

Paragon Analytics

INORGANICS CASE NARRATIVE

Cordilleran Compliance Services, Inc.

Rulison Area Well monitoring

Order Number - 0811110

1. This report consists of 2 water samples.
2. The samples were received cool and intact on 11/14/08.
3. The samples had been correctly preserved for the requested analyses.
4. The samples were prepared for analysis based on SW-846, 3rd Edition procedures, Methods for the Chemical Analysis of Waters and Wastes (MCAWW), May 1994 procedures, and Environmental Monitoring Systems Laboratory (EMSL) Rev 2.1 procedures.
5. The samples were analyzed following SW-846, MCAWW, and EMSL procedures for the following methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106 Rev 7
Bicarbonate	310.1	1106 Rev 7
Carbonate	310.1	1106 Rev 7
Ammonia as N	350.1	1129 Rev 6
Nitrate/nitrite as N	353.2	1127 Rev 7
pH	9040B	1126 Rev 16
Total phosphorus	365.2	1119 Rev 6
TDS	160.1	1101 Rev 10
Bromide	300.0	1113 Rev 11
Chloride	300.0	1113 Rev 11
Fluoride	300.0	1113 Rev 11
Sulfate	300.0	1113 Rev 11

6. All standards and solutions were used within their recommended shelf life.
7. The samples were prepared and analyzed within the established hold time for each analysis except pH. The samples were analyzed out of the Paragon established holding time.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.

- A preparation (method) blank and laboratory control sample (LCS) were prepared and analyzed with the samples in each applicable preparation batch. There were not more than 20 samples in each preparation batch.
- The method blank associated with each applicable batch was below the reporting limit for the requested analytes. This indicates that no contaminants were introduced to the samples during preparation and analysis.
- The LCS was within the acceptance limits for each applicable analysis.
- All initial and continuing calibration blanks (ICB/CCB) associated with each applicable analytical batch were below the reporting limit for the requested analytes.
- All initial and continuing calibration verifications (ICV/CCV) associated with each applicable analytical batch were within the acceptance criteria for the requested analytes with the exception of CCV1 for fluoride on 11/19/08 which failed high. The samples bracketed by this CCV were below the reporting limit. A Non-Conformance Report (NCR) has been included to document this occurrence.

9. Matrix specific quality control procedures.

Per method requirements, matrix QC was performed for each analysis. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

10. Electrical conductivity screening indicated that the concentration of dissolved salts was high in the samples. Therefore, it was necessary to dilute the samples prior to injection into the ion chromatograph in order to minimize the amount of salts loaded into the analytical column.

It was necessary to further dilute the samples in order to bring the chloride concentrations into the analytical range of the ion chromatograph (IC).

It was necessary to dilute the samples in order to bring the ammonia as N concentrations into the analytical range of the flow injection analyzer (FIA).

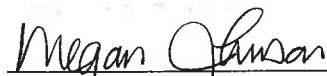
It was necessary to dilute the samples in order to bring the total phosphorus concentrations into the analytical range of the spectrophotometer.

Reduced aliquots were taken of the samples for the alkalinity, bicarbonate, and carbonate analysis. Reporting limits were elevated accordingly.

Reduced aliquots were taken of the samples for the TDS analysis. Reporting limits were elevated accordingly.

11. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in Paragon Analytics Standard Operating Procedure 939 Revision 3. Whenever manual integrations are performed, before and after chromatograms of the peak that were manually integrated are included in the report along with the reason why the re-integration was necessary.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.



Megan Johnson
Inorganics Primary Data Reviewer

12/9/08
Date



Inorganics Final Data Reviewer

12/8/08
Date

Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Concentration qualifier -- If the analyte was analyzed for but not detected a "U" is entered.
- QC qualifier -- Specified entries and their meanings are as follows:
 - N - Spiked sample recovery not within control limits.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - Z - Calibration spike recovery not within control limits.

Paragon Analytics

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0811110

Client Name: Cordilleran Compliance Services, Inc.

Client Project Name: Rulison Area Well monitoring

Client Project Number:

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
A11-15D	0811110-1		WATER	13-Nov-08	8:40
A11-15B	0811110-2		WATER	13-Nov-08	8:30

Chain of Custody



Paragon Analyticals

A Division of DataChem Laboratories, Inc.

225 Commerce Drive Fort Collins, CO 80524
800-443-1511 or (970) 490-1511 (970) 490-1522 Fax

Accession Number (LAB ID)

Chain-of-Custody

Originator: Retain pink copy!

Project Name/No.: ROUSON AREA WELL MONITOR Sampler(s): TPD Turnaround (circle one) Standard or Rush (Due _____) Dispose: Date _____ or Return to Client _____

Report To: JAMES HIX

Phone: (303) 237.2072

Fax: (303) 237.2659

E-mail: jameshix@cordcomp.com

Company: Cordilleran Compliance Services, Inc.

Address: 826 21/2 Road

4690 TABLE MOUNTAIN DR. # 200

GOLDEN, CO 80403

Circle method (right); provide additional information as needed (comments).

Sample ID	Date	Time *	Lab ID	Matrix	Preservative (Indicate type... HCL, etc.)	No. of Containers	VOCS	BTEX (only) MTH	SVOCs	OC Pesticides	PCBs	Herbicides	Explosives	TCLP Organics SW1311	TCLP Metals SW1311 Hg	Total Metals by ICP Hg	Dissolved Metals by ICP Hg	Total Metals by ICPMS	Dissolved Metals by ICPMS	Hexavalent Chromium	Inorganic Anions	Solids:	pH	TPH	Gross Alpha / Beta	Actinides by Paragon SOP	Tritium	Total Alpha-Emitting Radium	Radium 226	Radium 228	Strontium 90 (Total RadioSr)	Gamma Isotopes	Radon 222	Res	NH ₃ , NO ₃ , T-Ams
A11-15D	11/13/08	0840	1	M	H ₂ O ₂	17		X										X						X	X	X							X	X	X
A11-15B	11/13/08	0830	2	M	"	17		X										X						X	X	X							X	X	X

* Time Zone: EST CST MST PST Matrix Key: O = oil, S = soil, NS = non-soil solid, W = water, L = liquid, E = extract, F = filter

Comments:

Relinquished By: Signature _____ Printed Name <u>J.A. DOBRANSKY</u> Date <u>11/13/08</u> Time <u>1600</u> Company <u>CARDILLERAN COMPLIANCE</u>	Relinquished By: Signature _____ Printed Name _____ Date _____ Time _____ Company _____
Received By: Signature _____ Printed Name <u>James Hix</u> Date <u>11/14/08</u> Time <u>0950</u> Company <u>PA</u>	Received By: Signature _____ Printed Name _____ Date _____ Time _____ Company _____

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: CondillierauWorkorder No: 0811 110Project Manager: LSInitials: oo Date: 11-14-08

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	NONE	<u>YES</u>	NO
3. Are Custody seals on sample containers intact?	NONE	<u>YES</u>	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u>	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<u>YES</u>	<u>NO</u>
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<u>YES</u>	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u>✓</u> < green pea < > green pea	N/A	YES	<u>NO</u>
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<u>N/A</u>	YES	NO
16. Were samples checked for and free from the presence of residual chlorine? (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	<u>N/A</u>	YES	NO
17. Were the samples shipped on ice?		<u>YES</u>	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> #4		<u>YES</u>	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>3.4</u>			
No. of custody seals on cooler: <u>1</u>			
DOT Survey/ Acceptance Information	External µR/hr reading: <u>14</u>		
	Background µR/hr reading: <u>13</u>		
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <u>YES</u> NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

Headspace Bottle # (1) 1, 2, 3, 6, 7, 9
2 - 1, 2

Slime layer in -1-15 & -1-16 (Organic?)

If applicable, was the client contacted? YES / NO / NA Contact: J. Hix

Date/Time: _____

Project Manager Signature / Date: 11/12/08

*IR Gun #2: Oakton. SN 29922500201-0066

*IR Gun #4: Oakton. SN 2372220101-0002

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: Condolivan
Project Manager: LS

Workorder No: 0811110
Initials: as Date: 11-17-08

Additional Information:

Was the laboratory directed to proceed with the analysis of any samples yielding the presence of residual chlorine? YES / NO / NA

NOTE:

No pH adjustments shall be made without prior consent of Project Manager. After pH adjustments, hold metals and radchem samples ≥ 24 hrs. before analysis.

Was the pH of any sample adjusted by the laboratory? YES (See Table below) / NO

pH Excursion:

Paragon Sample ID	Client Sample ID	Initial pH	Final pH	Reagent Used	Volume Added (mL)	Lot No. of Reagent	Requested Analysis	Initials / Date / Time
-1-12		7	1.6	conc HNO ₃	1 mL			as 11/17/08 10:30
-1-15		↓	↓	↓	↓			↓
-1-16		↓	↓	↓	↓			↓
-1-17		↓	↓	↓	↓			↓
-2-12		↓	↓	↓	↓			↓
-2-15		↓	↓	↓	↓			↓
-2-16		↓	↓	↓	↓			↓
-2-17		↓	↓	↓	↓			↓

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: as 11/17/08

GRAND JUNCTION, CO 81505
UNITED STATES US

Ship Date: 13NOV08
ActWgt: 20.0 LB MAN
System#: 390082/CAFE2358
Account: S 235727234

TO

PARAGON ANALYTICS
225 COMMERCE DRIVE

FORT COLLINS, CO 80524

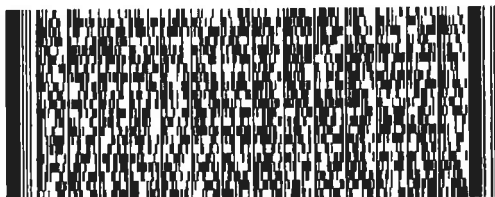
(800) 443-1511

FedEx
Express



01 5050103/33/31

Ref : 8360



Delivery Address
Barcode

BILL SENDER

PRIORITY OVERNIGHT

TRK# 9660 0451 2332 Form 0201

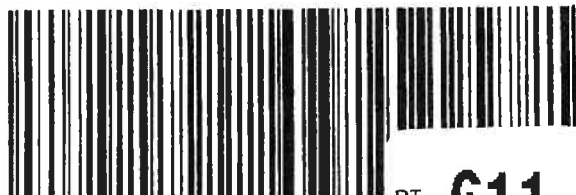
FRI

Deliver By:
14NOV08

DEN AA

80524 -CO-US

72 FTCA



RT

611 A

FZ

2332
11.14

Sample Results

TOTAL ALKALINITY As CaCO₃

Method EPA310.1

Sample Results

Lab Name: Paragon Analytics

Client Name: Cordilleran Compliance Services, Inc.

Client Project ID: Rulison Area Well monitoring

Work Order Number: 0811110

Final Volume: 100 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
A11-15D	0811110-1	11/13/2008	11/18/2008	11/18/2008	N/A	1	1200	100		5 ml
A11-15B	0811110-2	11/13/2008	11/18/2008	11/18/2008	N/A	1	1300	100		5 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: ak0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

AMMONIA AS N

Method EPA350.1

Sample Results

Lab Name: Paragon Analytics

Client Name: Cordilleran Compliance Services, Inc.

Client Project ID: Rulison Area Well monitoring

Work Order Number: 0811110

Final Volume: 5 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
A11-15D	0811110-1	11/13/2008	11/18/2008	11/18/2008	N/A	5	16	0.5		5 ml
A11-15B	0811110-2	11/13/2008	11/18/2008	11/18/2008	N/A	5	14	0.5		5 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: nh0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

NITRATE/NITRITE AS N

Method EPA353.2 Revision 2.0

Sample Results

Lab Name: Paragon Analytics

Client Name: Cordilleran Compliance Services, Inc.

Client Project ID: Rulison Area Well monitoring

Work Order Number: 0811110

Final Volume: 5 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
A11-15D	0811110-1	11/13/2008	11/20/2008	11/20/2008	N/A	1	0.012	0.01		5 ml
A11-15B	0811110-2	11/13/2008	11/20/2008	11/20/2008	N/A	1	0.01	0.01	U	5 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: nn0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

pH in water @25 Degrees Celsius

Method SW9040B

Sample Results

Lab Name: Paragon Analytics

Client Name: Cordilleran Compliance Services, Inc.

Client Project ID: Rulison Area Well monitoring

Work Order Number: 0811110

Final Volume: 20 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: pH

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
A11-15D	0811110-1	11/13/2008	11/18/2008	11/18/2008	N/A	1	6.61	0.1		20 ml
A11-15B	0811110-2	11/13/2008	11/18/2008	11/18/2008	N/A	1	6.77	0.1		20 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *ph0811110-1*

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

TOTAL PHOSPHORUS

Method EPA365.2

Sample Results

Lab Name: Paragon Analytics

Client Name: Cordilleran Compliance Services, Inc.

Client Project ID: Rulison Area Well monitoring

Work Order Number: 0811110

Final Volume: 50 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: METHOD

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
A11-15D	0811110-1	11/13/2008	11/24/2008	11/24/2008	N/A	5	3.3	0.25		50 ml
A11-15B	0811110-2	11/13/2008	11/24/2008	11/24/2008	N/A	5	3.3	0.25		50 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: po0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

TOTAL DISSOLVED SOLIDS

Method EPA160.1

Sample Results

Lab Name: Paragon Analytics

Client Name: Cordilleran Compliance Services, Inc.

Client Project ID: Rulison Area Well monitoring

Work Order Number: 0811110

Final Volume: 100 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
A11-15D	0811110-1	11/13/2008	11/17/2008	11/18/2008	N/A	1	19000	1000		2 ml
A11-15B	0811110-2	11/13/2008	11/17/2008	11/18/2008	N/A	1	20000	1000		2 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *td0811110-1*

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Ion Chromatography

Method EPA300.0 Revision 2.1

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15D
Lab ID: 0811110-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 13-Nov-08
Date Extracted: 17-Nov-08
Date Analyzed: 19-Nov-08
Prep Method: NONE

Prep Batch: IC081117-1
QCBatchID: IC081117-1-1
Run ID: ic081119-1a
Cleanup: NONE
Basis: As Received
File Name: 81119_012.DXD

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16984-48-8	FLUORIDE	50	5	5	U	
16887-00-6	CHLORIDE	1000	12000	200		
24959-67-9	BROMIDE	50	93	10		
14808-79-8	SULFATE	50	50	50	U	

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 1 of 2

Ion Chromatography

Method EPA300.0 Revision 2.1

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15B
Lab ID: 0811110-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 13-Nov-08

Date Extracted: 17-Nov-08

Date Analyzed: 19-Nov-08

Prep Method: NONE

Prep Batch: IC081117-1

QCBatchID: IC081117-1-1

Run ID: ic081119-1a

Cleanup: NONE

Basis: As Received

File Name: 81119_013.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16984-48-8	FLUORIDE	50	5	5	U	
16887-00-6	CHLORIDE	1000	13000	200		
24959-67-9	BROMIDE	50	10	10	U	
14808-79-8	SULFATE	50	50	50	U	

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 2 of 2

QC and Summary Report Forms

TOTAL ALKALINITY As CaCO₃

Method EPA310.1

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: AK081118-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: AK081118-1

QCBatchID: AK081118-1-2

Run ID: ak081118-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
AK081118-1MB	11/18/2008	11/18/2008	N/A	1	5	5	U

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: ak0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

TOTAL ALKALINITY As CaCO₃

Method EPA310.1

Laboratory Control Sample

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: AK081118-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11/18/2008

Date Analyzed: 11/18/2008

Prep Batch: AK081118-1

QCBatchID: AK081118-1-2

Run ID: ak081118-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
11-43-8	TOTAL ALKALINITY As CaCO ₃	100	98.9	5		99	85 - 115

Data Package ID: ak0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

TOTAL ALKALINITY AS CaCO3

Method EPA310.1

Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: AK081118-1A

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/18/2008		100	99.4	5	N/A	99	85 - 115

Data Package ID: ak0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 1 of 1

TOTAL ALKALINITY AS CaCO3

Method EPA310.1

Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: AK081118-1A

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/18/2008		5	5	U

Data Package ID: ak0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 1 of 1

Prep Batch ID: AK081118-1

Start Date: 11/18/08
Start Time: 12:30
Prep Analyst: Jason McNall

End Date: 11/18/08
End Time: 14:30

Concentration Method: NONE
Extract Method: NONE
Initial Volume Units: ml
Final Volume Units: ml

Batch Created By: JBM
Date Created: 11/18/08
Time Created: 15:22
Validated By: JBM
Date Validated: 11/19/08
Time Validated: 16:32

Comments:

QC Batch ID: AK081118-1-2

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
AK081118-1	MB	XXXXXX	WATER	XXXXXX	100	100	NONE	1	0811099
AK081118-1	LCS	XXXXXX	WATER	XXXXXX	100	100	NONE	1	0811099
0811099-3	DUP	XXXXXX	WATER	XXXXXX	1	100	NONE	1	0811099
0811099-3	SMP	XXXXXX	WATER	XXXXXX	1	100	NONE	1	0811099
0811110-1	SMP	A11-15D	WATER	11/13/2008	5	100	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	5	100	NONE	1	0811110

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
SMP	Field Sample	SYS	Sample Yield Spike

AMMONIA AS N

Method EPA350.1

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: NH081118-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 18-Nov-08

Date Analyzed: 18-Nov-08

Prep Method: NONE

Prep Batch: NH081118-1

QCBatchID: NH081118-1-1

Run ID: nh081118-1a

Cleanup: NONE

Basis: N/A

File Name: 1118NH.FDT

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7664-41-7	AMMONIA AS N	1	0.1	0.1	U	

Data Package ID: nh0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Ammonia as N
Method EPA350.1
Laboratory Control Sample

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: NH081118-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11/18/2008

Date Analyzed: 11/18/2008

Prep Method: NONE

Prep Batch: NH081118-1

QCBatchID: NH081118-1-1

Run ID: nh081118-1a

Cleanup: NONE

Basis: N/A

File Name: 1118NH.FDT

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7664-41-7	AMMONIA AS N	1	0.983	0.1		98	90 - 110%

Data Package ID: nh0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

AMMONIA AS N
Method EPA350.1
Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: nh081118-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/18/2008	13:55	1	1.04	0.1	N/A	104	90 - 110
CCV1	Continuing Calibration	11/18/2008	14:12	2	1.99	0.1	N/A	99	90 - 110

Data Package ID: nh0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 1 of 1

AMMONIA AS N

Method EPA350.1

Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: nh081118-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/18/2008	13:56	0.1	0.1	U
CCB1	Continuing Calibration	11/18/2008	14:13	0.1	0.1	U

Data Package ID: nh0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Prep Batch ID: NH081118-1

Start Date: 11/18/08

End Date: 11/18/08

Concentration Method: NONE

Batch Created By: PJW

Start Time: 10:00

End Time: 11:00

Extract Method: NONE

Date Created: 11/18/08

Prep Analyst: Peter Workman

Initial Volume Units: ml

Time Created: 13:47

Comments:

Final Volume Units: ml

Validated By: PJW

Date Validated: 11/18/08

Time Validated: 13:19

QC Batch ID: NH081118-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
NH081118-1	MB	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811129
NH081118-1	LCS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811129
0811129-1	MS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811129
0811129-1	MSD	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811129
0811110-1	SMP	A11-15D	WATER	11/13/2008	5	5	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	5	5	NONE	1	0811110
0811129-1	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811129

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
SMP	Field Sample	SYS	Sample Yield Spike

Nitrate/Nitrite as N

Method EPA353.2 Revision 2.0

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: NN081120-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 20-Nov-08

Date Analyzed: 20-Nov-08

Prep Method: NONE

Prep Batch: NN081120-1

QCBatchID: NN081120-1-1

Run ID: nn081120-1a

Cleanup: NONE

Basis: N/A

File Name: 1120NOX.FDT

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
1-005	NITRATE/NITRITE AS N	1	0.01	0.01	U	

Data Package ID: nn0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Nitrate/Nitrite as N

Method EPA353.2 Revision 2.0

Laboratory Control Sample

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: NN081120-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11/20/2008

Date Analyzed: 11/20/2008

Prep Method: NONE

Prep Batch: NN081120-1

QCBatchID: NN081120-1-1

Run ID: nn081120-1a

Cleanup: NONE

Basis: N/A

File Name: 1120NOX.FDT

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
1-005	NITRATE/NITRITE AS N	0.5	0.525	0.01		105	90 - 110%

Data Package ID: nn0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

NITRATE/NITRITE AS N

Method EPA353.2

Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: nn081120-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/20/2008	14:48	0.5	0.528	0.01	N/A	106	90 - 110
CCV1	Continuing Calibration	11/20/2008	15:00	1	1.01	0.01	N/A	101	90 - 110
CCV2	Continuing Calibration	11/20/2008	15:11	1	1.01	0.01	N/A	101	90 - 110
CCV3	Continuing Calibration	11/20/2008	15:26	1	1.02	0.01	N/A	102	90 - 110

Data Package ID: nn0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

NITRATE/NITRITE AS N

Method EPA353.2

Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: nn081120-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/20/2008	14:49	0.01	0.01	U
CCB1	Continuing Calibration	11/20/2008	15:00	0.01	0.01	U
CCB2	Continuing Calibration	11/20/2008	15:12	0.01	0.01	U
CCB3	Continuing Calibration	11/20/2008	15:27	0.01	0.01	U

Data Package ID: nn0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Prep Batch ID: NN081120-1

Start Date: 11/20/08

End Date: 11/20/08

Concentration Method: NONE

Batch Created By: PJW

Start Time: 11:00

End Time: 12:00

Extract Method: NONE

Date Created: 11/20/08

Prep Analyst: Peter Workman

Initial Volume Units: ml

Time Created: 15:45

Comments:

Final Volume Units: ml

Validated By: PJW

Date Validated: 11/20/08

Time Validated: 14:53

QC Batch ID: NN081120-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
NN081120-1	MB	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811128
NN081120-1	LCS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811128
0811128-1	MS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811128
0811128-1	MSD	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811128
0811110-1	SMP	A11-15D	WATER	11/13/2008	5	5	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	5	5	NONE	1	0811110
0811122-1	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-10	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-11	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-12	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-2	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-3	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-4	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-5	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-6	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-7	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-8	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-9	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811128-1	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811128
0811132-1	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811132
0811132-2	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811132
0811132-3	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811132

PH
Method SW9040
Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ph081118-1a

Result Units: pH

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/18/2008		7	6.98	0.1	N/A		6.95 - 7.05
CCV1	Continuing Calibration	11/18/2008		7	6.92	0.1	N/A		6.9 - 7.1

Data Package ID: *ph0811110-1*

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 1 of 1

Prep Batch ID: PH081118-1

Start Date: 11/18/08
Start Time: 9:00
Prep Analyst: Jason McNall

End Date: 11/18/08
End Time: 13:30

Concentration Method: NONE
Extract Method: NONE
Initial Volume Units: ml
Final Volume Units: ml

Batch Created By: JBM
Date Created: 11/18/08
Time Created: 10:53
Validated By: JBM
Date Validated: 11/19/08
Time Validated: 16:32

Comments:

QC Batch ID: PH081118-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
0811129-1	DUP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	0811129
0811110-1	SMP	A11-15D	WATER	11/13/2008	20	20	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	20	20	NONE	1	0811110
0811129-1	SMP	XXXXXX	WATER	XXXXXX	20	20	NONE	1	0811129

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
SMP	Field Sample	SYS	Sample Yield Spike

Total Phosphorus as P

Method EPA365.2

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: PO081124-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 24-Nov-08

Date Analyzed: 24-Nov-08

Prep Method: METHOD

Prep Batch: PO081124-1

QCBatchID: PO081124-1-1

Run ID: po081124-1a

Cleanup: NONE

Basis: N/A

File Name: Manual Entry

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7723-14-0	TOTAL PHOSPHORUS	1	0.05	0.05	U	

Data Package ID: po0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Total Phosphorus as P

Method EPA365.2

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: PO081124-1LCS	Sample Matrix: WATER	Prep Batch: PO081124-1	Sample Aliquot: 50 ml
	% Moisture: N/A	QCBatchID: PO081124-1-1	Final Volume: 50 ml
	Date Collected: N/A	Run ID: po081124-1a	Result Units: MG/L
	Date Extracted: 11/24/2008	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 11/24/2008	Basis: N/A	
	Prep Method: METHOD	File Name: Manual Entry	

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7723-14-0	TOTAL PHOSPHORUS	0.5	0.551	0.05		110	80 - 120%

Lab ID: PO081124-1LCSD	Sample Matrix: WATER	Prep Batch: PO081124-1	Sample Aliquot: 50 ml
	% Moisture: N/A	QCBatchID: PO081124-1-1	Final Volume: 50 ml
	Date Collected: N/A	Run ID: po081124-1a	Result Units: MG/L
	Date Extracted: 11/24/2008	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 11/24/2008	Basis: N/A	
	Prep Method: METHOD	File Name: Manual Entry	

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
7723-14-0	TOTAL PHOSPHORUS	0.5	0.543	0.05		109	20	1

Data Package ID: po0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

TOTAL PHOSPHORUS

Method EPA365.2

Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: PO081124-1A

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/24/2008		0.25	0.258	0.05	N/A	103	90 - 110
CCV1	Continuing Calibration	11/24/2008		0.5	0.519	0.05	N/A	104	90 - 110

Data Package ID: po0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

TOTAL PHOSPHORUS

Method EPA365.2

Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: PO081124-1A

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/24/2008		0.05	0.05	U
CCB1	Continuing Calibration	11/24/2008		0.05	0.05	U

Data Package ID: po0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 1 of 1

Prep Batch ID: PO081124-1

Start Date: 11/24/08

End Date: 11/24/08

Concentration Method: NONE

Batch Created By: JBM

Start Time: 8:15

End Time: 10:15

Extract Method: METHOD

Date Created: 11/24/08

Prep Analyst: Jason McNali

Initial Volume Units: ml

Time Created: 9:16

Comments:

Final Volume Units: ml

Validated By: JBM

Date Validated: 11/24/08

Time Validated: 8:18

QC Batch ID: PO081124-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
PO081124-1	MB	XXXXXX	WATER	XXXXXX	50	50	NONE	1	0811110
PO081124-1	LCS	XXXXXX	WATER	XXXXXX	50	50	NONE	1	0811110
PO081124-1	LCSD	XXXXXX	WATER	XXXXXX	50	50	NONE	1	0811110
0811110-1	SMP	A11-15D	WATER	11/13/2008	50	50	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	50	50	NONE	1	0811110

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
SMP	Field Sample	SYS	Sample Yield Spike

Total Dissolved Solids

Method EPA160.1

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: TD081117-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 17-Nov-08

Date Analyzed: 18-Nov-08

Prep Method: NONE

Prep Batch: TD081117-1

QCBatchID: TD081117-1-1

Run ID: td081118-1a

Cleanup: NONE

Basis: N/A

File Name: Manual Entry

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-33-3	TOTAL DISSOLVED SOLIDS	1	20	20	U	

Data Package ID: td0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Total Dissolved Solids

Method EPA160.1

Laboratory Control Sample

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: TD081117-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11/17/2008

Date Analyzed: 11/18/2008

Prep Method: NONE

Prep Batch: TD081117-1

QCBatchID: TD081117-1-1

Run ID: td081118-1a

Cleanup: NONE

Basis: N/A

File Name: Manual Entry

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
10-33-3	TOTAL DISSOLVED SOLIDS	400	409	20		102	85 - 115%

Data Package ID: td0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

Prep Batch ID: TD081117-1

Start Date: 11/17/08

End Date: 11/17/08

Concentration Method: NONE

Batch Created By: JBM

Start Time: 10:30

End Time: 15:15

Extract Method: NONE

Date Created: 11/17/08

Prep Analyst: Jason McNall

Initial Volume Units: ml

Time Created: 12:15

Comments:

Final Volume Units: ml

Validated By: JBM

Date Validated: 11/17/08

Time Validated: 15:19

QC Batch ID: TD081117-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
TD081117-1	MB	XXXXXX	WATER	XXXXXX	100	100	NONE	1	0811122
TD081117-1	LCS	XXXXXX	WATER	XXXXXX	100	100	NONE	1	0811122
0811122-1	DUP	XXXXXX	WATER	XXXXXX	25	100	NONE	1	0811122
0811110-1	SMP	A11-15D	WATER	11/13/2008	2	100	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	2	100	NONE	1	0811110
0811122-1	SMP	XXXXXX	WATER	XXXXXX	25	100	NONE	1	0811122
0811122-11	SMP	XXXXXX	WATER	XXXXXX	5	100	NONE	1	0811122
0811122-12	SMP	XXXXXX	WATER	XXXXXX	10	100	NONE	1	0811122
0811122-13	SMP	XXXXXX	WATER	XXXXXX	5	100	NONE	1	0811122
0811122-2	SMP	XXXXXX	WATER	XXXXXX	10	100	NONE	1	0811122
0811122-3	SMP	XXXXXX	WATER	XXXXXX	5	100	NONE	1	0811122
0811122-4	SMP	XXXXXX	WATER	XXXXXX	10	100	NONE	1	0811122
0811122-5	SMP	XXXXXX	WATER	XXXXXX	100	100	NONE	1	0811122
0811122-6	SMP	XXXXXX	WATER	XXXXXX	100	100	NONE	1	0811122
0811122-7	SMP	XXXXXX	WATER	XXXXXX	25	100	NONE	1	0811122
0811122-8	SMP	XXXXXX	WATER	XXXXXX	10	100	NONE	1	0811122
0811122-9	SMP	XXXXXX	WATER	XXXXXX	10	100	NONE	1	0811122
0811128-1	SMP	XXXXXX	WATER	XXXXXX	100	100	NONE	1	0811128
0811129-1	SMP	XXXXXX	WATER	XXXXXX	1	100	NONE	1	0811129

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
SMP	Field Sample	SYS	Sample Yield Spike

Ion Chromatography

Method EPA300.0 Revision 2.1

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: IC081117-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 17-Nov-08

Date Analyzed: 17-Nov-08

Prep Method: NONE

Prep Batch: IC081117-1

QCBatchID: IC081117-1-1

Run ID: ic081117-1a

Cleanup: NONE

Basis: N/A

File Name: 81117_011.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16887-00-6	CHLORIDE	1	0.2	0.2	U	
24959-67-9	BROMIDE	1	0.2	0.2	U	
14808-79-8	SULFATE	1	1	1	U	

