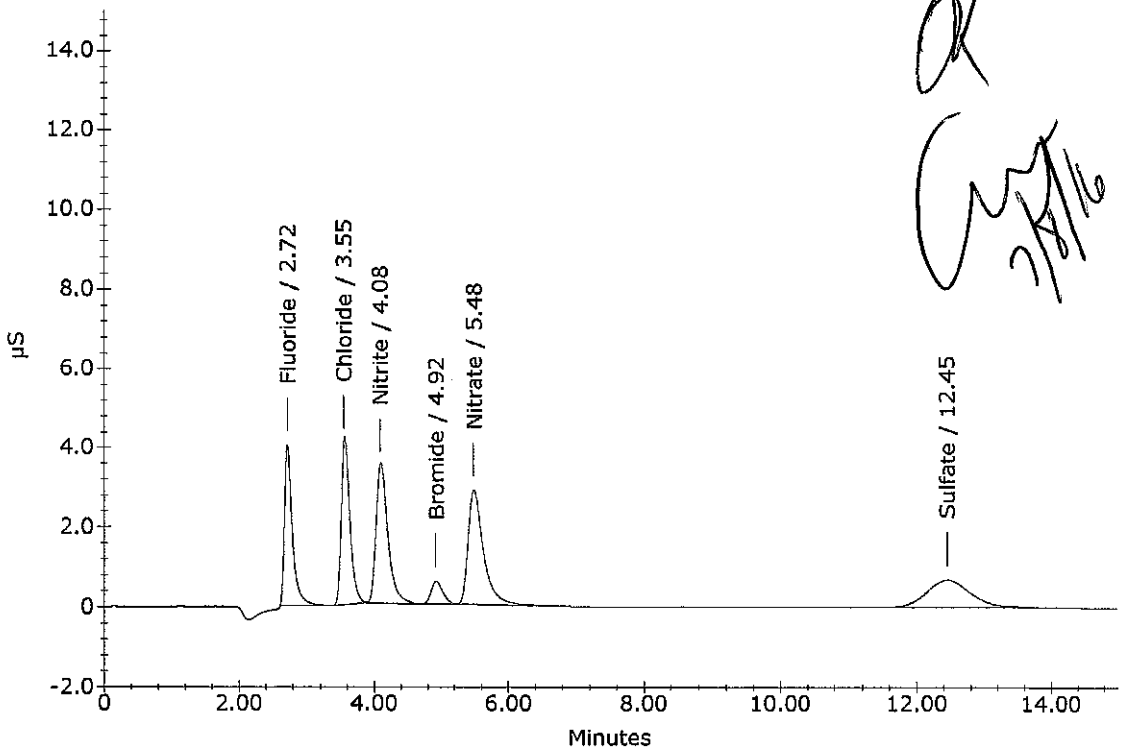
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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



OK
7/8/16

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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

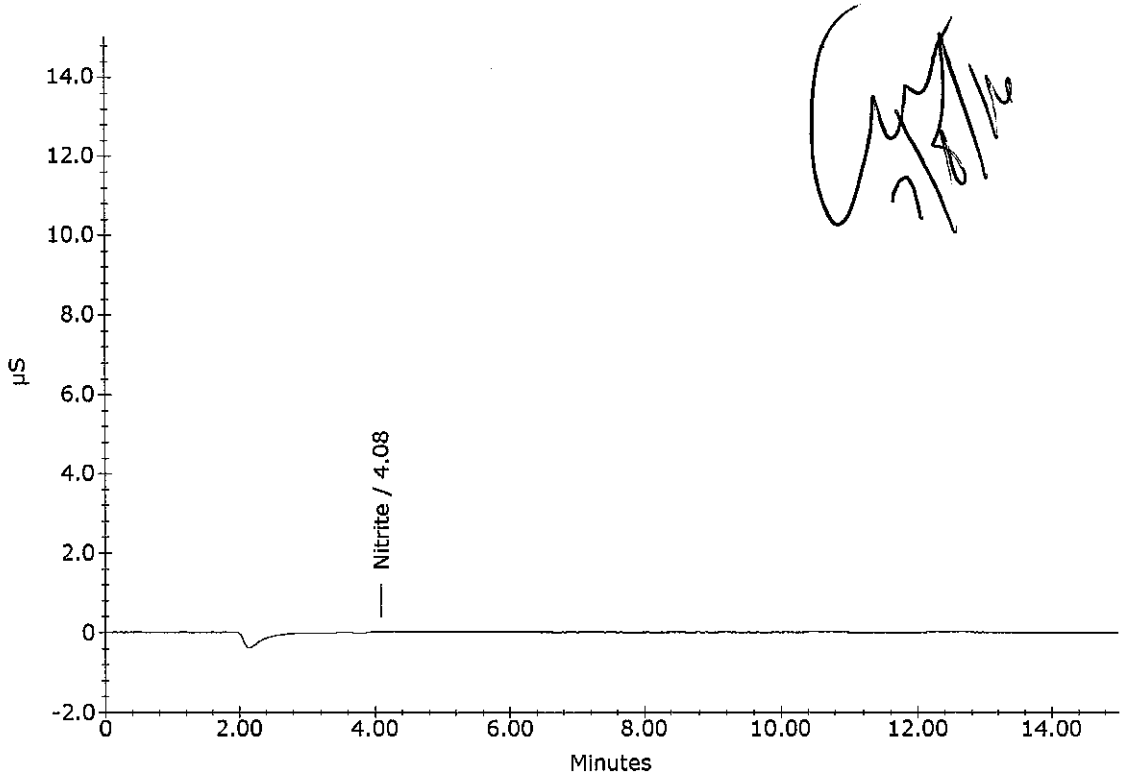
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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

ICB



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

CY 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

CY 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 ✓

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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 ✓

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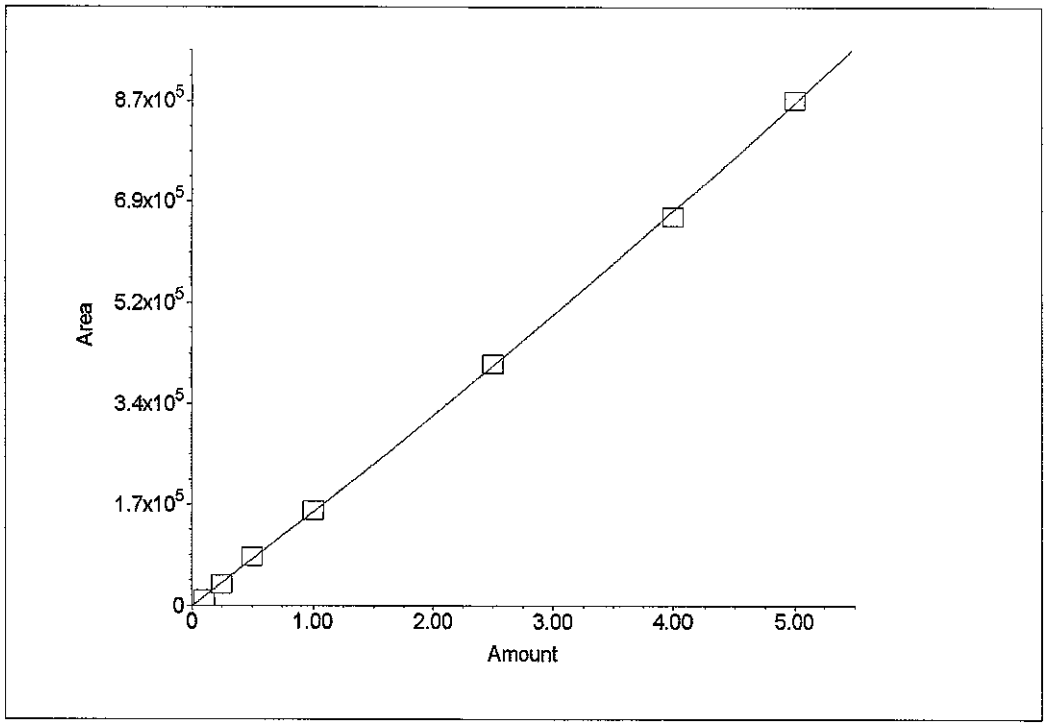
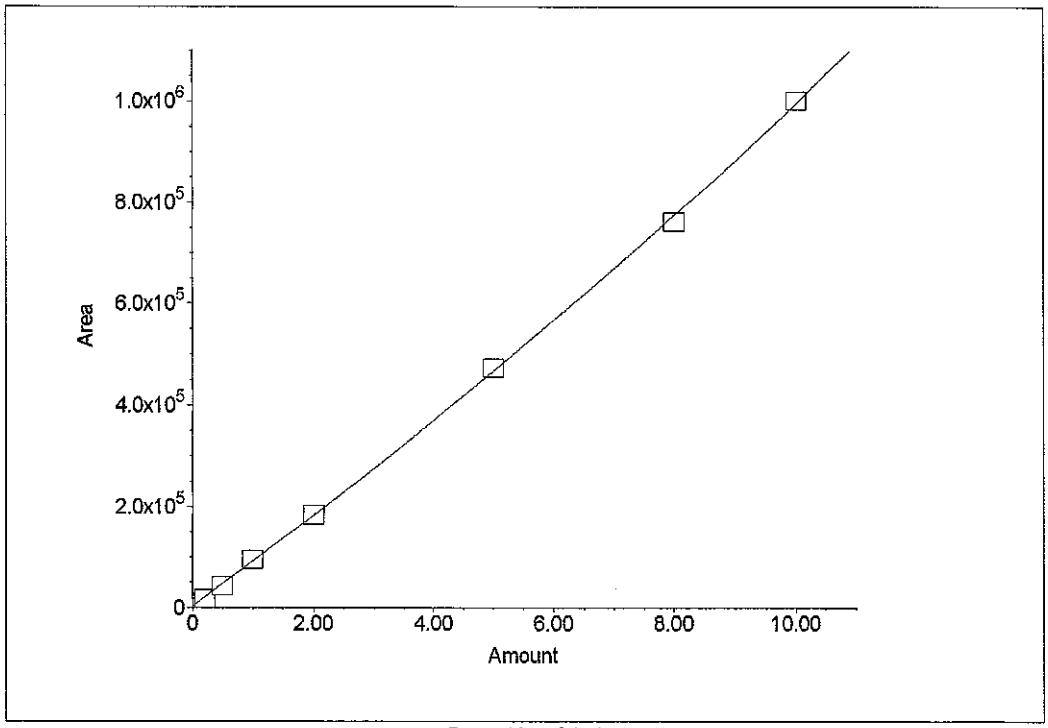
DX-120 XY Data Parameters

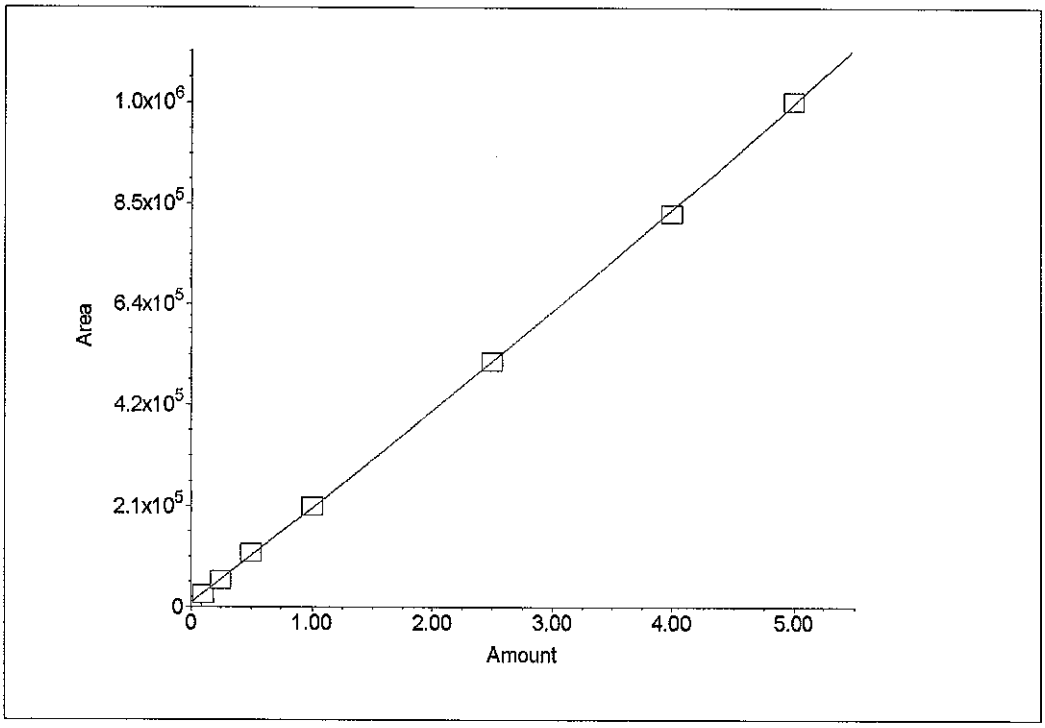
1. Component:Fluoride
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999733
Amt=-5.812781e-013*Resp^2+
6.247471e-006*Resp+0.009894