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 2

Ion Chromatography

Method EPA300.0 Revision 2.1

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: IC081117-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 17-Nov-08

Date Analyzed: 19-Nov-08

Prep Method: NONE

Prep Batch: IC081117-1

QCBatchID: IC081117-1-1

Run ID: ic081119-1a

Cleanup: NONE

Basis: N/A

File Name: 81119_009.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16984-48-8	FLUORIDE	1	0.1	0.1	U	

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 2 of 2

Ion Chromatography

Method EPA300.0 Revision 2.1

Laboratory Control Sample

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Lab ID: IC081117-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11/17/2008

Date Analyzed: 11/19/2008

Prep Method: NONE

Prep Batch: IC081117-1

QCBatchID: IC081117-1-1

Run ID: ic081119-1a

Cleanup: NONE

Basis: N/A

File Name: 81119_016.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
16984-48-8	FLUORIDE	2.5	2.69	0.1		108	90 - 110%
16887-00-6	CHLORIDE	5	5.32	0.2		106	90 - 110%
24959-67-9	BROMIDE	5	5.4	0.2		108	90 - 110%
14808-79-8	SULFATE	25	26.7	1		107	90 - 110%

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 1

BROMIDE

Method EPA300.0

Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081117-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/13/2008	14:29	5	5.24	0.2	N/A	105	90 - 110
CCV1	Continuing Calibration	11/17/2008	15:24	10	10.3	0.2	N/A	103	90 - 110
CCV2	Continuing Calibration	11/17/2008	18:37	10	11	0.2	N/A	110	90 - 110
CCV3	Continuing Calibration	11/17/2008	21:49	10	11	0.2	N/A	110	90 - 110
CCV4	Continuing Calibration	11/17/2008	23:26	10	10.8	0.2	N/A	108	90 - 110

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 1 of 4

CHLORIDE
Method EPA300.0
Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081117-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/13/2008	14:29	5	5.21	0.2	N/A	104	90 - 110
CCV1	Continuing Calibration	11/17/2008	15:24	10	10.3	0.2	N/A	103	90 - 110
CCV2	Continuing Calibration	11/17/2008	18:37	10	10.7	0.2	N/A	107	90 - 110
CCV3	Continuing Calibration	11/17/2008	21:49	10	10.7	0.2	N/A	107	90 - 110
CCV4	Continuing Calibration	11/17/2008	23:26	10	10.8	0.2	N/A	108	90 - 110

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 2 of 4

SULFATE

Method EPA300.0

Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081117-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/13/2008	14:29	25	27.1	1	N/A	109	90 - 110
CCV1	Continuing Calibration	11/17/2008	15:24	50	52	1	N/A	104	90 - 110
CCV2	Continuing Calibration	11/17/2008	18:37	50	53.9	1	N/A	108	90 - 110
CCV3	Continuing Calibration	11/17/2008	21:49	50	53.5	1	N/A	107	90 - 110
CCV4	Continuing Calibration	11/17/2008	23:26	50	54.6	1	N/A	109	90 - 110

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 3 of 4

FLUORIDE

Method EPA300.0

Calibration Verifications

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081119-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Spike Added	Result	Reporting Limit	Result Qualifier	% Rec.	Control Limits
ICV	Initial Calibration	11/19/2008	13:39	2.5	2.67	0.1	N/A	107	90 - 110
CCV1	Continuing Calibration	11/19/2008	17:16	5	5.54	0.1	Z	111	90 - 110

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics

LIMS Version: 6.212A

Page 4 of 4

BROMIDE
Method EPA300.0
Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081117-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/13/2008	14:45	0.2	0.2	U
CCB1	Continuing Calibration	11/17/2008	15:41	0.2	0.2	U
CCB2	Continuing Calibration	11/17/2008	18:53	0.2	0.2	U
CCB3	Continuing Calibration	11/17/2008	22:05	0.2	0.2	U
CCB4	Continuing Calibration	11/17/2008	23:42	0.2	0.2	U

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 1 of 4

CHLORIDE
Method EPA300.0
Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081117-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/13/2008	14:45	0.2	0.2	U
CCB1	Continuing Calibration	11/17/2008	15:41	0.2	0.2	U
CCB2	Continuing Calibration	11/17/2008	18:53	0.2	0.2	U
CCB3	Continuing Calibration	11/17/2008	22:05	0.2	0.2	U
CCB4	Continuing Calibration	11/17/2008	23:42	0.2	0.2	U

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 2 of 4

SULFATE
Method EPA300.0
Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081117-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/13/2008	14:45	1	1	U
CCB1	Continuing Calibration	11/17/2008	15:41	1	1	U
CCB2	Continuing Calibration	11/17/2008	18:53	1	1	U
CCB3	Continuing Calibration	11/17/2008	22:05	1	1	U
CCB4	Continuing Calibration	11/17/2008	23:42	1	1	U

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 3 of 4

FLUORIDE
Method EPA300.0
Calibration Blanks

Lab Name: Paragon Analytics

Work Order Number: 0811110

Client Name: Cordilleran Compliance Services, Inc.

ClientProject ID: Rulison Area Well monitoring

Run ID: ic081119-1a

Result Units: MG/L

Lab ID	Verification Type	Date Analyzed	Time Analyzed	Result	Reporting Limit	Flag
ICB	Initial Calibration	11/19/2008	13:55	0.1	0.1	U
CCB1	Continuing Calibration	11/19/2008	17:32	0.1	0.1	U

Data Package ID: ic0811110-1

Date Printed: Wednesday, December 03, 2008

Paragon Analytics
LIMS Version: 6.212A

Page 4 of 4

Prep Batch ID: IC081117-1

Start Date: 11/17/08

End Date: 11/17/08

Concentration Method: NONE

Batch Created By: EAL

Start Time: 10:00

End Time: 11:00

Extract Method: NONE

Date Created: 11/17/08

Prep Analyst: Eric Allen Lintner

Initial Volume Units: ml

Time Created: 10:23

Comments:

Final Volume Units: ml

Validated By: EAL

Date Validated: 11/17/08

Time Validated: 14:51

QC Batch ID: IC081117-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
IC081117-1	MB	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
IC081117-1	LCS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-1	MS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-12	MS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-1	MSD	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811110-1	SMP	A11-15D	WATER	11/13/2008	5	5	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	5	5	NONE	1	0811110
0811122-1	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-11	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-12	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-2	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-3	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-4	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-5	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-6	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-7	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-8	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811122-9	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811122
0811128-1	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811128
0811129-1	SMP	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811129

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
SMP	Field Sample	SYS	Sample Yield Spike

Supporting Raw Data

Alkalinity Raw Data Worksheet

Anal Run ID AK081118-1A

1230-1430

Anal Start Date 11/18/2008

Standardization Ref ID AlkalinityCAL081118-1

W. L. 11/20/08

Standardization Of Alkalinity

Rep Num	THAM Conc	Aliq Titrated (mL)	vol to pH 4.5(mL)	HCl Conc(N)	Conc Units
1	0.2	1	10.19	0.0196271	N
2	0.2	1	10.2	0.0196078	N
3	0.2	1	10.18	0.0196464	N

Avg HCl Conc
0.0196271

Num	Don't Use	ReRun Num	Lab ID	QC Type	Anal Dil	Aliq Titrated (mL)	vol to pH 8.3(mL)	vol to pH 4.5(mL)	total vol(mL)	HCO3 (mg/L as CaCO3)	CO3 (mg/L as CaCO3)	OH (mg/L as CaCO3)	Total Alk (mg/L as CaCO3)	Expected	%Rec
1	<input type="checkbox"/>	0	ICV	ICV	1	100	4.78	5.35	10.13	5.59372	93.81754	0	99.41125		
2	<input type="checkbox"/>	0	ICB	ICB	1	100	0	0.27	0.27	2.649658	0	0	2.649658		
3	<input type="checkbox"/>	0	AK081118-1	MB	1	100	0	0.23	0.23	2.257116	0	0	2.257116		
4	<input type="checkbox"/>	0	AK081118-1	LCS	1	100	4.71	5.37	10.08	6.476941	92.44363	0	98.92058		
5	<input type="checkbox"/>	0	0811088-1	SMP	1	25	0	3.73	3.73	146.4182	0	0	146.4182		
6	<input type="checkbox"/>	0	0811088-2	SMP	1	25	0	5.92	5.92	232.3848	0	0	232.3848		
7	<input type="checkbox"/>	0	0811088-3	SMP	1	25	0	5.11	5.11	200.5889	0	0	200.5889		
8	<input type="checkbox"/>	0	0811088-5	SMP	1	25	0	9.69	9.69	380.3731	0	0	380.3731		
9	<input type="checkbox"/>	0	0811088-6	SMP	1	25	0	12.2	12.2	478.9012	0	0	478.9012		
10	<input type="checkbox"/>	0	0811099-2	SMP	1	5	0	9.07	9.07	1780.178	0	0	1780.178		
11	<input type="checkbox"/>	0	0811099-3	SMP	1	1	0	4.81	4.81	4720.317	0	0	4720.317		
12	<input type="checkbox"/>	0	0811099-3	DUP	1	1	0	4.87	4.87	4779.198	0	0	4779.198		
13	<input type="checkbox"/>	0	0811099-4	SMP	1	10	0	4.75	4.75	466.1436	0	0	466.1436		
14	<input type="checkbox"/>	0	0811099-5	SMP	1	10	0	4.8	4.8	471.0504	0	0	471.0504		
15	<input type="checkbox"/>	0	0811110-1	SMP	1	5	0	6.33	6.33	1242.395	0	0	1242.395		
16	<input type="checkbox"/>	0	0811110-2	SMP	1	5	0	6.7	6.7	1315.016	0	0	1315.016		
17	<input type="checkbox"/>	0	0811122-6	SMP	1	25	0	9.37	9.37	367.8118	0	0	367.8118		
18	<input type="checkbox"/>	0	0811122-7	SMP	1	25	0	7.01	7.01	275.1719	0	0	275.1719		
19	<input type="checkbox"/>	0	0811122-8	SMP	1	25	0	6.19	6.19	242.9835	0	0	242.9835		
20	<input type="checkbox"/>	0	0811122-11	SMP	1	25	0	9.21	9.21	361.5311	0	0	361.5311		
21	<input type="checkbox"/>	0	0811122-12	SMP	1	25	0	2.74	2.74	107.5565	0	0	107.5565		
22	<input type="checkbox"/>	0	0811128-1	SMP	1	25	0	3.43	3.43	134.6419	0	0	134.6419		
23	<input type="checkbox"/>	0	CCV1	CCV	1	100	4.82	5.37	10.19	5.397454	94.60262	0	100.0001		
24	<input type="checkbox"/>	0	CCB1	CCB	1	100	0	0.26	0.26	2.551522	0	0	2.551522		
25	<input type="checkbox"/>	0	0811129-1	SMP	1	5	0	10.7	10.7	2100.099	0	0	2100.099		
26	<input type="checkbox"/>	0	0811134-1	SMP	1	25	0	12.2	12.2	478.9012	0	0	478.9012		

Comments:

Standards, Batch QC, and Matrix Spike Information

ID	Parent ID	Parent Conc	Parent Vol.	Final Vol.
ICV	ST071128-4	10000	1	100
CCV	ST071128-4	10000	1	100

Reagent List:

0.020 N HCl Titrant RG080912-2
Phenolphthalein Indicator RG080908-1
Bromocresol Green Indicator RG081117-3
0.20 N Std. THAM ST071128-3
0.20 N NaCO3 (ICV, LCS, CCV's - 1.0 mL) ST071128-4

JBW
11/18/08

Ammonia as N Daily Verification

Analysis Date: 11/18/08

Analyst: PJW

Rw. 11/18/08

Ammonia as N - Method EPA350.1/SM4500 NH3-N H/QC10-107-06-1-C - SOP 1129

Standards Information:	
Instrument : LACHAT Quickchem 8000	1st Source 50 ppm NH3-N: *
	ST080909-1
	2nd Source 50 ppm NH3-N: **
	ST080909-2

PSW
11/18/08

Standards, Batch QC, and Matrix Spike Information

I.D.	Pmt Std I.D.	Pmt Std. Conc.	Pmt Std. Vol. (mL)	Final Vol. (mL)
5.0 mg/L NH3-N	*	50 mg/L NH3-N	0.500	5.0
2.0 mg/L NH3-N	*	50 mg/L NH3-N	0.200	5.0
1.0 mg/L NH3-N	*	50 mg/L NH3-N	0.100	5.0
0.50 mg/L NH3-N	*	50 mg/L NH3-N	0.050	5.0
0.20 mg/L NH3-N	*	50 mg/L NH3-N	0.020	5.0
0.10 mg/L NH3-N	*	50 mg/L NH3-N	0.010	5.0
ICV (1.0 mg/L NH3-N)	**	50 mg/L NH3-N	0.100	5.0
LCS (AQ)(1.0 mg/L NH3-N)	**	50 mg/L NH3-N	0.100	5.0
LCS (SOIL)(2.0 mg/L NH3-N)	**	50 mg/L NH3-N	1.600	40.0
MS/MSD(AQ) (1.0mg/L NH3-N)	*	50 mg/L NH3-N	0.100	5.0
MS/MSD(SOIL) (1.0mg/L NH3-N)	*	50 mg/L NH3-N	0.800	40.0
CCV (2.0 mg/L NH3-N)	*	50 mg/L NH3-N	0.200	5.0
CRC (2.0 mg/L NH3-N)	*	50 mg/L NH3-N	0.500	5.0
LLC (0.05 mg/L NH3-N)	*	50 mg/L NH3-N	0.010	5.0

Creator: WETCHEM

Creation Date: Nov 18, 2008 13:42:42

Last Modified: Nov 18, 2008 14:15:48

Description: NH3-N(350.1);50PPM(1ST)NH3-N:ST080909-1;50PPM(2ND)NH3-N:ST080909-2;EDTABUFFER:RG08

PSW
11/18/08

Rw. 11/18/08

Cup #	Sample ID	Manual Dilution	Sample Type	
1	5.00 mg/l NH3-N	1.0000	CalStd	
2	2.00 mg/l NH3-N	1.0000	CalStd	
3	1.00 mg/l NH3-N	1.0000	CalStd	
4	0.50 mg/l NH3-N	1.0000	CalStd	
5	0.20 mg/l NH3-N	1.0000	CalStd	
6	0.10 mg/l NH3-N	1.0000	CalStd	
7	0.00 mg/l NH3-N	1.0000	CalStd	
1	ICV	1.0000	Unknown	
2	ICB	1.0000	Unknown	
3	NH081118-1MB	1.0000	Unknown	
4	NH081118-1LCS	1.0000	Unknown	
⑤	0811129-1	1.0000	Unknown	
⑥	0811129-1MS	1.0000	Unknown	
⑦	0811129-1MSD	1.0000	Unknown	
⑧	0811110-1	1.0000	Unknown	
⑨	0811110-2	1.0000	Unknown	
10	0811129-1 20X	1.0000	Unknown	
11	0811110-1 5X	1.0000	Unknown	
12	0811110-2 5X	1.0000	Unknown	
13	CCV	1.0000	Unknown	
14	CCB	1.0000	Unknown	

INSTRUMENT: Flow Injection Analysis
TRAY: 1118NH.TRA METHOD: 1118NH.MET DATAFILE: 1118NH.FDT
DATE/TIME: Tue Nov 18 13:47:31 2008 OPERATOR: WETCHEM

*** Begin Calibration ***

Cup# 1 Sample: 5.00 mg/l NH3-N Type: CalStd Level: 1 Rep# 1/1
Ch 2: Ammonia Peak Area = 59486296.0 μ V-s
Cup# 2 Sample: 2.00 mg/l NH3-N Type: CalStd Level: 2 Rep# 1/1
Ch 2: Ammonia Peak Area = 23925330.0 μ V-s
Cup# 3 Sample: 1.00 mg/l NH3-N Type: CalStd Level: 3 Rep# 1/1
Ch 2: Ammonia Peak Area = 11987313.0 μ V-s
Cup# 4 Sample: 0.50 mg/l NH3-N Type: CalStd Level: 4 Rep# 1/1
Ch 2: Ammonia Peak Area = 6032853.5 μ V-s
Cup# 5 Sample: 0.20 mg/l NH3-N Type: CalStd Level: 5 Rep# 1/1
Ch 2: Ammonia Peak Area = 2913859.5 μ V-s
Cup# 6 Sample: 0.10 mg/l NH3-N Type: CalStd Level: 6 Rep# 1/1
Ch 2: Ammonia Peak Area = 1843168.5 μ V-s
Cup# 7 Sample: 0.00 mg/l NH3-N Type: CalStd Level: 7 Rep# 1/1
Ch 2: Ammonia Peak Area = 235346.6 μ V-s

*** Updated Calibration ***

Ch 2: Ammonia

** 1st Order Poly Calibration **

C[0] = 8.46397e-008

C[1] = -0.0296722

r = 1.0000

*** End Calibration Block ***

*** Calibration Passed ***

Cup# 1 Sample: ICV Type: Unknown Rep# 1/1
Ch 2: Ammonia = 1.0440 mg/L
Cup# 2 Sample: ICB Type: Unknown Rep# 1/1
Ch 2: Ammonia = -0.0200 mg/L
Cup# 3 Sample: NH081118-1MB Type: Unknown Rep# 1/1
Ch 2: Ammonia = -0.0233 mg/L
Cup# 4 Sample: NH081118-1LCS Type: Unknown Rep# 1/1
Ch 2: Ammonia = 0.9830 mg/L
Cup# 5 Sample: 0811129-1 Type: Unknown Rep# 1/1
Ch 2: Ammonia = 11.2391 mg/L
Cup# 6 Sample: 0811129-1MS Type: Unknown Rep# 1/1
Ch 2: Ammonia = 13.5547 mg/L
Cup# 7 Sample: 0811129-1MSD Type: Unknown Rep# 1/1
Ch 2: Ammonia = 13.4054 mg/L
Cup# 8 Sample: 0811110-1 Type: Unknown Rep# 1/1
Ch 2: Ammonia = 5.5255 mg/L
Cup# 9 Sample: 0811110-2 Type: Unknown Rep# 1/1
Ch 2: Ammonia = 5.5676 mg/L
Cup# 10 Sample: 0811129-1 20X Type: Unknown Rep# 1/1
Ch 2: Ammonia = 2.0525 mg/L
Cup# 11 Sample: 0811110-1 5X Type: Unknown Rep# 1/1
Ch 2: Ammonia = 3.2388 mg/L
Cup# 12 Sample: 0811110-2 5X Type: Unknown Rep# 1/1
Ch 2: Ammonia = 2.8608 mg/L
Cup# 13 Sample: CCV Type: Unknown Rep# 1/1
Ch 2: Ammonia = 1.9867 mg/L
Cup# 14 Sample: CCB Type: Unknown Rep# 1/1
Ch 2: Ammonia = -0.0169 mg/L

***** Tray Run Complete *****

Nitrate+Nitrite as N Spike Information

Analysis Date: 11/20/2008
Analyst: PJW

hw h 11/20/08

Nitrate + Nitrite as N - SOP 1127

Method EPA353.2
SM4500-NO3 F
QC10-107-04-1-C

*PJW
11/20/08*

Standards Information:

1st Source 100 ppm NO3-N*

ST080722-8

2nd Source 100 ppm NO3-N**

ST080225-1

1st Source 50 ppm NO2-N: ***

ST081027-5

Standards, Batch QC, and Matrix Spike Information

I.D.	Parent Std I.D.	Pmt Std. Conc.	Pmt Std. Vol. (mL)	Final Vol. (mL)
2.0 mg/L NO3-N	*	100 mg/L NO3-N	0.100	5.0
1.0 mg/L NO3-N	*	100 mg/L NO3-N	0.050	5.0
0.50 mg/L NO3-N	*	100 mg/L NO3-N	0.025	5.0
0.20 mg/L NO3-N	*	2.0 mg/L NO3-N	0.500	5.0
0.10 mg/L NO3-N	*	1.0 mg/L NO3-N	0.500	5.0
0.05 mg/L NO3-N	*	0.50 mg/L NO3-N	0.500	5.0
0.01 mg/L NO3-N	*	0.10 mg/L NO3-N	0.500	5.0
1.0 mg/L NO2-N	***	50 mg/L NO3-N	0.100	5.0
ICV (0.50 mg/L NO3-N)	**	100 mg/L NO3-N	0.025	5.0
LCS (0.50 mg/L NO3-N)	**	100 mg/L NO3-N	0.025	5.0
LCS (10 mg/kg NO3-N)	**	100 mg/L NO3-N	0.400	40.0
MS/MSD (0.4 mg/L N)	*	100 mg/L NO3-N	0.020	5.0
MS/MSD (4.0 mg/kg N)	*	100 mg/L NO3-N	0.160	40.0
CCV (1.0 mg/L NO3-N)	*	100 mg/L NO3-N	0.050	5.0
CRC (2.0 mg/L NO3-N)	*	100 mg/L NO3-N	0.100	5.0
LLC (0.01 mg/L NO3-N)	*	0.10 mg/L NO3-N	0.500	5.0

Calibration for 1120NOX.DAT

NOX

Run 11/20/08

Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	14457950	2.00	14457950					0.0	0.0	0.4
2	7334469	1.00	7334469					0.0	0.0	-0.7
3	3833617	0.50	3833617					0.0	0.0	-4.6
4	1469502	0.20	1469502					0.0	0.0	1.7
5	736860	0.10	736860					0.0	0.0	4.6
6	391398	0.05	391398					0.0	0.0	4.7
7	87168	0.01	87168					0.0	0.0	43.7
8	0	0.00	0					0.0	0.0	
9		0.00						0.0	0.0	

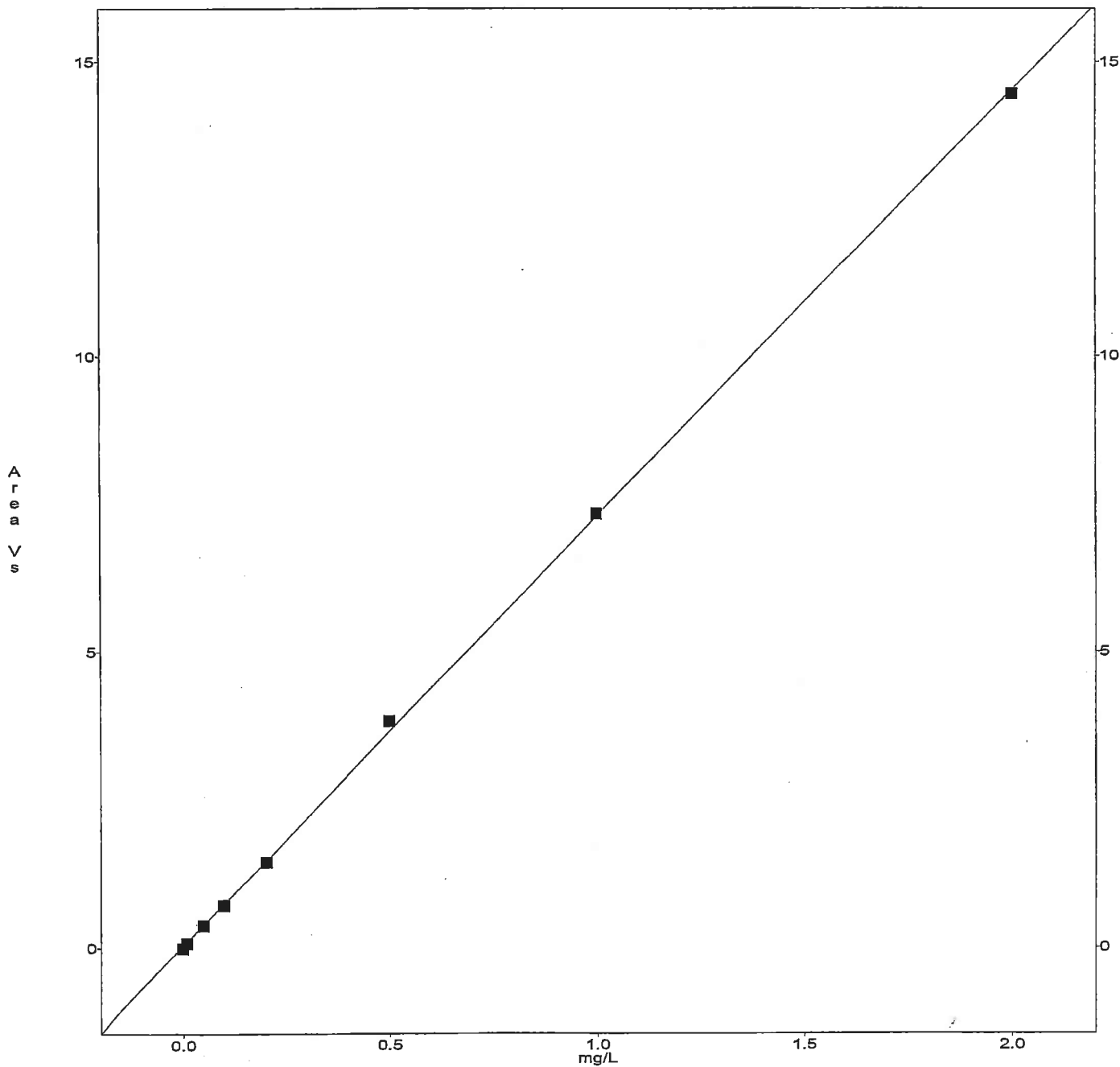
POW
11/20/08

1st Order Poly

Conc = 1.382e-007 Area = 6.412e-003

r = 0.9999

Scaling: None - Weighting: None



Creator: WETCHEM

Creation Date: Nov 20, 2008 14:01:23

Last Modified: Nov 20, 2008 15:35:17

Description: NOX(353.2);100PPM NO3(1ST):ST080722-8;100PPM NO3(2ND):ST080225-1;50PPM NO2:ST081027-5;NH4CLBUFFER:RG081106-2;SULFANILAMIDE:RG081106-1;CD COLUMN:RG070827-1;10N NAOH:RG080115-3 (*=PEAK INTERFERENCE)

PSW
11/20/08

Rw 11/20/08

Cup #	Sample ID	Manual Dilution	Sample Type	
1	2.000 NO3-N	1.0000	CalStd	
2	1.000 NO3-N	1.0000	CalStd	
3	0.500 NO3-N	1.0000	CalStd	
4	0.200 NO3-N	1.0000	CalStd	
5	0.100 NO3-N	1.0000	CalStd	
6	0.050 NO3-N	1.0000	CalStd	
7	0.010 NO3-N	1.0000	CalStd	
8	0.000 NO3-N	1.0000	CalStd	
1	1.000 NO2-N	1.0000	Unknown	
2	ICV	1.0000	Unknown	
3	ICB	1.0000	Unknown	
4	NN081120-1MB	1.0000	Unknown	
5	NN081120-1LCS	1.0000	Unknown	
6	0811128-1	1.0000	Unknown	
7	0811128-1MS	1.0000	Unknown	
8	0811128-1MSD	1.0000	Unknown	
9	0811110-1	1.0000	Unknown	
10	0811110-2 5X	1.0000	Unknown	
11	0811122-1 200X	1.0000	Unknown	
12	0811122-2 50X	1.0000	Unknown	
(13)	0811122-3 200X	1.0000	Unknown	
14	CCV	1.0000	Unknown	
15	CCB	1.0000	Unknown	
16	0811122-4 5X	1.0000	Unknown	
17	0811122-5 5X	1.0000	Unknown	
18	0811122-6	1.0000	Unknown	
19	0811122-7	1.0000	Unknown	
20	0811122-8	1.0000	Unknown	
21	0811122-9 5X	1.0000	Unknown	
(22)	0811122-10	1.0000	Unknown	
23	0811122-11	1.0000	Unknown	
(24)	0811122-12 5X	1.0000	Unknown	
25	0811132-1	1.0000	Unknown	
26	CCV	1.0000	Unknown	
27	CCB	1.0000	Unknown	
(28)	0811132-2	1.0000	Unknown	
29	0811132-3	1.0000	Unknown	
30	0811110-1	1.0000	Unknown	
31	0811110-2	1.0000	Unknown	
32	0811122-3 500X	1.0000	Unknown	
33	0811122-4	1.0000	Unknown	
34	0811122-10 5X	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
35	0811122-12 50X	1.0000	Unknown	
36	0811132-2 10X	1.0000	Unknown	
37	CCV	1.0000	Unknown	
38	CCB	1.0000	Unknown	

P5W
11/20/08

INSTRUMENT: Flow Injection Analysis
TRAY: 1120NOX.TRA METHOD: 1120NOX.MET DATAFILE: 1120NOX.FDT
DATE/TIME: Thu Nov 20 14:47:22 2008 OPERATOR: WETCHEM

Cup# 1 Sample: 1.000 NO2-N Type: Unknown Rep# 1/1
Ch 1: NOX = 1.0803 mg/L
Cup# 2 Sample: ICV Type: Unknown Rep# 1/1
Ch 1: NOX = 0.5280 mg/L
Cup# 3 Sample: ICB Type: Unknown Rep# 1/1
Ch 1: NOX = -0.0064 mg/L
Cup# 4 Sample: NN081120-1MB Type: Unknown Rep# 1/1
Ch 1: NOX = -0.0064 mg/L
Cup# 5 Sample: NN081120-1LCS Type: Unknown Rep# 1/1
Ch 1: NOX = 0.5253 mg/L
Cup# 6 Sample: 0811128-1 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0022 mg/L
Cup# 7 Sample: 0811128-1MS Type: Unknown Rep# 1/1
Ch 1: NOX = 0.4234 mg/L
Cup# 8 Sample: 0811128-1MSD Type: Unknown Rep# 1/1
Ch 1: NOX = 0.4242 mg/L
Cup# 9 Sample: 0811110-1 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0118 mg/L
Cup# 10 Sample: 0811110-2 5X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0008 mg/L
Cup# 11 Sample: 0811122-1 200X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.9572 mg/L
Cup# 12 Sample: 0811122-2 50X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.6869 mg/L
Cup# 13 Sample: 0811122-3 200X Type: Unknown Rep# 1/1
Ch 1: NOX = 2.3059 mg/L
Cup# 14 Sample: CCV Type: Unknown Rep# 1/1
Ch 1: NOX = 1.0110 mg/L
Cup# 15 Sample: CCB Type: Unknown Rep# 1/1
Ch 1: NOX = -0.0064 mg/L
Cup# 16 Sample: 0811122-4 5X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0015 mg/L
Cup# 17 Sample: 0811122-5 5X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.5389 mg/L
Cup# 18 Sample: 0811122-6 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.2299 mg/L
Cup# 19 Sample: 0811122-7 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0568 mg/L
Cup# 20 Sample: 0811122-8 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0670 mg/L
Cup# 21 Sample: 0811122-9 5X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.8168 mg/L
Cup# 22 Sample: 0811122-10 Type: Unknown Rep# 1/1
Ch 1: NOX = 3.5966 mg/L
Cup# 23 Sample: 0811122-11 Type: Unknown Rep# 1/1
Ch 1: NOX = 1.0197 mg/L
Cup# 24 Sample: 0811122-12 5X Type: Unknown Rep# 1/1
Ch 1: NOX = 5.5796 mg/L
Cup# 25 Sample: 0811132-1 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0464 mg/L
Cup# 26 Sample: CCV Type: Unknown Rep# 1/1
Ch 1: NOX = 1.0083 mg/L
Cup# 27 Sample: CCB Type: Unknown Rep# 1/1
Ch 1: NOX = -0.0064 mg/L
Cup# 28 Sample: 0811132-2 Type: Unknown Rep# 1/1
Ch 1: NOX = 6.0382 mg/L
Cup# 29 Sample: 0811132-3 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0074 mg/L
Cup# 30 Sample: 0811110-1 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0123 mg/L
Cup# 31 Sample: 0811110-2 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0095 mg/L
Cup# 32 Sample: 0811122-3 500X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.8836 mg/L

Cup# 33 Sample: 0811122-4 Type: Unknown Rep# 1/1
Ch 1: NOX = 0.0219 mg/L
Cup# 34 Sample: 0811122-10 5X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.9511 mg/L
Cup# 35 Sample: 0811122-12 50X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.5063 mg/L
Cup# 36 Sample: 0811132-2 10X Type: Unknown Rep# 1/1
Ch 1: NOX = 0.8927 mg/L
Cup# 37 Sample: CCV Type: Unknown Rep# 1/1
Ch 1: NOX = 1.0182 mg/L
Cup# 38 Sample: CCB Type: Unknown Rep# 1/1
Ch 1: NOX = -0.0028 mg/L
***** Tray Run Complete *****

pH Calculations and Quality Control Results

Prep & Analysis Date: 11/18/2008

Prep & Analysis Time: 0900-1330

Analyst: JBM

JBM
11/18/08

Reagent List:

4.01:

ST081013-1

7.00 (CCV):

ST081013-2

10.01:

ST081013-3

7.00 (ICV):

ST081013-4

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ID	Temp. (°C)	Method	sample vol (g)	sample vol (mL)	pH Value	QC Acceptance Range (pH units)
pH 4.01	26.2	NA	NA	NA	4.01	+/- 0.05
pH 7.00	26.2	NA	NA	NA	7.00	
pH 10.01	26.2	NA	NA	NA	10.01	
ICV - pH 7.00	26.2	NA	NA	NA	6.98	
0811129-1	26.2	SW9040	NA	20.0	7.28	
0811129-1DUP	26.2	SW9040	NA	20.0	7.24	
0811110-1	26.2	SW9040	NA	20.0	6.61	
0811110-2	26.2	SW9040	NA	20.0	6.77	
0811134-1	26.2	150.1	NA	20.0	7.57	
0810187-19 REP1	26.2	SW9045	20.0	20.0	7.89	
0810187-19 REP2	26.2	SW9045	20.0	20.0	7.87	+/- 0.10
0810187-19 REP3	26.2	SW9045	20.0	20.0	7.90	
CCV- pH 7.00	26.2	NA	NA	NA	6.92	

DUPLICATE SUMMARY (Aq)

ID	native pH Value	duplic pH Value	difference of native - dup	accept. limit
0811129-1	7.28	7.24	0.04	0.2 pH units

Rev C 11/20/08

pH INFORMATION:

SOP 1126 / EPA Method 150.1, 9040B and 9045C

Instrument : Fisher Scientific pH / mV meter model 50 (SN C0000643)

Electrode : Orion - Ross Sure-Flow Electrode Model 81-72BN

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11/18/08

Date: 11/24/08

Time: 0815-1015

Analyst: JBM

<u>IR</u>	<u>Sample Vol (ml)</u>	<u>Final Vol (ml)</u>
PO 081124-1 MB	50.0	50.0
- 1 LCS *		
- 1 LCSD ↓		
081110-1		
- 2		

* = 0.25ml ST080225-1

Note: LCSD Performed due to lack of Sample Vol. for MS/MSD.