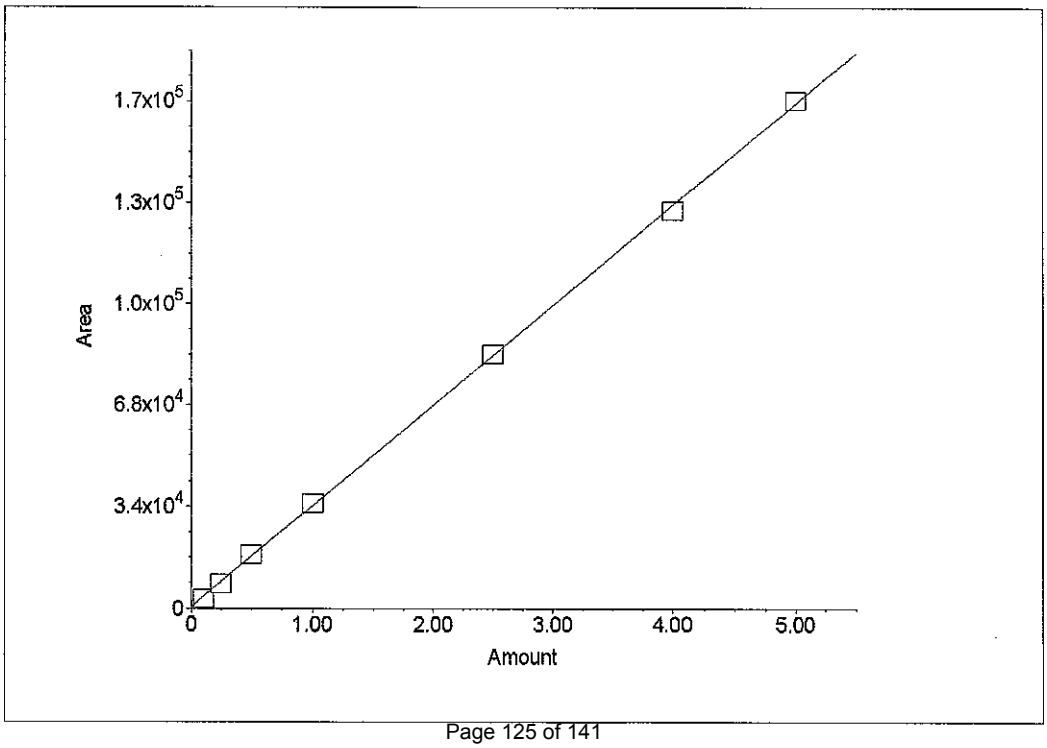
2. Component:Chloride
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999747
Amt=-1.321041e-012*Resp^2+
1.131162e-005*Resp+-0.03058



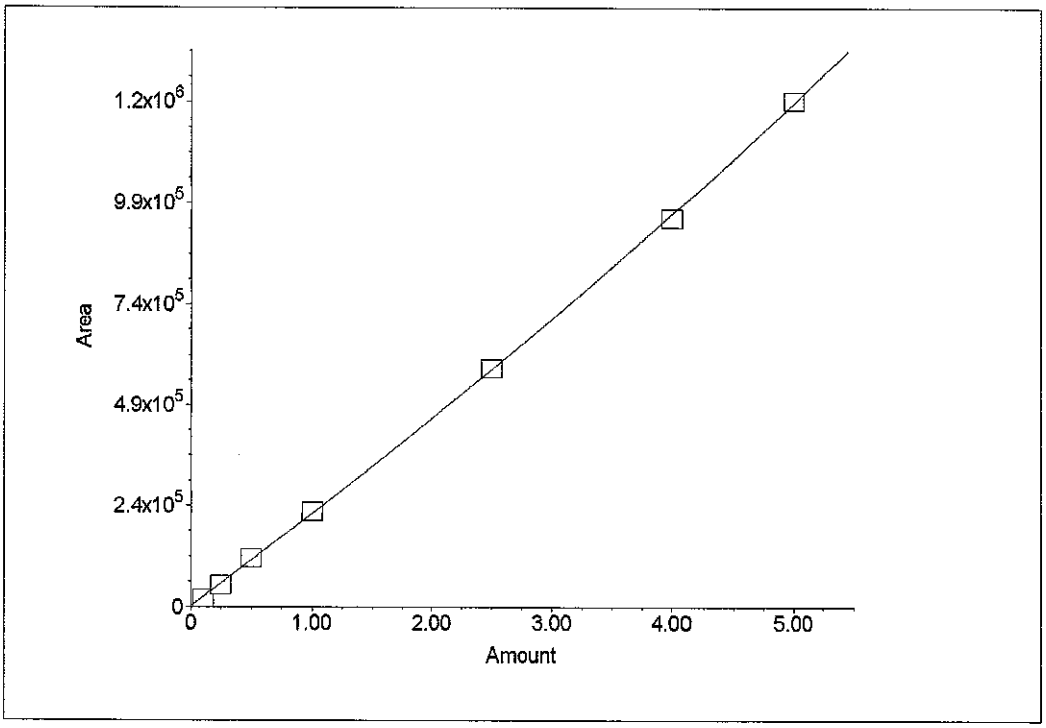
3. Component:Nitrite
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999818
Amt=-3.027512e-013*Resp^2+
5.040550e-006*Resp+-0.04237



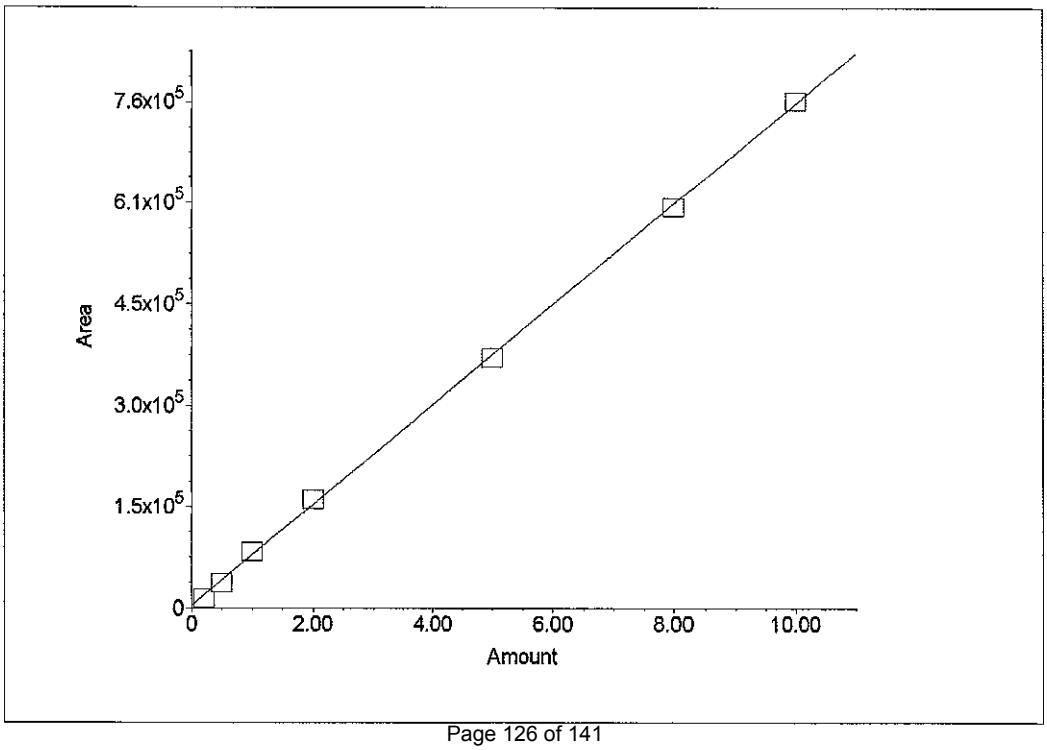
4. Component:Bromide
Standard:External Fit Type:Quadratic
Origin:Ignore Calibration:Area
r^2=0.999702
Amt=-1.016427e-012*Resp^2+
2.951914e-005*Resp+-0.01396



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 :

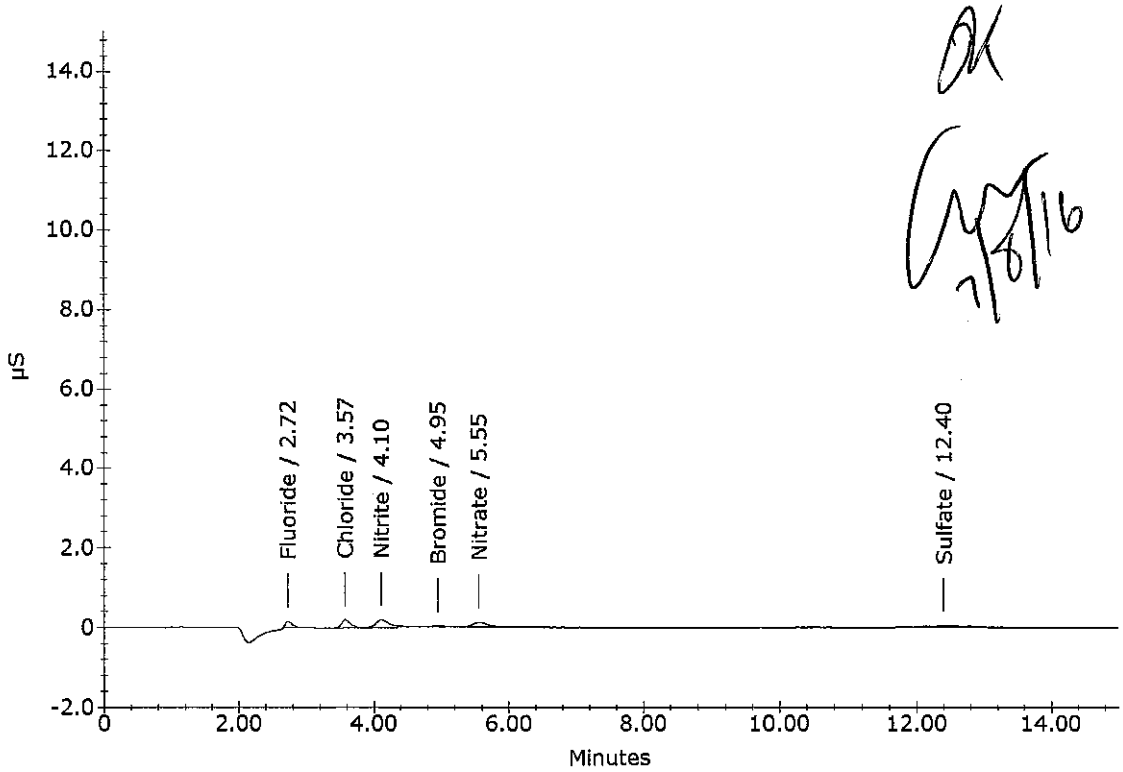
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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 :

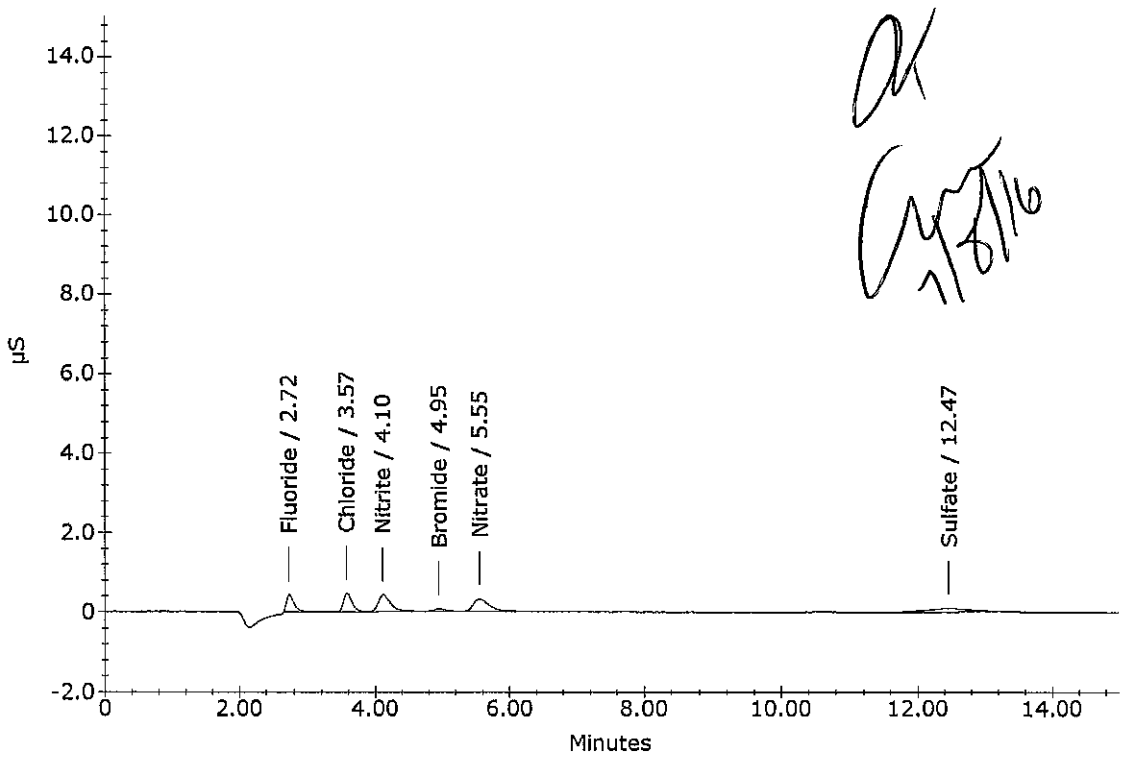
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

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 :

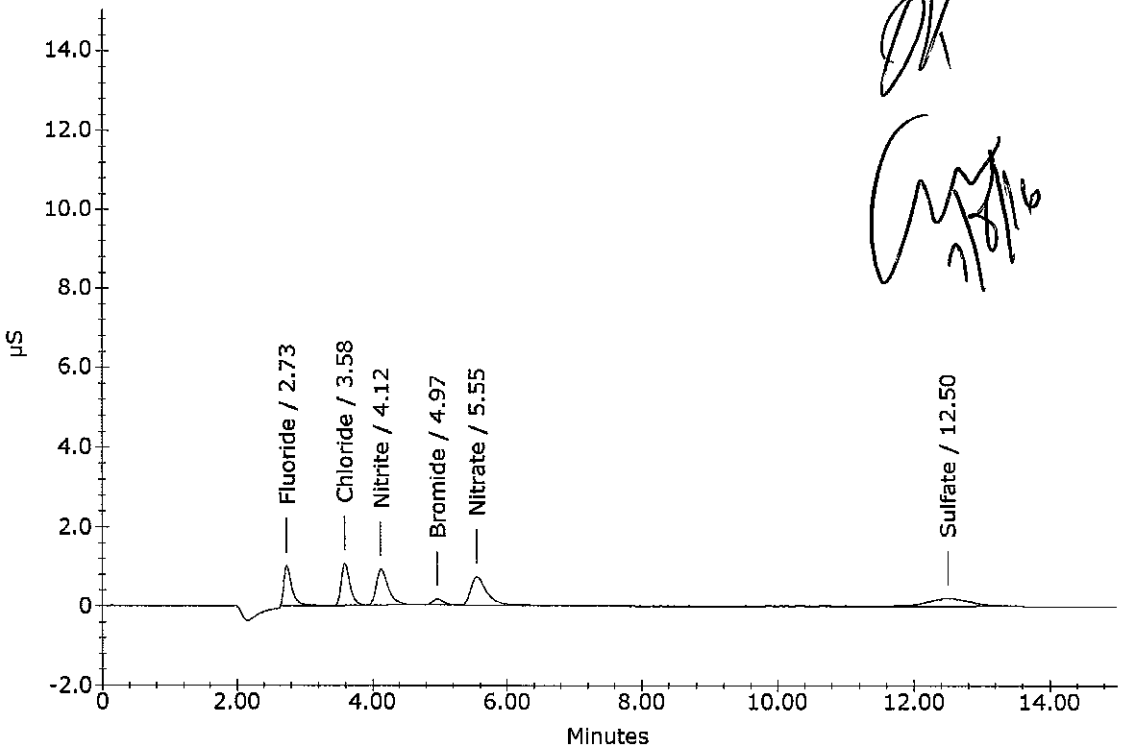
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