Amon. Persulfate: R6080303-1

10N NaOH: R6080115-3

Phenolphthalein: R6080908-1

11N H₂SO₄: R6080214-1

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Added
Appx 2-out

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11/24/08

Continued on Page _____

Read and Understood By

JBM

Signed

11/24/08

Date



Signed

11/24/08

Date

PHOSPHATE AS P Raw Data Worksheet

Anal Run ID PO081124-1A

Anal Start Date 11/24/2008

Calib Ref ID PO4CAL081124-1

1015-1115

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11/24/08

Slope	1.283185
Intercept	-0.01133337
RSQ	0.9993396

Standard	Response	Soln Conc	Units
0	0	-0.01133337	mg/L
0.05	0.049	0.05154267	mg/L
0.1	0.087	0.1003037	mg/L
0.25	0.208	0.255569	mg/L
0.5	0.412	0.5173388	mg/L
0.75	0.585	0.7393296	mg/L
1	0.786	0.9972498	mg/L

Rw 11/24/08

Num	Don't Use	ReRun Num	Lab ID	QC Type	Anal Dil	Abs (650nm)	Calc PO4 Conc	Expected	%Rec
1	<input type="checkbox"/>	0	ICV	ICV	1	0.21	0.2581354	0.25	103
2	<input type="checkbox"/>	0	ICB	ICB	1	0	-0.0113334		
3	<input type="checkbox"/>	0	PO081124-1	MB	1	0.004	-0.0062006		
4	<input type="checkbox"/>	0	PO081124-1	LCS	1	0.438	0.5507015		
5	<input type="checkbox"/>	0	PO081124-1	LCSD	1	0.432	0.5430024		
6	<input checked="" type="checkbox"/>	0	0811110-1	SMP	1	1.385	1.765877		
7	<input checked="" type="checkbox"/>	0	0811110-2	SMP	1	1.801	2.299682		
8	<input type="checkbox"/>	0	0811110-1	SMP	5	0.519	0.6546395		
9	<input type="checkbox"/>	0	0811110-2	SMP	5	0.529	0.6674713		
10	<input type="checkbox"/>	0	CCV1	CCV	1	0.413	0.5186219	0.5	104
11	<input type="checkbox"/>	0	CCB1	CCB	1	0	-0.0113334		

Comments: LCSD PERFORMED DUE TO LACK OF SAMPLE VOL. FOR MS/MSD.

Standards, Batch QC, and Matrix Spike Information

ID	Parent ID	Parent Conc	Parent Vol.	Final Vol.
1.00 mg/L PO4-P	*	100 mg/L PO4-P	0.200	20.0
0.75 mg/L PO4-P	*	100 mg/L PO4-P	0.150	20.0
0.50 mg/L PO4-P	*	100 mg/L PO4-P	0.100	20.0
0.25 mg/L PO4-P	*	100 mg/L PO4-P	0.050	20.0
0.10 mg/L PO4-P	*	100 mg/L PO4-P	0.020	20.0
0.05 mg/L PO4-P	*	100 mg/L PO4-P	0.010	20.0
CS (0.25mg/L PO4-P)	**	100 mg/L PO4-P	0.050	20.0
MSD (0.25mg/L PO4-P)	*	100 mg/L PO4-P	0.050	20.0
CV (0.25mg/L PO4-P)	**	100 mg/L PO4-P	0.050	20.0
CV (0.50mg/L PO4-P)	*	100 mg/L PO4-P	0.100	20.0
TPHOS LCS	**	100 mg/L PO4-P	0.25	50.0
TPHOS MS/MSD	*	100 mg/L PO4-P	0.125	50.0

Reagent List:

PO4-P Prmt Standard 1st Source (*) ST080722-8

PO4-P 2nd Source (**) ST080225-1

Color Reagent RG081124-1

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11/24/08

TDS Raw Data Worksheet

Anal Run ID **TD081118-1A**

Anal Start Date **11/18/2008**

Prep 11/17/08 1030-1515
Analysis 11/18/08 0830-1500
JBM

Run 11/20/08

Num	Don't Use	ReRun Num	Lab ID	QC Type	Samp Vol (ml)	Empty Beaker (g)	A - Beaker + Residue gross (g)	A - Net mass (mg)	B - Beaker + Residue gross (g)	B - Net mass (mg)	gross A vs gross B (+/- 0.5mg)	% mass loss (<= 4%)	calculated conc (mg/L)	DL (mg/L)
4	<input type="checkbox"/>	0	TD081117-1	MB	100	76.5089	76.5098	0.9	76.51	1.1	0.2	NA	11	20
5	<input type="checkbox"/>	0	TD081117-1	LCS	100	65.3631	65.4037	40.6	65.404	40.9	0.3	0.74%	409	20
6	<input type="checkbox"/>	0	0811122-1	SMP	25	45.0167	45.1217	105	45.1178	101.1	3.9	3.78%	4044	80
7	<input type="checkbox"/>	0	0811122-1	DUP	25	45.1764	45.2806	104.2	45.2769	100.5	3.7	3.62%	4020	80
8	<input type="checkbox"/>	0	0811122-2	SMP	10	21.148	21.2186	70.6	21.2181	70.1	0.5	0.71%	7010	200
9	<input type="checkbox"/>	0	0811122-3	SMP	5	21.772	21.8565	84.5	21.8547	82.7	1.8	2.15%	16540	400
10	<input type="checkbox"/>	0	0811122-4	SMP	10	21.1056	21.1475	41.9	21.1468	41.2	0.7	1.68%	4120	200
11	<input type="checkbox"/>	0	0811122-5	SMP	100	78.4457	78.5211	75.4	78.5216	75.9	0.5	0.66%	759	20
12	<input type="checkbox"/>	0	0811122-6	SMP	100	78.0535	78.1149	61.4	78.1152	61.7	0.3	0.49%	617	20
13	<input type="checkbox"/>	0	0811122-7	SMP	25	43.8003	43.8496	49.3	43.8492	48.9	0.4	0.81%	1956	80
14	<input type="checkbox"/>	0	0811122-8	SMP	10	21.6298	21.6704	40.6	21.6699	40.1	0.5	1.24%	4010	200
15	<input type="checkbox"/>	0	0811122-9	SMP	10	21.1823	21.2267	44.4	21.225	42.7	1.7	3.90%	4270	200
16	<input type="checkbox"/>	0	0811122-11	SMP	5	21.7666	21.8107	44.1	21.8105	43.9	0.2	0.45%	8780	400
17	<input type="checkbox"/>	0	0811122-12	SMP	10	21.2333	21.2836	50.3	21.283	49.7	0.6	1.20%	4970	200
18	<input type="checkbox"/>	0	0811122-13	SMP	5	21.4638	21.5234	59.6	21.5231	59.3	0.3	0.50%	11860	400
19	<input type="checkbox"/>	0	0811128-1	SMP	100	66.0317	66.0973	65.6	66.0975	65.8	0.2	0.30%	658	20
20	<input type="checkbox"/>	0	0811129-1	SMP	1	21.5293	21.5597	30.4	21.5597	30.4	0	0.00%	30400	2000
21	<input type="checkbox"/>	0	0811110-1	SMP	2	21.5059	21.5442	38.3	21.5443	38.4	0.1	0.26%	19200	1000
22	<input type="checkbox"/>	0	0811110-2	SMP	2	21.1586	21.1982	39.6	21.1985	39.9	0.3	0.75%	19950	1000

Comments:

Standards, Batch QC, and Matrix Spike Information

ID	Parent ID	Parent Conc	Parent Vol.	Final Vol.
LCS	ST080414-1	40000	1	100

Reagent List:

TDS Spike Solution: 40.0 mg NaCl/mL ST080414-1

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11/18/08

Line	Sample	Sample Type	Method	Data File	Comment
1	5X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_001.dxd	
2	10X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_002.dxd	
3	25X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_003.dxd	
4	100X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_004.dxd	
5	1000X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_005.dxd	
6	0 STD	Calibration	081113.met	c:\peaknet\data\081113\081113_006.dxd	
7	ICV	Sample	081113.met	c:\peaknet\data\081113\081113_007.dxd	ICV
8	ICB	Sample	081113.met	c:\peaknet\data\081113\081113_008.dxd	ICB
9	IC081113-1MB	Sample	081113.met	c:\peaknet\data\081113\081113_009.dxd	WATER
10	IC081113-1LCS	Sample	081113.met	c:\peaknet\data\081113\081113_010.dxd	WATER
11	IC081113-2MB	Sample	081113.met	c:\peaknet\data\081113\081113_011.dxd	WATER
12	IC081113-2LCS	Sample	081113.met	c:\peaknet\data\081113\081113_012.dxd	WATER
13	0811099-2 5X	Sample	081113.met	c:\peaknet\data\081113\081113_013.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
14	0811099-3 10X	Sample	081113.met	c:\peaknet\data\081113\081113_014.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
15	0811099-3MS 10X	Sample	081113.met	c:\peaknet\data\081113\081113_015.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
16	0811099-3MSD 10X	Sample	081113.met	c:\peaknet\data\081113\081113_016.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
17	0811099-4 5X	Sample	081113.met	c:\peaknet\data\081113\081113_017.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
18	0811099-5 5X	Sample	081113.met	c:\peaknet\data\081113\081113_018.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
19	CCV	Sample	081113.met	c:\peaknet\data\081113\081113_019.dxd	CCV
20	CCB	Sample	081113.met	c:\peaknet\data\081113\081113_020.dxd	CCB
21	0811099-2 100X	Sample	081113.met	c:\peaknet\data\081113\081113_021.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
22	0811099-3 100X	Sample	081113.met	c:\peaknet\data\081113\081113_022.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
23	0811099-4 50X	Sample	081113.met	c:\peaknet\data\081113\081113_023.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
24	0811099-5 50X	Sample	081113.met	c:\peaknet\data\081113\081113_024.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
25	0811101-5	Sample	081113.met	c:\peaknet\data\081113\081113_025.dxd	F, CL, NO2, NO3, SO4-300.0
26	0811101-9	Sample	081113.met	c:\peaknet\data\081113\081113_026.dxd	F, CL, NO2, NO3, SO4-300.0
27	0811101-13	Sample	081113.met	c:\peaknet\data\081113\081113_027.dxd	F, CL, NO2, NO3, SO4-300.0
28	0811101-5 5X	Sample	081113.met	c:\peaknet\data\081113\081113_028.dxd	F, CL, NO2, NO3, SO4-300.0
29	0811101-9 5X	Sample	081113.met	c:\peaknet\data\081113\081113_029.dxd	F, CL, NO2, NO3, SO4-300.0
30	0811101-13 5X	Sample	081113.met	c:\peaknet\data\081113\081113_030.dxd	F, CL, NO2, NO3, SO4-300.0
31	CCV	Sample	081113.met	c:\peaknet\data\081113\081113_031.dxd	CCV
32	CCB	Sample	081113.met	c:\peaknet\data\081113\081113_032.dxd	CCB
33	IC081113-1LCS	Sample	081113.met	c:\peaknet\data\081113\081113_033.dxd	WATER
34	0811088-1 20X	Sample	081113.met	c:\peaknet\data\081113\081113_034.dxd	CL, SO4-300.0
35	0811088-1 500X	Sample	081113.met	c:\peaknet\data\081113\081113_035.dxd	CL, SO4-300.0
36	0811088-2 5X	Sample	081113.met	c:\peaknet\data\081113\081113_036.dxd	CL, SO4-300.0
37	0811088-3 5X	Sample	081113.met	c:\peaknet\data\081113\081113_037.dxd	CL, SO4-300.0
38	0811088-4 5X	Sample	081113.met	c:\peaknet\data\081113\081113_038.dxd	CL, SO4-300.0
39	0811088-5 10X	Sample	081113.met	c:\peaknet\data\081113\081113_039.dxd	CL, SO4-300.0
40	0811088-6 20X	Sample	081113.met	c:\peaknet\data\081113\081113_040.dxd	CL, SO4-300.0
41	0811088-7 5X	Sample	081113.met	c:\peaknet\data\081113\081113_041.dxd	CL, SO4-300.0
42	0811088-8 50X	Sample	081113.met	c:\peaknet\data\081113\081113_042.dxd	CL, SO4-300.0
43	CCV	Sample	081113.met	c:\peaknet\data\081113\081113_043.dxd	CCV
44	CCB	Sample	081113.met	c:\peaknet\data\081113\081113_044.dxd	CCB
45	0811088-9 20X	Sample	081113.met	c:\peaknet\data\081113\081113_045.dxd	CL, SO4-300.0
46	0811088-10 50X	Sample	081113.met	c:\peaknet\data\081113\081113_046.dxd	CL, SO4-300.0
47	0811088-11 50X	Sample	081113.met	c:\peaknet\data\081113\081113_047.dxd	CL, SO4-300.0
48	0811088-12 20X	Sample	081113.met	c:\peaknet\data\081113\081113_048.dxd	CL, SO4-300.0
49	0811088-12MS 20X	Sample	081113.met	c:\peaknet\data\081113\081113_049.dxd	CL, SO4-300.0
50	0811088-12MSD 20X	Sample	081113.met	c:\peaknet\data\081113\081113_050.dxd	CL, SO4-300.0
51	0811088-2MS 5X	Sample	081113.met	c:\peaknet\data\081113\081113_051.dxd	CL, SO4-300.0
52	0811094-1 100X	Sample	081113.met	c:\peaknet\data\081113\081113_052.dxd	CL, SO4-300.0
53	0811094-2 100X	Sample	081113.met	c:\peaknet\data\081113\081113_053.dxd	CL, SO4-300.0
54	0811094-3 10X	Sample	081113.met	c:\peaknet\data\081113\081113_054.dxd	CL, SO4-300.0
55	CCV	Sample	081113.met	c:\peaknet\data\081113\081113_055.dxd	CCV
56	CCB	Sample	081113.met	c:\peaknet\data\081113\081113_056.dxd	CCB
57	0811094-4 10X	Sample	081113.met	c:\peaknet\data\081113\081113_057.dxd	CL, SO4-300.0
58	0811094-5 10X	Sample	081113.met	c:\peaknet\data\081113\081113_058.dxd	CL, SO4-300.0
59	0811094-6 10X	Sample	081113.met	c:\peaknet\data\081113\081113_059.dxd	CL, SO4-300.0
60	0811094-7 100X	Sample	081113.met	c:\peaknet\data\081113\081113_060.dxd	CL, SO4-300.0
61	0811092-4 10000X	Sample	081113.met	c:\peaknet\data\081113\081113_061.dxd	CL, SO4-300.0
62	CCV	Sample	081113.met	c:\peaknet\data\081113\081113_062.dxd	CCV
63	CCB	Sample	081113.met	c:\peaknet\data\081113\081113_063.dxd	CCB
64	STOP.MET	Sample	stop.met		

Default Method Path: C:\PEAKNET\METHOD

Default Data Path: C:\PEAKNET\DATA\081104

Comment:

BatchDx created schedule.

Analyst:

Instrument #1: DIONEX DX-120. ID Serial Number: 99060762

Analytical Column: Dionex IonPac AS14 S/N 022150

Methods: EPA 300.0 and SW9056. Paragon SOP 1113

Eluent: Made daily, 10mL of Eluent Concentrate ID: RG080610-2 to 1000mL of DI water.

	Final	ID	Aliq
cal std level 1 (1000x)	10.00	ST080722-8, ST080926-8	0.01
cal std level 2 (100x)	5.00	"	0.05
cal std level 3 (25x)	5.00	"	0.20
cal std level 4 (10x)	5.00	"	0.50
cal std level 5 (5x)	5.00	"	1.00
CCV	5.00	ST080722-8, ST081027-5	0.50
ICV	5.00	ST080225-1	0.25
		ST080926-7	0.05
LCS(aq)	5.00	ST080225-1	0.25
		ST081027-4	0.05
MS/MSD (waters)	5.00	ST080219-9	0.05
		ST081027-3	0.05

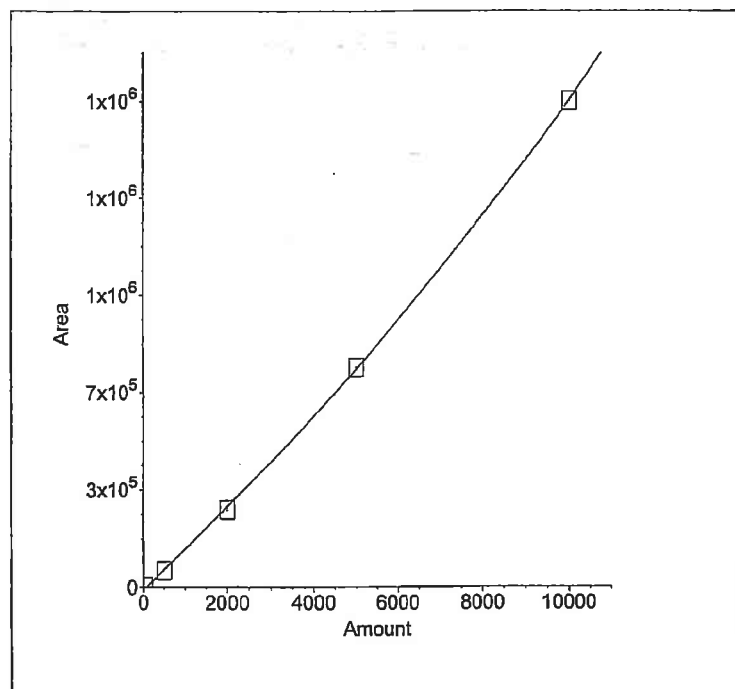
Dilutions Table: All to 5mL Final Volume

10X 0.5mL

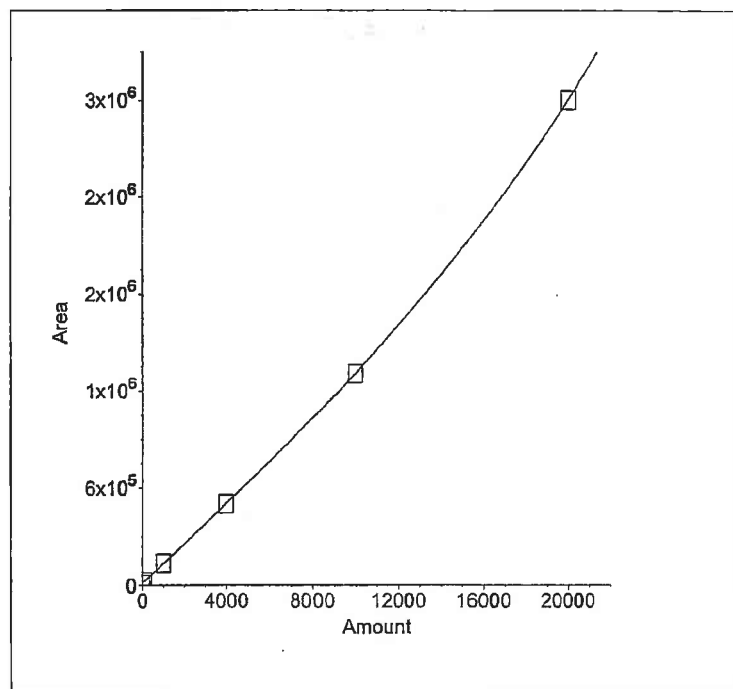
PeakNet 5.1

20X 0.25mL
25X 0.2mL
50X 0.1mL
100X 0.05mL
200X 0.025mL
500X 0.01mL

1. Component:Fluoride
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999829$
 $Amt=-5.650616e-010*Resp^2+$
 $6.354572e-003*Resp+82.16$

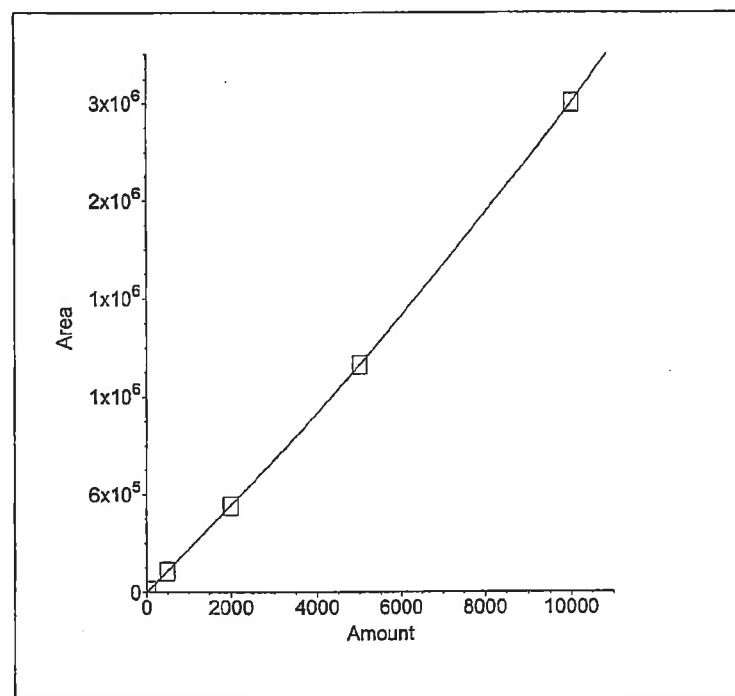


2. Component:Chloride
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999989$
 $Amt=-4.801237e-010*Resp^2+$
 $7.579884e-003*Resp+-109.3$

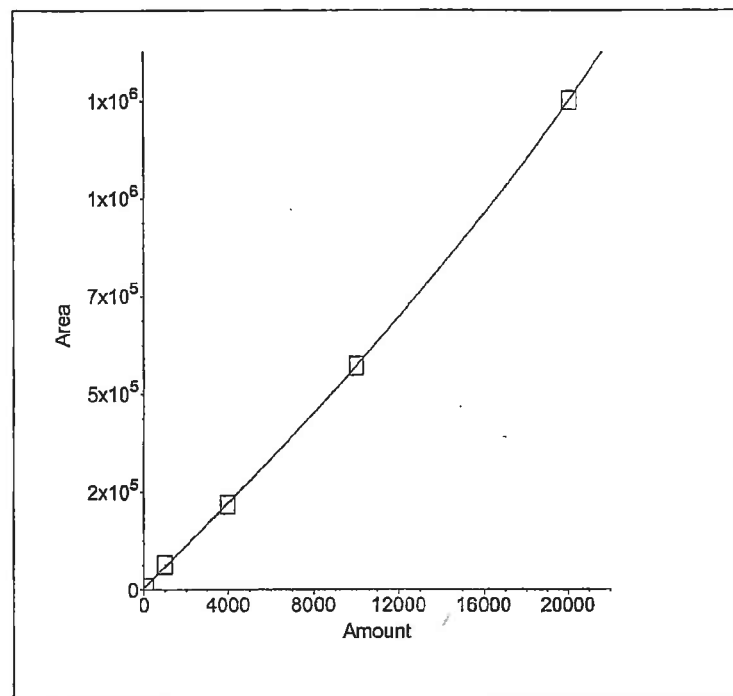


JBm
11/17/08

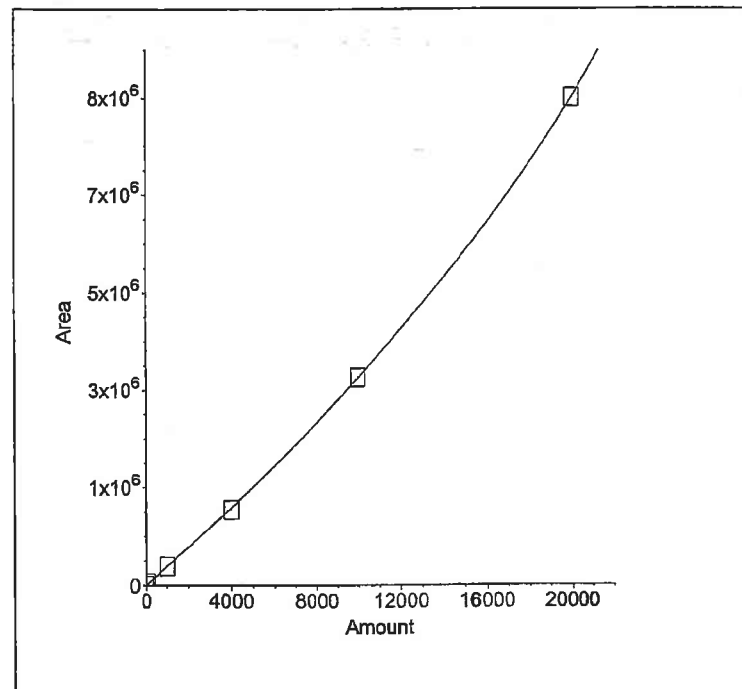
3. Component:Nitrite as N
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999996$
 $Amt=-1.442503e-010*Resp^2+$
 $3.612962e-003*Resp+14.36$



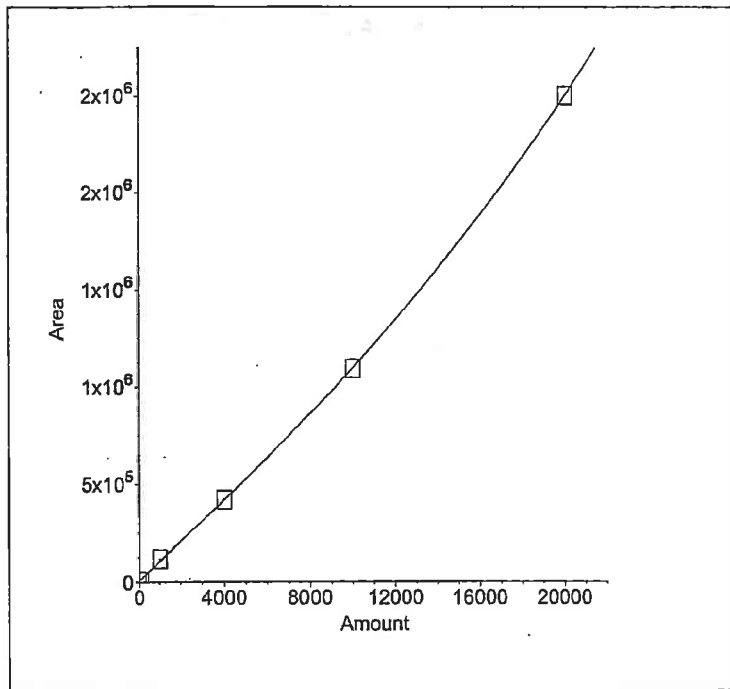
4. Component:Bromide
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999922$
 $Amt=-2.235463e-009*Resp^2+$
 $1.839618e-002*Resp+-85.12$



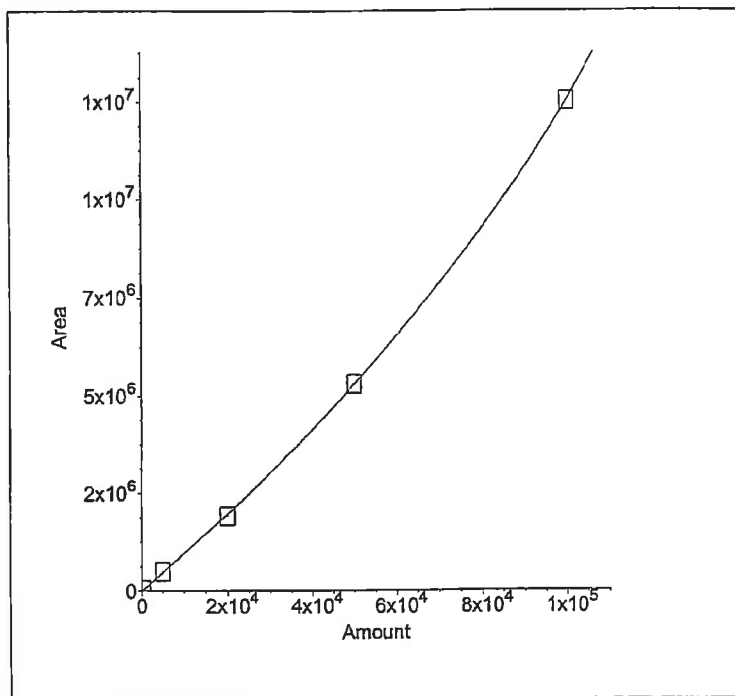
5. Component:Nitrate as N
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999955$
 $Amt=-7.888965e-011*Resp^2+$
 $2.949426e-003*Resp+15.72$



6. Component:Orthophosphate as P
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999905$
 $Amt=-5.968082e-010*Resp^2+$
 $8.626242e-003*Resp+-41.82$



7. Component:Sulfate
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999944$
 $Amt=-1.801819e-010*Resp^2+$
 $9.929601e-003*Resp+221.1$



8. Component:Nitrate/Nitrite as N
 Standard:External Fit Type:
 Origin:Ignore Calibration:Area

(No Levels Component)

Method Report - 081113.met

Method Information : Select Module(s)

System Name : DX120
System Number : 1
Method Type : Ion Chromatography
Column : AS14 4-MM
Analyst : SJL
Comment : Flow rate = 1.2 mL/min,
Eluent = 3.5mM Na₂CO₃ / 1.0 mM NaHCO₃

DX-120 Timed Events

Module Name :
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		Load	Low	Low	Off	Begin
0.01		Inject	Low	Low	Off	
0.40		Load	Low	Low	Off	
13.80		Load	High	Low	Off	
13.90		Load	Low	Low	Off	

DX-120 Detector Parameters

Detector Type : DX-120
Data collection time (minutes) : 16.00
Data Collection Rate : 5.00
Real time plot scale maximum (μ S) : 40.000
Real time plot scale minimum (μ S) : -3.000

DX-120 Integration Parameters

Peak detection algorithm : Standard
Starting peak width (seconds) : 8.00
Peak threshold : 0.50
Peak area reject (area counts) : 800.00
Reference peak area reject (area counts) : 800.00

DX-120 Smoothing Parameters

Filter Type : No filter

DX-120 Report Data

Report Format File : C:\PeakNet\method\Default2.rpt
Print Sample Analysis : Yes
Print Calibration Update : Yes
Print Check Standard : No
System Suitability Tests :
No system suitability tests selected.