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
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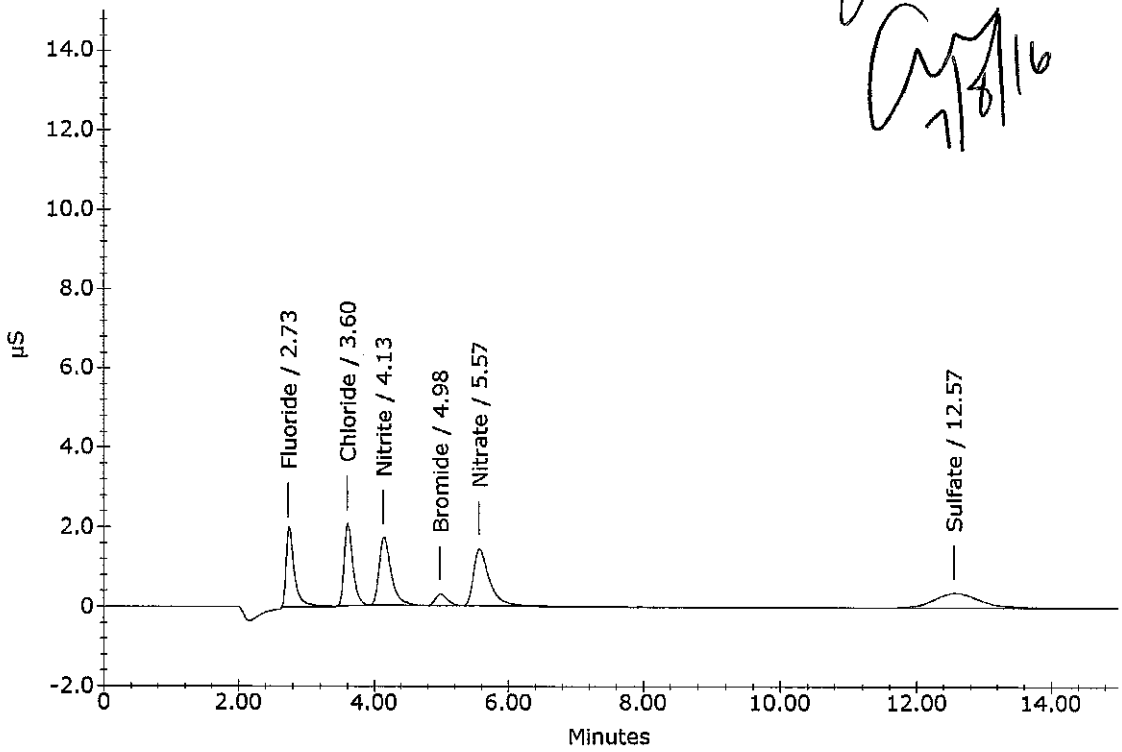

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Sample Name : STANDARD 6
Data File Name : ...\706_006.DXD
Method File Name : ...\6-070616.met
Date Time Collected : 7/6/16 1:46:50 PM

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

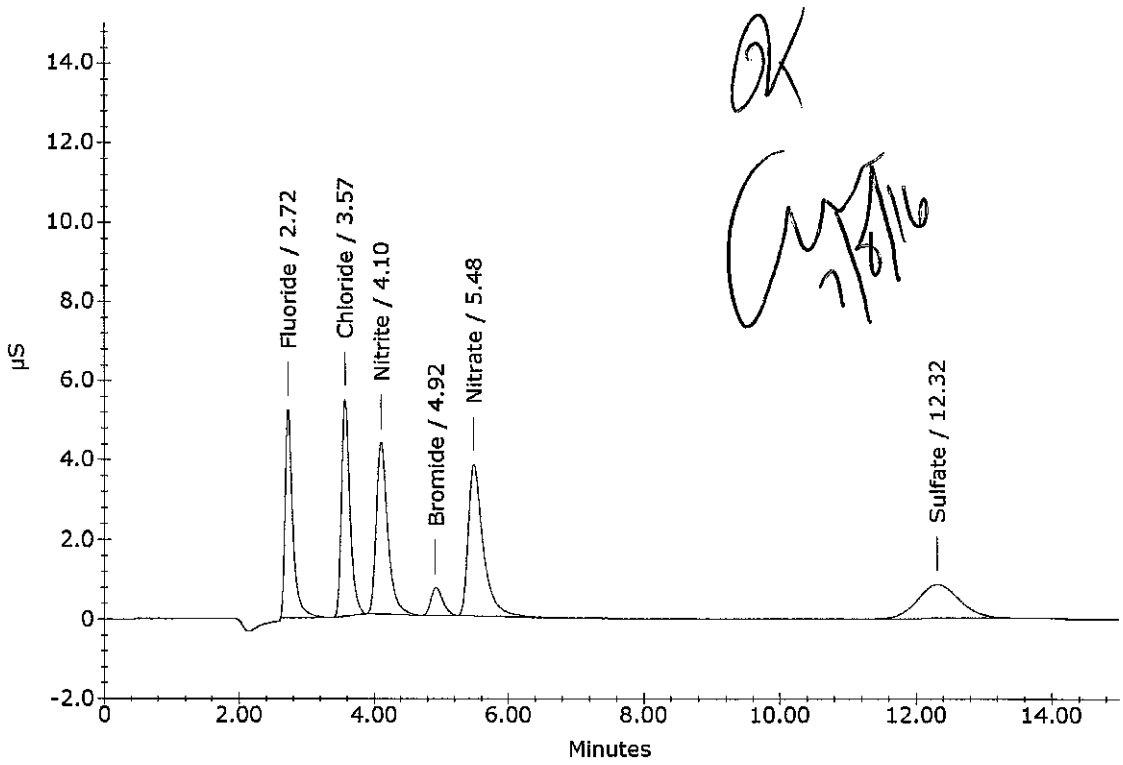
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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	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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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 :