DX-120 Integration Data Events

Time	Description
0.00	Stop peak detection
0.05	Force baseline at start of all peaks
1.90	Start peak detection
2.20	Void volume treatment for this peak
3.00	Void volume treatment for this peak

DX-120 Calibration Parameters

External or internal calibration : EXTERNAL
Number of replicates for calibration : 1
Rejection : Manual
Level Weighting : Equal
Calibration standard volume : 1.00
Default sample volume : 1.00
Amount units : ug/L
Replace retention time : Yes
Update response : Yes
Default dilution factor : 1.00
Default response factor for unknown peaks : 0.00
Calculate unknowns by area or height : Area

DX-120 Component Identification Table

Component	Retention	Tolerance	Reference
Fluoride	3.51 min	5.00 %	
Chloride	5.13 min	5.00 %	
Nitrite as N	6.33 min	4.90 %	
Bromide	8.27 min	7.30 %	
Nitrate as N	9.77 min	10.00 %	
Orthophosphate as P	11.76 min	4.10 %	
Sulfate	14.13 min	4.10 %	
Nitrate/Nitrite as N	20.00 min	5.00 %	

DX-120 Component Quantitation Table

Component	Retention	Low Limit	High Limit
Fluoride	3.51 min	100	10000
Chloride	5.13 min	200	20000
Nitrite as N	6.33 min	100	10000
Bromide	8.27 min	200	20000
Nitrate as N	9.77 min	200	20000
Orthophosphate as P	11.76 min	300	20000
Sulfate	14.13 min	500	100000
Nitrate/Nitrite as N	20.00 min	0	0

DX-120 Component Calibration Table

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Fluoride	3.51 min	Quadratic	Ignore	Area		0.00
Chloride	5.13 min	Quadratic	Ignore	Area		0.00
Nitrite as N	6.33 min	Quadratic	Ignore	Area		0.00
Bromide	8.27 min	Quadratic	Ignore	Area		0.00
Nitrate as N	9.77 min	Quadratic	Ignore	Area		0.00
Orthophosphate as P	11.76 min	Quadratic	Ignore	Area		0.00
Sulfate	14.13 min	Quadratic	Ignore	Area		0.00
Nitrate/Nitrite as N	20.00 min	–	Ignore	Area	Fluoride	0.00

DX-120 Component = Fluoride Levels Table

Retention Time : 3.51 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	50.00	3692.6
2	500.00	63996.2
3	2000.00	297178
4	5000.00	844230
5	10000.00	1.87089e + 006
6	0.00	0

DX-120 Component = Chloride Levels Table

Retention Time : 5.13 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	25142.4
2	1000.00	152698
3	4000.00	565628
4	10000.00	1.46754e + 006
5	20000.00	3.37477e + 006
6	0.00	10998.6

DX-120 Component = Nitrite as N Levels Table

Retention Time : 6.33 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	50.00	12176.8
2	500.00	134526
3	2000.00	558626
4	5000.00	1.46804e+006
5	10000.00	3.16292e+006
6	0.00	0

DX-120 Component = Bromide Levels Table

Retention Time : 8.27 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	5717.4
2	1000.00	65782.4
3	4000.00	226323
4	10000.00	590607
5	20000.00	1.29594e+006
6	0.00	0

DX-120 Component = Nitrate as N Levels Table

Retention Time : 9.77 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	35202.4
2	1000.00	342646
3	4000.00	1.36628e+006
4	10000.00	3.78591e+006
5	20000.00	8.88468e+006
6	0.00	1773.8

DX-120 Component = Orthophosphate as P Levels Table

Retention Time : 11.76 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	2770.4
2	1000.00	135395
3	4000.00	488636
4	10000.00	1.27159e+006
5	20000.00	2.90988e+006
6	0.00	5277.9

DX-120 Component = Sulfate Levels Table

Retention Time : 14.13 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	500.00	27819.7
2	5000.00	516993
3	20000.00	2.01657e+006
4	50000.00	5.60439e+006
5	100000.00	1.32147e+007
6	0.00	0

DX-120 Component = Nitrate/Nitrite as N Levels Table

Retention Time : 20.00 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 0

Number of replicates : 1

DX-120 XY Data Parameters

Calibration Update Report

Sample Name : 5X STD

Data File Name : c:\peaknet\data\081113\081113_001.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 12:52:45 PM
Calibration Date : 11/13/08 1:08:46 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:08:46 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
2	Fluoride	3.48	10000	1870892
3	Chloride	5.07	20000	3374766
4	Nitrite as N	6.19	10000	3162921
5	Bromide	7.97	20000	1295936
6	Nitrate as N	9.25	20000	8884680
7	Orthophosphate as P	11.68	20000	2909883
8	Sulfate	14.04	100000	13214685
	Nitrate/Nitrite as N			

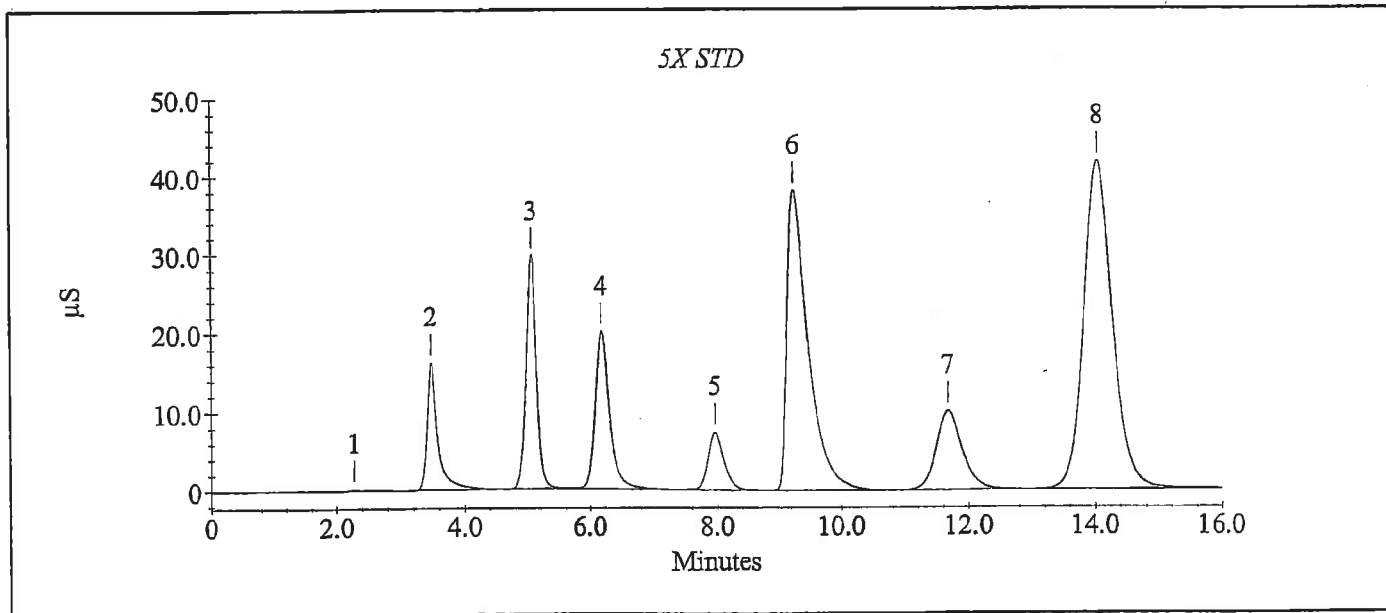
Calibration Update Report

Sample Name : 5X STD

Data File Name : c:\peaknet\data\081113\081113_001.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 12:52:45 PM
Calibration Date : 11/13/08 1:08:46 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:08:46 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...



Calibration Update Report

Sample Name : 10X STD

Data File Name : c:\peaknet\data\081113\081113_002.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:08:48 PM
Calibration Date : 11/13/08 1:24:48 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:24:48 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
2	Fluoride	3.48	5000	844230
3	Chloride	5.08	10000	1467538
4	Nitrite as N	6.24	5000	1468043
5	Bromide	8.07	10000	590607
6	Nitrate as N	9.44	10000	3785913
7	Orthophosphate as P	11.71	10000	1271585
8	Sulfate	14.09	50000	5604387
	Nitrate/Nitrite as N			

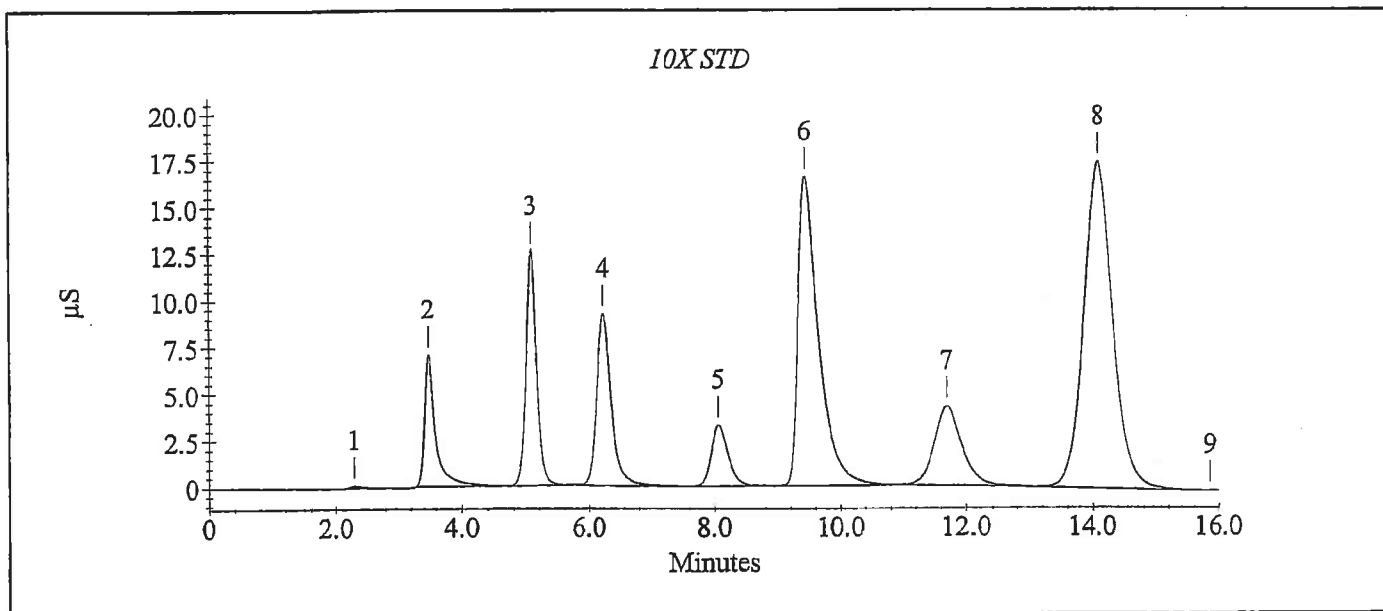
Calibration Update Report

Sample Name : 10X STD

Data File Name : c:\peaknet\data\081113\081113_002.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:08:48 PM
Calibration Date : 11/13/08 1:24:48 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:24:48 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...



Calibration Update Report

Sample Name : 25X STD

Data File Name : c:\peaknet\data\081113\081113_003.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:24:51 PM
Calibration Date : 11/13/08 1:40:51 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:40:51 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
2	Fluoride	3.51	2000	297178
3	Chloride	5.13	4000	565628
4	Nitrite as N	6.33	2000	558626
5	Bromide	8.27	4000	226323
6	Nitrate as N	9.77	4000	1366277
7	Orthophosphate as P	11.76	4000	488636
8	Sulfate	14.13	20000	2016572
	Nitrate/Nitrite as N			

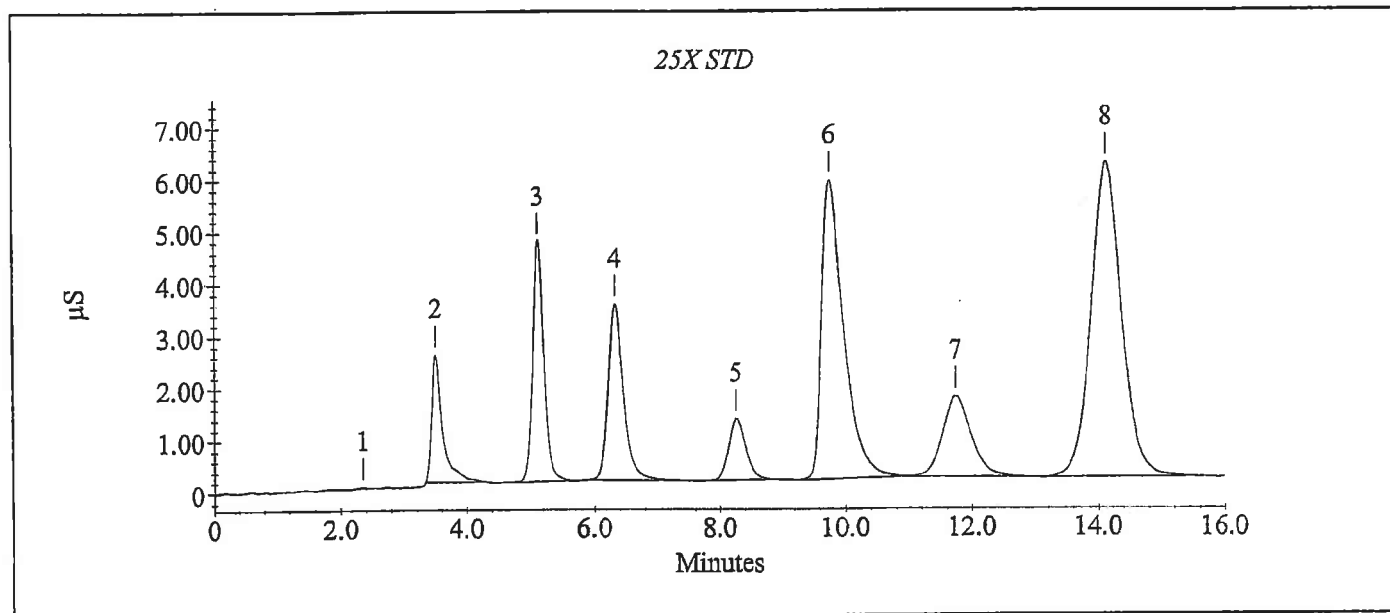
Calibration Update Report

Sample Name : 25X STD

Data File Name : c:\peaknet\data\081113\081113_003.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:24:51 PM
Calibration Date : 11/13/08 1:40:51 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:40:51 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...



Calibration Update Report

Sample Name : 100X STD

Data File Name : c:\peaknet\data\081113\081113_004.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:40:53 PM
Calibration Date : 11/13/08 1:56:53 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:56:53 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
1	Fluoride	3.48	500	63996
3	Chloride	5.07	1000	152698
4	Nitrite as N	6.24	500	134526
7	Bromide	8.13	1000	65782
9	Nitrate as N	9.77	1000	342646
10	Orthophosphate as P	11.81	1000	135395
11	Sulfate	14.21	5000	516993
	Nitrate/Nitrite as N			

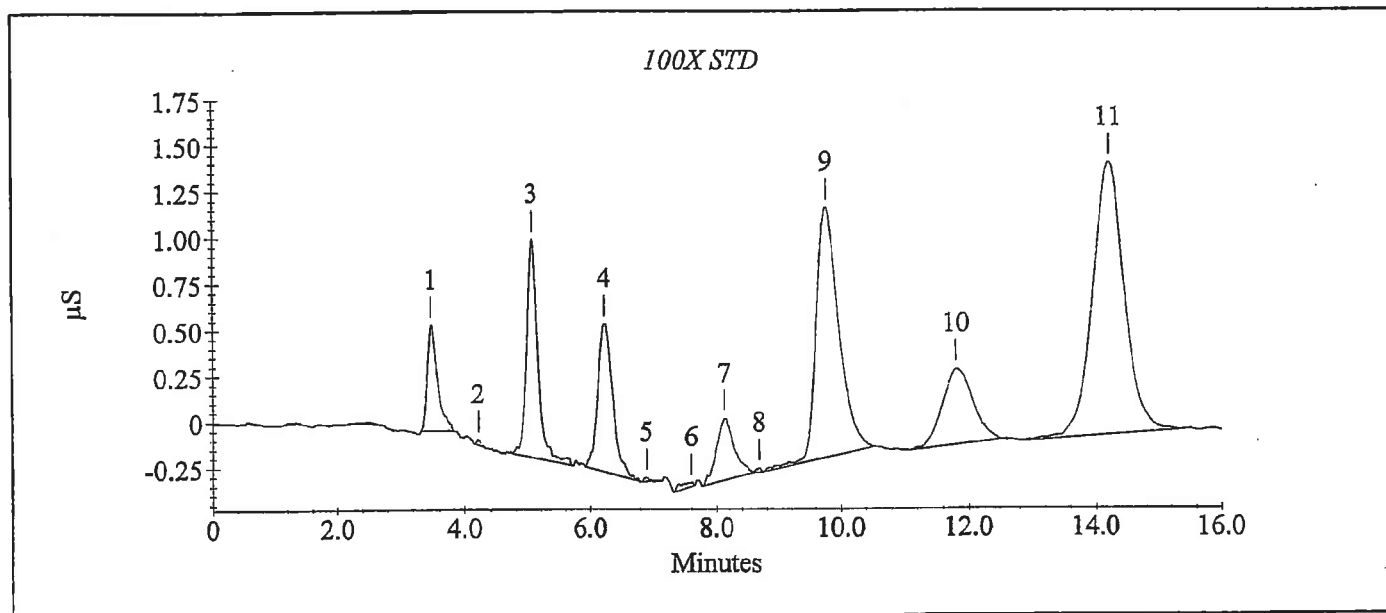
Calibration Update Report

Sample Name : 100X STD

Data File Name : c:\peaknet\data\081113\081113_004.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:40:53 PM
Calibration Date : 11/13/08 1:56:53 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 1:56:53 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...



Calibration Update Report

Sample Name : 1000X STD

Data File Name : c:\peaknet\data\081113\081113_005.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:56:55 PM
Calibration Date : 11/13/08 2:12:55 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 2:12:55 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
1	Fluoride	3.48	50	3693
2	Chloride	5.09	100	25142
3	Nitrite as N	6.28	50	12177
4	Bromide	8.12	100	5717
5	Nitrate as N	9.84	100	35202
7	Orthophosphate as P	11.77	100	2770
11	Sulfate	14.16	500	27820
	Nitrate/Nitrite as N			

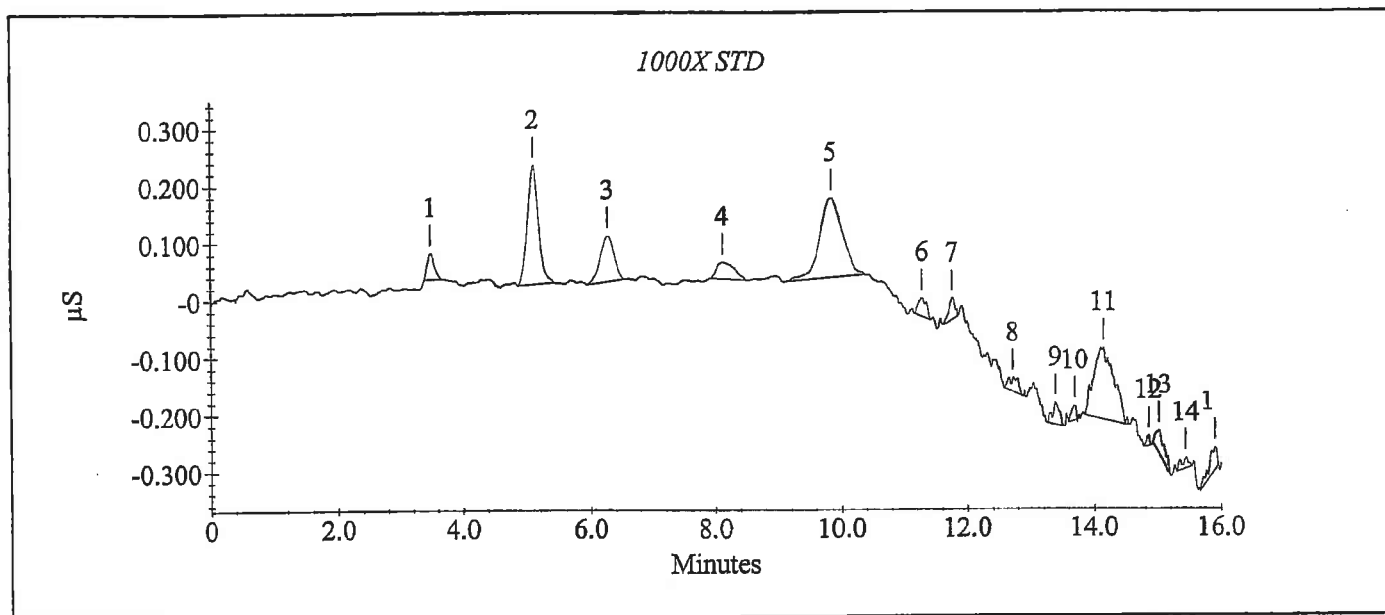
Calibration Update Report

Sample Name : 1000X STD

Data File Name : c:\peaknet\data\081113\081113_005.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 1:56:55 PM
Calibration Date : 11/13/08 2:12:55 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 2:12:55 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...



Calibration Update Report

Sample Name : 0 STD

Data File Name : c:\peaknet\data\081113\081113_006.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 2:12:57 PM
Calibration Date : 11/13/08 2:28:58 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 2:28:58 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
1		2.00	0	
4	Chloride	5.20	0	10999
	Nitrite as N			
	Bromide			
6	Nitrate as N	9.49	0	1774
7	Orthophosphate as P	12.12	0	5278
	Sulfate			
	Nitrate/Nitrite as N			

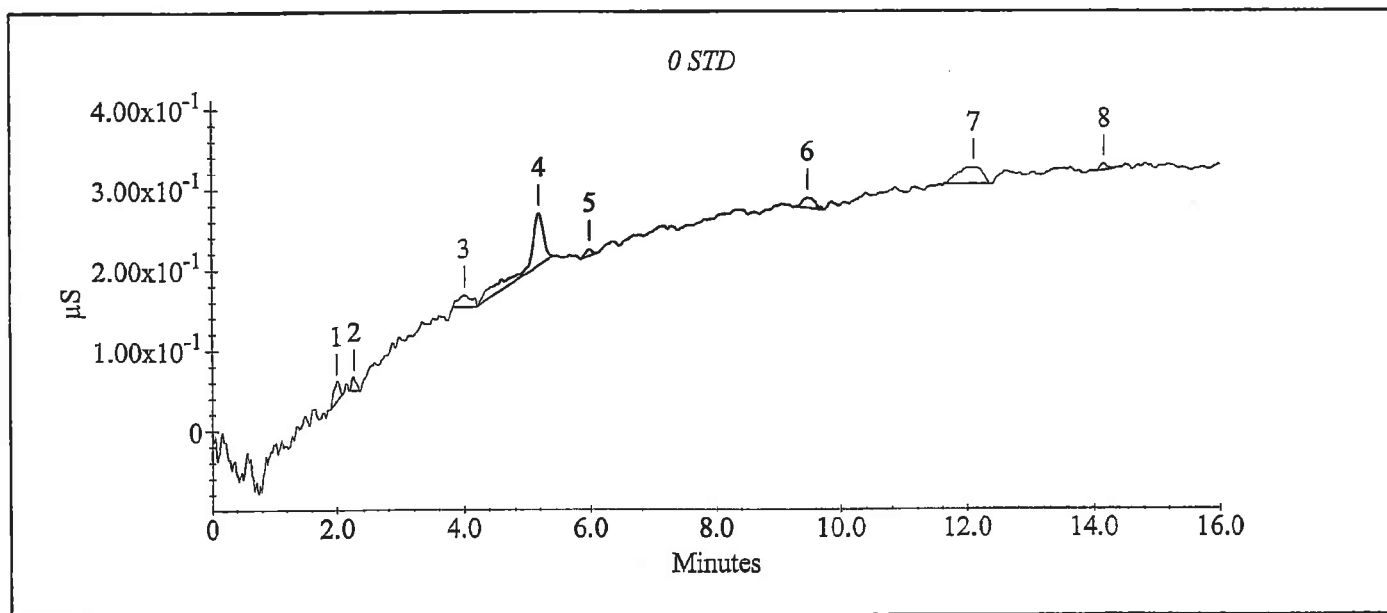
Calibration Update Report

Sample Name : 0 STD

Data File Name : c:\peaknet\data\081113\081113_006.DXD

Method File Name : c:\peaknet\method\081113.met
Schedule File Name : c:\peaknet\schedule\081113.sch
Date Time Acquired : 11/13/08 2:12:57 PM
Calibration Date : 11/13/08 2:28:58 PM

System Operator : WETCHEM
Datafile Updated : 11/13/08 2:28:58 PM
Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...



081113V

DAILY VERIFICATION FOR ION CHROMATOGRAPH
(Used Internally for comparative check purposes)

Analysis Date: 11/13/08
Analyst Name: EAL
Filename for CV: 081113/081113_007.DXD
Calibration Date: 11/13/08
Method ID: 081113.met
Updated Method date: na

JBW
11/17/08

Calibration Equation Verification

Analyte	calibration type:	1st regression coefficient	2nd regression coefficient	intercept	A conc reported by PeakNet ug/L	observed peak area	conc calc by spread- sheet ug/L	A/B *100 agreement %
Cl	quad. incl. 0,0	2.1801237E-10	1.573884E-03	-109.300	5211	736216	5211	100.0

Retention Time (RT) Verification

Analyte	RT at calibration	RT in updated method (1st ICV or CCV)	deviation % (calibration vs. update) 10% tolerance	window width tolerance (NA)
F	3.51	3.45	0.9	5.00 %
Cl	5.13	5.07	1.2	5.00 %
NO2-N	5.33	5.21	1.9	4.90 %
Br	8.27	8.03	2.9	7.30 %
NO3-N	9.77	9.44	3.4	10.00 %
PO4-P	11.76	11.77	0.1	4.10 %
SO4	14.13	14.16	0.2	4.10 %

Sample Analysis Report

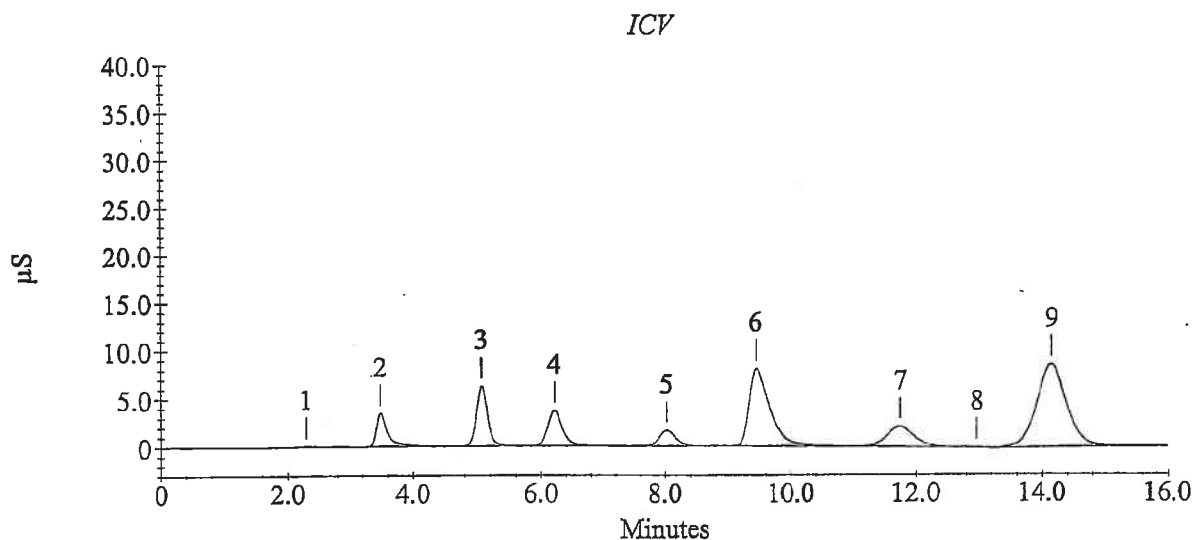
Sample Name : ICV

Data File Name : c:\peaknet\data\081113\081113_007.DXD

Method File Name : C:\PEAKNET\METHOD\081113.met	Current Date : 11/13/08
Date, Time Analyzed : 11/13/08 2:29:00 PM	Current Time : 2:47:17 PM
System Operator : WETCHEM	Datafile Updated : 11/13/08 2:45:00 PM
Calibration Updated : 11/13/08 2:30:48 PM	Method Comment : Flow rate = 1.2 mL/min, Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.48	2651.3		419976
3	Chloride	5.07	5211.1		736246
4	Nitrite as N	6.21	2073.1		583416
5	Bromide	8.03	5238.7		300363
6	Nitrate as N	9.44	5244.8		1866038
7	Orthophosphate as P	11.77	5201.1		635746
9	Sulfate	14.16	27135.2		2858791
	Nitrate/Nitrite as N				



Sample Analysis Report

Sample Name : ICB

Data File Name : c:\peaknet\data\081113\081113_008.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/13/08

Date, Time Analyzed : 11/13/08 2:45:02 PM

Current Time : 3:01:02 PM

System Operator : WETCHEM

Datafile Updated : 11/13/08 3:01:02 PM

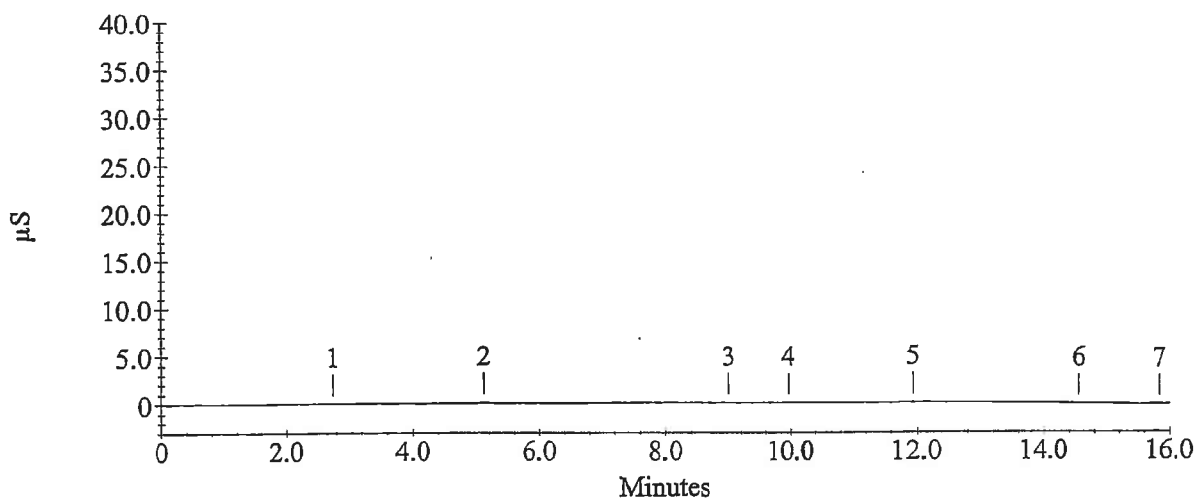
Calibration Updated : 11/13/08 2:30:48 PM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.75	0.0		639
2	Chloride	5.12	5.6	-	15166
	Nitrite as N				
	Bromide				
4	Nitrate as N	9.97	18.2	-	833
5	Orthophosphate as P	11.95	77.8	-	13878
6	Sulfate	14.56	233.5	-	1241
	Nitrate/Nitrite as N				

ICB



CONDUCTIVITY SCREENING WORKSHEET

Instrument ID: VWR Digital Conductivity Meter S/N A22036

Workorder ID / Sample No.	Estimated μS	Dilution(s)	Anion(s)	Date	Initials	Comments
0811094	1 2500	50	Cl, SO ₄	11/12/08	L	
	2 ↓	50	↓	↓	↓	
	3 600	5	↓	↓	↓	
	4 700	5	↓	↓	↓	
	5 400	5	↓	↓	↓	
	6 1500	20	↓	↓	↓	
	7 3500	50	↓	↓	↓	
0811099	2 4000	5 100	SCAN	11/13/08	JBM	QC
	3 6500	10 100	↓	↓	↓	
	4 2500	5 50	↓	↓	↓	
	5 2500	5 50	↓	↓	↓	
0811101	5 550	5 1X	F, Cl, NO ₂ , NO ₃ , SO ₄	↓	↓	
	9 ↓	↓	↓	↓	↓	
	13 ↓	↓	↓	↓	↓	
0811092	4 >200,000	10,000	Cl+SO ₄	↓	↓	
0811122	1 4400	50	Cl SO ₄	11/17/08	JBM	
	2 8000	100	Cl, SO ₄	↓	↓	
	3 16000	200	↓	↓	↓	
	4 5100	100	↓	↓	↓	
	5 1000	20	↓	↓	↓	
	6 800	10	↓	↓	↓	
	7 2100	50	↓	↓	↓	
	8 4000	50	↓	↓	↓	
	9 5100	100	↓	↓	↓	
	11 11000	200	↓	↓	↓	
	12 5200	100	↓	↓	↓	
	13 13000	200	↓	↓	↓	
0811128	1 800	10	↓	↓	↓	
0811129	1 70,000	100,000	F, Cl, Br, NO ₂ , NO ₃ , SO ₄	↓	↓	
0811110	1 40,000	50 1000	F, Br, Cl, SO ₄	↓	↓	
	2 ↓	↓	↓	↓	↓	
0811134	1 900	1 20	F, Cl, Br, NO ₂ , NO ₃ , SO ₄	11/18/08	JBM	
0811116	1 5000	5 100	SCAN	↓	↓	Sei
	2 3000	↓	↓	↓	↓	
0811132	1 7000	500 10	Cl, SO ₄	↓	↓	
	2 25000	↓ 50	↓	↓	↓	
	3 12000	↓ 20	↓	↓	↓	
0811139	2 2400	5 50	Cl, SO ₄ NA	↓	↓	
	4 1500	2 50	↓	↓	↓	

Reviewed by / Date

Q 11/18/08

Form 1116r4.frm (6/29/04)

Line	Sample	Sample Type	Method	Data File	Comment
1	5X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_001.dxd	
2	10X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_002.dxd	
3	25X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_003.dxd	
4	100X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_004.dxd	
5	1000X STD	Calibration	081113.met	c:\peaknet\data\081113\081113_005.dxd	
6	0 STD	Calibration	081113.met	c:\peaknet\data\081113\081113_006.dxd	
7	ICV	Sample	081113.met	c:\peaknet\data\081113\081113_007.dxd	ICV
8	ICB	Sample	081113.met	c:\peaknet\data\081113\081113_008.dxd	ICB
9	CCV	Sample	081113.met	c:\peaknet\data\081117\081117_009.dxd	CCV
10	CCB	Sample	081113.met	c:\peaknet\data\081117\081117_010.dxd	CCB
11	IC081117-1MB	Sample	081113.met	c:\peaknet\data\081117\081117_011.dxd	WATER
12	IC081117-1LCS	Sample	081113.met	c:\peaknet\data\081117\081117_012.dxd	WATER
13	0811122-1 50X	Sample	081113.met	c:\peaknet\data\081117\081117_013.dxd	CL,SO4-300.0
14	0811122-1MS 50X	Sample	081113.met	c:\peaknet\data\081117\081117_014.dxd	CL,SO4-300.0
15	0811122-1MSD 50X	Sample	081113.met	c:\peaknet\data\081117\081117_015.dxd	CL,SO4-300.0
16	0811122-2 100X	Sample	081113.met	c:\peaknet\data\081117\081117_016.dxd	CL,SO4-300.0
17	0811122-3 200X	Sample	081113.met	c:\peaknet\data\081117\081117_017.dxd	CL,SO4-300.0
18	0811122-4 100X	Sample	081113.met	c:\peaknet\data\081117\081117_018.dxd	CL,SO4-300.0
19	0811122-5 20X	Sample	081113.met	c:\peaknet\data\081117\081117_019.dxd	CL,SO4-300.0
20	0811122-6 10X	Sample	081113.met	c:\peaknet\data\081117\081117_020.dxd	CL,SO4-300.0
21	CCV	Sample	081113.met	c:\peaknet\data\081117\081117_021.dxd	CCV — F-113%; P65 112%
22	CCB	Sample	081113.met	c:\peaknet\data\081117\081117_022.dxd	CCB
23	0811122-7 50X	Sample	081113.met	c:\peaknet\data\081117\081117_023.dxd	CL,SO4-300.0
24	0811122-8 50X	Sample	081113.met	c:\peaknet\data\081117\081117_024.dxd	CL,SO4-300.0
25	0811122-9 100X	Sample	081113.met	c:\peaknet\data\081117\081117_025.dxd	CL,SO4-300.0
26	0811122-11 200X	Sample	081113.met	c:\peaknet\data\081117\081117_026.dxd	CL,SO4-300.0
27	0811122-12 100X	Sample	081113.met	c:\peaknet\data\081117\081117_027.dxd	CL,SO4-300.0
28	0811122-13 200X	Sample	081113.met	c:\peaknet\data\081117\081117_028.dxd	CL,SO4-300.0
29	0811128-1 10X	Sample	081113.met	c:\peaknet\data\081117\081117_029.dxd	CL,SO4-300.0
30	0811129-1 100X	Sample	081113.met	c:\peaknet\data\081117\081117_030.dxd	CL,SO4-300.0
31	0811129-1 2000X	Sample	081113.met	c:\peaknet\data\081117\081117_031.dxd	F,CL,BR,PO4,SO4-300.0
32	0811122-12MS 100X	Sample	081113.met	c:\peaknet\data\081117\081117_032.dxd	CL,SO4-300.0
33	CCV	Sample	081113.met	c:\peaknet\data\081117\081117_033.dxd	CCV — F-114%;
34	CCB	Sample	081113.met	c:\peaknet\data\081117\081117_034.dxd	CCB
35	0811110-1 50X	Sample	081113.met	c:\peaknet\data\081117\081117_035.dxd	F,CL,BR,SO4-300.0
36	0811110-2 50X	Sample	081113.met	c:\peaknet\data\081117\081117_036.dxd	F,CL,BR,SO4-300.0
37	0811110-1 1000X	Sample	081113.met	c:\peaknet\data\081117\081117_037.dxd	F,CL,BR,SO4-300.0
38	0811110-2 1000X	Sample	081113.met	c:\peaknet\data\081117\081117_038.dxd	F,CL,BR,SO4-300.0
39	CCV	Sample	081113.met	c:\peaknet\data\081117\081117_039.dxd	CCV — F 114%;
40	CCB	Sample	081113.met	c:\peaknet\data\081117\081117_040.dxd	CCB
41	STOP.MET	Sample	stop.met		

Default Method Path: C:\PEAKNET\METHOD

Default Data Path: C:\PEAKNET\DATA\081104

Comment:

BatchDx created schedule. Analyst: *11/18/08*

Instrument #1: DIONEX DX-120. ID Serial Number: 99060762

Analytical Column: Dionex IonPac AS14 S/N 022150

Methods: EPA 300.0 and SW9056. Paragon SOP 1113

Eluent: Made daily, 10mL of Eluent Concentrate ID: RG080610-2 to 1000mL of DI water.

	Final	ID	Aliq
cal std level 1 (1000x)	10.00	ST080722-8, ST080926-8	0.01
cal std level 2 (100x)	5.00	"	0.05
cal std level 3 (25x)	5.00	"	0.20
cal std level 4 (10x)	5.00	"	0.50
cal std level 5 (5x)	5.00	"	1.00
CCV	5.00	ST080722-8, ST081027-5	0.50
ICV	5.00	ST080225-1	0.25
		ST080926-7	0.05
LCS(aq)	5.00	ST080225-1	0.25
		ST081027-4	0.05
MS/MSD (waters)	5.00	ST080219-9	0.05
		ST081027-3	0.05

Dilutions Table: All to 5mL Final Volume

10X	0.5mL
20X	0.25mL
25X	0.2mL
50X	0.1mL
100X	0.05mL
200X	0.025mL
500X	0.01mL

SBM
11/20/08

DAILY VERIFICATION FOR ION CHROMATOGRAPH (Used internally for comparative check purposes)

Analysis Date: 11/17/08

Analyst Name: EAL

Filename for CV: 081117/081117_009.DXD

Calibration Date: 11/13/08

Method ID: 081113.met

Updated Method date: na

Calibration Equation Verification

Analyte	calibration type:	1st regression coefficient	2nd regression coefficient	intercept	A conc reported by PeakNet ug/L	B conc calc by spread- sheet ug/L	A/B *100 agreement %
Cl	quad. incl. 0,0	$-4.801237E-10$	$7.579884E-08$	-109.300	10305.2	10305.2	100.0

Retention Time (RT) Verification

Analyte	RT at calibration	RT in updated method (1st ICV or CCV)	deviation % (calibration vs. update) 10% tolerance	window width tolerance (NA)
F	3.51	3.48	0.9	5.00 %
Cl	5.18	5.07	1.2	5.00 %
NO2-N	6.33	6.21	1.9	4.90 %
Br	8.27	8.03	2.9	7.30 %
NO3-N	9.77	9.44	3.4	10.00 %
PO4-P	11.76	11.77	0.1	4.10 %
SO4	14.18	14.16	0.2	4.10 %

Sample Analysis Report

Sample Name : CCV

Data File Name : c:\peaknet\data\081117\081117_009.DXD

Method File Name : c:\peaknet\method\081113.met

Date, Time Analyzed : 11/17/08 3:24:56 PM

System Operator : WETCHEM

Calibration Updated : 11/14/08 11:14:50 AM

Current Date : 11/17/08

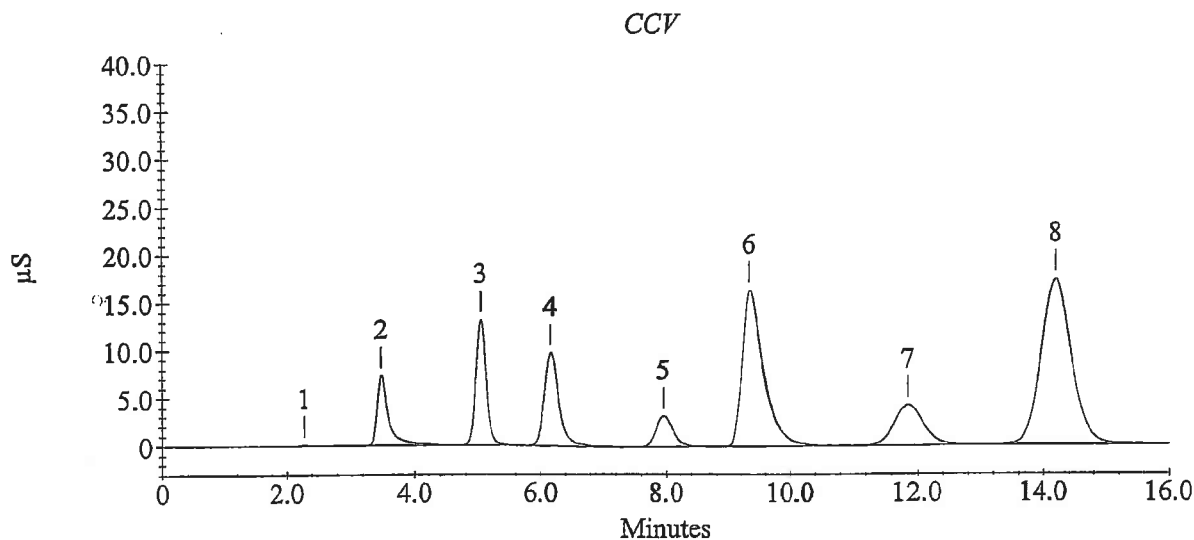
Current Time : 3:41:02 PM

Datafile Updated : 11/17/08 3:41:01 PM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.48	5326.5		896797
3	Chloride	5.05	10305.2		1520381
4	Nitrite as N	6.16	5344.2		1574138
5	Bromide	7.96	10321.1		611047
6	Nitrate as N	9.35	10519.8		3986450
7	Orthophosphate as P	11.87	10435.2		1338508
8	Sulfate	14.20	52012.7		5833336
	Nitrate/Nitrite as N				



Sample Analysis Report

Sample Name : CCB

Data File Name : c:\peaknet\data\081117\081117_010.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 3:41:04 PM

Current Time : 3:57:05 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 3:57:05 PM

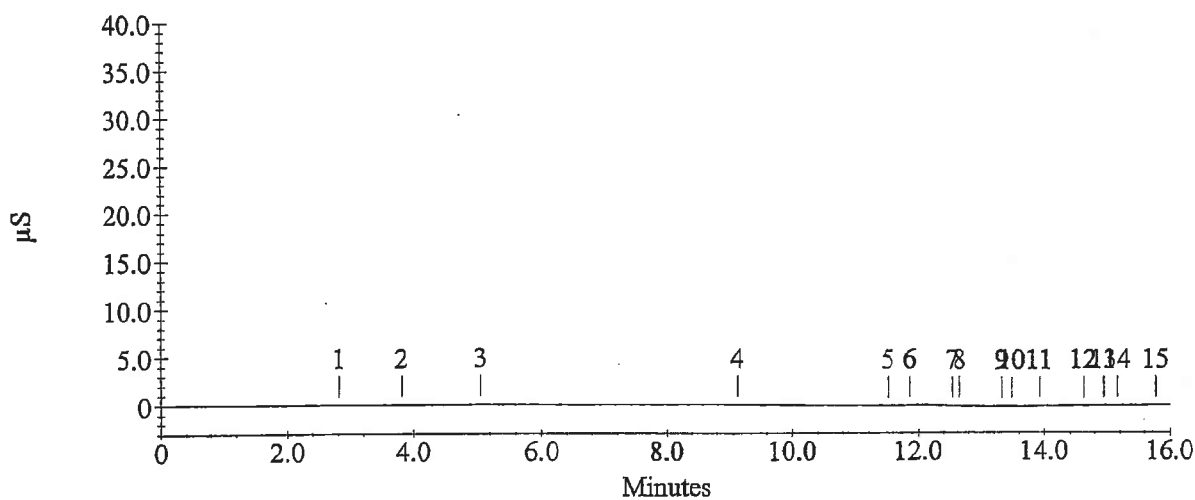
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.81	0.0		42
3	Chloride	5.07	-28.3	-	10682
	Nitrite as N				
	Bromide				
4	Nitrate as N	9.15	31.2	-	5259
6	Orthophosphate as P	11.87	-20.9	-	2429
11	Sulfate	13.92	248.9	-	2792
	Nitrate/Nitrite as N				

CCB



Sample Analysis Report

Sample Name : IC081117-1MB

Data File Name : c:\peaknet\data\081117\081117_011.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 3:57:07 PM

Current Time : 4:13:07 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 4:13:07 PM

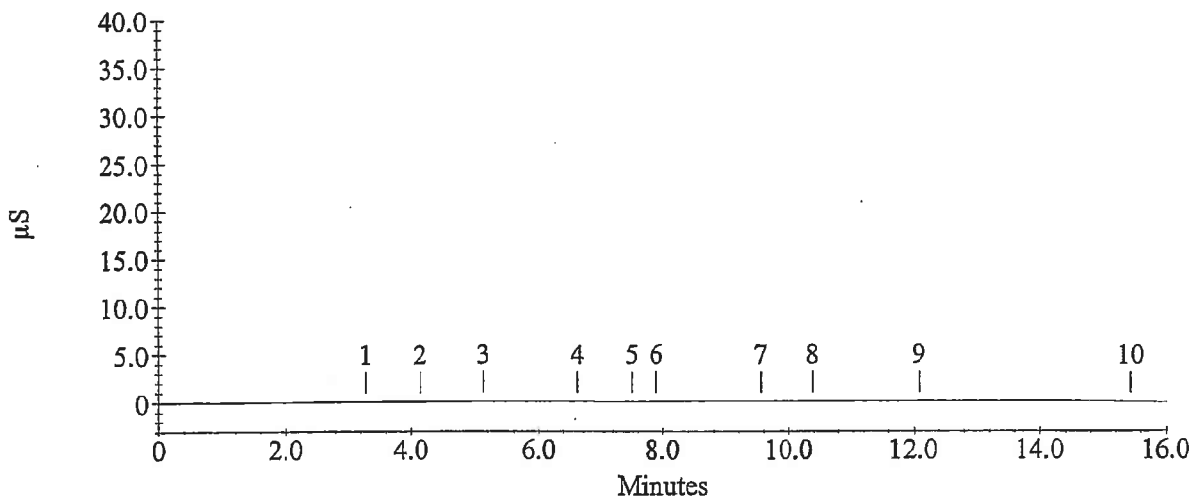
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		3.28	0.0		1154
3	Chloride	5.13	-63.9	-	5982
4	Nitrite as N	6.64	18.6	-	1171
6	Bromide	7.91	-60.9	-	1316
7	Nitrate as N	9.56	18.9	-	1084
9	Orthophosphate as P	12.08	-24.0	-	2064
	Sulfate				
	Nitrate/Nitrite as N				

IC081117-1MB



Sample Analysis Report

Sample Name : IC081117-1LCS

Data File Name : c:\peaknet\data\081117\081117_012.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 4:13:09 PM

Current Time : 4:29:09 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 4:29:09 PM

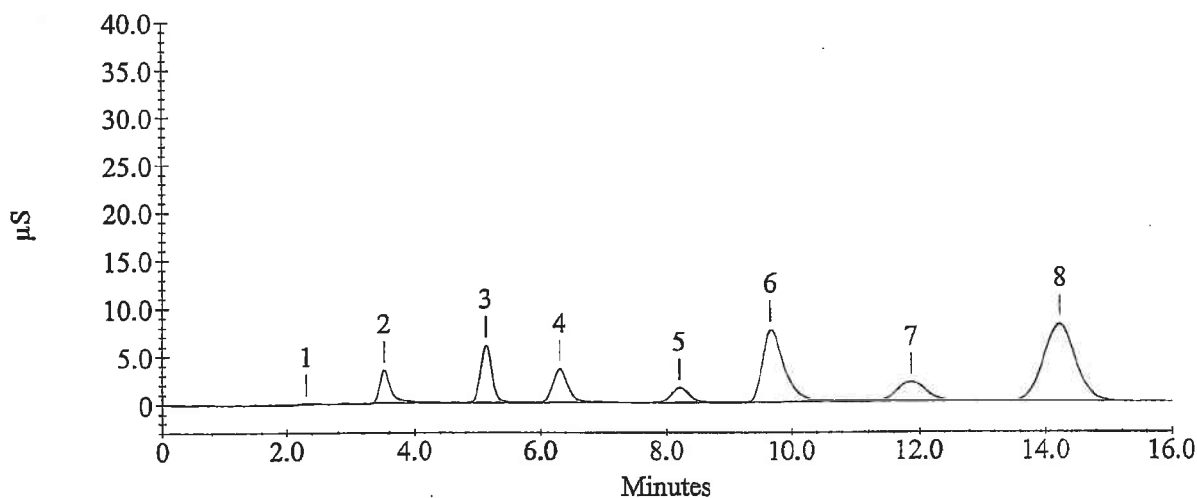
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.52	2697.0		427767
3	Chloride	5.13	5318.0		751804
4	Nitrite as N	6.31	2068.5		582064
5	Bromide	8.20	5396.1		309605
6	Nitrate as N	9.67	5219.6		1856578
7	Orthophosphate as P	11.88	5353.0		655093
8	Sulfate	14.23	26718.4		2811992
	Nitrate/Nitrite as N				

IC081117-1LCS



Sample Analysis Report

Sample Name : CCV

Data File Name : c:\peaknet\data\081117\081117_021.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 6:37:27 PM

Current Time : 6:53:28 PM

System Operator : WETCHEM

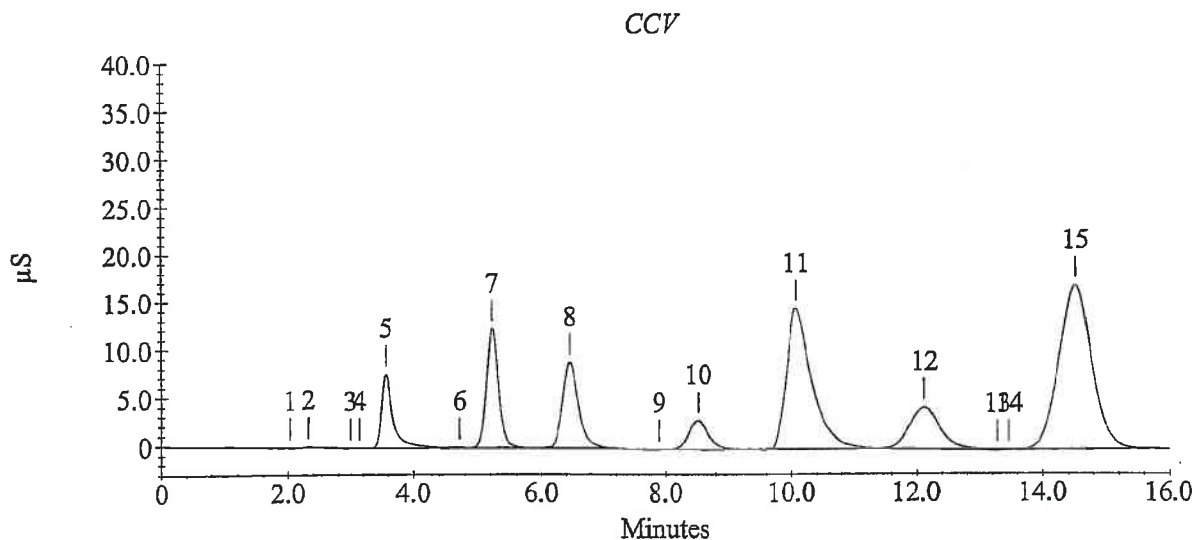
Datafile Updated : 11/17/08 6:53:28 PM

Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
5	Fluoride	3.57	5661.5		959949
7	Chloride	5.24	10726.5		1589588
8	Nitrite as N	6.47	5303.0		1561103
10	Bromide	8.53	11047.1		657703
11	Nitrate as N	10.08	10729.0		4076912
12	Orthophosphate as P	12.13	11193.0		1447325
15	Sulfate	14.52	53876.7		6072794
	Nitrate/Nitrite as N				



Sample Analysis Report

Sample Name : CCB

Data File Name : c:\peaknet\data\081117\081117_022.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 6:53:29 PM

Current Time : 7:09:30 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 7:09:30 PM

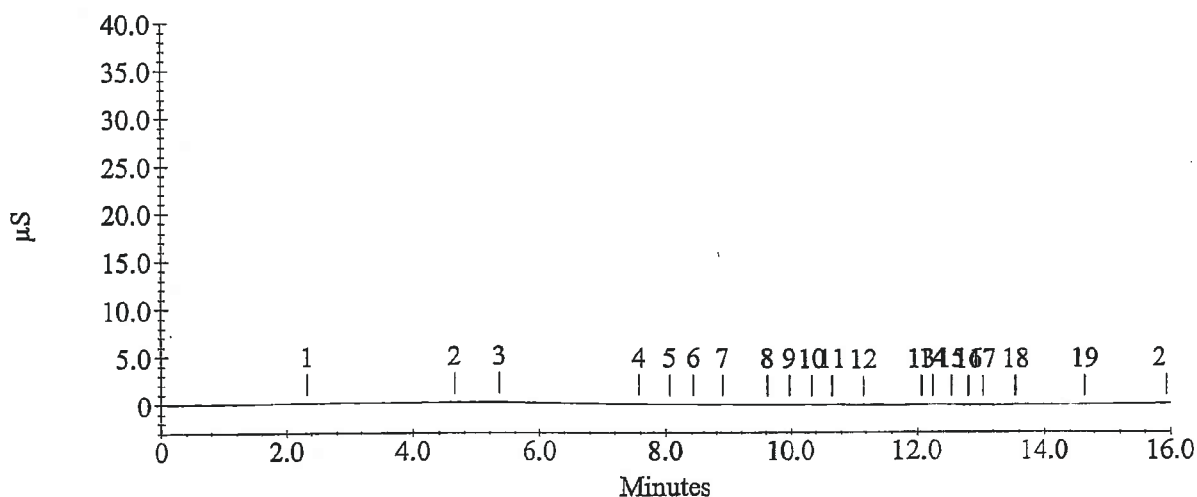
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.32	0.0		702
3	Chloride	5.36	-0.0	-	14422
	Nitrite as N				
6	Bromide	8.44	-33.1	-	2830
8	Nitrate as N	9.63	22.3	-	2215
13	Orthophosphate as P	12.07	-33.4	-	982
19	Sulfate	14.64	240.9	-	1989
	Nitrate/Nitrite as N				