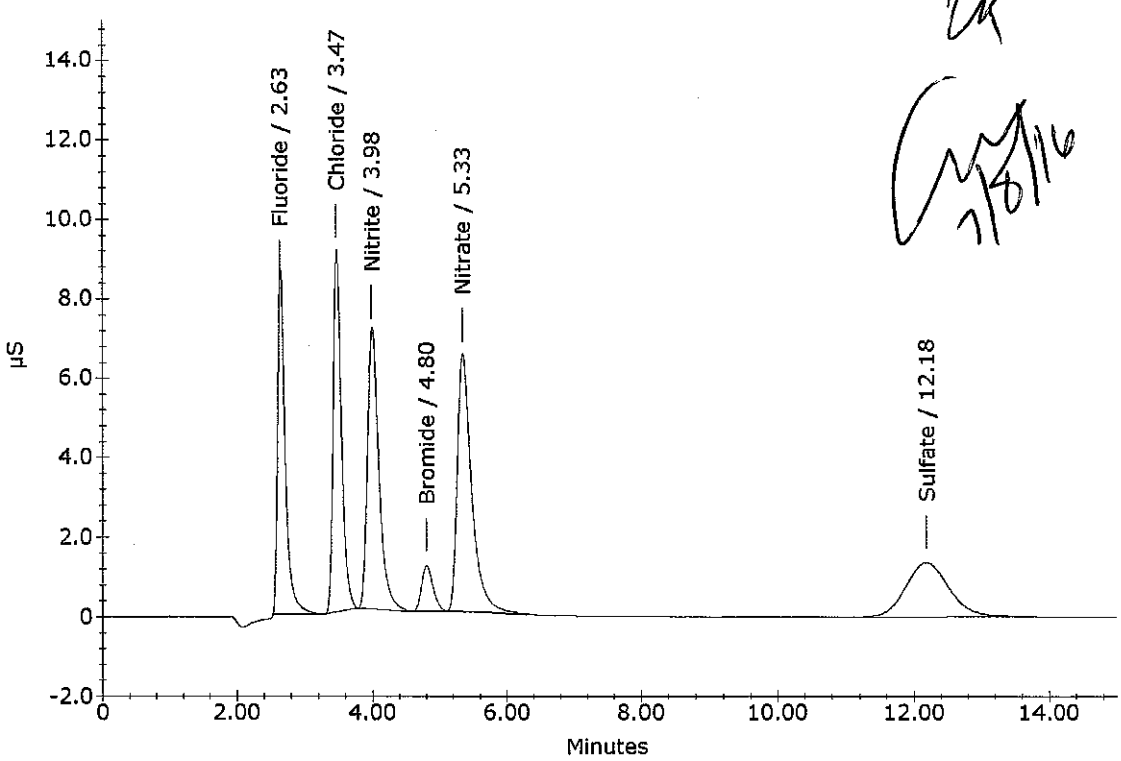
Data Collection Rate (Hz.) : 10.00 Hz
Data Collection Period : 900.00 seconds
Component Amount Units : mg/L

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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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 :

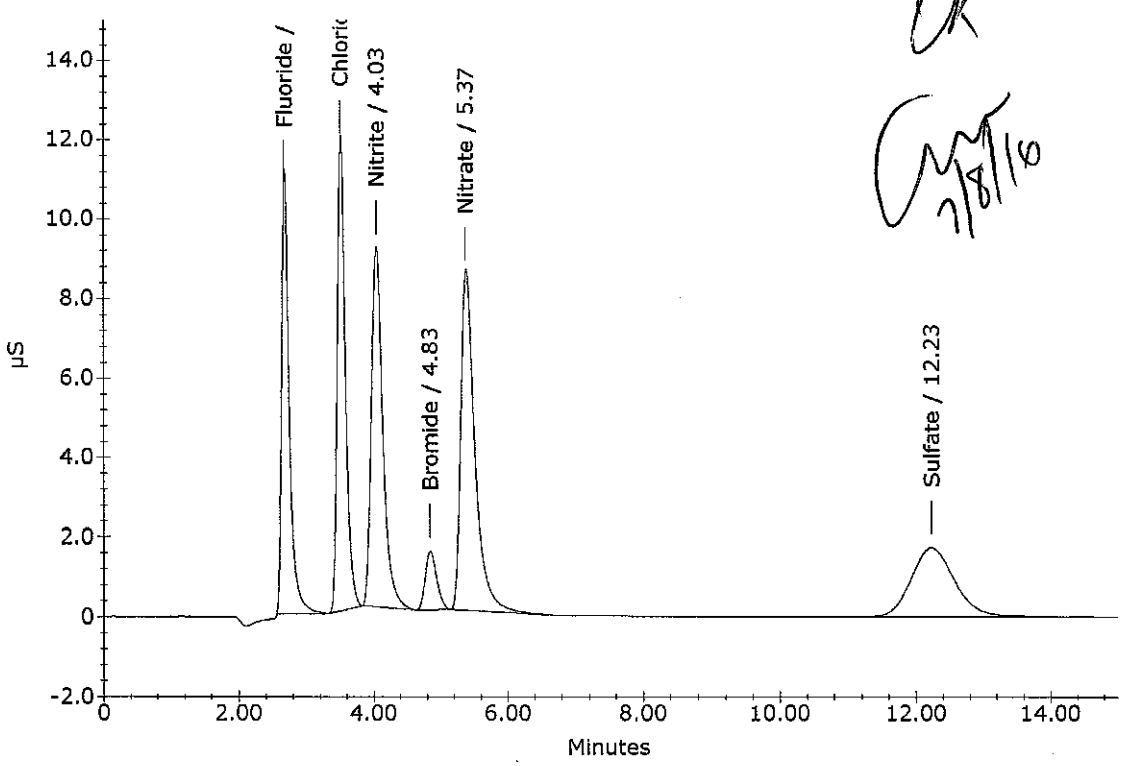
Detector Name : DX-120
Column ID : AS-14 / AG-14
Method Analyst :

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



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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		

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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

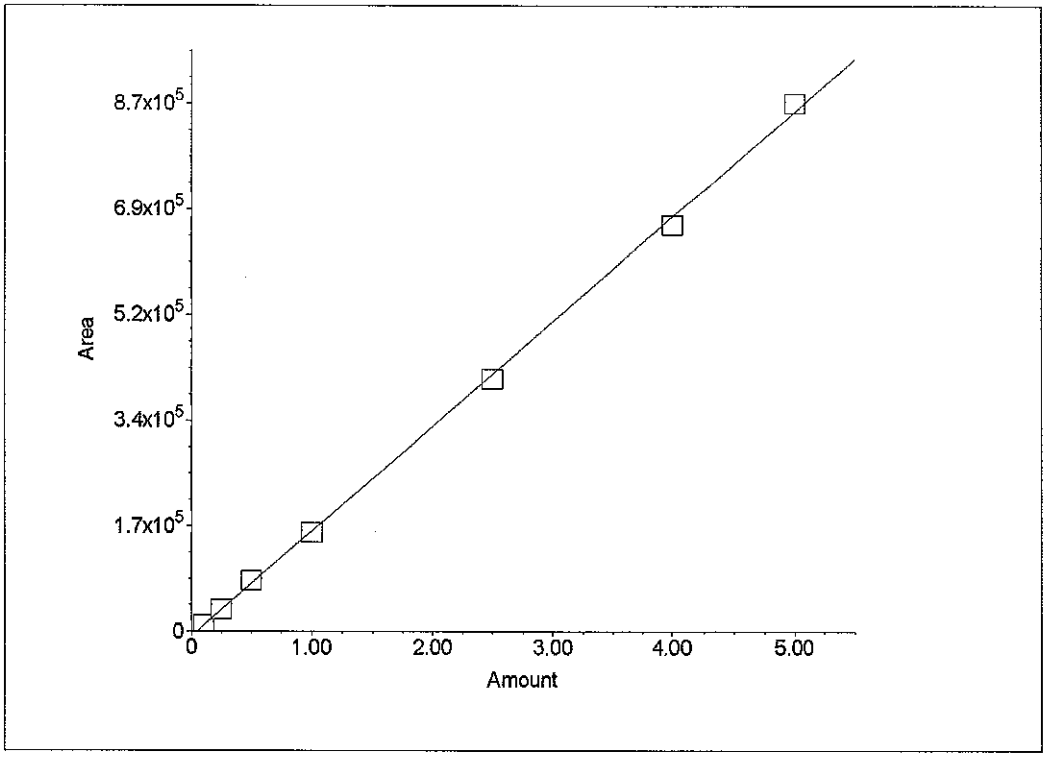
(A 1:1 dilution of the Reference Intermediate Stock is done daily.)