CCB



Sample Analysis Report

Sample Name : CCV

Data File Name : c:\peaknet\data\081117\081117_033.DXD

Method File Name : c:\peaknet\method\081113.met

Date, Time Analyzed : 11/17/08 9:49:53 PM

System Operator : WETCHEM

Calibration Updated : 11/14/08 11:14:50 AM

Current Date : 11/17/08

Current Time : 10:05:53 PM

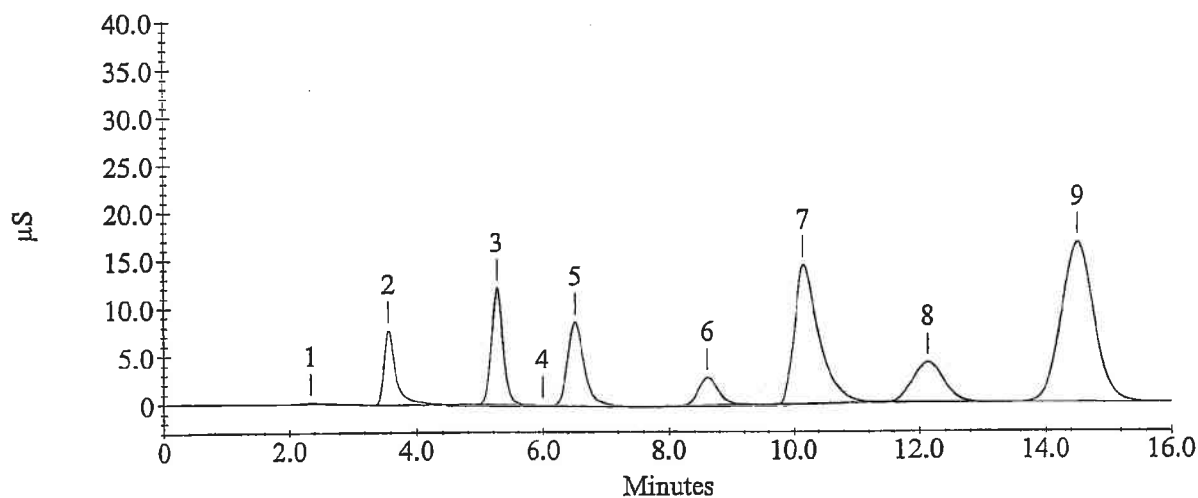
Datafile Updated : 11/17/08 10:05:53 PM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.57	5703.3		967888
3	Chloride	5.27	10703.1		1585726
5	Nitrite as N	6.52	5443.7		1605680
6	Bromide	8.61	11035.9		656981
7	Nitrate as N	10.16	10590.7		4017038
8	Orthophosphate as P	12.13	10892.7		1403965
9	Sulfate	14.51	53512.9		6025856
	Nitrate/Nitrite as N				

CCV



Sample Analysis Report

Sample Name : CCB

Data File Name : c:\peaknet\data\081117\081117_034.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 10:05:55 PM

Current Time : 10:21:55 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 10:21:55 PM

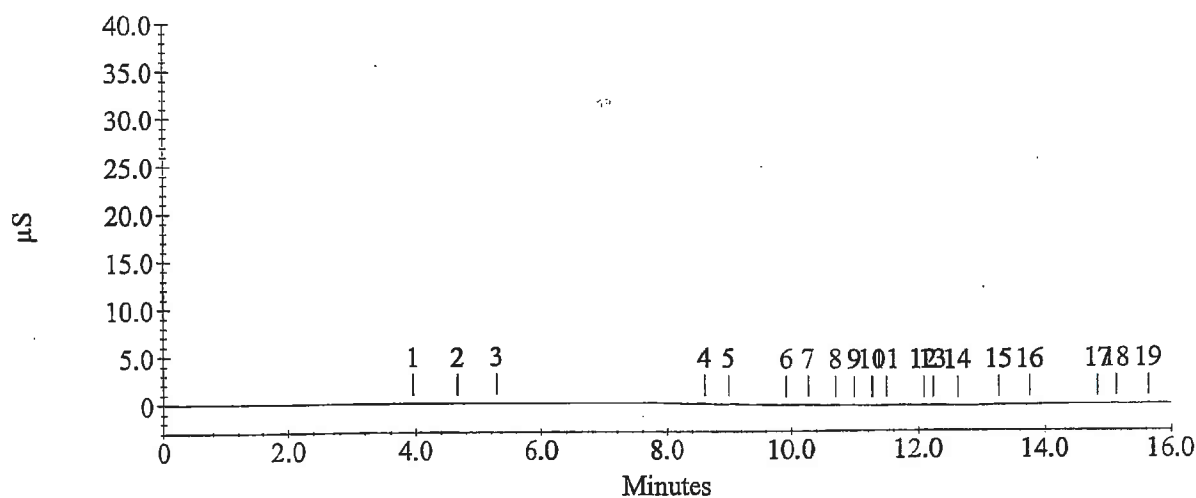
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		3.96	0.0		2783
3	Chloride	5.29	-48.7	-	7994
	Nitrite as N				
4	Bromide	8.61	-28.3	-	3088
6	Nitrate as N	9.92	18.2	-	826
11	Orthophosphate as P	11.49	-10.3	-	3657
16	Sulfate	13.76	232.4	-	1138
	Nitrate/Nitrite as N				

CCB



Sample Analysis Report

Sample Name : 0811110-1 50X

Data File Name : c:\peaknet\data\081117\081117_035.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 10:21:57 PM

Current Time : 10:37:57 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 10:37:57 PM

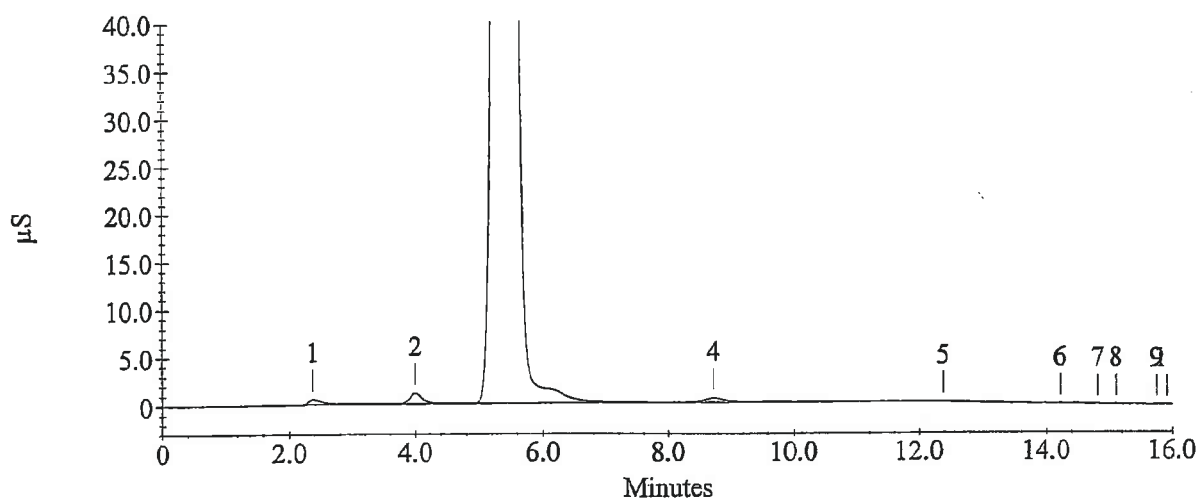
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1	Chloride	2.37	0.0		86797
4	Nitrite as N				
	Bromide	8.73	1863.3		107314
	Nitrate as N				
	Orthophosphate as P				
6	Sulfate	14.21	241.3	-	2027
	Nitrate/Nitrite as N				

0811110-1 50X



Sample Analysis Report

Sample Name : 0811110-2 50X

Data File Name : c:\peaknet\data\081117\081117_036.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 10:37:59 PM

Current Time : 10:53:59 PM

System Operator : WETCHEM

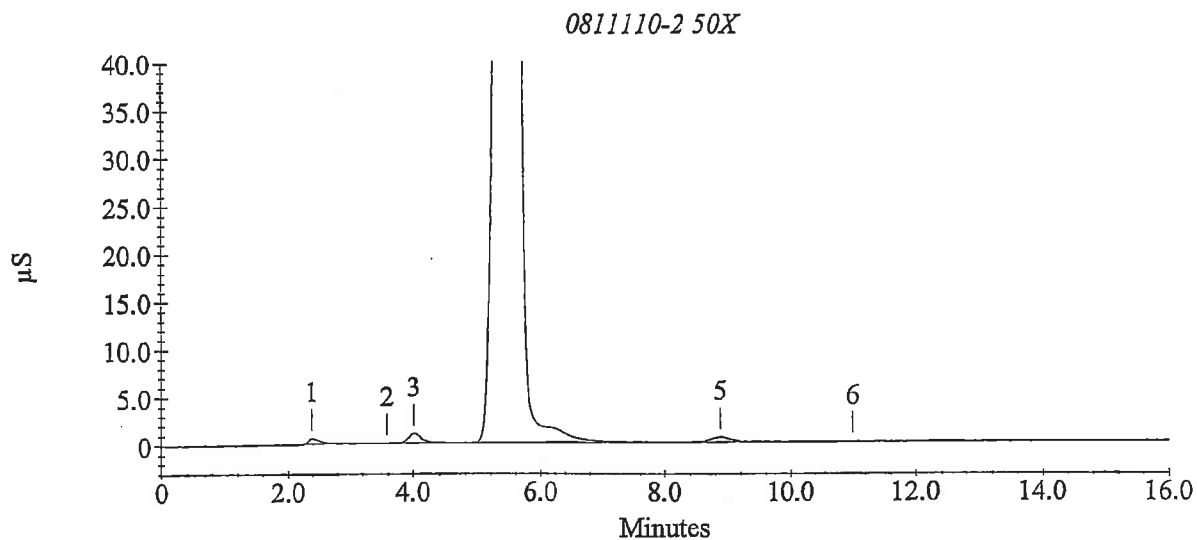
Datafile Updated : 11/17/08 10:53:59 PM

Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride Chloride Nitrite as N Bromide	3.59	90.2	-	1263
5	Nitrate as N Orthophosphate as P Sulfate Nitrate/Nitrite as N	8.88	347.5		112817



Sample Analysis Report

Sample Name : 0811110-1 1000X

Data File Name : c:\peaknet\data\081117\081117_037.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 10:54:01 PM

Current Time : 11:10:01 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 11:10:01 PM

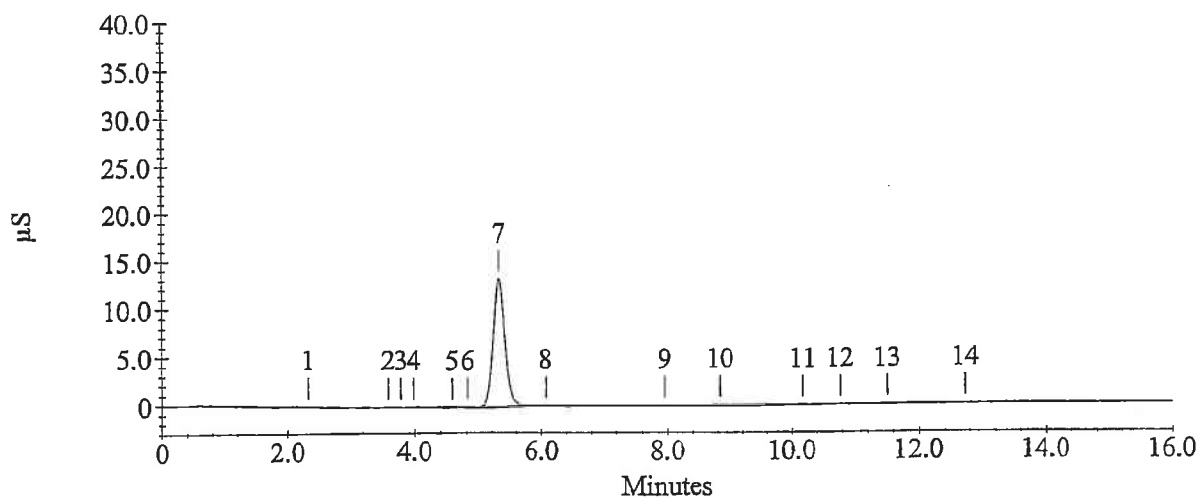
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.59	110.7		4495
7	Chloride	5.33	11894.6		1785599
8	Nitrite as N	6.08	19.5	-	1436
9	Bromide	7.96	-0.8	-	4585
11	Nitrate as N	10.19	28.0	-	4149
13	Orthophosphate as P	11.52	-31.1	-	1239
	Sulfate				
	Nitrate/Nitrite as N				

0811110-1 1000X



Sample Analysis Report

Sample Name : 0811110-2 1000X

Data File Name : c:\peaknet\data\081117\081117_038.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 11:10:03 PM

Current Time : 11:26:03 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 11:26:03 PM

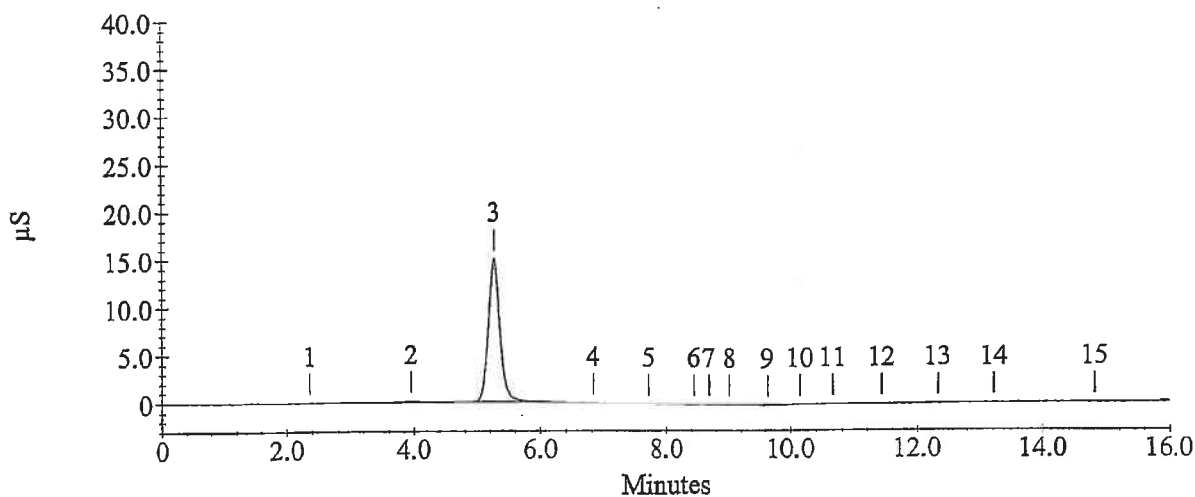
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.36	0.0		536
3	Chloride	5.28	12704.8		1925335
	Nitrite as N				
6	Bromide	8.45	-22.8	-	3391
9	Nitrate as N	9.64	20.7	-	1687
12	Orthophosphate as P	11.44	20.4	-	7220
	Sulfate				
	Nitrate/Nitrite as N				

0811110-2 1000X



Sample Analysis Report

Sample Name : CCV

Data File Name : c:\peaknet\data\081117\081117_039.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 11:26:05 PM

Current Time : 11:42:05 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 11:42:05 PM

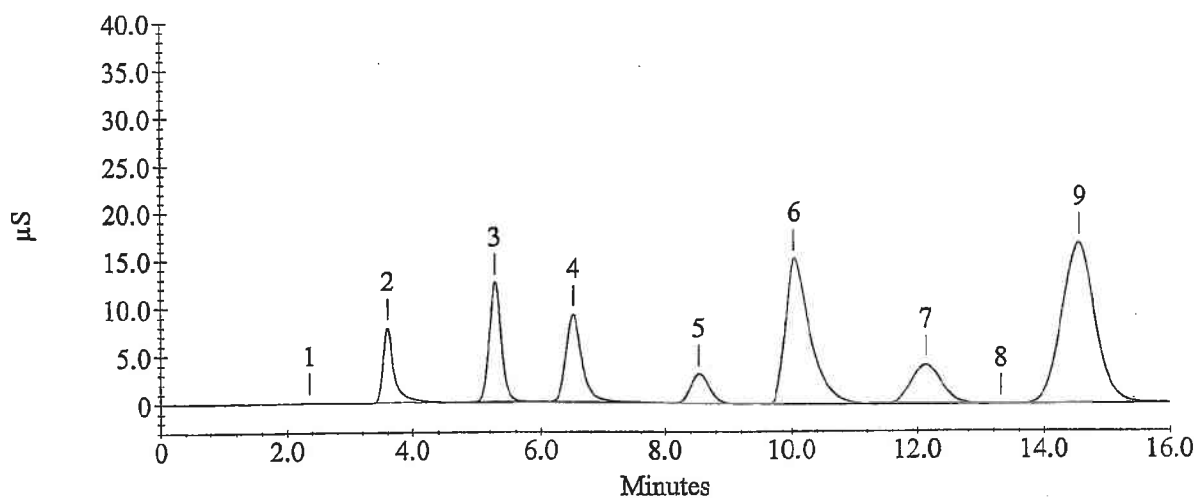
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.60	5680.9		963626
3	Chloride	5.29	10754.4		1594204
4	Nitrite as N	6.53	5561.3		1643069
5	Bromide	8.55	10815.6		642758
6	Nitrate as N	10.05	10770.7		4095006
7	Orthophosphate as P	12.15	10759.6		1384848
9	Sulfate	14.56	54580.4		6163899
	Nitrate/Nitrite as N				

CCV



Sample Analysis Report

Sample Name : CCB

Data File Name : c:\peaknet\data\081117\081117_040.DXD

Method File Name : c:\peaknet\method\081113.met

Current Date : 11/17/08

Date, Time Analyzed : 11/17/08 11:42:07 PM

Current Time : 11:58:07 PM

System Operator : WETCHEM

Datafile Updated : 11/17/08 11:58:07 PM

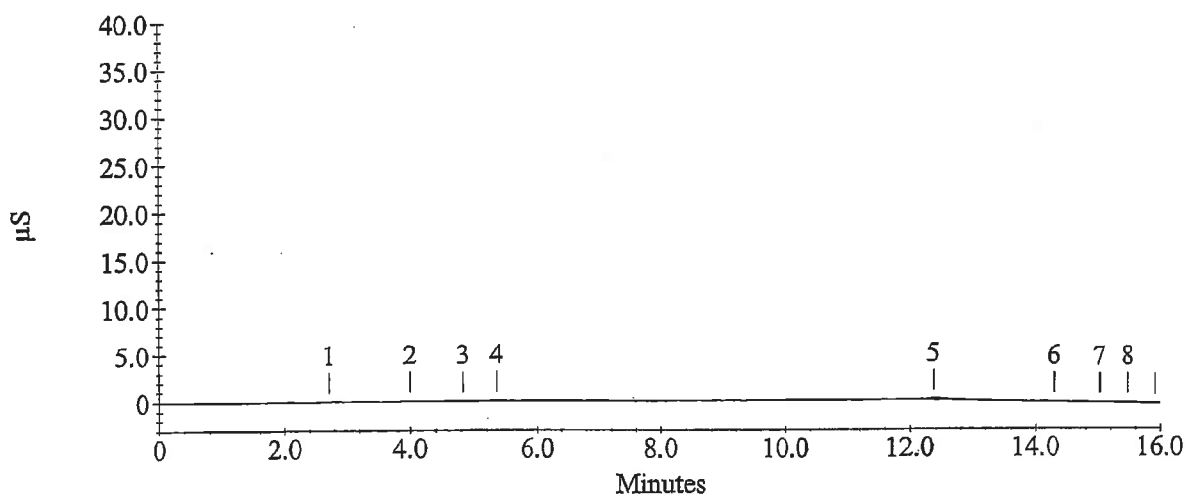
Calibration Updated : 11/14/08 11:14:50 AM

Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.71	0.0		408
4	Chloride	5.36	-27.1	-	10845
	Nitrite as N				
	Bromide				
	Nitrate as N				
	Orthophosphate as P				
6	Sulfate	14.29	231.7	-	1063
	Nitrate/Nitrite as N				

CCB



Line	Sample	Sample Type	Method	Data File	Comment
1	5X STD	Calibration	081119.met	c:\peaknet\data\081119\081119_001.dxd	
2	10X STD	Calibration	081119.met	c:\peaknet\data\081119\081119_002.dxd	
3	25X STD	Calibration	081119.met	c:\peaknet\data\081119\081119_003.dxd	
4	100X STD	Calibration	081119.met	c:\peaknet\data\081119\081119_004.dxd	
5	1000X STD	Calibration	081119.met	c:\peaknet\data\081119\081119_005.dxd	
6	0 STD	Calibration	081119.met	c:\peaknet\data\081119\081119_006.dxd	
7	ICV	Sample	081119.met	c:\peaknet\data\081119\081119_007.dxd	ICV
8	ICB	Sample	081119.met	c:\peaknet\data\081119\081119_007.dxd	ICB
9	IC081117-1MB	Sample	081119.met	c:\peaknet\data\081119\081119_009.dxd	WATER (F)
10	IC081117-1LCS	Sample	081119.met	c:\peaknet\data\081119\081119_010.dxd	WATER (F)
11	0811129-1 100X	Sample	081119.met	c:\peaknet\data\081119\081119_011.dxd	F-300.0
12	0811110-1 50X	Sample	081119.met	c:\peaknet\data\081119\081119_012.dxd	F-300.0
13	0811110-2 50X	Sample	081119.met	c:\peaknet\data\081119\081119_013.dxd	F-300.0
14	0811122-8 200X	Sample	081119.met	c:\peaknet\data\081119\081119_014.dxd	CL-300.0
15	0811122-13 500X	Sample	081119.met	c:\peaknet\data\081119\081119_015.dxd	CL-300.0
16	IC081117-1LCS	Sample	081119.met	c:\peaknet\data\081119\081119_016.dxd	WATER (F, PO4)
17	IC081118-1MB	Sample	081119.met	c:\peaknet\data\081119\081119_017.dxd	WATER (F)
18	IC081118-1LCS	Sample	081119.met	c:\peaknet\data\081119\081119_018.dxd	WATER (F, BR)
19	CCV	Sample	081119.met	c:\peaknet\data\081119\081119_019.dxd	CCV — F — 11%
20	CCB	Sample	081119.met	c:\peaknet\data\081119\081119_020.dxd	CCB
21	0811134-1	Sample	081119.met	c:\peaknet\data\081119\081119_021.dxd	F-300.0
22	0811134-1MS	Sample	081119.met	c:\peaknet\data\081119\081119_022.dxd	F-300.0
23	0811134-1MSD	Sample	081119.met	c:\peaknet\data\081119\081119_023.dxd	F-300.0
24	0811132-2 1000X	Sample	081119.met	c:\peaknet\data\081119\081119_024.dxd	CL-300.0
25	0811187-2	Sample	081119.met	c:\peaknet\data\081119\081119_025.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
26	0811187-2	Sample	081119.met	c:\peaknet\data\081119\081119_026.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
27	0811187-2	Sample	081119.met	c:\peaknet\data\081119\081119_027.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
28	0811187-2 5X	Sample	081119.met	c:\peaknet\data\081119\081119_028.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
29	0811187-2 5X	Sample	081119.met	c:\peaknet\data\081119\081119_029.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
30	0811187-2 5X	Sample	081119.met	c:\peaknet\data\081119\081119_030.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
31	CCV	Sample	081119.met	c:\peaknet\data\081119\081119_031.dxd	CCV
32	CCB	Sample	081119.met	c:\peaknet\data\081119\081119_032.dxd	CCB
33	WC081118-1MB	Sample	081119.met	c:\peaknet\data\081119\081119_033.dxd	SOLID
34	WC081118-1LCS	Sample	081119.met	c:\peaknet\data\081119\081119_034.dxd	SOLID
35	0811116-1 5X	Sample	081119.met	c:\peaknet\data\081119\081119_035.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
36	0811116-1MS 5X	Sample	081119.met	c:\peaknet\data\081119\081119_036.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
37	0811116-1MSD 5X	Sample	081119.met	c:\peaknet\data\081119\081119_037.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
38	0811116-2 5X	Sample	081119.met	c:\peaknet\data\081119\081119_038.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
39	0811116-1 100X	Sample	081119.met	c:\peaknet\data\081119\081119_039.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
40	0811116-2 100X	Sample	081119.met	c:\peaknet\data\081119\081119_040.dxd	F, CL, NO2, BR, NO3, PO4, SO4-300.0
41	CCV	Sample	081119.met	c:\peaknet\data\081119\081119_041.dxd	CCV
42	CCB	Sample	081119.met	c:\peaknet\data\081119\081119_042.dxd	CCB
43	0811187-15	Sample	081119.met	c:\peaknet\data\081119\081119_043.dxd	F, CL, NO2, BR, NO3, PO4, SO4-9056
44	0811187-15	Sample	081119.met	c:\peaknet\data\081119\081119_044.dxd	F, CL, NO2, BR, NO3, PO4, SO4-9056
45	0811187-15	Sample	081119.met	c:\peaknet\data\081119\081119_045.dxd	F, CL, NO2, BR, NO3, PO4, SO4-9056
46	0811187-15 5X	Sample	081119.met	c:\peaknet\data\081119\081119_046.dxd	F, CL, NO2, BR, NO3, PO4, SO4-9056
47	0811187-15 5X	Sample	081119.met	c:\peaknet\data\081119\081119_047.dxd	F, CL, NO2, BR, NO3, PO4, SO4-9056
48	0811187-15 5X	Sample	081119.met	c:\peaknet\data\081119\081119_048.dxd	F, CL, NO2, BR, NO3, PO4, SO4-9056
49	CCV	Sample	081119.met	c:\peaknet\data\081119\081119_049.dxd	CCV
50	CCB	Sample	081119.met	c:\peaknet\data\081119\081119_050.dxd	CCB
51	stop.met	Sample	stop.met		

Default Method Path: C:\PEAKNET\METHOD

Default Data Path: C:\PEAKNET\DATA\081104

Comment:

BatchDx created schedule.

Analyst:

Instrument #1: DIONEX DX-120, ID Serial Number: 99060762

Analytical Column: Dionex IonPac AS14 S/N 022150

Methods: EPA 300.0 and SW9056, Paragon SOP 1113

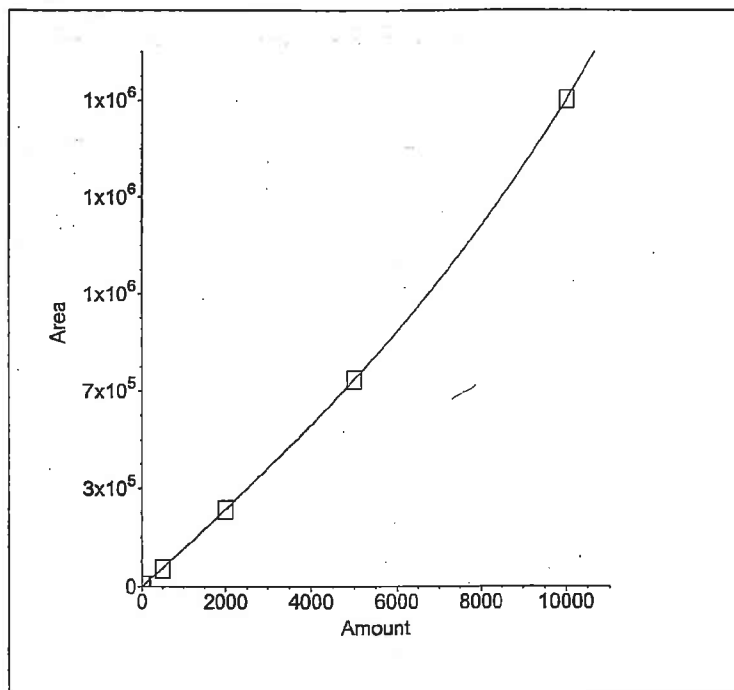
Eluent: Made daily, 10mL of Eluent Concentrate ID: RG080610-2 to 1000mL of DI water.