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			

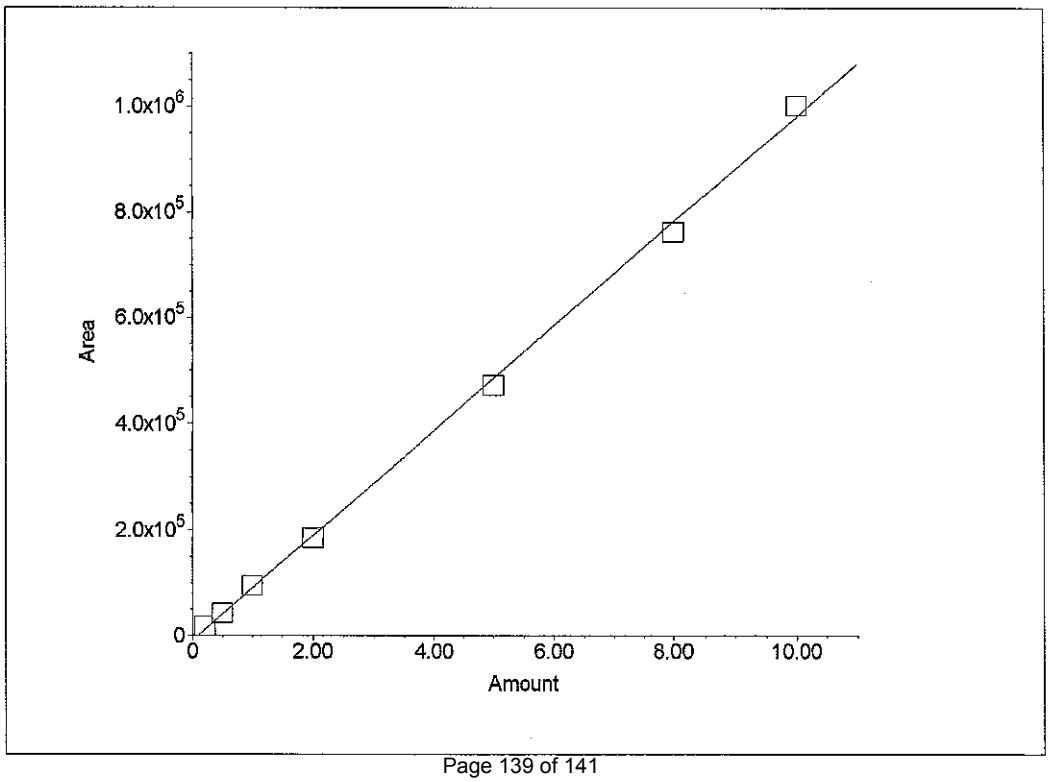
1. Component:Fluoride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999291
Amt=5.756e-006*Resp+0.05007

Linearity Check Only

7/8/16



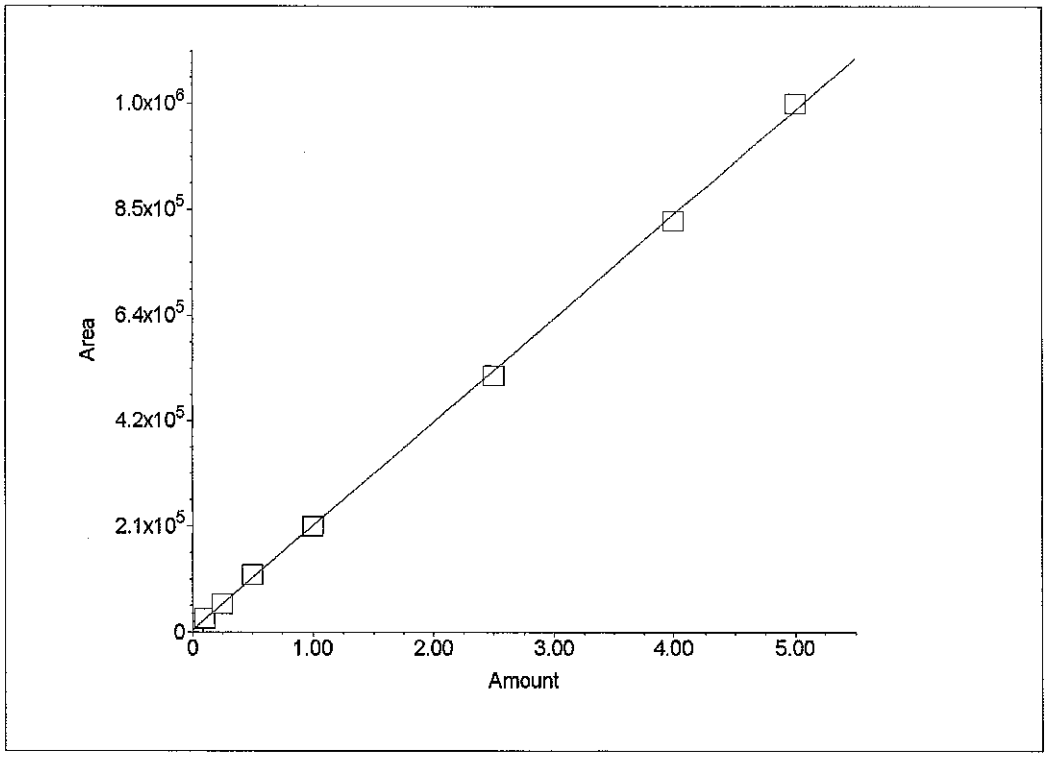
2. Component:Chloride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998743
Amt=1.002e-005*Resp+0.09445