	Final	ID	Aliq
cal std level 1 (1000x)	10.00	ST080722-8, ST080926-8	0.01
cal std level 2 (100x)	5.00	"	0.05
cal std level 3 (25x)	5.00	"	0.20
cal std level 4 (10x)	5.00	"	0.50
cal std level 5 (5x)	5.00	"	1.00
CCV	5.00	ST080722-8, ST081027-5	0.50
ICV	5.00	ST080225-1	0.25
		ST080926-7	0.05
LCS(aq)	5.00	ST080225-1	0.25
		ST081027-4	0.05
MS/MSD (waters)	5.00	ST080219-9	0.05
		ST081027-3	0.05

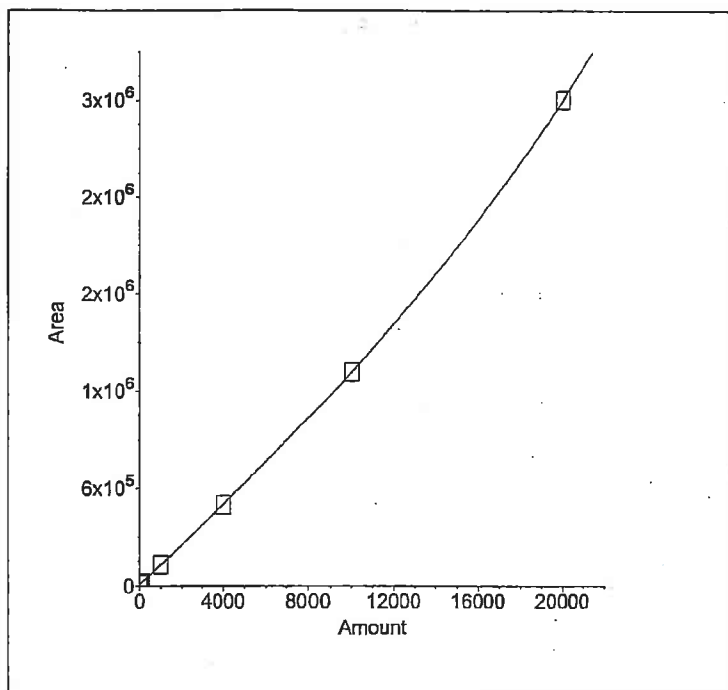
Dilutions Table: All to 5mL Final Volume

10X	0.5mL
20X	0.25mL
25X	0.2mL
50X	0.1mL
100X	0.05mL
200X	0.025mL
500X	0.01mL

1. Component:Fluoride
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999975$
 $Amt=-9.150258e-010*Resp^2+$
 $7.079464e-003*Resp+17.3$

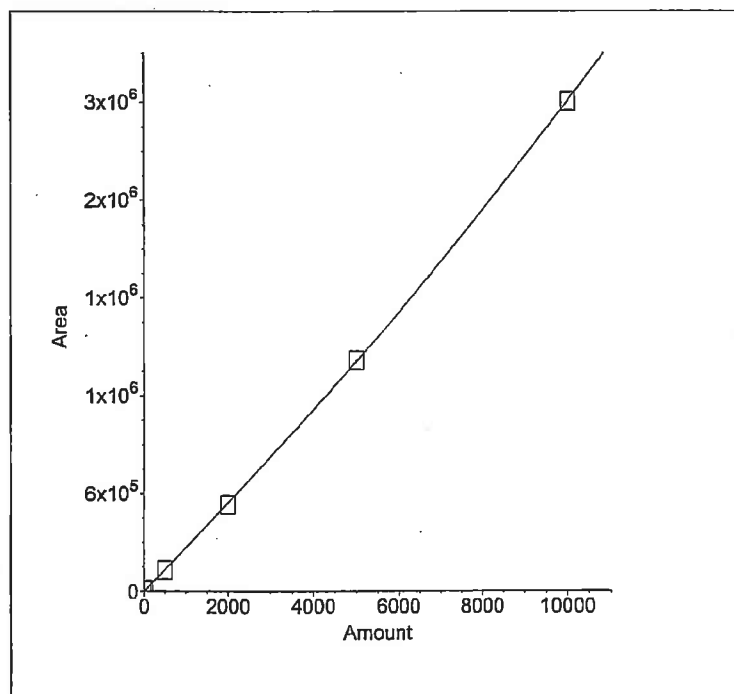


2. Component:Chloride
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999994$
 $Amt=-4.646622e-010*Resp^2+$
 $7.552340e-003*Resp+70.08$

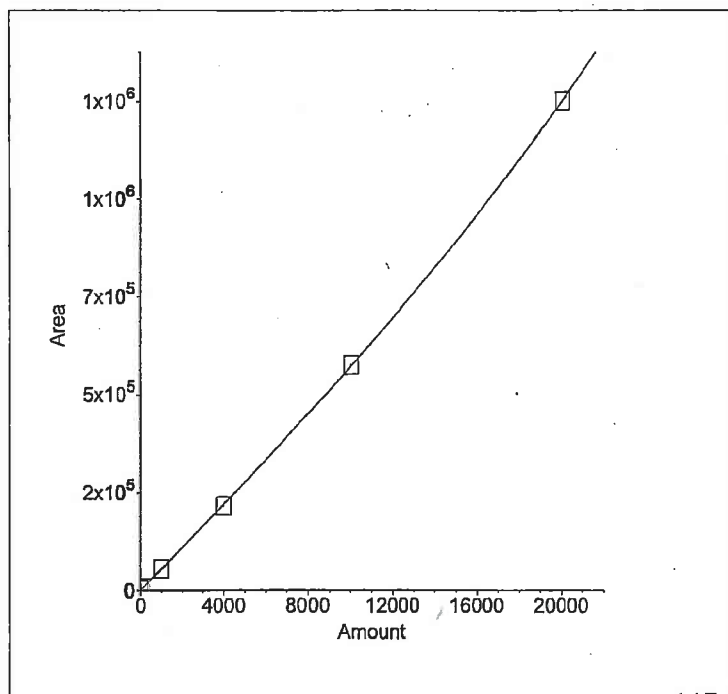


BM 11/20/08

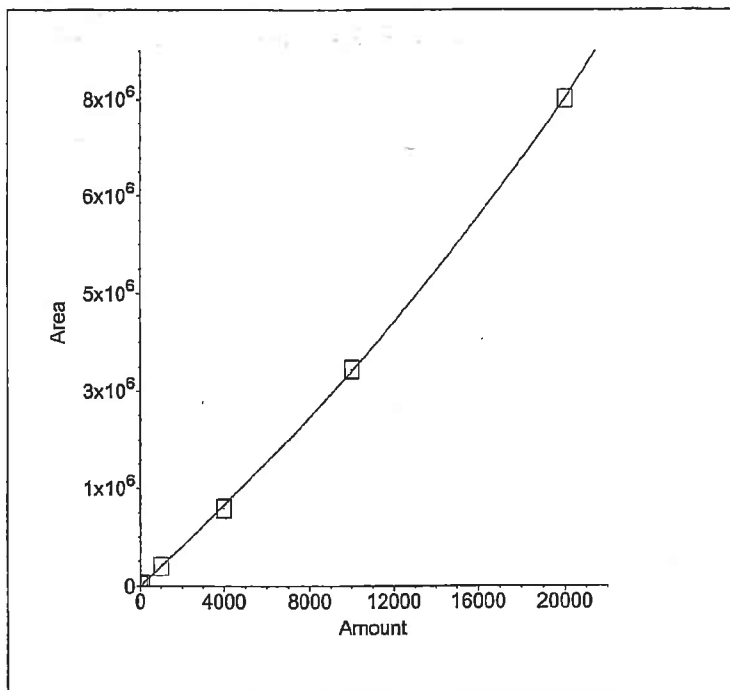
3. Component:Nitrite as N
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999965$
 $Amt=-1.255736e-010*Resp^2+$
 $3.534018e-003*Resp+10.23$



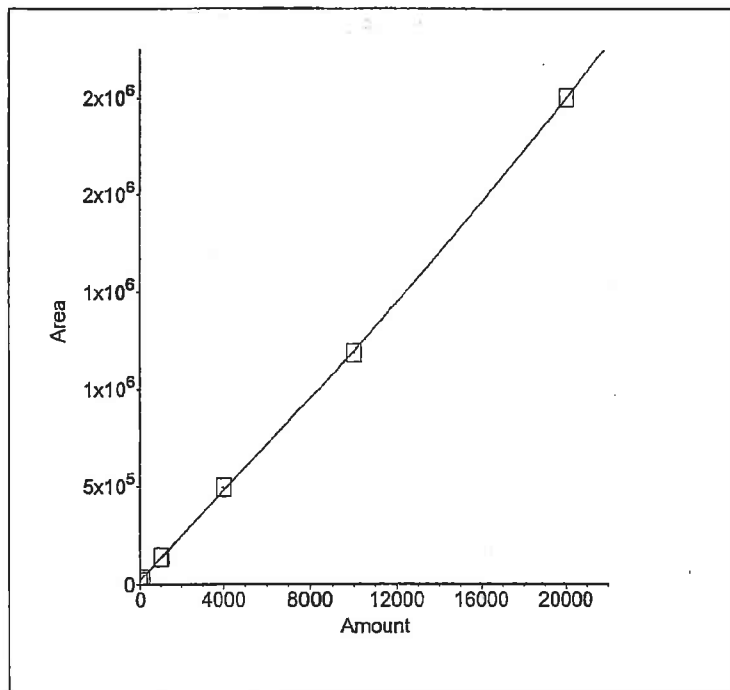
4. Component:Bromide
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999969$
 $Amt=-2.210713e-009*Resp^2+$
 $1.854037e-002*Resp+-21.64$



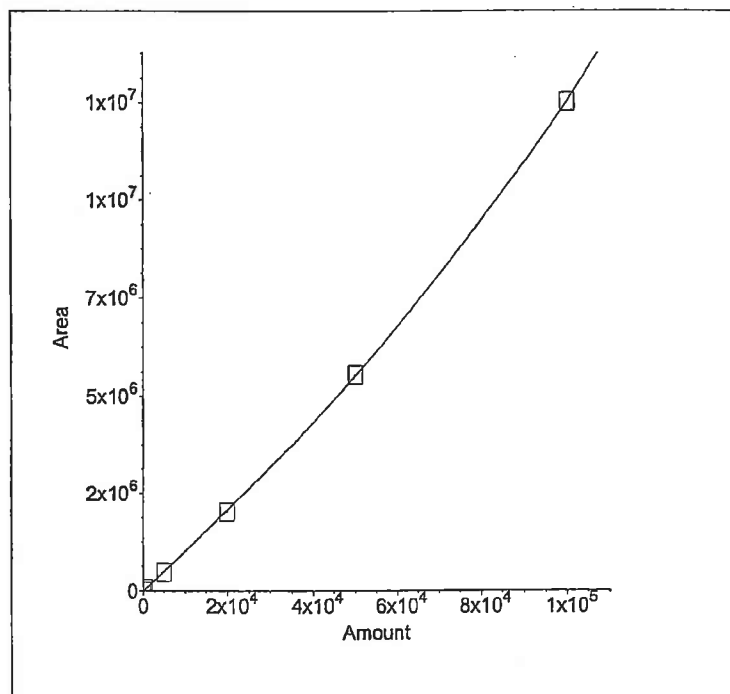
5. Component:Nitrate as N
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999883$
 $Amt=-6.570383e-011*Resp^2+$
 $2.884125e-003*Resp+34.04$



6. Component:Orthophosphate as P
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999886$
 $Amt=-2.287900e-010*Resp^2+$
 $7.443265e-003*Resp+-179.9$



7. Component:Sulfate
 Standard:External Fit Type:Quadratic
 Origin:Ignore Calibration:Area
 $r^2=0.999950$
 $Amt=-1.507375e-010*Resp^2+$
 $9.799130e-003*Resp+184.8$



8. Component:Nitrate/Nitrite as N
 Standard:External Fit Type:
 Origin:Ignore Calibration:Area

(No Levels Component)

Method Report - 081119.met

Method Information : Select Module(s)

System Name : DX120
System Number : 1
Method Type : Ion Chromatography
Column : AS14 4-MM
Analyst : SJL
Comment : Flow rate = 1.2 mL/min,
Eluent = 3.5mM Na₂CO₃ / 1.0 mM NaHCO₃

DX-120 Timed Events

Module Name :
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		Load	Low	Low	Off	Begin
0.01		Inject	Low	Low	Off	
0.40		Load	Low	Low	Off	
13.80		Load	High	Low	Off	
13.90		Load	Low	Low	Off	

DX-120 Detector Parameters

Detector Type : DX-120
Data collection time (minutes) : 16.00
Data Collection Rate : 5.00
Real time plot scale maximum (μ S) : 40.000
Real time plot scale minimum (μ S) : -3.000

DX-120 Integration Parameters

Peak detection algorithm : Standard
Starting peak width (seconds) : 8.00
Peak threshold : 1.00
Peak area reject (area counts) : 800.00
Reference peak area reject (area counts) : 800.00

DX-120 Smoothing Parameters

Filter Type : No filter

DX-120 Report Data

Report Format File : C:\PeakNet\method\Default2.rpt
Print Sample Analysis : Yes
Print Calibration Update : Yes
Print Check Standard : No
System Suitability Tests :
No system suitability tests selected.

DX-120 Integration Data Events

Time	Description
0.00	Stop peak detection
0.05	Force baseline at start of all peaks
1.90	Start peak detection
2.20	Void volume treatment for this peak
3.00	Void volume treatment for this peak

DX-120 Calibration Parameters

External or internal calibration : EXTERNAL
Number of replicates for calibration : 1
Rejection : Manual
Level Weighting : Equal
Calibration standard volume : 1.00
Default sample volume : 1.00
Amount units : ug/L
Replace retention time : Yes
Update response : Yes
Default dilution factor : 1.00
Default response factor for unknown peaks : 0.00
Calculate unknowns by area or height : Area

DX-120 Component Identification Table

Component	Retention	Tolerance	Reference
Fluoride	3.45 min	5.00 %	
Chloride	5.01 min	5.00 %	
Nitrite as N	6.15 min	4.90 %	
Bromide	7.96 min	7.30 %	
Nitrate as N	9.44 min	10.00 %	
Orthophosphate as P	11.79 min	4.10 %	
Sulfate	14.07 min	4.10 %	
Nitrate/Nitrite as N	20.00 min	5.00 %	

DX-120 Component Quantitation Table

Component	Retention	Low Limit	High Limit
Fluoride	3.45 min	100	10000
Chloride	5.01 min	200	20000
Nitrite as N	6.15 min	100	10000
Bromide	7.96 min	200	20000
Nitrate as N	9.44 min	200	20000
Orthophosphate as P	11.79 min	300	20000
Sulfate	14.07 min	500	100000
Nitrate/Nitrite as N	20.00 min	0	0

DX-120 Component Calibration Table

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Fluoride	3.45 min	Quadratic	Ignore	Area		0.00
Chloride	5.01 min	Quadratic	Ignore	Area		0.00
Nitrite as N	6.15 min	Quadratic	Ignore	Area		0.00
Bromide	7.96 min	Quadratic	Ignore	Area		0.00
Nitrate as N	9.44 min	Quadratic	Ignore	Area		0.00
Orthophosphate as P	11.79 min	Quadratic	Ignore	Area		0.00
Sulfate	14.07 min	Quadratic	Ignore	Area		0.00
Nitrate/Nitrite as N	20.00 min	—	Ignore	Area	Fluoride	0.00

DX-120 Component = Fluoride Levels Table

Retention Time : 3.45 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	50.00	3879.7
2	500.00	64776.2
3	2000.00	290262
4	5000.00	784216
5	10000.00	1.85444e + 006
6	0.00	2173.3

DX-120 Component = Chloride Levels Table

Retention Time : 5.01 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	21693.4
2	1000.00	147122
3	4000.00	554057
4	10000.00	1.46726e + 006
5	20000.00	3.34618e + 006
6	0.00	8533.5

DX-120 Component = Nitrite as N Levels Table

Retention Time : 6.15 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	50.00	11029.3
2	500.00	140348
3	2000.00	562412
4	5000.00	1.49843e+006
5	10000.00	3.18639e+006
6	0.00	2523.8

DX-120 Component = Bromide Levels Table

Retention Time : 7.96 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	5959.8
2	1000.00	56528
3	4000.00	218375
4	10000.00	583339
5	20000.00	1.27268e+006
6	0.00	3068.4

DX-120 Component = Nitrate as N Levels Table

Retention Time : 9.44 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	33077.8
2	1000.00	343120
3	4000.00	1.36133e+006
4	10000.00	3.81644e+006
5	20000.00	8.60536e+006
6	0.00	3661.9

DX-120 Component = Orthophosphate as P Levels Table

Retention Time : 11.79 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	100.00	31800.4
2	1000.00	163998
3	4000.00	591478
4	10000.00	1.41658e+006
5	20000.00	2.98762e+006
6	0.00	16834.9

DX-120 Component = Sulfate Levels Table

Retention Time : 14.07 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 6

Number of replicates : 1

Level	Amount	Replicate 1
1	500.00	51688.4
2	5000.00	478615
3	20000.00	2.03923e+006
4	50000.00	5.59253e+006
5	100000.00	1.26394e+007
6	0.00	1229.6

DX-120 Component = Nitrate/Nitrite as N Levels Table

Retention Time : 20.00 min

Amount units : ug/L

Replicate unit type : Area

Number of levels : 0

Number of replicates : 1

DX-120 XY Data Parameters

Calibration Update Report

Sample Name : 5X STD

Data File Name : c:\PeakNet\data\081119\081119_001.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:35 AM
Date Time Acquired : 11/19/08 12:03:00 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...

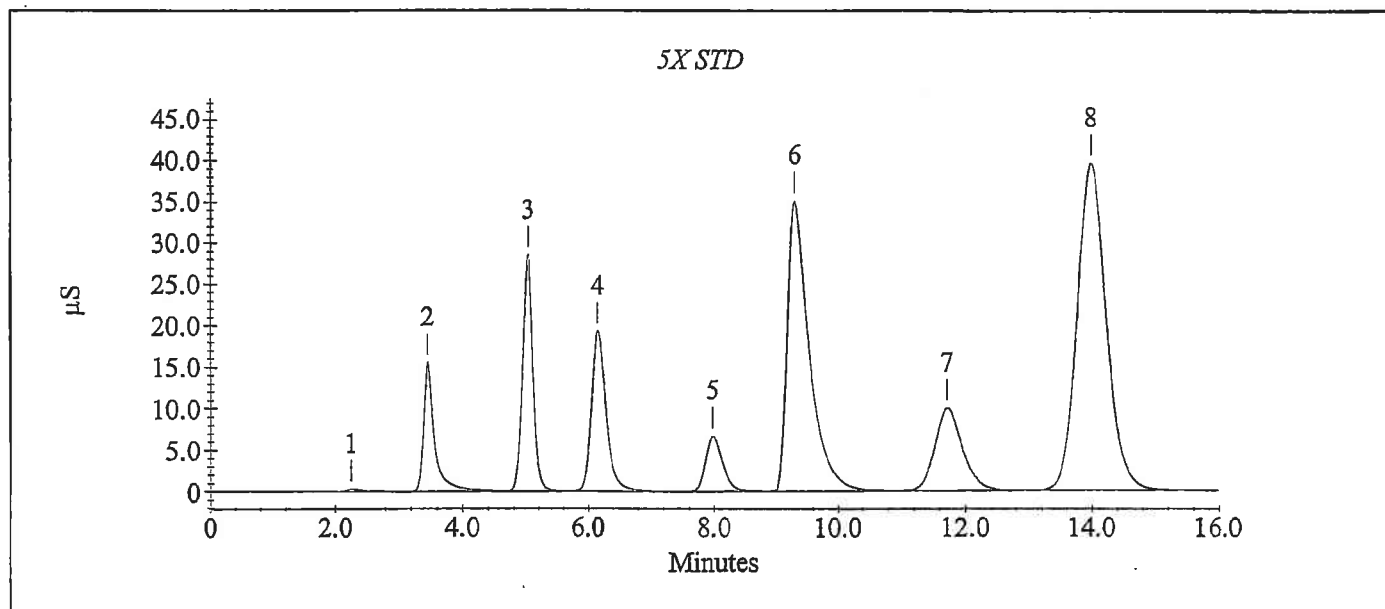
Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
2	Fluoride	3.45	10000	1854438
3	Chloride	5.04	20000	3346183
4	Nitrite as N	6.16	10000	3186393
5	Bromide	7.99	20000	1272679
6	Nitrate as N	9.31	20000	8605364
7	Orthophosphate as P	11.72	20000	2987624
8	Sulfate	13.97	100000	12639383
	Nitrate/Nitrite as N			

Calibration Update Report

Sample Name : 5X STD

Data File Name : c:\PeakNet\data\081119\081119_001.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:35 AM
Date Time Acquired : 11/19/08 12:03:00 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...



Calibration Update Report

Sample Name : 10X STD

Data File Name : c:\PeakNet\data\081119\081119_002.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 12:19:06 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...

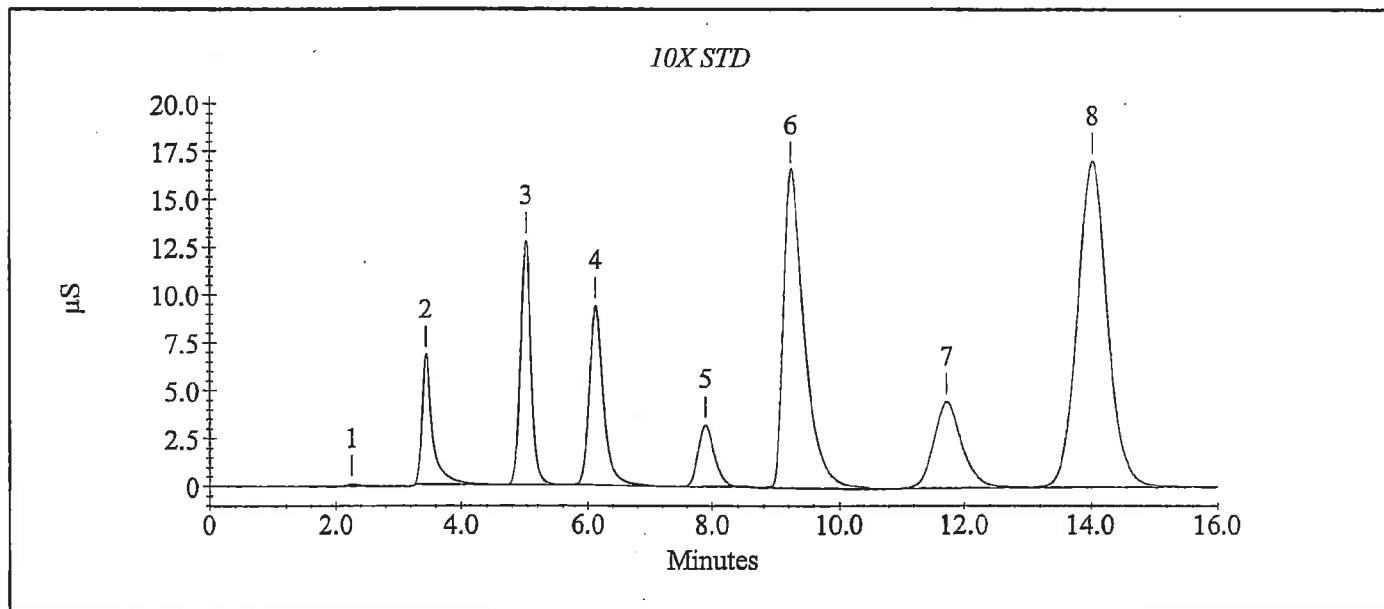
Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
2	Fluoride	3.44	5000	784216
3	Chloride	5.01	10000	1467260
4	Nitrite as N	6.12	5000	1498433
5	Bromide	7.89	10000	583339
6	Nitrate as N	9.23	10000	3816436
7	Orthophosphate as P	11.73	10000	1416579
8	Sulfate	14.01	50000	5592534
	Nitrate/Nitrite as N			

Calibration Update Report

Sample Name : 10X STD

Data File Name : c:\PeakNet\data\081119\081119_002.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 12:19:06 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...



Calibration Update Report

Sample Name : 25X STD

Data File Name : c:\PeakNet\data\081119\081119_003.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 12:35:10 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...

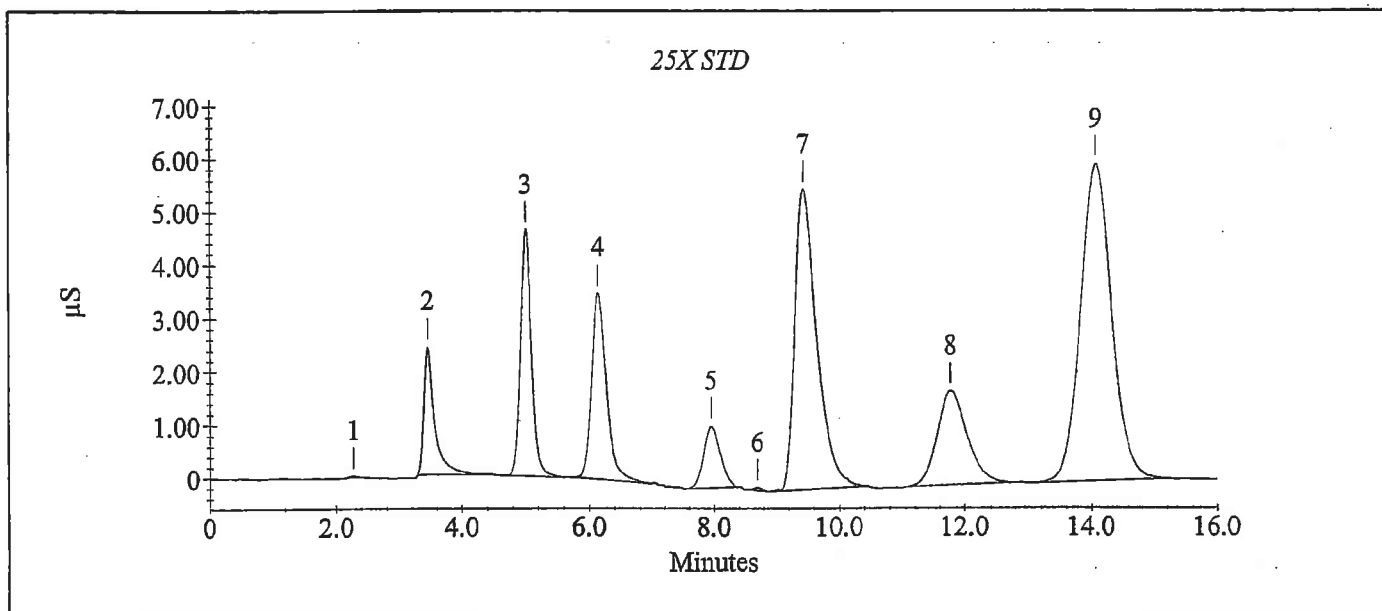
Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
2	Fluoride	3.45	2000	290262
3	Chloride	5.01	4000	554057
4	Nitrite as N	6.15	2000	562412
5	Bromide	7.96	4000	218375
7	Nitrate as N	9.44	4000	1361326
8	Orthophosphate as P	11.79	4000	591478
9	Sulfate	14.07	20000	2039232
	Nitrate/Nitrite as N			

Calibration Update Report

Sample Name : 25X STD

Data File Name : c:\PeakNet\data\081119\081119_003.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met	System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch	Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 12:35:10 PM	Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM	Eluent = ...



Calibration Update Report

Sample Name : 100X STD

Data File Name : c:\PeakNet\data\081119\081119_004.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 12:51:12 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...

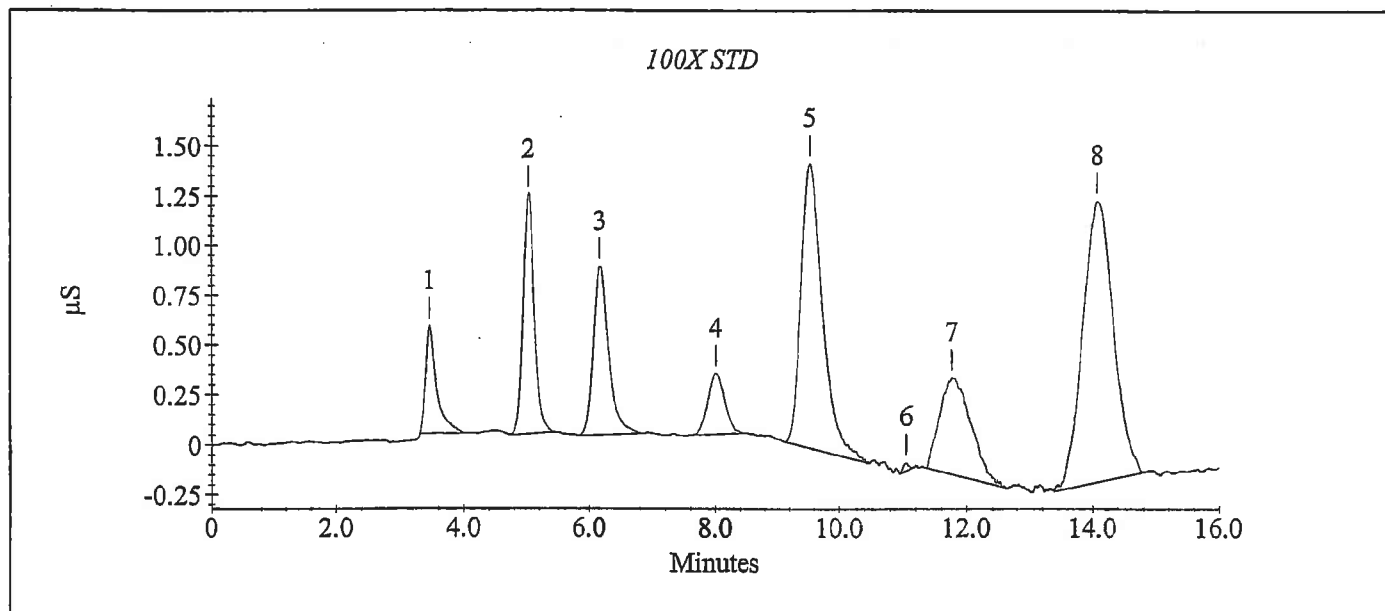
Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
1	Fluoride	3.45	500	64776
2	Chloride	5.03	1000	147122
3	Nitrite as N	6.17	500	140348
4	Bromide	8.01	1000	56528
5	Nitrate as N	9.53	1000	343120
7	Orthophosphate as P	11.77	1000	163998
8	Sulfate	14.07	5000	478615
	Nitrate/Nitrite as N			

Calibration Update Report

Sample Name : 100X STD

Data File Name : c:\PeakNet\data\081119\081119_004.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 12:51:12 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...



Calibration Update Report

Sample Name : 1000X STD

Data File Name : c:\peaknet\data\081119\081119_005.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 1:07:14 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...