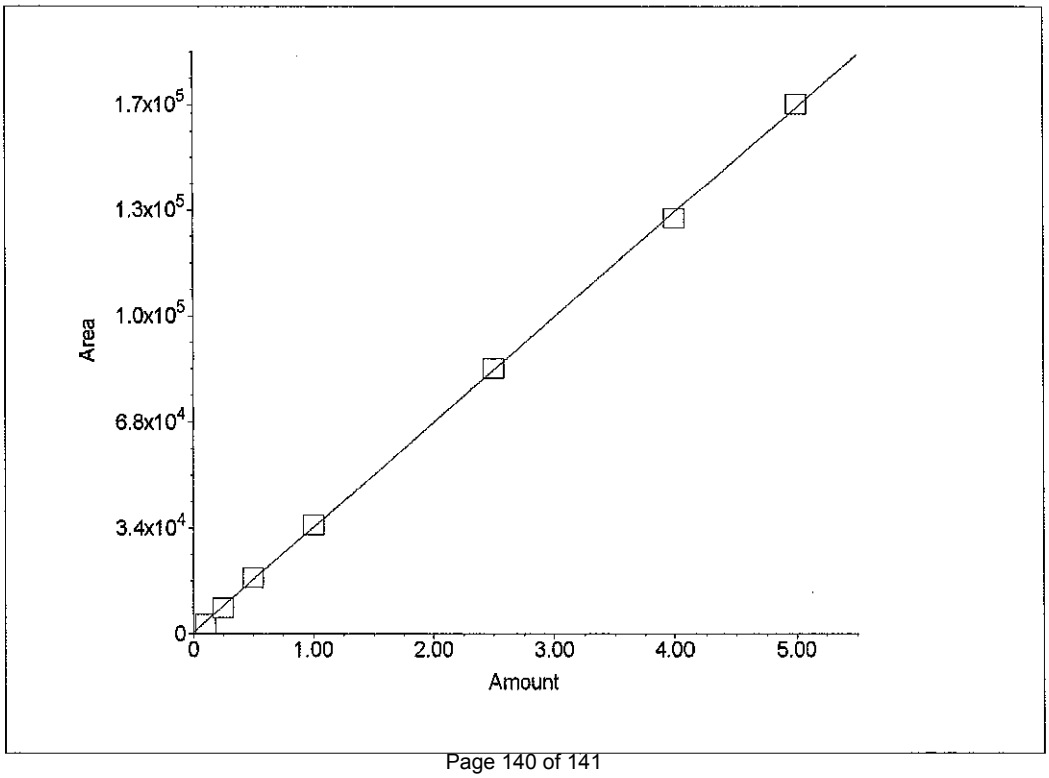
3. Component:Nitrite
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999557
Amt=4.732e-006*Resp+-0.01518

Linearity Check Only

7/8/16

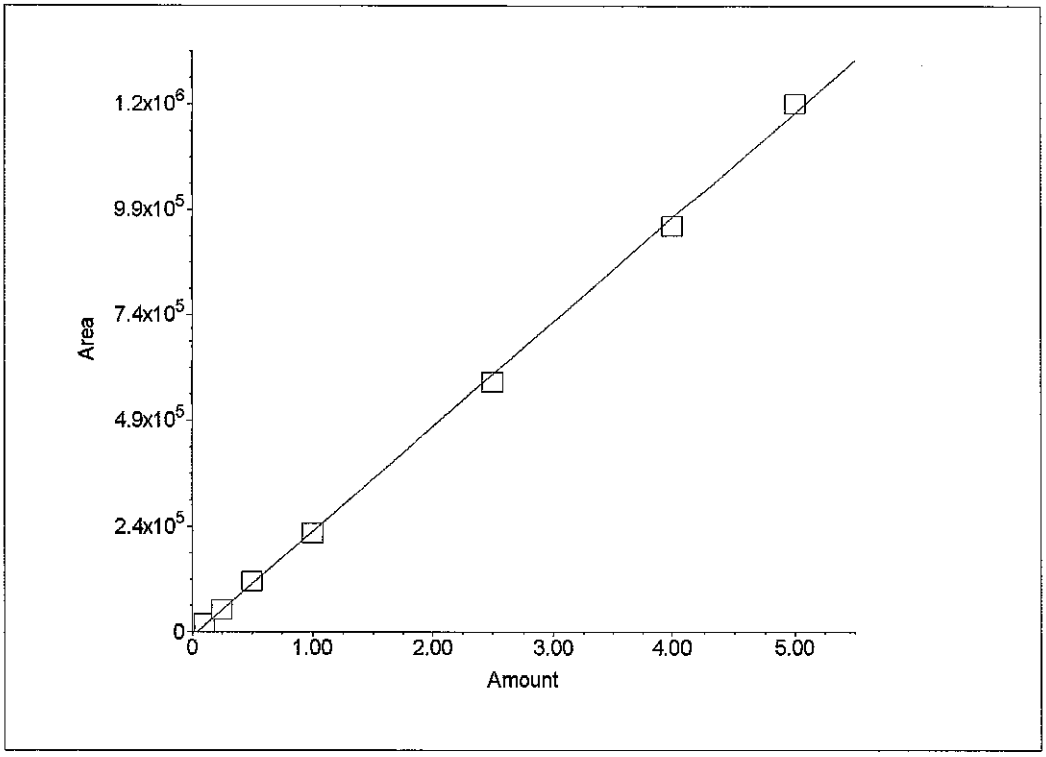
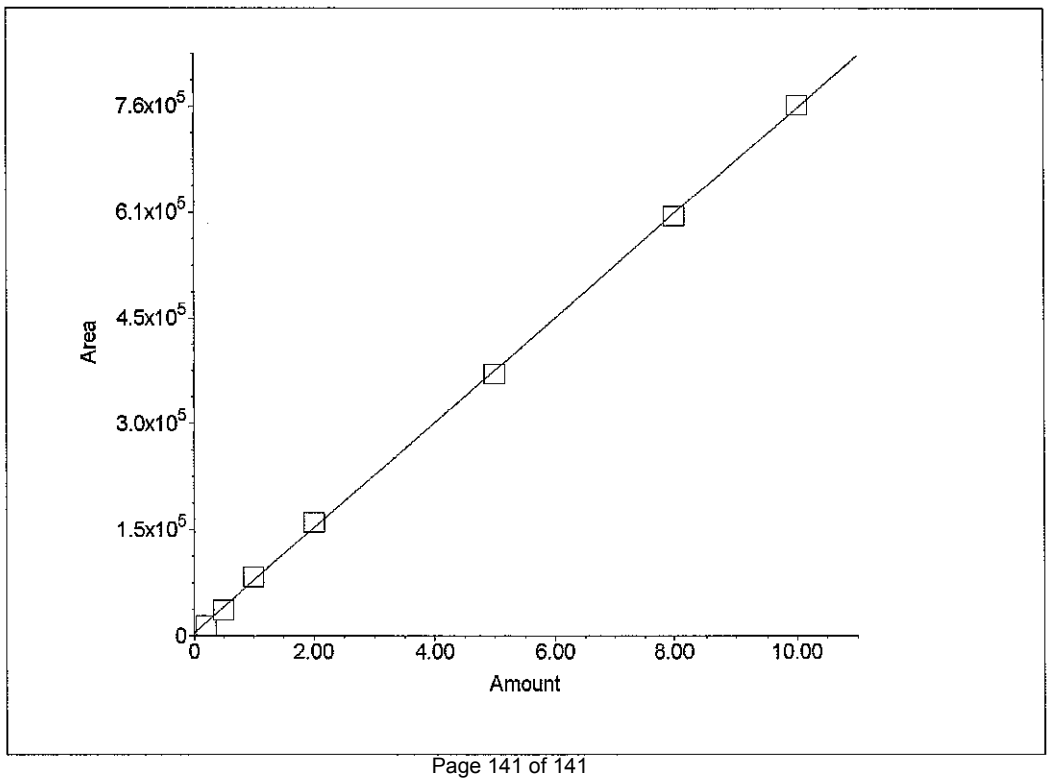


4. Component:Bromide
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999700
Amt=2.935e-005*Resp+-0.01106



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