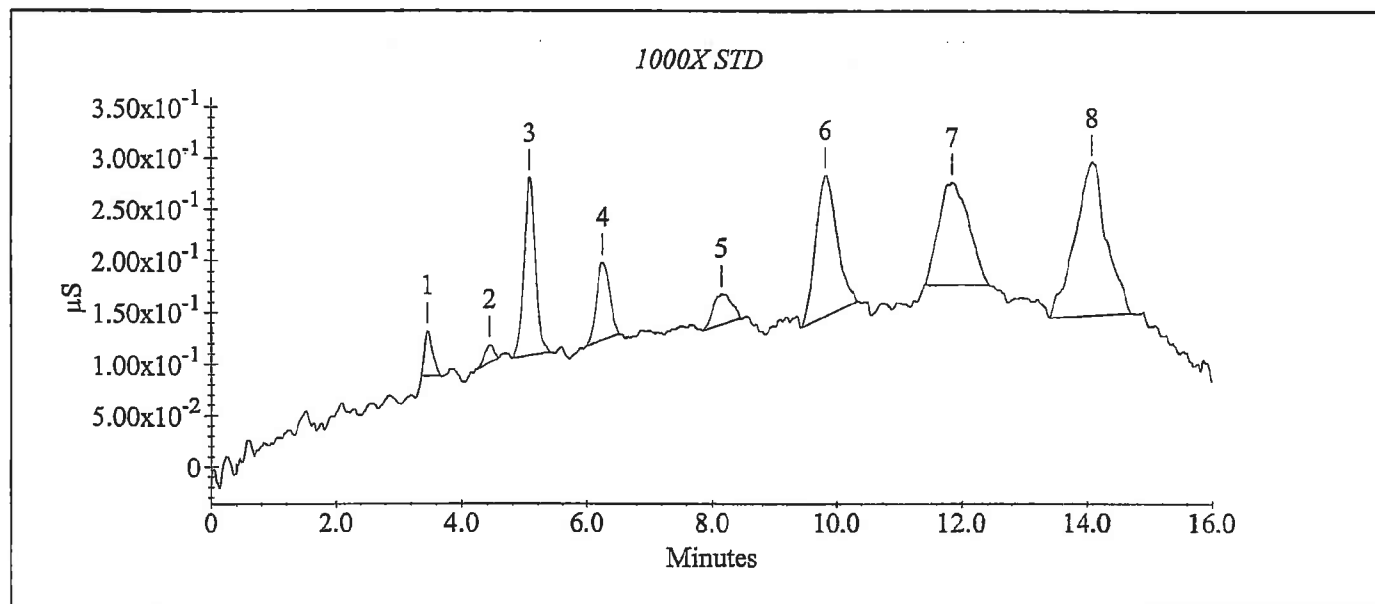
Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
1	Fluoride	3.47	50	3880
3	Chloride	5.07	100	21693
4	Nitrite as N	6.25	50	11029
5	Bromide	8.15	100	5960
6	Nitrate as N	9.81	100	33078
7	Orthophosphate as P	11.85	100	31800
8	Sulfate	14.07	500	51688
	Nitrate/Nitrite as N			

Calibration Update Report

Sample Name : 1000X STD

Data File Name : c:\peaknet\data\081119\081119_005.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met	System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch	Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 1:07:14 PM	Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM	Eluent = ...



Calibration Update Report

Sample Name : 0 STD

Data File Name : c:\peaknet\data\081119\081119_006.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 1:23:16 PM Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM Eluent = ...

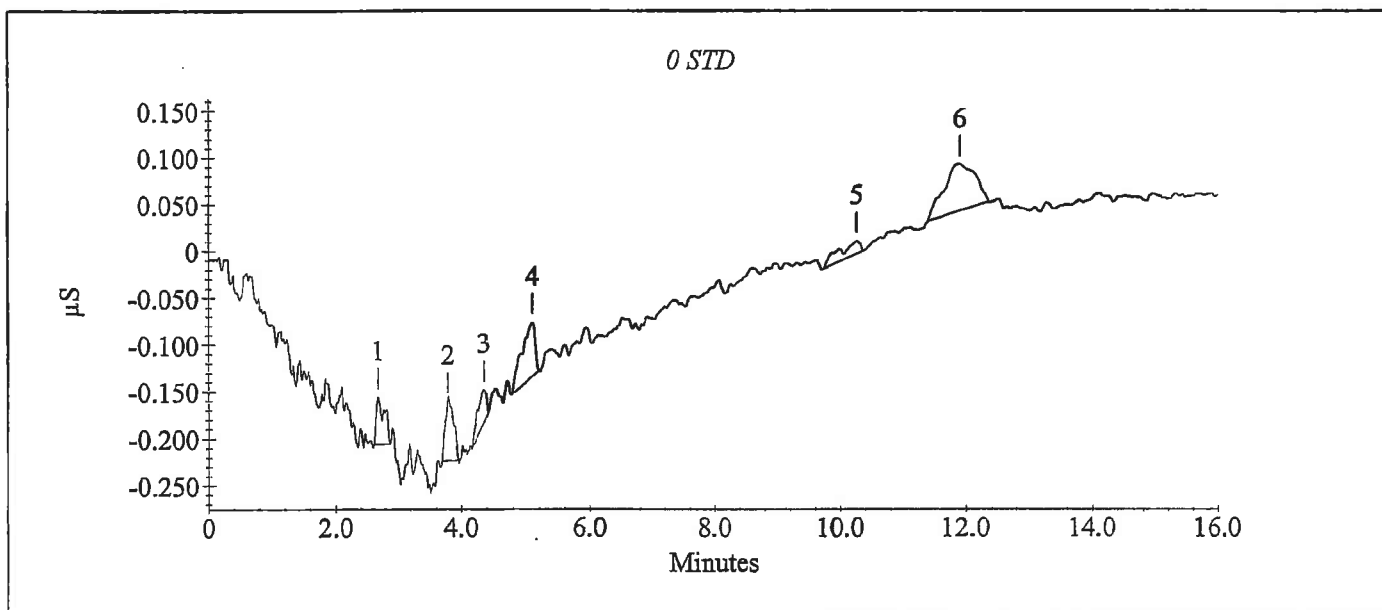
Peak Information : All Components				
Peak #	Analyte	Retention Time (min.)	Concentration (ug/L)	Peak Area
1		2.68	0	
4	Chloride	5.11	0	8533
	Nitrite as N			
	Bromide			
5	Nitrate as N	10.27	0	3662
6	Orthophosphate as P	11.92	0	16835
	Sulfate			
	Nitrate/Nitrite as N			

Calibration Update Report

Sample Name : 0 STD

Data File Name : c:\peaknet\data\081119\081119_006.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met	System Operator : WETCHEM
Schedule File Name : c:\peaknet\schedule\081119.sch	Datafile Updated : 11/20/08 10:18:36 AM
Date Time Acquired : 11/19/08 1:23:16 PM	Method Comment : Flow rate = 1.2 mL/min,
Calibration Date : 11/20/08 10:14:50 AM	Eluent = ...



081119V

DAILY VERIFICATION FOR ION CHROMATOGRAPH

(Used internally for comparative check purposes)

Analysis Date: 11/19/08
Analyst Name: EAL
Filename for CV: 081119/081119_007.DXD
Calibration Date: 11/19/08
Method ID: 081119.met
Updated Method date: na

JBm
11/24/08

Calibration Equation Verification

Analyte	calibration type:	1st regression coefficient	2nd regression coefficient	intercept	A		conc calc by spread-sheet ug/L	A/B *100 agreement %
					conc reported by PeakNet ug/L	observed peak area		
Cl	quad. incl. 0,0	6.4662E-10	7.552340E-03	70.080	5246.7	73748	5246.7	100.0

Retention Time (RT) Verification

Analyte	RT at calibration	RT In updated method (1st ICV or CCV)	deviation % (calibration vs. update) 10% tolerance	window width tolerance (NA)
F	3.45	3.43	0.3	5.00 %
Cl	5.01	5.00	0.2	5.00 %
NO2-N	6.15	6.13	0.3	4.90 %
Br	7.96	7.99	0.4	7.30 %
NO3-N	9.44	9.47	0.3	10.00%
PO4-P	11.79	11.77	0.2	4.10 %
SO4	14.07	14.05	0.1	4.10 %

Sample Analysis Report

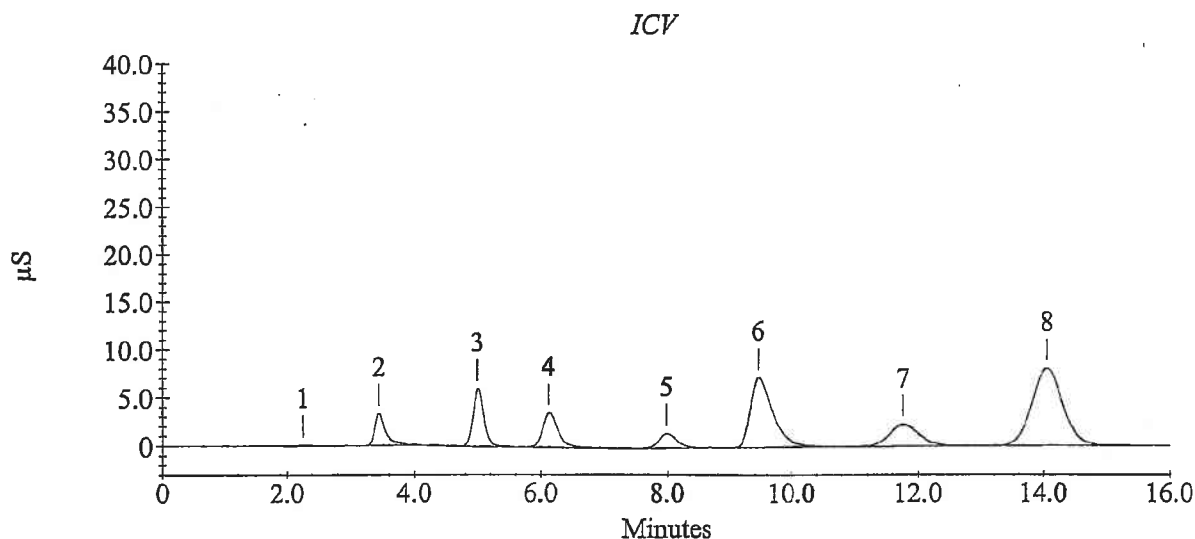
Sample Name : ICV

Data File Name : c:\peaknet\data\081119\081119_007.DXD

Method File Name : C:\PEAKNET\METHOD\081119.mct Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 1:39:18 PM Current Time : 11:35:30 AM
System Operator : WETCHEM Datafile Updated : 11/19/08 2:28:02 PM
Calibration Updated : 11/20/08 11:34:04 AM Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.44	2673.1		395341
3	Chloride	5.00	5246.7		737448
4	Nitrite as N	6.13	2093.1		602262
5	Bromide	7.99	5409.7		303962
6	Nitrate as N	9.47	5030.3		1806681
7	Orthophosphate as P	11.77	5169.8		735349
8	Sulfate	14.05	25781.7		2726510
	Nitrate/Nitrite as N				



Sample Analysis Report

Sample Name : ICB

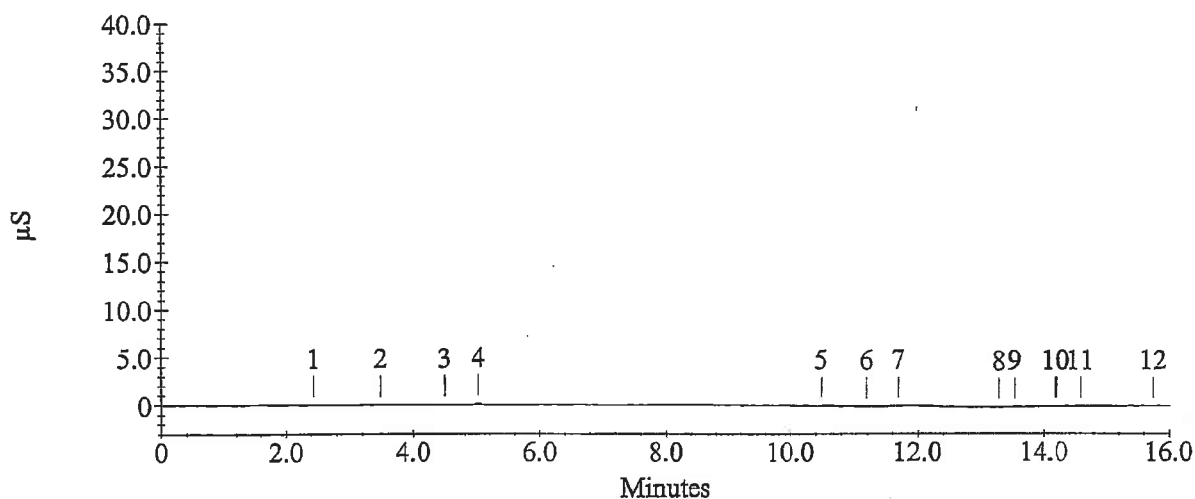
Data File Name : C:\PEAKNET\DATA\081119\081119_008.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met	Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 1:55:19 PM	Current Time : 3:28:38 PM
System Operator : WETCHEM	Datafile Updated : 11/19/08 2:28:03 PM
Calibration Updated : 11/19/08 2:28:02 PM	Method Comment : Flow rate = 1.2 mL/min, Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.44	0.0		948
4	Chloride	5.03	10.4	-	10967
	Nitrite as N				
	Bromide				
5	Nitrate as N	10.49	1083.5		1335
7	Orthophosphate as P	11.69	-178.6	-	935
10	Sulfate	14.19	319.6	-	6291
	Nitrate/Nitrite as N				

ICB



Sample Analysis Report

Sample Name : IC081117-1MB

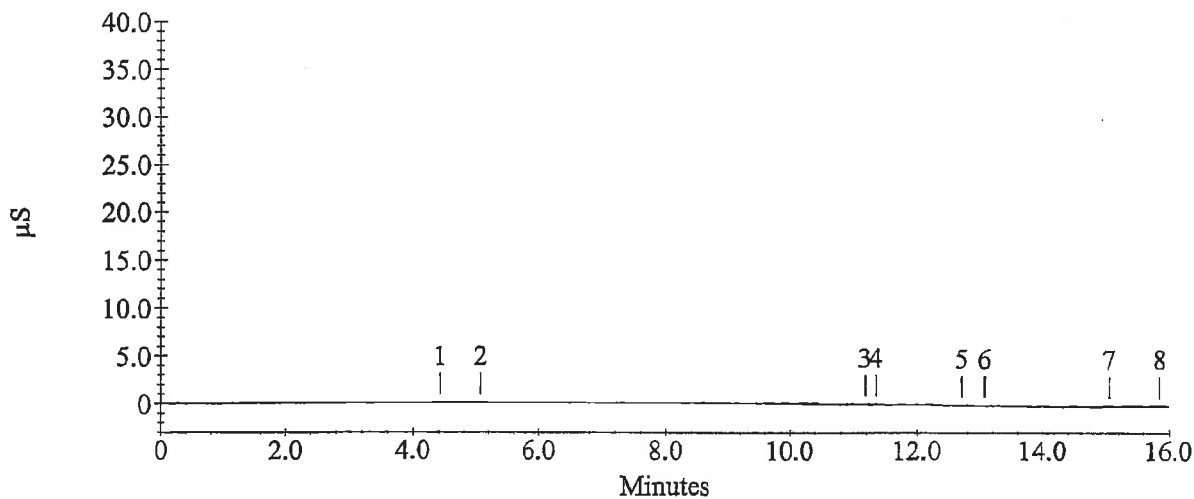
Data File Name : c:\peaknet\data\081119\081119_009.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met	Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 2:35:51 PM	Current Time : 11:35:31 AM
System Operator : WETCHEM	Datafile Updated : 11/19/08 2:51:51 PM
Calibration Updated : 11/20/08 11:34:04 AM	Method Comment : Flow rate = 1.2 mL/min, Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		4.43	0.0		1633
2	Chloride	5.08	-41.8	-	3744
	Nitrite as N				
	Bromide				
	Nitrate as N				
4	Orthophosphate as P	11.36	-145.0	-	4682
	Sulfate				
	Nitrate/Nitrite as N				

IC081117-1MB



Sample Analysis Report

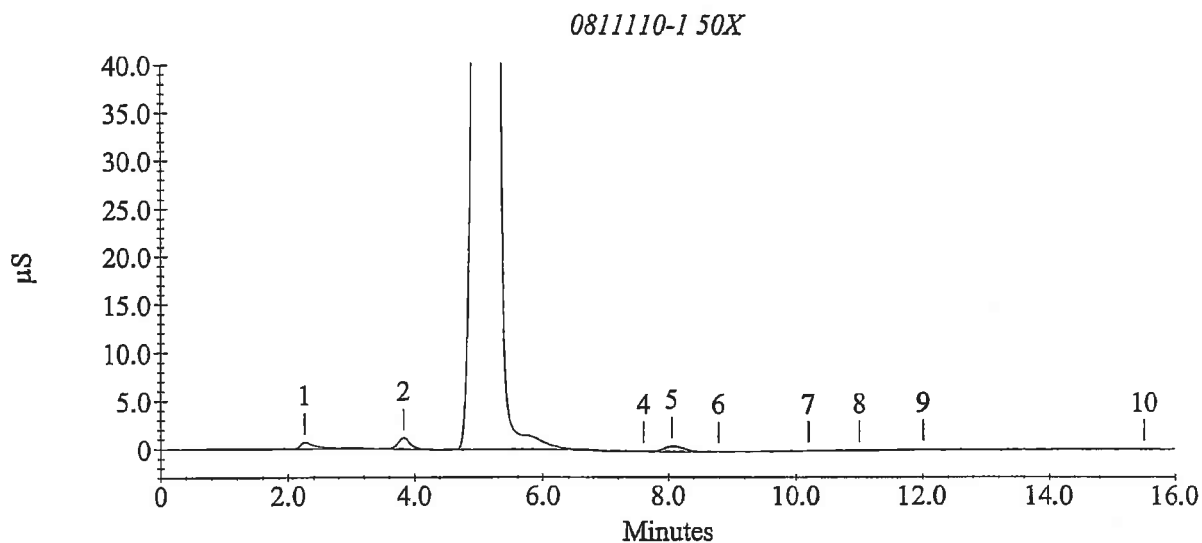
Sample Name : 0811110-1 50X

Data File Name : c:\peaknet\data\081119\081119_012.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 3:23:57 PM Current Time : 11:35:34 AM
System Operator : WETCHEM Datafile Updated : 11/19/08 3:39:57 PM
Calibration Updated : 11/20/08 11:34:04 AM Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.25	0.0		117454
3	Chloride	5.21	-812338.7	-	50719277
5	Nitrite as N				
5	Bromide	8.05	2215.5		122452
6	Nitrate as N	8.79	55.8	-	7554
9	Orthophosphate as P	12.01	45.2	-	30268
	Sulfate				
	Nitrate/Nitrite as N				



Sample Analysis Report

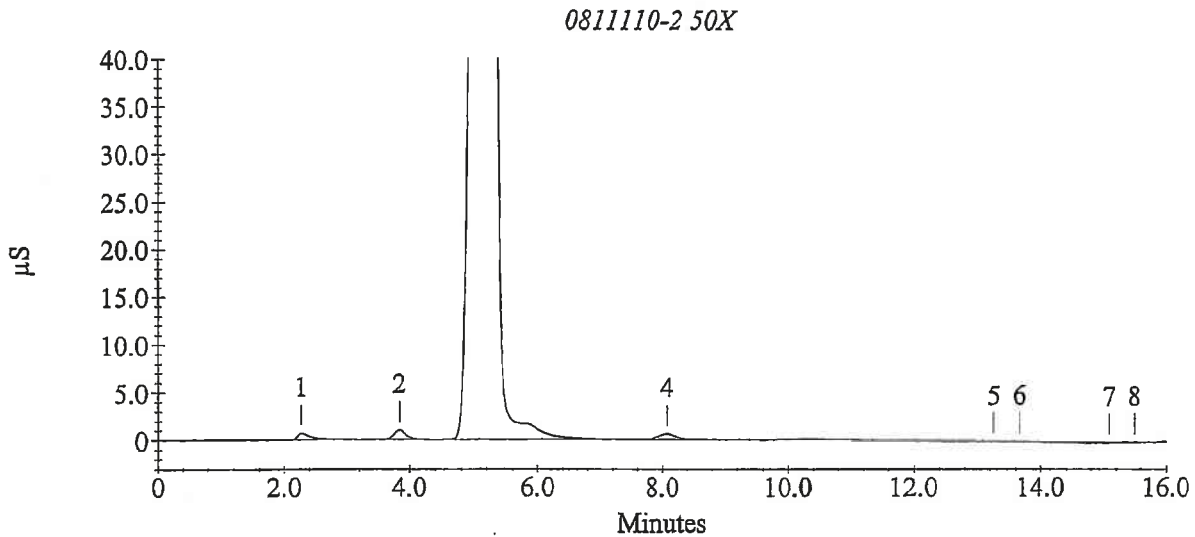
Sample Name : 0811110-2 50X

Data File Name : c:\peaknet\data\081119\081119_013.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 3:39:59 PM Current Time : 11:35:35 AM
System Operator : WETCHEM Datafile Updated : 11/19/08 3:55:59 PM
Calibration Updated : 11/20/08 11:34:04 AM Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.27	0.0		98433
3	Chloride	5.24	-968063.5	-	54486845
4	Nitrite as N				
4	Bromide	8.08	2119.3		117109
	Nitrate as N				
	Orthophosphate as P				
6	Sulfate	13.68	251.3	-	6779
	Nitrate/Nitrite as N				



Sample Analysis Report

Sample Name : IC081117-1LCS

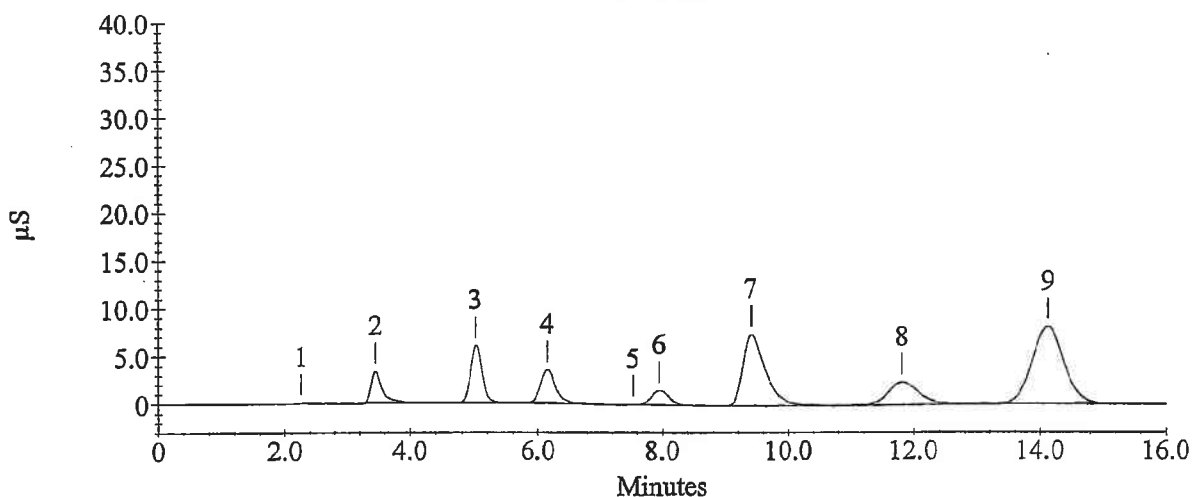
Data File Name : c:\peaknet\data\081119\081119_016.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 4:28:05 PM Current Time : 11:35:38 AM
System Operator : WETCHEM Datafile Updated : 11/19/08 4:44:05 PM
Calibration Updated : 11/20/08 11:34:04 AM Method Comment : Flow rate = 1.2 mL/min,
Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
2	Fluoride	3.45	2687.7		397647
3	Chloride	5.01	5267.9		740533
4	Nitrite as N	6.15	2104.7		605681
6	Bromide	7.95	5292.8		297174
7	Nitrate as N	9.40	5120.6		1840844
8	Orthophosphate as P	11.83	5623.0		799240
9	Sulfate	14.12	26778.2		2837724
	Nitrate/Nitrite as N				

IC081117-1LCS



Sample Analysis Report

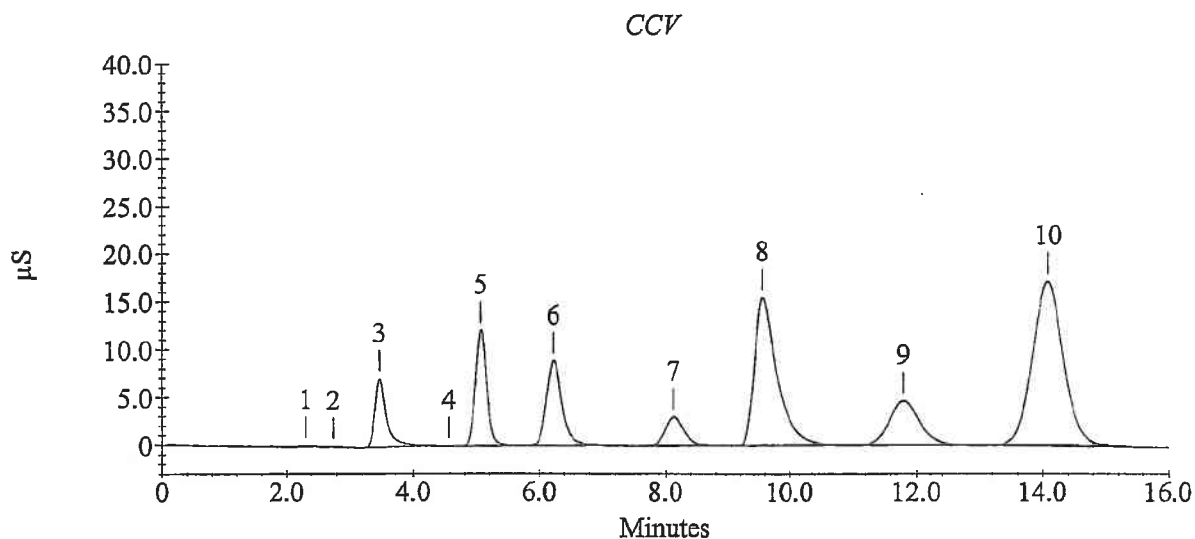
Sample Name : CCV

Data File Name : c:\peaknet\data\081119\081119_019.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met	Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 5:16:11 PM	Current Time : 11:35:40 AM
System Operator : WETCHEM	Datafile Updated : 11/19/08 5:32:11 PM
Calibration Updated : 11/20/08 11:34:04 AM	Method Comment : Flow rate = 1.2 mL/min, Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
3	Fluoride	3.47	5543.3		880858
5	Chloride	5.07	10512.1		1548761
6	Nitrite as N	6.23	5188.9		1550822
7	Bromide	8.13	10689.3		624162
8	Nitrate as N	9.56	10396.1		3947835
9	Orthophosphate as P	11.80	10559.9		1513269
10	Sulfate	14.08	52343.8		5849083
	Nitrate/Nitrite as N				



Sample Analysis Report

Sample Name : CCB

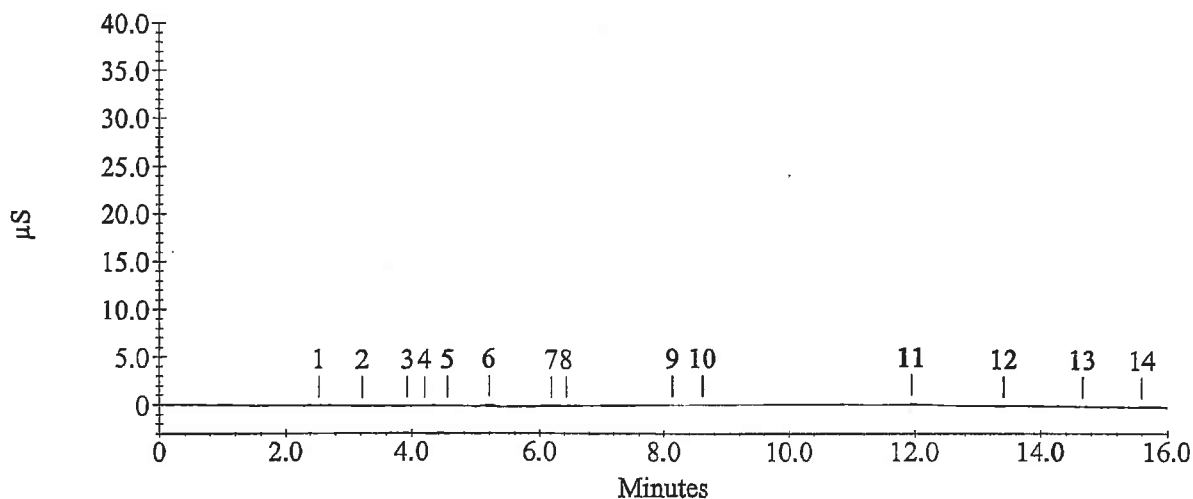
Data File Name : c:\peaknet\data\081119\081119_020.DXD

Method File Name : C:\PEAKNET\METHOD\081119.met	Current Date : 11/20/08
Date, Time Analyzed : 11/19/08 5:32:13 PM	Current Time : 11:35:40 AM
System Operator : WETCHEM	Datafile Updated : 11/19/08 5:48:13 PM
Calibration Updated : 11/20/08 11:34:04 AM	Method Comment : Flow rate = 1.2 mL/min, Eluent = ...

Peak Information : All Components

Peak Number	Analyte	Retention Time (min.)	Concentration (ug/L)	Limit Exceeded	Peak Area
1		2.53	0.0		3627
6	Chloride	5.19	108.0	-	23617
7	Nitrite as N	6.19	33.7	-	6637
9	Bromide	8.13	79.6	-	5466
10	Nitrate as N	8.61	38.9	-	1669
11	Orthophosphate as P	11.95	-136.0	-	5894
	Sulfate				
	Nitrate/Nitrite as N				

CCB





PARAGON ANALYTICS

NCR #: 11020

225 Commerce Drive ♦ Fort Collins, CO 80524 ♦ (800) 443-1511 ♦ (970) 490-1511 ♦ FAX (970) 490-1522

CONTROLLED NON-CONFORMANCE REPORT

Non-Conformance

Initiated By: Eric A. Lintner on 11/20/2008

Event Type: Method Requirements Not Met -- CCV

Event Explanation: The closing CCV on 11/19/08 for samples 0811129-1 and 0811110-1 and -2, IC0811117-1MB and -LCS was high at 111% for fluoride. The MB and LCS are within control and the samples are non detect.

Action To

Prevent Recurrence: N/A - Random marginal exceedance

Corrective Action

Corrective Action: Document in Narrative

Department Manager Approval: Eric A. Lintner

Approval Date: 11/21/2008

Corrective Action Comments:

Workorders Affected

Workorder -- Procedure		Approved By	Approval Date
0811129 -- EPA300.0	Sheri O Connor was contacted on 11/20/2008	Debbie J. Fazio	11/20/2008
0811110 -- EPA300.0	No client contact information.	Lance R. Steere	11/21/2008

There Are No Associated Batches

NCR Approval

Project Manager Approval: DJF on 11/21/2008

LRS on 11/21/2008

Department Manager Approval: Eric A. Lintner on 11/21/2008

QA Manager Approval: Deb Scheib on 11/21/2008